SPEAKING UP FOR PATIENT SAFETY: EXPLORING THE EXPERIENCES OF THE GHANAIAN DIAGNOSTIC RADIOGRAPHER

Thesis submitted for the degree of

Doctor of Philosophy

By ISABELLA KORDAH TETTEH

Cardiff University

School of Healthcare Sciences

2023

TABLE OF CONTENTS

DEDICATION

I dedicate this piece of work to the Almighty God as none of this would have been possible without Him. Secondly, to my super husband; Mr Philip Boadu Anim and my soon-to be born son, Ethan. I also dedicate this my dad Aps. ADP James Tetteh, my mum Mrs Ruth Tetteh and my sisters Ellen, Lydia and Abigail for being a big part of my entire PhD journey.

ACKNOWLEDGEMENTS

To the one who makes all things beautiful and possible in His own time, my God and maker I owe it all. Pursuing this PhD has not been a jolly ride, but through it all, He has given me victory and I am most grateful.

I am eternally grateful to my most supportive supervisors Professors Aled Jones and Daniel Kelly and Dr. Patricia Brown for being with me every step of the way, through the good times and challenging times. I could not have done any of this without your guidance and encouragement. May God reward you bountifully for all the good you do for us.

I am thankful to the Ghana Scholarships Secretariat for funding this project. I am also grateful to Mr Michael Omari Wadie for the assistance prior to the start of my journey.

I deeply appreciate my beloved husband Phil for giving so much of himself to see me succeed at this. For being with me through the laughter and the tears, staying up the nights with me, caring for me and simply making my bad days better, I am eternally grateful. May God bless your good heart. To my soon-to-be born son, thank you for being a part of my PhD story through all the hormones, emotions, flutters and giant kicks.

I am thankful to my parents James and Ruth for their prayers, love and support throughout this journey. I also appreciate my sisters Ellen, Lydia and Abigail for the immense support and love.

A special appreciation to my academic mentor Dr. William K. Antwi for all the guidance and support given me in pursuing this PhD journey. I would also like to appreciate my senior radiography colleagues Drs Abdul-Razak Wuni and Gabriel Ashong and for their unflinching support and encouragement throughout this journey. To all my friends who showed up for me in one way or another during this journey, I say God bless you.

Lastly, I am thankful to all the radiographers and stakeholders in Ghana who agreed to be a part of this project.

ABSTRACT

Background

Although the overall importance of 'speaking-up' has gained traction across healthcare, empirical research about the topic is relatively under-developed in radiography practice and in healthcare systems such as Ghana or other resource-constrained settings. Speaking-up policies in African countries have, to date, been targeted mainly at financial corruption in the public sector, with little evidence of their effectiveness in health systems. Consequently, this thesis explores the experiences of Ghanaian diagnostic radiographers in speaking-up about patient safety concerns with the potential benefit of improving patient outcomes.

Study design

A qualitative-exploratory approach was adopted for this study. Purposive sampling was employed for sites and participants to enhance maximum variation and national coverage. Data were gathered using one-to-one semi-structured interviews and analysed following Braun & Clarke's 6-step thematic analysis framework.

Findings

3 broad themes emerged: understanding and perceptions of speaking-up; workplace barriers/facilitators of speaking-up; current strategies in response to barriers/facilitators and future directions. Theme 1 demonstrated a lack of formal knowledge on speaking-up among Ghanaian radiographers and the profound influence of Ghanaian culture/beliefs on speaking-up perceptions. Workplace barriers such as the non-existence of a national policy/guidelines were noted. The study established the critical role of policy, education/training, and socio-cultural interventions in the promotion of a nationally recognised speaking-up framework for radiography in Ghana.

Conclusion

Ghana's radiography workforce is challenged by factors such as increased workload due to workforce shortages, improper professional regulation, and more loudly, a lack of voice. A radiography and a healthcare workforce lacking in voice is poorly positioned to improve workers' safety and patient safety. It is crucial for national and regional policymakers and individual

organisations to implement speaking-up interventions alongside staff training and monitoring while recognising Ghana's unique contextual factors and speaking-up barriers as it could enhance Ghana's ambitions to deliver a high-quality healthcare system and UHC in the future.

LIST OF ABBREVIATIONS

AHPC	Allied Health Professions Council
AM	Alternative Medicine
CASP	Critical Appraisal Skills Programme
CEO	Chief Executive Officer
CPO	Chief Programmes Officer
CS	Cultural Sensitivity
CT	Computed Tomography
DTAM	Department of Traditional and alternative medicine
FH	Faith Healers
FTSUG	Freedom to Speak-up Guardian
GHS	Ghana Health Service
GHSP	Government Hospitals
GMA	Ghana Medical Association
GSR	Ghana Society of Radiographers
HeFRA	Health Facilities Regulatory Authority
ICU	Intensive Care Unit
LI	Legislative Instrument
LMIC	Lower to Middle Income country
MBP	Mission Based Providers
MBP	Mission Based Providers
MoH	Ministry of Health
MRI	Magnetic Resonance Imaging
NCCCE	National Commission on Civic Education

NEC	National Executive Council
NHS	National Health Service
NRA	Nuclear Radiation Authority
OECD	Organisation for Economic Co-operation Development
PC	Poly Clinics
PMDP	Private Medical and Dental Practitioners
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
RCN	Royal College of Nursing
SOP	Standard Operating Procedure
UHC	Universal Health Coverage
WHO	World Health Organisation

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

BACKGROUND

1.0 Introduction

This study focussed on the experiences of Ghanaian radiographers in speaking-up about patient safety compromises. Chapter 1 provides a brief introduction to the study. It further offers a summarised background description of the study site Ghana, specifically the country profile, healthcare structure/systems, and radiography practice. Prior to the commencement of the study, I had the opportunity to visit a radiology department in Wales to have a better understanding of the UK radiography system and speaking-up structures, this is summarised in this chapter. The chapter also summarises what has already been explored regarding the topic globally and the Ghana situation while concluding with the research problem statement, importance of the current study, the research objectives and aims.

Attaining universal health coverage (UHC) and the best possible healthcare delivery globally requires a focus on safety, one of the key aspects of healthcare quality (World Health Organisation (WHO) 2019; 2021). Patient safety focuses on ensuring the avoidance of preventable harm from choices made in delivering care or actions either taken or left out. (Wallin et al. 2019). Approximately 421 million people are hospitalised each year worldwide, with 43 million of such hospitalisations suffering safety compromises (Jha et al. 2013). More than 1 out of every 10 patients suffer from avoidable adverse health events in hospital (WHO 2023). The greatest weight of fatality and morbidity from adverse events falls on lower-to-middle income (LMIC) hospital settings, with 4 in 100 people dying as a result (Slawomirsk and Klazinga 2020). Consequently, it has been indicated that unsafe care accounts for 2.6 million fatalities out of 134 million adverse events in these settings (*ibid*). Furthermore, the cost of patient harm to the world economy is significant. According to the WHO (2023), the growth of the world economy faces a potential annual reduction of 0.7 percent due to patient harm. Globally, patient harm also results in an annual indirect cost of trillions of US dollars (Slawomirsk and Klazinga 2020). In developed countries, a yearly amount of 606 billion US dollars is directly used to treat patients due to unsafe care, amounting to a little more than 1 percent of the joint economic output of the Organisation for Economic Co-operation and Development (OECD) countries (Slawomirsk and Klazinga 2020).

Patient safety compromises are inevitable in medical imaging (European Society of Radiology 2019), where a sizable and different patient population undertake a series of routine and unintended procedures and interventions in hospital settings that demand high communication levels between multidisciplinary systems and clients (Craciun 2015; Kruse et al. 2016). For example, infection control breaches, unjustified radiation exposure or overexposure, wrong patient identification, incorrect radiograph reporting, and contrast administration errors, just to mention a few. A Joint Commission in the USA established that poor communication is a major factor in about 80% of critical errors by healthcare professionals (Joint Commission 2012). Furthermore, recent research has also revealed that poor communication among radiology employees, patients, and other medical personnel poses a significant threat to the provision of effective and safe treatment (Wallin et al 2019).

"Speaking-up" can considerably help improve patient outcomes and safety in healthcare environments (Lyndon et al. 2012; Okuyama et al. 2014; Schwappach and Gehring 2015). The term "speaking-up" is often substituted with similar terms, such as "internal whistleblowing" or "raising concerns" (Tetteh et al. 2022). Mannion et al (2018) explain whistleblowing as speaking-up or raising concerns about risky, unprofessional or substandard care by staff members to individuals in positions of authority in an effort to bring change. For the purposes of this thesis, "speaking-up" or "raising concerns" will be used except in cases where the reviewed documents categorically mention "whistleblowing".

According to Maxfield et al. (2010), the readiness of healthcare professionals to speak-up affects patient safety and the quality of care. It has been argued that it is not only the ability to speak-up which is necessary but also co- workers' willingness to accept criticisms and feedback from other colleagues that is essential for the enhancement of safety in systems and healthcare work which are prone to hazard (Lyndon, 2006; Orasanu and Fischer, 2008). Organisational roles and culture influences speaking-up behaviours among healthcare workers (Rainer 2016). For example, the significance of individual managers in supporting or suppressing speaking-up has been stated in literature, however, the duty of the institution as a body is also of much significance (Hall, 2016). It has been argued that healthcare workers such as nurses require a sense of safety at the work environment, and an atmosphere that encourages them to speak freely without any form of victimisation from the institution (Wong and Cummings, 2009). Evidence suggests that the existence of concerned leaders, staff support, institutional dedication to harmless, open cultures, can advance speaking-up behaviours among healthcare professionals (Morrow, Gustavson & Jones, 2016).

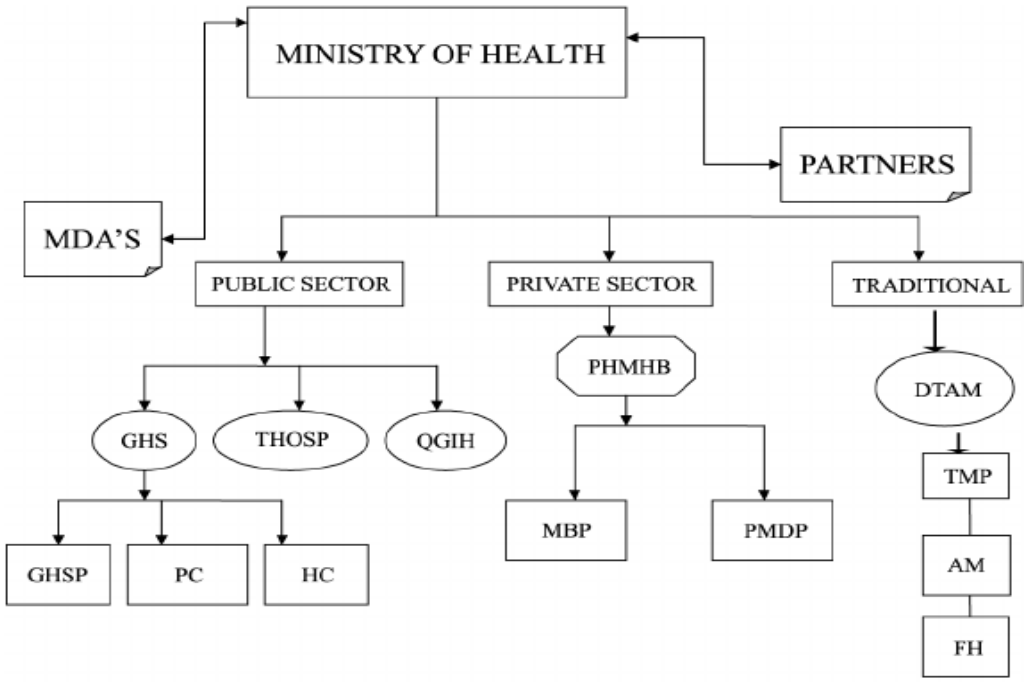
Despite the fact that the overall value of speaking-up in healthcare has lately gained grounds, there is limited empirical healthcare research on the subject (Blenkinsopp et al. 2019). There is a dearth of literature about how and when healthcare workers speak-up on issues about patient safety (Lyndon et al., 2012; Blenkinsopp et al., 2019). Globally, the efficacy of speaking-up interventions and structures developed in various clinical settings have been variable, though the credibility of evaluative research carried out has not been without issues (Jones et al. 2021). Not many investigations have been done across radiography, and there is a paucity of studies from limited-resource countries including Ghana or other healthcare sectors with comparable resource constraints, where excellent healthcare delivery is constantly handicapped by excessive workloads coupled with severe shortfalls in staffing levels (Martin, 2022). Existing speaking-up policies in African nations have primarily focused on financial malfeasance in the public sector, with not much proof of their efficacy (Nnadi, 2020).

1.1 Ghana, Country Profile and Healthcare System

Traversing a land mass of 238,535 km^2 and situated along the Atlantic Ocean and the Gulf of Guinea, Ghana is a West-African country with bordering countries, Togo in the east, Ivory Coast in the west, Burkina Faso in the north and the Gulf of Guinea and Atlantic Ocean in the south (UN World Population Review, 2019). With a yearly growth rate of 2.15%, Ghana's 31.2 million population comprises a variety of linguistic, ethnic and religious groups. The country is divided into 16 administrative regions and further divided into 260 districts.

"To improve access to quality, efficient and seamless health services that is gender and youth friendly and responsive to the needs of people of all ages in all parts of the country" is the stated goal of Ghana's healthcare sector (GHS 1992: p2; MoH 2014). Hence presently, the Ministry of Health (MoH) and Ghana Health Service (GHS) are entrusted with supervision of health care delivery and structure in Ghana. The MoH devises policies and oversees healthcare delivery through the GHS (MoH 2004; Roberts et al. 2014). Functionally, Ghana's healthcare sector has five levels of providers: with health posts being the lowest and tertiary hospitals at the highest. The other levels are health centres and clinics, district hospitals as well as regional hospitals (MoH 2014). However, it is organised at three levels administratively, national, regional and district levels (ibid). The primary objective of GHS is to supervise healthcare delivery to clients in accordance with Ghana's health policy (GHS, 2004). The GHS has been indicated to oversee all health facilities except mission,

teaching and private hospitals in Ghana (MoH 2018). Figure 1.1 below illustrates the structure of Ghana's healthcare structure. Aside policy creation, supervision and evaluation of healthcare delivery in Ghana, dispensation of resources for healthcare delivery, MOH also has the duty of establishing structures for the regulation of food, drugs and health service delivery (Robert et al 2014; Pehr 2010). Presently, there are regional hospitals in ten of the 16 regions in Ghana, five teaching hospitals and 172 district hospitals in the 260 districts across the country. Nevertheless, 88 new district hospitals and six regional hospitals are currently under construction to cater for the deprived districts and regions.



Key:
MDA's – Ministries Departments and Agencies
GHS – Ghana Health Service
THOSP – Teaching Hospitals
QGIH – Quasi Government Institution Hospitals
PHMHB – Private Hospitals and Maternity Homes Board
DTAM – Department of Traditional and Alternate Medicine
GHSP – Government Hospitals
PC – Poly Clinics
HC – Health Centres
MBP – Mission Based Providers
PMDP – Private Medical and Dental Practitioners
TMP – Traditional Medical Providers
AM – Alternative Medicine
FH – Faith Healers

Source: Second Five Year Programme of Work (2002-2006, p. 48)

Figure 1.1: Structure of Ghana's healthcare system

1.2 Radiography Practice in Ghana

Since its introduction in 1927, the radiography profession has seen some achievements such as a formal training school under the MoH in 1951, training of some Ghanaian radiographers in the UK and the progression from the diploma certificates to now bachelor's degree in a number of universities in the country. Medical imaging units in Ghana have been instrumental in the realisation of the goal of the GHS through the provision of quality diagnostic imaging services (Antwi 2016). The installation of technologies such as interventional radiology catheterisation labs, computed tomography (CT) scanners, mammography, magnetic resonance imaging (MRI), digital X-ray machines, and ultrasound machines in hospitals across the country has enhanced medical imaging in Ghana imaging services over the past ninety years, although the staffing numbers are still severely deficient (King 2016; Antwi 2016). There are five teaching hospitals currently in Ghana and these hospitals are equipped with MRI scanners, CT scanners, modern digital x-ray equipment and ultrasound machines. While all the district hospitals have ultrasound and conventional x-ray units, there are modern digital x-ray equipment and CT scanners in nine of the ten regional hospitals in Ghana (Wuni et al., 2019).

The attainment of positive health developments is greatly dependent on the availability of suitable health personnel with the anticipated capabilities to provide the necessary clinical care. (Antwi 2016). Despite this, the radiography population has been chronically insufficient, (Antwi 2016; Society of Radiographers 2020) coupled with limited training institutions and subpar radiographer working conditions. According to the MOH (2010), the number of medical imaging professionals in the country was 256, with 154 working in urban regions, and the remainder in rural regions. In terms of work sector distribution, 207 radiographers were employed in public hospitals, while the rest (49) worked in private facilities (MOH 2010). However, Ghana currently has 350 registered radiographers serving a Ghanaian population of about 31.07 million (Wuni 2019). Whilst the radiography population of Ghana consists of diagnostic as well as therapy radiographers (who form less than 10 percent of the population), this study focused on only diagnostic radiographers. Hence the term 'radiographer' used throughout this thesis refers to diagnostic radiographers. It should also be noted that sonographers are not included in the radiography population stated here.

1.3 UK Radiology Department Visit that Contributed to My Understanding of the Problem

On Tuesday, 25th February 2020 I had the opportunity to be taken on a tour of the Radiology Department of the University Hospital of Wales, Heath. We visited imaging rooms for CT, MR, general digital x-ray, dentals, fluoroscopy, interventional radiology, emergency or acute CTs and paediatrics. The Quality, Health & Safety Lead for the Radiology Unit gave me a briefing on the daily running of the unit and their protocols. The department consists of permanent radiographers and rotating radiographers with about a hundred and fifty (150) radiographers present on a daily basis at the Heath Hospital doing an average 12-hour shift. This is very different from the system in my home country, Ghana where the average shift for a radiographer in a public hospital is 8 hours. Also, the 150 radiographers working daily at the Heath Hospital alone is about half the total number of radiographers in the whole of Ghana as there are about 350 practising radiographers. Also, radiographers were assigned to specific modality rooms, and this was rotated over a period of time. From the differences in numbers, it could be inferred that speaking-up could be impacted in the sense that, when staffing levels are high and workload is low, people may be encouraged to raise concerns without having to worry about being identified easily. Unlike in Ghana where numbers are much lower, and workload is high, hence radiographers may be discouraged to speak-up and those who attempt to speak-up may have concerns about being easily identified.

It was indicated that the department adheres to the WHO safety checklist and ensure correct patient identification by confirming patient identity before beginning any radiological procedure among other things such as seeking verbal consent from patients. Upon asking about mechanisms or protocols for raising concerns, she responded that there were online platforms for voicing out concerns if any radiographer had concerns or had any experiences there were unhappy about. The department also had a resuscitation unit for such emergencies. Contrast administration at their unit is also done using the power injector only and not by the radiographers themselves. Nevertheless, to ensure that contrast administration is safe for the patient, their creatinine levels are checked prior to the administration. For radiation safety, the department adheres to all the radiation protection principles and female patients of child-bearing ages are asked whether they are pregnant or not to avoid ionising radiation exposure to the foetus. In situations where there's an uncertainty about a patient's pregnancy status, proper radiation shield collimation is done, and lead shields are also incorporated to ensure underexposure to ionising radiation. In uncommon cases where a pregnant

patient who has undergone a radiological procedure is concerned about being overexposed to ionising radiation, a radiation safety team performs a radiation check on that patient and sends a report of their findings.

The paediatric imaging unit had rooms for general x-rays, CT, MRI and fluoroscopy. The designs of the rooms were ‘child-friendly’ with decorative lights, toys and model scanners for children; making it easier to convince children to undergo radiological examinations. Ghana lacks a unit solely dedicated for paediatric imaging as all patients use the same imaging equipment (paediatrics, adults and geriatrics). Also, unlike the radiology units in Ghana, there was a CT unit solely dedicated for acute cases or emergencies. This was to ensure that such cases do not join the normal queue and the patients are attended to within the shortest possible time to save lives. With regards to radiological reports for the department, I was told that a good number of their reports are outsourced to image reporting agencies outside the hospital with the rest being done in-house. I also learnt that unlike in Ghana where the cost of radiological examinations is borne by the patients, radiological examinations in the United Kingdom is catered for by the government through taxations.

In conclusion, the visit offered an opportunity for me to have a sense of how a teaching hospital radiology unit in the UK is run; in terms of protocols and practices and it enabled me to appreciate the systemic differences and similarities with my home country, Ghana.

1.4 Speaking-Up in Healthcare in Ghana

Ghanaian health practitioners are compelled by law and professional ethics to place the patient first (Nsiah et al. 2019). According to the Patient Charter (1992), all health professionals have a duty to defend their patients' rights to receive treatment that is both effective and risk-free. However, there are no regulations in place to regulate practising radiographers in Ghana who choose to voice out against hazards to patient safety. In addition, neither the MoH nor the GHS have yet developed "Speak-Up" or whistleblowing policies. Neither the Allied Health Professions Council (AHPC), the regulator for radiographers in Ghana, nor the Ghana Society of Radiographers (GSR), the country's professional organisation for radiographers, have established protocols for reporting patient safety concerns.

Nevertheless, in October 2006, Ghana's Parliament enacted anti-corruption measures such as Act 720 (the Whistleblowing Act). Act violations include economic offence, waste thievery,

mismanagement of state resources, and endangering the health or wellbeing of a community or an individual (Ghana Anti-Corruption Coalition 2010). Before the passing of the Act, whistle-blowers in Ghana frequently endured work-related and personal repercussions, heightening the uncertainties and concerns of any potential future whistle-blowers (Ndebugri et al. 2018) The Act requires that whistle-blower disclosures be regarded as confidential due to their sensitive nature (Ghana Anti-Corruption Coalition 2010). Since its passing nonetheless, the law has produced no appreciable advantages (Ndebugri et al. 2018). In November 2019, the Ghana National Commission on Civic Education (NCCE) and the European Union hosted the 4th National Dialogue on Whistleblowing. The Chairman of the NCCE thereby exhorted citizens to expose instances of fraud and corruption using the protections provided by the Whistle-blower Protection Act. Additionally, whistle-blowers were reminded that their identities should be protected by the institutions and individuals obligated to receive their information (Graphic online 2019).

1.5 Statement of the problem

Globally, speaking-up has gained considerable traction with time across many fields (Gagnon 2019). Nevertheless, speaking-up research in healthcare is not as well developed compared to other academic fields. (Leonard, Graham and Bonacum, 2004; Blenkinsopp et al. 2019). Such research is even rarer in fields like radiography and within Ghana as well as other African nations. While healthcare researchers outside Africa are making great efforts to address challenges related with speaking-up among healthcare professionals, there is paucity in literature from Africa and other low-resource settings such as Ghana on the topic. Until the year 2022, the studies that existed in Ghana were mostly focussed on corruption and illegality in the finance sectors and not in healthcare (Ndebugri, 2018; Antwi-Bosiako, 2018), making it evident that the concept of speaking-up in healthcare Ghana remains unexplored, hence a clear rationale for the current study.

Mawuena and Mannion (2022), using the Conservation of Resources theory investigated how a lack of resources and a heavy workload affect employees' willingness to raise concerns about potential patient safety issues in two teaching hospital surgical departments in Ghana. Their study revealed that chronic resource shortages and an excessive workload resulted in stress, which reduces staff willingness to report unsafe care. They indicated that managers in surgical units were more likely to dismiss issues brought up failing to take necessary corrective actions because of their focus on managing limited resources. The study further identified that employees who were dealing with

heavy workloads adopted silence as a coping mechanism to conserve energy and escape taking on more work. They therefore concluded that resource constraints and increased workload dramatically inhibit staff voice about patient safety compromises. While their study may have indicated the effect of resource constraints and workload on the willingness of surgical staff to speak-up about patient safety compromises, it failed to explore what other factors might influence their speaking-up behaviours. Also, the study sample focussed on surgical staff in 2 teaching hospitals in urban centres in Ghana, hence findings may not necessarily apply to other healthcare professionals such as radiographers or other hospitals in rural Ghana. It is therefore imperative that this current study explores the speaking-up experiences of Ghanaian radiographers across different hospitals without necessarily limiting these experiences to specific contextual factors such as resource constraints or workload.

Anim-Sampong et al (2022), using questionnaires with scenarios evaluated the assertiveness of final year Ghanaian radiography students in speaking-up about patient safety compromises during clinical sessions and its effect on their learning. With a 96% response rate, the majority of participants gave varying reasons why they would not raise concerns regarding patient safety. The dichotomy between theory teachings and clinical practice was one of the limiting factors for withholding voice. They argued that students must be able to speak-up regardless of who they work with to contribute effectively to a clinical team and enhance patient safety. Their study also found that when confronted with scenarios that could potentially compromise patient safety, students were more drawn towards communicating nonverbally rather than speaking-up. They concluded that patient outcomes would be enhanced by fostering a culture of mutual respect and peace of mind to speak-up in the department. While this study gave an insight into speaking-up behaviours of Ghanaian radiography students, the findings however cannot be generalised as the sample was limited to a small group of radiography students in a university. Again, this study did not offer any insight into speaking-up behaviours of qualified or practising radiographers in Ghana, buttressing the point that speaking-up in radiography in Ghana remains unexplored, a clear rationale for the current study.

Globally, there are requirements for employees and healthcare professionals to speak-up. For example, In the UK, there are statutory requirements via regulatory bodies and specific acts to speak-up. For instance, “the Duty of Candour’’ of the Health and Social Care Act 2008 (established in November 2014) and the introduction of Freedom to Speak-up Guardians in England are both policy interventions which aim to introduce and sustain a culture of openness. There is also “the

duty of care" which describes the obligations inherent in the roles of every health and social care worker to act towards patients/service users, colleagues, employers and themselves in a certain way, in accordance with certain standards. In some cases, there are employment contractual requirements to speak-up (for example, in between an employee/employer) which also advocates and/or requires speaking-up as part of duties and responsibilities etc. Additionally, there are also non-statutory workplace requirements as well as Standard Operating Procedures (SOPs), such as the WHO safety checklists which are predicated on professionals speaking-up when there is an issue (WHO 2008). Similarly, healthcare professionals in Ghana are ethically and legally accountable to the patient (Nsiah et al 2019). The Patient Charter (GHS 1992) mandates health practitioners and hence radiographers in Ghana to protect the rights of the patient to safe, competent and quality care. Nevertheless, specific guidelines to regulate practising radiographers in Ghana in their patient advocacy role and speaking-up is uncertain. Hence there is a need for the current study to generate findings that may inform policy, guidelines and educational development in order to facilitate raising concerns and support those who do in hospitals in Ghana.

Furthermore, although 'speaking-up' has gained international interest, healthcare research on the topic seems to be highly focussed on nursing and medical practice (Gagnon 2019), almost overlooking the need for investigations in other healthcare professions such as radiography. A paucity in radiography literature on the topic and is a clear rationale for further research within the professional group and within Ghana.

Lastly, evidence suggests that speaking-up experiences and behaviours of a group of people is influenced by cultural factors. For example, a qualitative grounded theory study on whistleblowing among Japanese nurses reported significant influence of national culture on reporting malpractice (Ohnishi et al., 2008). Similarly, in a survey evaluating assertive communication among Japanese nurses found that the cultural barriers in Japan, where people might desist from publicly challenging other people, could make speaking-up assertively very problematic for health professionals, even when they witness patient safety compromises (Omura et al., 2017). Findings of a survey of whistleblowing perceptions among Chinese and British healthcare students reported that, compared to people from societies that are individualistic, those from cultural contexts that are collectivist have lower tendencies of whistleblowing and are also less approving of whistleblowing behaviours. (Cheng et al., 2015). Hence it therefore cannot be assumed that speaking-up experiences documented in the literature are completely or readily transferable to the Ghanaian

cultural context. The current study seeks to fill these gaps by looking at the situation of speaking-up among radiographers in hospitals in Ghana.

1.6 Significance of the Study

The scope of this study will be novel in Ghana and would contribute a much-needed baseline understanding on the speaking-up experiences of radiographers in Ghana and thus, to improve speaking-up experiences and hence patient safety, inform future practice, education and policy making through the collaboration with key stakeholders and policy makers in the health sector of Ghana. Accordingly, it would contribute to the realisation of the MOH's objective to improve patient safety and care quality (MOH 2007a).

The study aims to contribute to addressing the gap in knowledge on speaking-up in the health sector in Ghana and Africa as speaking-up experiences in the existing literature cannot be presumed to be completely or readily conveyable to other settings such as Ghana and West Africa. Hence the study will demonstrate the differences or similarities in speaking-up experiences in Ghana and the international literature with respect to Ghana's cultural context and healthcare system. It also anticipates addressing the knowledge gap in speaking-up behaviours of radiographers in Ghana and globally. Furthermore, this thorough study will pave the way for future research in Ghana and other resource constrained settings with the goal of investigating speaking-up behaviours in healthcare.

Finally, with the hope that raising concerns and speaking-up becomes part of the culture and/or policy of the radiography practice and healthcare practice in Ghana, this research will ultimately improve patient safety in radiography service delivery in Ghana by suggesting a framework for speaking up in radiography practise that can be incorporated into the academic curriculum. This study is therefore necessary to explore the experiences of Ghanaian diagnostic radiographers in the phenomenon of speaking-up for patient safety.

1.6.1 Research question

- What do diagnostic radiographers in Ghana understand by the concept of 'speaking-up for patient safety'?
- What is the willingness of Ghanaian diagnostic radiographers to speak-up about patient safety concerns?

- What are the factors affecting speaking-up behaviours of Ghanaian diagnostic radiographers?
- What are the experiences of Ghanaian diagnostic radiographers with institutional culture and inter-professional relationships when speaking-up about patient safety?
- Do Ghanaian diagnostic radiographers have speaking-up training needs?
- Are there procedures, policy, and guidelines on speaking-up in hospitals in Ghana, and if so, are they usefully guiding diagnostic radiographers' practices?

1.6.2 Study aim

This study aims at exploring the experiences of Ghanaian diagnostic radiographers in speaking-up on patient safety concerns, with the overall goal to improve practice, patient safety and to inform policy and education.

1.6.3 Objectives

Overall, the goal of this PhD study is to address the following objectives:

- To identify diagnostic radiographers' understanding of patient safety and speaking-up.
- To determine the willingness of diagnostic radiographers to speak-up about patient safety concerns.
- To establish the barriers and enablers affecting diagnostic radiographers' speaking-up behavior.
- To determine the experiences of diagnostic radiographers with institutional culture and inter-professional relationship on patient safety.
- To identify the training needs of diagnostic radiographers in speaking-up which are culturally sensitive to the Ghanaian context.
- To generate findings that may inform policy and educational development in order to facilitate raising concerns and support those who do.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter critically reviews the existing literature about speaking-up. To explore the experiences of Ghanaian diagnostic radiographers in speaking-up for patient safety, it was prudent to gain an understanding of speaking-up; its historical perspective, and the policies governing the act of speaking-up in Ghana and across the world, as all of these have an impact on the perception of diagnostic radiographers about speaking-up. The preliminary stage of the research reviewed existing literature with reference to speaking-up. To achieve this, a thorough search was done to determine the available evidence on the 'speaking-up' phenomenon among radiographers globally; however, with special emphasis on Ghana. The literature review sought to describe speaking-up; its barriers and enablers, discuss the historical perspective and the policies governing the act of speaking-up in existing literature. The search sought to evaluate all existing evidence on speaking-up in radiography globally. Hence the review provided an overview of the studies that have been undertaken on speaking-up in radiography to date, and consequently helped shape the research work broadly and narrowed down to Africa and Ghana.

The next sections of this chapter justify why undertaking a literature review was necessary and why a scoping review was the approach of choice. The remainder of the chapter details the process of the review and concludes by summarising the findings of the review.

2.1 Why undertake a literature review?

Generally, the purposes of a review of healthcare literature are to provide a summary of the information about a definite question or topic, or to make recommendations that will be useful to health professionals and institutions for decision making about specific interventions or care issues (Canadian Institute of Health Research 2008). Additionally, conducting a literature review may identify knowledge gaps that can guide future studies (Noble and Smith 2018).

According to Paré *et al*. (2015), reviews illustrate the fundamental propositions backing the research questions and enables early researchers to demonstrate their knowledgeability and familiarity with

the "intellectual traditions" surrounding their proposed research work and to assure reviewers. The authors further argued that the literature review not only offers the researcher a chance to find gaps in the existing literature but also and presents a logic for the impact of the proposed study on the documented literature, while helping the researcher to clarify research questions and incorporate them into directing hypothesis that offer likely guidance for the researcher (Paré et al. 2015).

McNabb (2002) asserted that a literature review is essential in focusing a research study by significantly narrowing the focus of a study through addressing speculative questions in an attempt to improve conceptual clarity. However, it has also been argued that one pitfall in reviewing literature is its tendency to stifle innovation as some researchers may impose their own preconceived knowledge and documented frameworks on the inquiry (Heath 2006). This occurrence results in an existing hypothesis negatively influencing the data collection process (Becker 1993).

Hutchinson (1993) indicated that reviewing literature offers a chance for researchers to find 'knowledge gaps'; and hence making it easier to link a study to previous studies, to illustrate how theoretically significant a study may be, and to blend the developed theory with existing ones. Nevertheless, it has been argued that this usually creates a deficiency in cross-disciplinary comparisons (Ferlie et al. 2013). Bearfield & Eller (2007) suggested that a well-written review may provide the reader with a comprehensive understanding of the significance and scope of the research topic. However, Becker (1993) and Heath & Cowley (2004) have argued that in reviewing literature, a researcher is likely to miss social or cultural facts, or pertinent details, by concentrating fully on the matters that appear related with reference to the existing literature and hence leading to bias (Heath 2006).

There are numerous styles of reviewing literature in qualitative studies, some of which will now be further discussed in light of the decision to undertake a scoping review. Narrative reviews generally attempt to summarise prior knowledge without generalising the reviewed literature (Green et al. 2006), while descriptive reviews anticipate identifying explicable patterns and literature gaps with reference to prior postulations or theories (King & He 2005; Paré et al. 2015). Systematic reviews use structured procedures in collecting secondary data, evaluating and critiquing research papers, and summarising qualitative or quantitative results to satisfy eligibility requirements and a well formulated research question (Borenstein et al. 2009; Higgins & Green 2008), while the purpose of a scoping review is to draw the existing literature on a specific subject or topic in order to point

out significant theories, research gaps, and implications for policy and practice (Arksey & O'Malley 2005). Critical reviews are aimed at critically evaluating and analysing (interpretively) prior literature on a specific research area to bring out strengths, shortcomings, arguments and other concerns with reference to theories, postulations and results (Kirkevold 1997; Paré et al. 2015), while realist reviews seek to inform, amplify and broaden traditional systematic reviews by the inclusion of information from qualitative and quantitative research work of composite interventions utilised in various settings to guide policy (Pawson 2006; Whitlock et al. 2008).

A scoping review was most suitable for this study because, unlike the other types of review that answer relatively definite set of questions, scoping reviews may be utilised to not only outline the main ideas buttressing a study topic, but also to refine accepted definitions, as well as margins surrounding concepts of a research area (Arksey & O'Malley 2005). Unlike descriptive and narrative reviews, the main idea of scoping a field is to be as extensive as possible, with the inclusion of grey literature (Arksey & O'Malley 2005). Furthermore, when a researcher is uncertain about which specific questions can be addressed and answered, a scoping review can assist in identifying the most promising lines of inquiry (Tricco et al. 2016). This review sought to identify voids in the 'speaking-up' literature, provide an overview of the topic, and define key concepts and terminology. Consequently, a scoping review was more suitable for this research.

Although there are some overlapping indications in both systematic and scoping review designs, Munn et al. (2018) further argued that a systematic review is relevant when the researcher desires using their review results to address a clinically significant question or present valid facts to guide practice. In the sense that, if a researcher has questions concerning the feasibility, suitability, significance or efficacy of a particular practice or treatment, then the most well-founded approach is likely to be a systematic review (Pearson 2004 & Pearson et al. 2005). Nevertheless, in a study such as this one, where the researcher's main interest was identifying certain features/concepts in research studies or documents, and in mapping, presenting or evaluation of these features/ concepts, the more appropriate review was a scoping review (Munn et al. 2018).

Baumeister & Leary (1997) argued that in narrative reviews, the review team usually takes on the task of gathering and synthesizing the evidence to reveal the usefulness of a specific viewpoint. Hence reviewers may discriminatively ignore or restrict the attention given to particular studies to be able to prove a point (Paré & Kitsiou 2017). Green et al. (2006) also argued that the narrative

style of review tends to be unsystematic as a result of the subjectivity of the selection of documents from main articles and the lack of clear-cut inclusion criteria; leading to likely biased inferences or analysis. It has been noted that there are several narrative reviews in particularly health fields and other fields as well, which conform to such unsystematic techniques (Silva et al. 2015; Paul et al. 2015); hence its inappropriateness for this study.

Kirkevoid (1997) argued that unlike other types of review, a critical review aims at presenting a reflective report of a research study conducted on a particular topic and evaluating its reliability by employing appraisal techniques. Hence, this type of review seeks to constructively notify other researchers about the shortcomings of earlier studies and build up knowledge expansion by providing a sense of direction and guidance to studies for further development.

In conclusion, the goal of a scoping review is generating a synopsis of the existing literature without necessarily always providing a summary solution to a distinct research problem (Arksey & O'Malley 2005). This approach is typically valuable when what is known about a topic of interest is yet to be extensively reviewed or is diversified and complex (Peters et al. 2015). The goal of scoping literature reviews is answering exploratory research questions through a comprehensive search and integration of literature (Colquhoun et al. 2014). Scoping reviews are suitable for finding gaps in a specific literature, explaining definitions, and exploring characteristics of a concept (Munn et al. 2018). They are also beneficial for exploring developing new insights when there is an uncertainty of what other more precise questions could possibly be suitably answered. (Anderson et al. 2008). The significance of a scoping review in evidence-based practice relies on the assessment of a broad-ranging topic to detect knowledge gaps in existing literature (Crilly et al. 2010), refine main ideas (de Chavez et al. 2005), as well as describe the aspects of data that challenge and guide practice (Decaria et al. 2012). Scoping reviews may also be utilised in the development of *"policy maps"* through the detection and charting of findings from policy files to inform practice in a given context (Anderson et al. 2008). Based on the above, a scoping review was considered to be the best option for the present study as it helped the researcher achieve the purpose of the review.

2.2 The Scoping Review

To find relevant evidence on speaking-up, a scoping literature review method was followed. Arksey & O'Malley (2005) have defined a scoping review as a review that aims to map evidence base or

existing literature in a specific area. This type of review anticipates answering exploratory research questions by performing a systematic search of literature (Colquhoun et al. 2014).

The PRISMA checklist and the six-stages framework of Arksey and O'Malley (2005) were adhered to in this review to enhance quality. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist was introduced to ensure rigour, replicability and generalisation of findings of scoping reviews (Tricco et al. 2018).

The Arksey and O'Malley framework is indicated in table 2.1 below:

Arksey & O'Malley (2005) Scoping review framework
1. Identifying the research question
2. Identifying relevant studies
3. Study selection
4. Charting the data
5. Collating, summarizing and reporting results
6. Consultation

Table 2.1: Framework for literature review

2.2.1 Framework Stage 1: Identifying the research question.

The whistleblowing concept, after its emergence in the 1970s has with time become momentously popular in fields such as public administration, law, psychology, management,sociology and health sciences (Mannion et al. 2018, p. 7). Mannion et al. (2018, p 6) asserts that although the publication of the Pentagon Papers in 1971 was debatably the first to be extensively known, it was not the foremost case of whistleblowing. The initial work in the fieldwidely highlighted definitional debates which undeniably still persist even as the field develops (Blenkinsopp et al. 2019). One of the earliest relevant papers published in the 1980s was the Near and Miceli (1985: p4) paper which explained whistleblowing as *"the disclosure by organisation members (former or current) of illegal, immoral, or illegitimate practices under the control of their employers, to persons or organisations that may be able to effect action".* Research into healthcare whistleblowing commenced in the late 1990s and by that time the whistleblowing definition by Near and Miceli (1985) was widely used (Blenkinsopp et al. 2019).

Over the years, many researchers and academicians have described the term in similar ways. Kelly and Jones (2013: p 182) termed whistleblowing as "*an imposed, rather than a chosen, situation*" people who blow the whistle are everyday people who, on knowledge of a bad situation, are compelled to choose to either raise concerns or keep silent. Blenkinsopp et al. (2019: p1) defined healthcare whistleblowing as *"the raising of concerns about unsafe, unethical or poor-quality care to persons able to effect action"*. The authors explain that this definition is focussed on issues that relate largely to healthcare delivery. Francis (2015) found that many healthcare staff expressed dissatisfaction with the term whistleblowing, resulting in the recommendation of terms such as "speaking-up" and raising concerns" that tend to be preferred. Nevertheless, Mannion et al., (2018, p.7) argue that it is suitable to consider "raising concerns", "speaking-up" and "whistleblowing" as a continuity although debatably, all can be incorporated in the academic meaning of whistleblowing. Furthermore, Mannion et al. (2018, p.7) state that the terms "raising concerns*"* "speaking-up" and "whistleblowing" are sometimes used interchangeably in healthcare, and that is apparent in this review. Speaking-up or whistleblowing in healthcare contributes greatly to detecting and eliminating preventable patient harm (Francis, 2015). Nevertheless, speaking-up or whistleblowing research in healthcare is not as well developed compared to other academic fields. (Blenkinsopp et al., 2019). Such research is even rarer in fields like radiography and within Ghana as well as other African nations.

This study aimed at exploring the experiences of Ghanaian diagnostic radiographers in speaking-up. Hence the aim of this literature review is to explore the relevant literature in speaking-up for patient safety among radiographers globally and in Ghana. Initially, the review sought to answer the question *"What are the experiences of radiographers in speaking-up about safety concerns?"* However, there was the need to extend this to cover speaking-up among other healthcare practitioners as an earlier literature scope showed a paucity in radiography literature on the topic. There was a further broadening of the scope to cover speaking-up in other areas outside healthcare in Africa as a result of extremely low numbers in African healthcare literature. Due to the paucity of research work and in accordance with the principles of conducting a scoping review, all research work on speaking-up was included in the review irrespective of the quality of the research.

2.2.2 Framework Stage 2: Identifying relevant literature.

Scientific and grey literature were scanned for relevance. Databases namely: SCOPUS, Medline via Ovid, CINAHHL and Web of Science were searched thoroughly and systematically. These search

databases were selected according to their importance in the research area. References from academic journals and retrieved articles as well as government policy documents provided additional literature. Time was not a limiting factor in the search. This decision was taken to allow the retrieval of enough historical evidence about speaking-up and hence provide a historical perspective to the literature review. No geographical restriction was applied to the search; nevertheless, only English-published documents were considered. The search was thorough to encompass all the likely terms that are significant to the overarching study aim. The search included the appropriate alternative word and terms significant to the study aim. These keywords are illustrated in Table 2.2 below:

KEYWORD SEARCH TERMS
1. “Speak-up” OR "Speaking-up" 2. Whistle-blow*ing" 3. “Patient safety” 4. "Raising concerns" OR "raise concerns" 5. “Radiograph*y” OR “Radiograph*er” OR “Medical Imaging Technologist” OR “Radiologic Technologist” OR “Radiology” 6. "Voice concerns" OR "voicing concerns"

Table 2.2: Keywords for electronic base search

Boolean operators were used during this search such that the keywords or terms were combined using the Boolean OR and the Boolean AND across all databases.

2.2.3 Framework Stage 3: Study Selection

The inclusion and exclusion criteria for the literature search are as follows:

Inclusion criteria:

- Documents on speaking-up in radiography
- Documents on the barriers and enablers of speaking-up

- English language documents

Exclusion criteria:

- Documents published in any other language apart from English.
- Studies where a comprehensive description of research design is unavailable.
- Literature/research that investigates "employee voice" such as quality improvement. ideas rather than employee concerns.

In this stage, various articles were evaluated, and decisions were taken in relation to their final inclusion in the review. The process of sifting and selecting studies commenced with the titles and abstracts of all articles being retrieved and read independently by the researcher and supervisors and a "yes", "no" or "maybe" decision was made on them depending on how relevant they were to the objectives and inclusion/exclusion criteria of the study. Papers which were found in the 'maybe' group, or as a result of a disagreement between the reviewers, were read again by each reviewer with the eligibility criteria as a guide for making a final decision. The full text of all "yes" selected papers were acquired and read to confirm whether they properly related to the research questions (Roncarolo et al. 2017). This decision was based on Badger et al.'s (2000) assertion that it cannot be assumed that abstracts are representatives of the entire article or that they show the entire scope of the article. Hence according to Arksey & O'Malley's (2005) scoping review methodology, the final studies selected was based on their ability to answer the review questions rather than only the study quality.

The criteria governing eligibility included literature about the understanding of patient safety concerns and speaking-up by radiographers, the willingness to speak-up about concerns, the factors affecting speaking-up behaviours, institutional cultures and inter-professional relationship on speaking-up and training needs of radiographers in speaking-up. The goal of conducting this review was to have a sense of the existing literature in this area, recognise gaps in the literature, probe further and perhaps fill the existing gap.

References of all articles acquired were examined for papers that may be eligible but might have not been picked up in the preliminary search. After reading all chosen articles, their findings were categorised into themes which eventually served as a guide for the literature review. For articles that were found in more than one database, de-duplication was done.

2.2.4 Framework Stage 4: Charting the data

A total of 756 documents were identified through the searches and a further 23 citations identified by searches of reference lists. After deduplication, the title and abstracts of 707 articles were scanned and 518 papers were ruled out as a result of not meeting the inclusion criteria. This left a total of 189 papers to be screened resulting in 92 articles for full text scanning. A total of 26 articles did not meet the inclusion criteria and hence were excluded from the review. 66 papers were selected and incorporated in the review after reading the full texts. Charting the outcome of a literature search is best practice as it enhances transparency in the review process (Peter et al. 2015).

Hence the following were collated on a chart (see Appendix 1) according to the details below:

- The name(s) of the author(s), publication year, country of origin
- The study type and population
- Aims of study
- Methodology
- Outcome measures and results

Relevant Critical Appraisal Skills CASP) templates were employed during this phase of the review to assess the quality of the research papers.

PRISMA Flowchart Diagram Literature Search

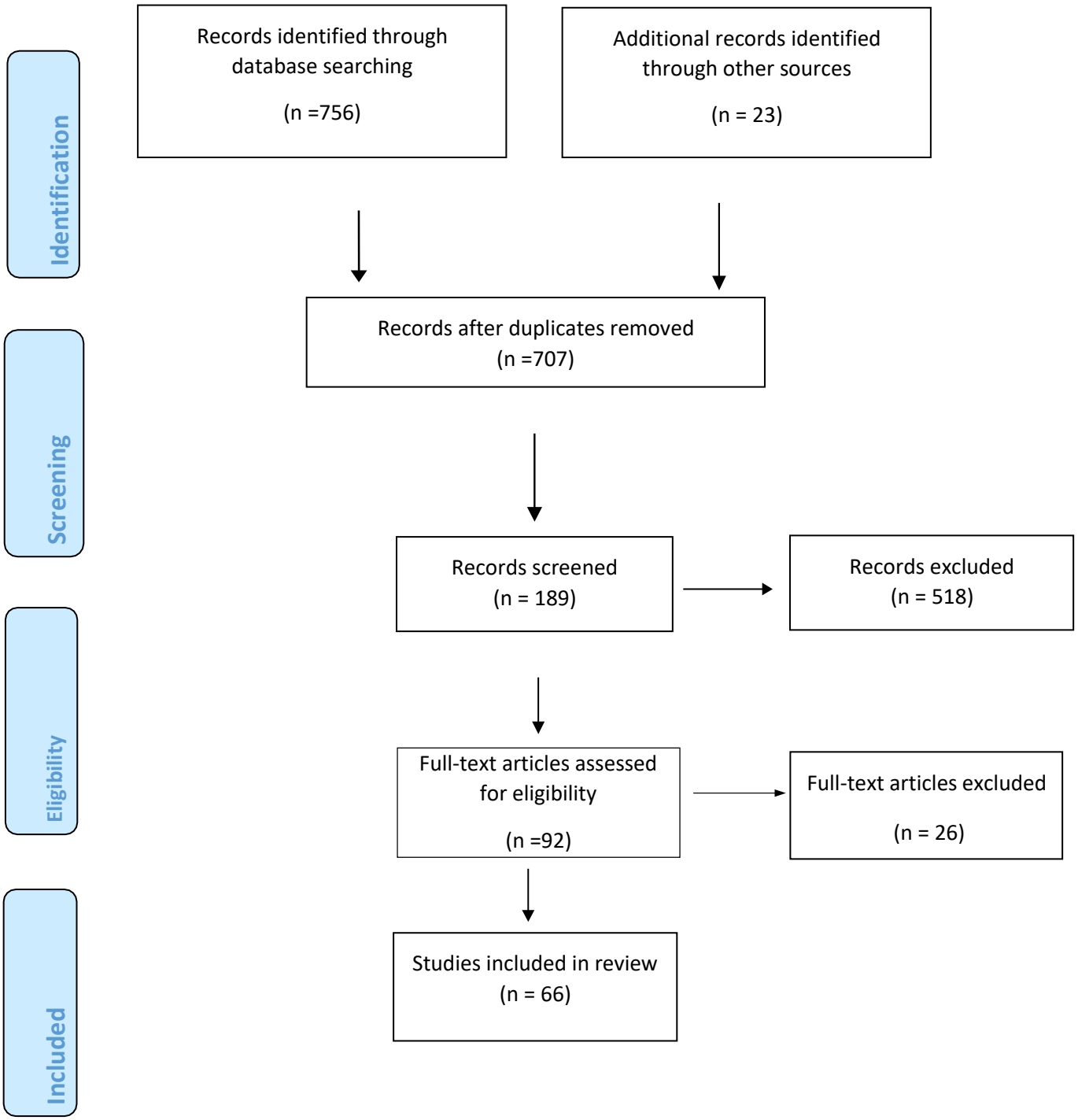


Figure 2.1: PRISMA Flowchart Diagram

2.2.5 Framework Stage 5: Collating, summarising and reporting the results

In a scoping review, after concluding on the final selection of documents, it is essential to proceed to analysing and summarising the findings. Levac et al. (2010) recommends the use of qualitative thematic analysis or descriptive statistics based on the nature of the collated data. This review employed a basic thematic framework to analyse the results. This was done by grouping common themes and evaluating similarities between them. Relevant CASP templates were employed again at this stage of the review to aid appraisal and assess the quality of the research papers. This section illustrates the results of the scoping review.

This review included studies from a range of countries. The publication years of included citations ranged from 1985 to 2022. Whilst the majority (17) of the included papers originated from the USA, 13 were published in the United Kingdom, six from Switzerland, five from Australia, four each from Canada and Ghana, three each from Japan and China and the rest being published from countries including Sweden, Turkey/Ethiopia, Austria, Finland, Korea, UAE, The Netherlands, New Zealand, Singapore and Nigeria. This dispersion of included studies among various countries demonstrates that the concept of speaking-up has obtained substantial interest internationally with representation of American, European, Australia and Asian countries. Several publications originated from the '*western world*', with paucity of literature from Africa on the topic. There were only 4 papers from Ghana and one each from Nigeria and Ethiopia.

The included citations comprised 50 research papers, nine literature review papers and seven commentaries. Of the 50 research papers, nine were studies involving multiple healthcare professionals including doctors, nurses, pharmacists and allied health professionals; 19 involved practising nurses and nursing students; two studies involved public sector administrative workers, ten involved practising doctors, residents and medical students; seven studies involved nurses and doctors only; and three studies focussed on radiography. Of the radiography studies, one of the investigations was about therapy radiographers, the other focussed upon diagnostic radiographers and the last focussed on student radiographers. The majority of the included literature represented nurses, followed by doctors, with a paucity in radiography literature on the topic.

With regards to study designs of the included research papers, a total of 28 studies employed a quantitative approach, including:

- Cross-sectional surveys on speaking-up barriers (Landgren *et al.*, 2016; Edrees *et al.*, 2017), predictors (Lyndon *et al.*, 2012) and speaking-up behaviours among healthcare professionals (Bolderston, 2016; Martinez et al., 2015; Martinez et al., 2017; Lee, Hahm and Lee, 2018; Okuyama et al. 2019; Schwappach and Richard, 2018).

- Cross-sectional surveys of psychometric evaluation of speaking-up about patient safety (Martinez et al., 2015; Schwappach et al. 2017) and moral courage (Martinez et al., 2016).

- A randomised control experiment of simulation-based speaking-up intervention (Raemer et al., 2016).

- A quasi-experiment of assertiveness communication training for students (Omura et al. 2019).

- Descriptive cross-sectional surveys focussed on whistleblowing (Pohjanoksa et al., 2019) and organizational culture in whistleblowing (Yurtkoru and Wozir, 2017).

- Vignette cross-sectional studies focussed on predictors of speaking-up about safety concerns (Schwappach and Gehring, 2014; Schwappach, 2018).

- An experiment focussed on reporting peer wrongdoing using Formal Inference-Based Recursive Modelling (Beckstead, 2005).

A qualitative approach was used for a total of 20 studies, and they were centred on:

- Perception of workplace communication among nurses using focus group interviews (Garon, 2012).
- Descriptive study using semi-structured interviews to investigate experiences of speaking-up (Sur *et al.*, 2016; Jones et al. 2016; Schwappach and Gehring, 2014) and risk of patient safety incidents (Wallin *et al.*, 2019).
- Description of speaking-up experiences in the ICU using interviews and ethnographic observations (Tarrant *et al.*, 2017).
- A grounded theory study of factors affecting speaking-up decisions using semi-structured interviews (Attree, 2007).
- Using semi-structured interviews to investigate cultural influences on assertive communication (Omura et al. 2018), assertiveness intervention (Hanson *et al.*,

2020) and speaking-up challenges (Martin *et al.*, 2018).

- Phenomenological investigation of lived experiences of speaking-up using individual interviews (Fisher and Kiernan, 2019).
- Using individual interviews to investigate moral courage (Bickhoff, Levett-Jones and Sinclair, 2016) and speaking-up about patient safety (Szymczak, 2016).
- Case studies of whistleblowing (Ndebugri and Tweneboah Senzu, 2018) and employeevoice improvement intervention using confidential interviews (Dixon-Woods *et al.*, 2019).
- Narrative enquiry about whistleblowing using in-depth semi-structured interviews (Jackson *et al.*, 2010).

Three mixed methods design consisted of studies such as:

- A phenomenological exploration of how to improve speaking-up using employee engagement survey and semi-structured interviews (Hall *et al.*, 2018).
- Barriers to speaking-up about patient safety using open-ended questions and anelectronic survey (Etchegaray *et al.*, 2017).
- Exploring communication openness perceptions using a cross-sectional survey and qualitative interviews.

Studies were also themed according to their main focus:

- Barriers and Enablers of speaking-up; investigating factors that influence speaking-up decisions. For example, among doctors, residents and medical students (Landgren et al. 2016; Sur et al. 2016; Szymczak, 2016; Weller and Long, 2019; Lee et al. 2018; Martinez et al. 2017; Martinez et al. 2016), nurses and doctors 8. (Lyndon et al. 2012; Schwappach and Gehring, 2014; Schwappach and Gehring, 2014; Schwappach and Richard, 2018; Tarrant et al. 2017; Okuyama et al. 2019; Ng et al. 2019; Edrees et al. 2017; Ng et al. 2017) nurses, nursing students and executive nurses (Beckstead, 2005; Attree, 2007; Hall et al. 2018; Jones et al. 2016; Omura et al. 2018; Garon, 2012; Huang et al. 2020; Fisherand Kiernan, 2019; Alingh et al. 2019; Jackson et al. 2010; Schwappach et al. 2017; Lukewich et al. 2015; Bickhoff et al. 2016) radiographers (Bolderston et al. 2014; Siewert *et al.*, 2018) healthcare professionals (Etchegaray et al. 2017; Martin et al. 2018; Schwappach, 2018; Schwappach et al. 2018) and public sector employees (Yurtkoru and Wozir,

2017).

- Speaking-up trainings and interventions; investigating its effectiveness in improving voice, assertive communication or speaking-up. For example: among doctors (Raemeret al. 2016), nursing students (Omura et al. 2019; Hanson et al. 2020), nurses (Law and Chan, 2015). It was noted that the literature on speak-up interventions or training seemed to be focussed on nurses, nursing students and doctors. None of the trainings or interventions were done on radiographers.

The findings of the review are discussed and analysed in the section below. The findings are discussed under two broad themes, which also consist of sub-themes, namely: barriers and enablers of speaking-up (sub themes: individual factors, contextual factors, cultural factors, perceived efficacy of speaking-up, perceived safety of speaking-up, situational and clinical factors) and the effectiveness of speaking-up training or interventions.

2.3 Barriers and Enablers of Speaking-up

Several studies in the reviewed literature demonstrated the factors influencing speaking-up among healthcare professionals. These factors can be divided into barriers and/or facilitatorsof speaking-up in some cases. The following sections provides an overview of research findings which further explain barriers and facilitators in addition to critically appraising the quality of the research in this area. Most of the reviewed literature in this section examined the barriers and enablers of speaking-up among nurses and nursing students, withvery few studies on radiographers. While the publications reviewed in this section were from a wide range of countries, majority of them were from the USA. Hence the studies will be discussed under the following themes: individual factors, contextual factors, cultural factors, situational and clinical factors. The next section discusses these themes in the reviewed literature.

2.3.1 Contextual Factors

Contextual factors in this review refer to characteristics peculiar to an organisation where an act of speaking-up is expected to occur.

Studies reviewed suggest that the possibility of speaking-up is highly dependent on contextual factors (Lyndon et al. 2012; Schwappach and Gehring 2015; Landgren 2016). This section discusses the various studies investigating contextual factors identified in the literature. Some of the contextual factors affecting speaking-up behaviours as barriers or facilitators were work policy,

teamwork and communication, managerial support, hierarchy, reporting mechanisms (infrastructure and technical challenges), staffing issues and workload, organisational support, leadership, blame culture, culture of safety (Blanco et al. 2009; Garon, 2012; Jones & Kelly 2014; Szymczak 2015; Schwappach & Gehring 2015; Rainer 2015; Sur et al., 2016; Landgren et al., 2016; Edrees et al., 2017; Lee et al. 2018; Mawuena and Mannion 2022). This section discusses these factors and their effects on speaking-up behaviours as stated by various authors. For example, the results of Landgren et al. (2016)'s cross-sectional survey on challenges faced by paediatric residents in speaking-up about patient safety at an academic hospital in the USA indicated that one of the commonest inhibitors of speaking-up was work-related factors (excessive workload). Their study also tested a deductive hypothesis of relationships between types of inhibitors of speaking-up and views of safety and teamwork culture. They further concluded that the effectiveness of speaking-up and the fears about safety of speaking-up were correlated with positive safety culture and teamwork respectively (Landgren et al., 2016).

The previous paragraph mentions that safety culture and teamwork are relevant contextual factors to consider, and the studies discussed in this paragraph provide more examples of this, demonstrating that managerial support is a crucial factor in speaking-up behaviours. For example, Schwappach and Gehring (2014) undertook a vignette study to evaluate likelihood of speaking-up about safety concerns and explain the impact of situational and clinical contextual factors among oncology staff (doctors and nurses) in Switzerland (Schwappach and Gehring, 2014). Their results indicated that healthcare practitioners who lacked managerial support provided considerably higher scores of decision trouble and disconcertion to speak-up. They concluded that the readiness of clinicians to speak-up in the face of patient safety compromises is significantly influenced by contextual factors. They further concluded that doctors and nurses who lack managerial support have significant disconcertion with speaking-up (Schwappach and Gehring 2014). A similar cross-sectional survey by Schwappach and Gehring (2015) on the prevalence of withholding voice on safety concerns among the same professional group (oncology staff) built on their earlier findings by further demonstrating that levels of psychological safety and organisational support are remarkable predictors of the likelihood of speaking-up about safety concerns.

Furthermore, a published review on organisational and safety culture asserted that creating a workplace culture that recognises speaking-up is essential to enhancing patient safety (Rainer, 2015). Jones and Kelly (2014) similarly argued that organisational disregard for staff who voice

concerns can pose a barrier to speaking-up and may eventually result in an overwhelming burden on individual workers as they may feel restricted and dissatisfied with their ability to cause change in their work. Lockett et al. (2015)'s grounded theory study on peer reporting among nurses reported that organisations with negative culture of safety in the sense of practicing blame culture and punitive actions such as bullying, harassment and intimidation of those speaking-up are likely to discourage speaking-up among nurses. Similarfindings were reported in Landgren et al.'s (2016) survey with the paediatric residents as someresidents expressed their unwillingness to speak-up as a result of the practice of blame cultureat the hospital.

A review of literature by Okuyama et al. (2014) on factors influencing speaking-up behaviours of healthcare professionals revealed that speaking-up behaviours are promoted by visible and strong organisational support. They further reported that healthcareprofessionals were likely to speak-up in situations where there is the existence of hospital policies that openly support and inspire them to speak-up about concerns (Okuyama et al. 2014). Nevertheless, hierarchy seems unavoidable within healthcare organisations and can unfortunately inhibit speaking-up.

Two surveys comparing error reporting among radiation therapists in Canada and the United States reported poor communication and hierarchy as barriers to error reporting in both countries (Bolderston et al. 2014). Hierarchy as a barrier to speaking-up is common to many professional groups, workplaces and settings (Richard, Pfeiffer and Schwappach, 2017; Siewert et al., 2018; Schwappach, 2018; Fisher and Kiernan, 2019; Landgren et al., 2016; Lyndon et al., 2012; Omura et al., 2018). Schwappach (2018)'s cross-sectional survey to explore psychological safety for speaking-up among healthcare professionals in an Austrian university hospital reported that less influential staff, such as younger healthcare professionals who lacked managerial functions, were more unlikely to speak-up about their concerns. A retrospective survey involving all staff of a radiology department of an academic hospital in the United States reported authority gradient as a barrier to speaking-up among staff of the department (Siewert et al., 2018).

Furthermore, Lyndon *et al.* (2012)'s scenario-based exploratory study on predictors of voice among maternity staff reported that teamwork and an individual's relationships with other colleagues or team members affect speaking-up behaviours. Similar findings were reported in a cross-sectional survey investigating the prevalence of withholding voice among oncology staff in Switzerland (Schwappach & Gehring 2015).

From West Africa, Onakoya and Moses's (2016) conceptual perspective on factors influencing whistleblowing attitudes of Nigerian bank employees reported absence of work policies and lack of support from management and/or colleagues as part of barriers to the practice of whistleblowing or raising concerns in Nigeria.

Very recently from Ghana, Mawuena and Mannion's (2022), conservation of resources theory investigation into how a lack of resources and a heavy workload affect employees' willingness to raise concerns about patient safety issues revealed that chronic resource shortages and an excessive workload resulted in stress, which reduced staff willingness to report unsafe care. They indicated that managers in surgical units were more likely to dismiss issues brought up failing to take necessary corrective actions because of their focus on managing limited resources. In order to overcome issues with subpar infrastructure and faulty machinery, resource limitations force rationing and improvisation, eventually creating a hostile environment for employees to speak-up. The study further identified that employees who were dealing with heavy workloads adopted silence as a coping mechanism to conserve energy and escape taking on more work. They therefore concluded that resource constraints and increased workload dramatically inhibit staff voice about patient safety compromises.

Overall, findings of studies in this section demonstrate that speaking-up behaviours are challenged or enabled by contextual factors. Factors such as excessive workload, poor communication skills, lack of confidence, authority gradients or hierarchy, organisational disregard, blame culture, lack of management support, among others tend to hinder speaking-up behaviours (Schwappach and Gehring, 2014; Jones and Kelly, 2014; Landgren et al., 2016; Edrees *et al.*, 2017, Etchegaray *et al.*, 2017). Absence of work policies as a speaking-up barrier was reported by the only study from West Africa reviewed in this section (Onakoya and Moses, 2016). Although research designs used by authors were appropriate and studies reviewed had clear study objectives and aims, some studies failed to observe speaking-up, but rather required participants to describe their predicted behaviours (Schwappach and Gehring, 2014; Landgren *et al*. 2016). As a result, their speaking-up scores could be subject to social desirability bias and hypotheticality. Grimm (2010) describes social desirability in research as a form of bias relating to the propensity of study participants to give answers that are socially acceptable rather than ones that accurately reflect their genuine views is known as social desirability. In some of the studies, participants were free to make judgments in view of the likely advantages and risks of speaking-up. Affective forecasting studies have indicated that participants are

usually unable to foresee their emotional reaction to future experiences and normally overemphasise the power and extent of their emotional reaction as a result of impact bias (Wilson and Gilbert 2005). Hence, there is a good chance that respondents in those studies over or underemphasized their own readiness to speak-up and the correlation between the hypothetical behaviours and actual behaviours of participants is also unknown (Schwappach and Gehring, 2014).

Furthermore, in some studies, appraising the representativeness of samples was not possible as they indicated that they had no data about the classification of characteristics in the whole population or data concerning non-responders (Bolderston et al., 2014; Schwappach and Gehring, 2014). Landgren et al.'s (2016) investigation was the first to gain a thorough viewpoint of speaking-up inhibitors among paediatric residents, but their investigation was done in the same population in two years and hence it is possible that the participants may have given responses in the different years at varied training levels. Most of the citations reviewed here had limited generalisability in the sense that they involved only one professional group (Okuyama et al. 2014; Lockett 2015; Rainer 2015; Landgren 2016, Mawuena and Mannion 2022). The majority of the studies included in the review originated from western countries hence some of the speaking-up factors may vary in other countries and national cultures. Nevertheless, findings reported under this theme are generally consistent with African literature. The next section discusses individual factors which play a role, or not in speaking-up, as identified in the reviewed literature.

2.3.2 Individual factors

A wide range of individual factors influencing speaking-up regarding safety events have been identified in the literature. These include interpersonal skills, confidence in clinical skills, knowledge gap, gender, cultural background, language, personal values and beliefs, situation awareness, job satisfaction, educational background, communication skills, personal decision making, personal speaking-up experiences, assertiveness, bravery, to mention but a few (Garon 2012; Schwappach & Gehring 2014; Okuyama et al. 2014). This section discusses these factors and their effects on speaking-up behaviours as stated by various authors.

In Landgren *et al.* (2016)'s investigation of speaking-up barriers among paediatric residents, it was reported that the decision to either speak-up or withhold voice is partly influenced by the lack of individual's knowledge on how to speak-up and a lack of confidence in clinical skills. Similarly, Okuyama et al. (2014)'s review of speaking-up behaviours of healthcare professionals

reported perceived lack of adequate knowledge as an inhibitor to speaking-up, stating that health professionals often hesitate to speak-up when they feel a sense of inadequacy in knowledge or information or uncertainty about a concern. In the same vein, Siewert *et al.* (2018)'s retrospective survey involving radiology staff stated their commonest error-reporting barrier as a high reporting threshold (reported by 69% of their respondents); explained as 'uncertainty about a person's observation'. Nevertheless, Lyndon et al. (2012)'s study on maternity staff noted that speaking-up behaviours among healthcare professionals were not only improved by high confidence but also prior positive speaking-up experiences. These findings are congruent with findings reported by Schwappach (2018) handwashing failures vignette which stated that past speaking-up experiences of a healthcare professional could be a barrier and/or enabler of speaking-up.

Several studies reported individuals who raised their concerns in a constructive manner were typically more content with their employment and hence made more open attempts to speak-up (Morrison and Milliken, 2003; Tangirala & Ramanujam 2008; Okuyama et al. 2014). Lyndon *etal.*, (2012)'s study also showed that healthcare staff who felt responsible for their patients and service users demonstrated a higher likelihood of speaking-up on their behalf. A review of literature demonstrated that employees who did not withhold voice on concerns generally did so as they felt that their actions created a much safer working space for others(Okuyama et al. 2014). Findings of Lyndon et al.'s study (2012) demonstrated that the extent to which healthcare workers view themselves as professionals influences their propensity to speak-up.

In addition to an individual's knowledge deficits a lack of skills was also a factor. For example, Landgren *et al.* (2016)'s investigation reported a deficit in interpersonal skills as the commonest limiting factor to speaking-up among paediatric residents. Their study revealed that a deficit in interpersonal skills was reported as a major reason for withholding voice at the various paediatric residency levels, indicating also that interpersonal skills may not necessarily increase as clinical experiences increases (Landgren *et al.*, 2016).

Furthermore, Maxfield et al. (2011) indicated that the ability of healthcare practitioners to be critical and assertive in communication impacted their confidence and hence willingness to speak-up. Findings of a literature review on speaking-up among healthcare practitioners indicated that the educational background of a healthcare professional cannot be entirely ignored in understanding his/her speaking-up behaviour (Okuyama et al. 2014). They asserted that healthcare professionals who were more educated exhibited a higher likelihood of the use

of safety voice. Similarly, a conceptual perspective on the practice of whistleblowing among bank employees in Nigeria reported educational background as a barrier to the practice of whistle blowing (Onakoya and Moses 2016).

Anim-Sampong et al (2022), using questionnaires with scenarios evaluated the assertiveness of final year Ghanaian radiography students in speaking-up about patient safety concerns during clinical sessions and its effect on their learning. With a 96% response rate, the majority of participants gave varying reasons why they would not raise concerns regarding patient safety. They indicated that the students revealed that the disparity between theory lessons and clinical practice created confusion in some cases and impacted their confidence to speak-up about safety compromises. Their study also found that when confronted with scenarios that could potentially compromise patient safety, students were more drawn towards communicating nonverbally rather than speaking-up.

With respect to gender, Schwappach and Gehring (2015) reported in their study about predictors for withholding voice that the males were more unlikely to speak-up about safety concerns, while also cautioning overly interpreting their findings as they acknowledged that the number of men who participated in their study was relatively low.

Overall, findings of the studies reviewed under this theme suggests that speaking-up behaviours are promoted or hindered by individual factors such as role identification, job satisfaction, duty of care, self-confidence, prior speaking-up experiences, assertiveness, level of education, moral beliefs among others (Lyndon et al., 2012; Okuyama et al. 2014; Schwappach and Gehring, 2015; Landgren et al., 2016; Martinez *et al.*,2016, 2017; Schwappach *et al.*, 2018; Anim-Sampong et al. 2022).

Studies reviewed under this theme were from a range of countries and their findings were generally consistent with African literature. Research designs used in studies reviewed in this section were appropriate with clear aims and objectives. However, in some studies, there is a good chance that the likelihood of voicing out concerns was over-reported as a result of social desirability bias (Lyndon *et al.*, 2012). Other studies failed to pilot-test questions, hence presenting some risk of questions being misinterpreted by participants, however, they reported that none of them voiced any confusing responses (Landgren *et al*., 2016). It cannot be disputed that studies that used one- on-one interviews to collect data in their study gained a deeper understanding of the speaking-up barriers. Nevertheless, there could be the risk of misconstruing the responses of the participants during coding particularly because the

responses were in brief comments. The next section discusses cultural factors influencing speaking-up behaviours as identified in the reviewed literature.

2.3.3 Cultural factors

Cultural factors are generally beliefs, languages, values, laws and traditions shared by a determined group of people (Kang et al., 2019). In this review, these factors are referred to as 'workplace culture' when they pertain to an organisation or workplace, 'professional-group culture' when they pertain to a specific professional group and 'national culture' when they pertain to a nation. Cultural differences play a significant role in speaking-up behaviours. This section will discuss workplace culture, professional group culture and national culture and their influences on speaking-up behaviours as identified in the reviewed literature.

2.3.3.1. Workplace culture

Workplace cultural issues affecting speaking-up are observable in many behaviours including blaming, retribution, bullying, harassments and intimidation (Attree, 2007; Yurtkoru and Wozir, 2017; Etchegaray *et al.* 2017; Hughes, 2019; Francis, 2015). Studies reviewed under this theme suggest that workplace culture such as blaming, bullying, intimidation and harassment are likely barriers to speaking-up.

For example: Attree (2007)'s qualitative grounded theory investigation comprising 142 interviews with registered nurses and nursing students in the UK reported fear ofrepercussions, blame and fear of retribution as reasons for withholding voice.

According to the Mid Staffordshire NHS Foundation Trust Report, the 2013 NHS Staff survey showed that 22% of NHS workers had been victims of abuse, bullying or harassment either from their co-workers or from manager (Department of Health, 2015). Although this percentage virtually did not change from the 23% recorded in 2012, it is an increase fromthe 14% recorded between 2010 and 2011. According to the 2013 Royal College of Nursing (RCN) survey, 30.5% of 9,754 nurses admitted to personal experiencing harassment orbullying in the last 12 months from either a colleague or manager (Department of Health, 2015). A UK survey of about 8,000 doctors revealed that 20% experienced victimisation for being a whistle-blower for managerial or clinical malfunction (Bourne *et al*. 2015). Francis (2015)'s 'freedom to speak-up' report indicated that there seems to be a link between trustswith a culture of bullying and those where staff get punished for raising a concern (Francis 2015).

Furthermore, other forms of work cultural issues in the reviewed literature are discussed under

the sub-theme below.

2.3.3.1.1. Perceived safety of speaking-up

The perceived safety of speaking-up refers to an individual's view about the likelihood of possible harm or negative results following an act of speaking-up (Okuyama et al. 2014). This section discusses how perceptions about the safety of speaking-up influences speaking-up behaviours as identified in the reviewed studies.

Several studies reported that perceived response from the person addressed, such as fear of retaliation, anxieties about seeming incompetent) were significant factors that can predict the likelihood of raising concerns among healthcare practitioners (Attree 2007; Lyndon et al., 2012; Schwappach and Gehring 2014; Raemer et al., 2016; Landgren 2016; Hall et al., 2018; Etchegaray et al.,2017). For example, Schwappach and Gehring (2014)'s vignette on speaking-up behaviours among oncology nurses and doctors reported that fear of marring good working relationships, generating conflicts and punishment were key reasons for withholding voice. Similarly, in Edrees et al., (2017)'s survey examining factors affecting speaking-up behaviours among ICU staff in United Arab Emirates reported that 126 of their total 639 respondents stated the fear of losing their job as a hindrance to voicing their concerns. Some other respondents stated the fear of facing disciplinary action, job performance evaluation, withdrawal of license and legal liability. Several other studies also reported the fear of being punished as a limiting factor for raising concerns (Bolderston et al., 2014; Siewert et al., 2018; Jackson et al., 2010).

From the African literature, findings of the qualitative case study involving staff of public institutions in Ghana on barriers to whistleblowing reported the fear of personal detriment (job loss, unfair treatment at work and spiritual attacks among others) as a barrier to speaking-up about fraudulent dealings and malpractice in institutions in Ghana (Antwi-Boasiako, 2018). Similarly, Onakoya and Moses (2016)'s conceptual perspective on whistleblowing practices in Nigerian banks reported the fear of reprisal, job loss and stigmatisation as barriers to the practice among bank employees.

In conclusion, studies reviewed in this section demonstrate the perception that an act of speaking-up may not always yield its intended response as it may have unpleasant repercussions and this poses a barrier to speaking-up in future. Studies reviewed under this theme involved healthcare professionals (nurses, nursing students, doctors, residents, radiographers) and non-healthcare fields such as finance and administration. The findings in studies from the

westernised cultures were similar to those reported from Africa although they involved different professional groups. Hence it suggests some generalisability of the findings.

2.3.3.2 Professional group culture

Organisations, whether healthcare or otherwise, consist of diverse professional groups or occupations. Some studies reviewed under this theme suggest that the speaking-up behaviour of a healthcare practitioner may be influenced by the culture of their professional group (Blenkinsopp *et al.* 2019).

For example, a qualitative analysis of raising concerns via incident reporting attitudes involving 14 medical staff and 19 nurses from some hospitals in Australia reported thatwhile medical culture generally promotes tackling incidents through informal channels and "off-the-record", nursing culture promotes adherence to formal channels and protocols for error reporting (Kingston *et al*. 2004).

Findings of a descriptive survey examining beliefs of nurses involved in whistleblowing in Australia revealed that while nurses who remained silent about errors felt the same sense of duty towards their clients, fellow staff and their employer, those who spoke-up about wrongdoing believed that they served a role as "patient advocates" (Ahern and McDonald 2002).

Multiple studies identified the existence of professional norms and standards of procedure as a significant predictor of behaviours such as speaking up (Jackson *et al.*, 2010; Kingston et al., 2004).

2.3.3.3 National Culture

There have been assertions that speaking-up behaviours may be affected by national culture (King, 2000). Blenkinsopp *et al.*, (2019) argued that in light of the significant studies highlighting the relevance of national cultures in understanding speak-up decisions, (for example Park et al., 2008), and taking into account the multiculturality of the population of healthcare professionals in many nations, it is imperative for leaders in health sector management to recognise that health professionals originating from different nations may share diverse perceptions on speaking-up. Studies reviewed in this section demonstrate how speaking-up behaviours may be influenced by national culture in the literature.

For example, a qualitative grounded theory study on whistleblowing among Japanese nurses reported significant influence of national culture on reporting malpractice (Ohnishi et al., 2008).

Similarly, in a survey evaluating assertive communication among Japanese nurses found that the cultural barriers in Japan, where people might desist from publicly from challenging people, could negatively affect the willingness of health professionals to speak-up even in the face of patient harm (Omura et al., 2017). Findings of a surveyof whistleblowing perceptions among Chinese and British healthcare student reported that, compared to people from societies that are individualistic, those from cultural contexts that are collectivist have lower tendencies of whistleblowing and are also less approving of whistleblowing behaviours (Cheng et al., 2015).

From West Africa, findings of a qualitative case study involving staff of public institutions in Ghana on barriers to whistleblowing reported the fear of spiritual attacks as a barrier of speaking-up about fraudulent dealings and malpractice (Antwi-Boasiako, 2018). A spiritual attack can be explained as the use of supernatural powers such as gods, deities and demons to harm a target individual. These attacks may come in several forms such as unexplained illnesses, misfortunes among others. For example, Antwi-Boasiako (2018) mentioned that in the July 2013 Ghana News Agency story on withholding voice, Opanin Attah uttered that although a whistleblower may be physically protected, he/she could still be identified spiritually and harmed after an act of whistleblowing on wrongdoing. He further reiterated that ***"I prefer to accommodate corrupt officials in my community and have my peace than to report them and go through hell on earth"*** (Antwi-Bosiako, 2018: p 4). This suggests that cultural and superstitious beliefs of a country negatively affect willingness to speak-up about wrongdoing.

Furthermore, Ng *et al*. (2019)'s cultural intelligence study pointed out that even though multiculturality in the workplace may be beneficial with regards to diversity in views of employees, the variances in culture may be a limiting factor to raising concerns in the workplace as it may be more challenging to establish and comprehend norms for speaking-up.

Overall, the findings of studies under this theme suggest that speaking-up behaviours arehindered or facilitated by cultural issues such as workplace culture, professional-group culture and national culture.

2.3.4 Perceived efficacy of speaking up

The perceived efficacy of speaking-up refers to the individual's assessment about whether theact is going to be effective (Okuyama et al. 2014). This section discusses how perceptions about the efficacy of speaking-up influences speaking-up behaviours as identifiedin the reviewed studies.

For example, a meta synthesis review of literature on safety voice representative of 504 health

professionals of which 354 were nurses concluded that the reluctance to speak-up was as prevalent among the nursing workforce as little self-efficacy associated with voicing concerns about safety issues (Morrow et al. 2016).

Similar findings were reported by Attree (2007) and Tangirala (2008). In Attree (2007)'s qualitative grounded theory study on practicing nurses, she reported that nurses' prediction that their raised concerns will not be addressed results in a feeling of powerlessness and poses a barrier to speaking-up among the professionals. Tangirala and Ramanujam (2008)'s survey on perceptions of impact and workplace autonomy involving 586 nurses and nurse managers from a healthcare facility in the United States also reported that personal control influences speaking-up behaviours of nurses in a positive way.

The above findings are echoed in Jones and Kelly (2014)'s argument that organisational disregard for staff who voice concerns can pose a barrier to speaking-up and may eventually result in an overwhelming burden on individual workers as they may feel restricted and dissatisfied with their ability to cause change in their workplace (Jones and Kelly, 2014).

Moving on to African literature, Antwi-Boasiako (2018)'s qualitative case study involving staff of public institutions in Ghana on barriers to whistleblowing reported fear of inaction as one of the reasons why employees of Ghanaian public institutions are hesitant to blow the whistle on malpractice.

Overall, the studies reviewed under this theme suggest that speaking-up behaviours are influenced by the perception of the efficacy of the acts of voicing concerns; in that individuals are likely to withhold voice when they feel their concerns will be ignored; hence a barrier. However, they are more likely to voice concerns if they feel it will make an impact or cause a change.

2.3.5 Clinical and Situational factors

Clinical and situational factors here refer to factors that are peculiar to a particular clinical situation. This section discusses how these factors influence speaking-up behaviours as identified in the reviewed studies.

Studies reviewed under this theme suggest that clinical factors such as harm ratings and situational factors such as forms of mistake and presence of an audience may affect speaking-up behaviours among health professionals (Okuyama et al. 2014; Schwappach & Gehring 2015; Schwappach & Gehring 2014). For example, In Lyndon et al. (2012)'s qualitative study on maternity nurses and doctors, clinicians graded potential harm in routine clinical scenarios much

lower than nursing officers did, and these harm ratings were strong speaking-up predictors. Similarly, Schwappach and Gehring (2014) undertook a vignette study focussed on the impact of situational and clinical factors on speaking-up behaviours of oncology staff (doctors and nurses) in Switzerland. Their results indicated that although the respondents described a high probability of speaking-up in the face of patient safety concerns, the disparity between and within forms of mistakes and protocol violations was significant. For example, they reported that some respondents demonstrated more hesitance to notify colleagues about hand hygiene failures than prescription errors. Although mean harm ratings for prescription errors and hand hygiene failures were similar (5.67 and 5.68), the likelihood of speaking-up in both situations was significantly different (89% and 68%), buttressing the aforementioned argument.

2.4 The Effectiveness of Speaking-up Interventions

Few studies in the reviewed literature were speaking-up interventions designed to address identified barriers and hence improve speaking-up behaviours. Interventions reviewed underthis theme involved health professional groups such as doctors (Raemer et al., 2016), nursingstudents (Omura, Levett-Jones and Stone, 2019; Hanson et al., 2020) and practising nurses (Law and Chan, 2015). It was noted that the literature on speak-up interventions or training seemed to be focussed on nurses, nursing students and doctors. No studies on radiographerswere identified under this theme. Studies under this theme were from a range of countries, United States, United Kingdom, Australia, and Japan. This section discusses the effectiveness of speaking-up interventions as in the reviewed studies.

Some interventions were ineffective in enhancing speaking-up behaviours. For example, Raemer *et al.* (2016)'s simulated intervention on anesthesiologists was designed with the focus of enhancing speaking-up behaviours. According to their results, in all their events, none yielded any statistically significant differences between the control and the intervention group. They concluded that relying only on education was not sufficient to change speaking-up behaviours.

Other interventions were both effective and ineffective, in that they increased produced positive impacts on speaking-up. For example, Omura, Levett-Jones and Stone (2019)'s intervention which used a quasi-experimental design was focused on examining 'assertive communication' among Japanese nursing students. In their study, they conducted a 90- minute communication training comprising pre-readings, interactive presentations, discussions, videos, and role-playing exercises. Although there were no statistically significant differences between the control and

intervention groups, they reported that the intervention group exhibited increased assertiveness levels and a greater percentage of that group also presented speaking-up intentions. Similarly, the findings of other interventions suggested that they boosted confidence to nursing students to voice concerns (Law and Chan 2015; Hanson et al., 2020).

2.5 Summary of Discussion

To summarise, the aim of the scoping review was to explore the speaking-up experiences of radiographers globally and then narrow down to Africa and then Ghana specifically.

Although a lot of publications originated from the western world, there seems to be a dearth in literature from Africa on the topic, with very few publications (4) from Ghana and one from Ethiopia and another from Nigeria. This seems to support the assertion that whistleblowing or 'speaking-up' studies investigations are seldom done in non-western cultures (Yurtkoru and Wozir, 2017).

Most papers (4 out of 6) from Africa were focused on whistleblowing in non-healthcare areas. Two out of the four papers from Ghana tackled whistleblowing in combatting corruption/illegality in the public administrative sectors. The other two were focused on speaking-up among surgical staff and assertiveness of radiography students. No literature exploring whistleblowing or speaking-up in among practising radiographers was identified from Ghana. Although, the review sought to explore speaking-up experiences of radiographers, most of the existing 'speak-up' literature was published within nursing literature which has documented the experiences of registered nurses and nursing students. Only three papers included in the review were radiography-specific; with one involving radiation therapists (Bolderston, 2016), the other involving all staff of a radiology department (Siewert et al., 2018), and radiography students (Anim-Sampong et al 2022). Hence this demonstrates paucity in radiography literature on the topic and a clear rationale for further research within thus professional group and within Ghana.

A majority of the studies included in the review were focused on factors influencing speaking-up behaviours, which were grouped into barriers and enablers of speaking-up. The barriers and enablers identified in the reviewed literature were sub-themed into contextual factors, individual factors, cultural factors (workplace culture, perceived personal safety of speaking-up, profession-specific culture, national culture), perceived efficacy of speaking-up, and situational/clinical factors. Several international studies reported that speaking-up behaviours

were dependent on contextual factors such as work policy, leadership, psychological safety, organisational support, work policies, hierarchy and authority gradients, teamwork, and communication etc. (Schwappach and Gehring, 2014; Etchegaray et al., 2017; Jones and Kelly, 2014; Landgren et al., 2016; Martinez et al., 2017; Schwappach and Gehring, 2015; Rainer 2015; Okuyama et al. 2014). However contextual factors identified in the African literature discussed the absence of work policies and procedures on speaking-up and support from management or colleagues (Onakoya and Moses 2016). Whilst the majority of the international studies reviewed are focused on healthcare sciences, the African literature is focused on business and finance sector. Hence, as a result of undertaking this review significant questions exist about the extent to which contextual factors stated in international literature can be transferable and/or generalizable to the African context.

Another theme that emerged as an indicator to speaking-up was the perceived safety of speaking-up. In comparing the international literature with African literature under this some differences and similarities are evident. For example, in the (Antwi-Boasiako, (2018) case study from Ghana, three main speaking-up barriers the speaking-up barriers were reported. These were: fear of personal detriment (dismissal, undue leave, unfair treatment at workplace and spiritual attacks among others), lack of confidence in protection of whistleblowers and the perception of inaction after reporting a wrongdoing. Onakoya and Moses, (2016)'s conceptual perspective in Nigeria found fear of retaliation, social stigma, cost of reporting, fear of job loss, absence of company policies, lack of education and absence of support as barriers to whistleblowing in financial institutions in Nigeria. Most of these barriers were consistent with what the international literature presented in the studies reviewed. Nevertheless, the 'fear of spiritual attacks' is a clear outlier as this is not a concept discussed in literature from non-African countries***. "Spiritual attacks reflect belief and fear of deep superstitions in Africa, including the belief in witchcraft; specifically, juju, suspicions, ghost, sorcery, ancestors, necromancy, gods and black magic"*** (Ofori 2014; Tetteh et al. 2022: p 921). This belief precedent has woefully led to a great deal of Africans experiencing unending apprehension about reporting wrongdoing (though not limited to this) (Ofori 2014).

One of the themes that is worth considering is that of cultural issues, specifically national culture. Several studies demonstrated that speaking-up decisions are affected by national cultures. It has been argued that the national culture of nations like Japan, where individuals may desist from publicly confronting other people, could result in healthcare practitioners facing difficultly in

communicating assertively or raising concerns in the face of patient harm (Omura et al., 2017). Hence all of the work that has been done in other countries and health systems will be considered in relation to my own study, Ghana's cultural context and health system. Although speaking-up barriers and reported in investigations undertaken on radiographers and radiation therapists (Siewert et al., 2018; Bolderston et al., 2014) were generally consistent with barriers identified in studies focussed on other healthcare professionals in literature, there were differences in barriers reported among different groups of radiography populations. For example, in the Bolderston et al., (2014) study, speaking-up barriers reported by Canadian and United States respondents ranking from highest to lowest comprised fear of punishment, poor communication, hierarchy within radiology unit, lack of reporting systems and personal beliefs. However, in the (Siewert et al., 2018) survey which involved (365 respondents) staff members of the radiology unit, including administrative staff, attending radiologists, residents or fellow, nursing staff, imaging technologists, transport personnels and, the barriers reported ranking from highest to lowest were: "high reporting threshold, authority gradient, fear of disrespect, lack of listening, witnessed disrespect, fear of retribution, responsibility in the team, toxic captain, shy personality and lack of language training". While 'fear of punishment' was the commonest barrier reported in the Bolderston et al. (2014) study, 'high reporting threshold'; explained as uncertainty about a person's observation was the commonest barrier reported in the Siewert et al., (2018) survey. These differences may be as a result of the different professional groups involved in Siewert et al., (2018).

Finally, the effectiveness of speaking-up interventions was demonstrated in a few included studies (Omura et al., 2019; Raemer 2016; Hanson 2020; Law and Chan 2015). While some interventions reviewed did not yield the expected results, which was improving speaking-up (Raemer 2016), others contributed positively towards boosting confidence and assertiveness. This suggests that educational interventions and trainings may contribute towards improving speaking-up behaviours. A recent review by Jones et al. (2021) however identified that attempts by various health delivery systems to encourage speaking-up among staff using interventions have had various degrees of success, though the evaluation of these programmes has been of questionable quality.

2.6 Conclusion

To recap, the subject of 'speaking-up' has garnered international interest. It is also evident that

while healthcare researchers outside Africa are making great efforts to address challenges related to speaking-up among healthcare professionals, there is a dearth of studies from Africa on the topic. Most of the studies that do exist are focused on corruption and illegality in the finance sectors and not on healthcare. Hence, it is evident that the speaking-up as a concept in healthcare in Ghana and Africa remains unexplored. This suggests a gap that is hoped to be addressed in my study. The studies also demonstrate that although, 'speaking-up' has garnered international recognition, healthcare research on the topic seems to be highly focused on medical and nursing practice, almost neglecting the need for investigations in other healthcare professions such as radiography. This suggested a gap that my study sought to address.

Furthermore, the studies provide evidence that it is not possible to accurately investigate the subject of speaking-up in a population without considering the cultural background of the population being studied. This suggests that the international practice of speaking-up and culture may vary greatly from the culture, societal norms and belief system in other African nations like Ghana. For example, the fear of spiritual attacks was found as a limiting factor to speaking-up in a case study on whistleblowing on corruption and illegality in Ghana (Antwi-Boasiako, 2018). My study sought to explore the experiences of Ghanaian radiographers in speaking-up. There was therefore the need to consider all the work that has been done on the topic internationally in relation to Ghana's cultural context and healthcare system.

It is worth mentioning that this review has several limitations. To begin with, although the review was not limited by time or location, most of the studies identified were from the western countries. Very few studies from Africa were identified and included in this review and hence there may be a chance that not all the findings of this review may travel well across all cultures. Secondly, the review was broadly focused on speaking-up experiences involving healthcare professionals, their colleagues, and organisations. Hence, findings reported may not generalise to speaking-up experiences of patients. Finally, because of the heterogeneous nature of research designs, study populations, and methods, the findings of the studies reviewed were reported in a narrative manner, which is believed to be appropriate for a scoping review.

Notwithstanding, the findings of this review offer a good understanding of the practice and speaking-up and experiences of healthcare professionals and radiographers globally. It also enforces the need to explore speaking-up experiences of healthcare professionals in areas that remain unexplored to date. The array of research designs and methods which informed the studies reviewed informed my choice of an appropriate research design and methods for my

study.

2.7 Framework Stage 6: Consultation

Based on the recommendations of Levac et al. (2010), the performance of this review was examined by the supervisory team to conclude on the accuracy of the results.

CHAPTER THREE

METHODS

3.0 Introduction

This chapter discusses the factors that were considered in selecting a qualitative-exploratory approach as the design of choice for this research. It briefly describes the study setting, population, sample identification and selection, as well as the recruitment strategy. The chapter further discusses chosen approach for data collection and the how the data was gathered was analysed. The later sections of the chapter demonstrate how issues of research quality were addressed in this study. Ethical considerations and data management concerns are also discussed in this chapter.

3.1 Study Design

Given the dearth of research on this topic in Ghana, there was a clear rationale to begin by exploring the speaking-up experiences of those who work in this area and therefore not assume that speaking-up experiences reported in the literature can be completely or readily transferred to the Ghanaian setting. The positivist and constructivist research paradigms are linked with two core methodologies, namely qualitative and quantitative designs (Silverman 2006). Nevertheless, an additional methodology has also emerged which utilises a combination of both quantitative and qualitative methods, known as mixed methods (Siddiqui and Fitzgerald 2014). This method echoes the arguments that although qualitative and quantitative research methodologies are bordered by distinct beliefs, it is possible to combine them to an added gain (Glaser and Strauss, 1967; Denzin and Lincoln, 1994). While it has been debated that research is not tied to either method (Sandelowski 2000), there have been counter arguments that each research area is best explored with the most suitable method that will aid in addressing the research aims and objectives (Bell 2010).

Quantitative research designs generally deal with explaining occurrences by the accumulation of numbers that are analysed using mathematical techniques like statistics, while qualitative research designs focus on answering questions regarding human behaviour through the provision of in-depth knowledge about why and how people do the things they do (Bryman 2006). Although there are no set rules in research design orientation, it has been argued that

quantitative study designs tend to follow deductive approaches, aimed at testing pre-existing theories and hypotheses while qualitative research designs are generally associated with inductive approaches with the goal of generating new theories from the data (Gabriel 2013).

Qualitative design is focuses primarily on participant's actual or recounted experiences, which are investigated through conversations with the principal investigator. This approach is mostly used when not much is known about a subject, while additional research employing other techniques can then be carried out (Silverman, 2001). In this study, a qualitative methodology was employed to allow for an in-depth exploration of the experiences of Ghanaian radiographers for the first time. Exploratory research investigates a problem which is not clearly defined (Jaeger and Halliday, 1998) and is carried out when the problem is at a preliminary stage of understanding. As the name implies, it intends to explore with varying levels of depth, rather than offering final and conclusive solutions to existing problems. Brown (2006) asserts that exploratory research often investigates new topics with no or little previous research evidence and this was the case for the current study as no previous had been done in the study setting. Like this study, this type of investigation is carried out to ascertain the nature of an issue and provide more insight of it (Singh, 2007). Some authors argue that researchers who conduct exploratory studies must be open to altering course in response to the discovery of new findings and insights (Saunders, Lewis and Thornhill, 2012) and this mindset was adopted by the researcher in this study.

A few qualitative approaches were considered when seeking the most relevant research design for this investigation, including grounded theory and ethnography. According to Angrosino (2007), the purpose of ethnography is to help investigators identify probable trends in people's daily lives. This is achieved by having the investigator participating fully in the activities and cultural experiences of the individuals in the study sample or group. Ethnography was not chosen because of the appropriateness of a purely cultural lens for this particular study and the fact that this study aimed at exploring speaking-up experiences by discussing these experiences rather than observing the act of speaking-up. Phenomenology generally examines ways in which the world is conceived and interpreted by those who experience it. Systematic, although adaptable, grounded theory is an approach to research approach often used when only few facts are known about an occurrence. This method is employed to formulate a hypothesis to account for this occurrence. This study did not employ grounded theory because it was not intended to generate a single theory from the collected data. It should be noted however that each of the other

methodologies discussed here could have been chosen and would have led to the addition of useful new knowledge. However, the exploratory nature of qualitative exploratory study designs and the significant knowledge gap in understanding led to my decision of choice.

Qualitative-exploratory research studies assume the broad features of qualitative methodology, and not centred especially on culture such as in ethnography, the generation of theory in grounded theory methodology or a participant's lived experience in phenomenology (Bradshaw et al. 2017). Qualitative-exploratory research seeks to gain insight and comprehend an event, a course of action, or the differing points of view of the participants (Caelli, Ray, & Mill, 2003; Merriam, 1998). The use of a qualitative-exploratory approach is more appropriate when evidence is needed first-hand from the individuals experiencing the occurrence being investigated and when the available resources and time are constrained (Neergaard *et al*., 2009). This study sought to explore and gain an understanding of speaking-up experiences of radiographers drawing on the general principles of qualitative research, which are further discussed in later sections, and hence qualitative-exploratory design was the most fitting approach for the study.

3.2 Study Setting

The study was conducted in Ghana, West Africa. The earlier background chapter provides an overview of the country profile. As mentioned earlier, administratively, Ghana is divided into 16 regions as shown in figure 3.1 below with five teaching hospitals namely, the Korle-Bu Teaching Hospital in the Greater Accra Region (Accra), the Komfo-Anokye Teaching Hospital in the Ashanti Region (Kumasi), the Tamale Teaching Hospital in the Northern Region (Tamale), the Cape-Coast Teaching Hospital in the Central Region (Cape-Coast) and the Ho Teaching Hospital in the Volta Region (Ho). Data collection was undertaken in all the teaching hospitals, as they serve as clinical training centres for radiographers and model hospitals for all other hospitals in the country. They are also staffed with radiographers at the different rankings in radiography practice. Other public and private hospitals located in these regions were also sites for data collection. It should be noted here that the public hospitals mentioned here are hospitals owned by the state while the private hospitals are ones with private ownership. The decision to include these hospitals was to enable the researcher compare speaking-up experiences of radiographers in these hospitals with those of radiographers in the teaching hospitals. The study covered large swathes of the country, reaching from the north, which is the poorer, attracting fewer healthcare professionals including

radiographers, through to the much wealthier south which generally has more favourable conditions of living and hence attracts more professionals, including radiographers. Key stakeholders such as officials from the AHPC, GSR and the MoH who are based in the capital, Accra, located in the south, were also interviewed.

Figure 3.1: The map of Ghana showing all 16 regions

3.3 Radiography Population Overview

The target population for this study was diagnostic radiographers in Ghana. According to the GSR, at the time of the study, there were 350 registered radiographers practising in Ghana with about 75% of the entire workforce in urban areas (Ghana Society of Radiographers 2020). The male to female ratio of this population stands at approximately 3:1 (Ashong et al., 2016; Anim-Sampong et al., 2018).

Generally, the southern parts of Ghana are highly concentrated with health professionals including radiographers as compared to the northern parts which are more deprived. The researcher aimed to recruit a study sample that offers a good reflection of the general population of radiographers in Ghana and this approach is discussed in detail in the sections below.

3.4 Sample identification and Sampling Technique

Although a variety of non-probability sampling techniques such as purposive, snowball and quota (Bowling, 2005) are relevant for qualitative studies and specifically in qualitative exploratory research designs, purposive sampling was the most appropriate for this study (Parahoo, 2014). Purposive sampling involves the integration of precise criteria met by the participants at the instant of their selection (Padilla-Díaz, 2015). In purposive sampling, the researcher chooses what needs to be known and seeks to find individuals who are available and ready to share the information by merit of experience or knowledge (Bernard 2002; Lewis and Sheppard 2006). This sampling strategy employs available participants, but also offers the added benefit of facilitating the selection of study participants whose experiences or significant characteristics are needed for the study (Bradshaw *et al*. 2017).

Identification of participants was done purposively from a list of all radiographers that were accessed following permission from the Ghana Society of Radiographers (GSR). The GSR is the professional body of the study participants with the mandate to approve and coordinate research and events pertaining to radiographers in Ghana (Ghana Society of Radiographers 2019). The goal of this sampling approach was to create an extensive range of views and also an opportunity to select participants with the ability to provide rich information to the study. The target population were Ghanaian diagnostic radiographers who were in active clinical practice in the proposed locations selected based on their gender, professional ranking and availability. The aim was to achieve an even spread across these different factors and recruit a sample that reflects as much as possible the population of radiographers working in Ghana. The sample population was any diagnostic radiographer working in any of the selected regions who desired to participate in the study provided the professional was within the inclusion criteria. For example, senior radiographers, junior radiographers, and intern radiographers in all the teaching hospitals, other public and private hospitals as well as key stakeholders and regulators. A representative from the regulatory body, AHPC, the professional society (GSR), and a policy maker from the MoH were also be included in the study. Their perceptions were with regards to

their understanding, experiences, challenges, and needs regarding the topic of speaking-up for patient safety.

3.5 Sample Size and Data Saturation

The research question, study objectives and consequently design or approach predominantly determines the sample size (Onwuegbuzie and Collins, 2007). Kirkman (2002) asserts that as compared to quantitative studies, qualitative research tends to have smaller sample sizes as they produce in-depth data which is utilised to appreciate the experiences of participants and commonly generates large volumes of data for transcription and analysis. Furthermore, in qualitative studies, samples are mostly smaller due to the emphasis on in-depth interaction with study participants which enable the findings to be transferable rather than generalisable (Bradshaw et al. 2017).

In this study, 25 participants were recruited, comprising 13 radiographers from the teaching hospitals, nine diagnostic radiographers from other public and private hospitals, a policy maker from the MoH, a representative from the GSR and a representative from the AHPC. However, one radiographer from the Ashanti region withdrew his consent at the last minute and so in total, 24 participants were included in the study. The sample was as integrated as possible with participants from different professional rankings, gender and geographical locations. This decision was informed by the maximum variation approach in purposive sampling. A breakdown of the sample distribution in the various regions and their key characteristics is attached in Appendix 2.

One of the issues of debate in qualitative research is the sample size (Bradsahw et al. 2017). Owing to the lack of expectation of generalisability of the results, and the focus on close interaction with study participants, qualitative samples are often small *(ibid).* In qualitative research designs, the notion of “data saturation” has been recognised as a standard in deciding on sample sizes (Saunders et al. 2018). Nevertheless, there have been arguments on the problems associated with the idea of “data saturation” (Malterud et al. 2015; Fusch and Ness, 2015). The idea was originally coined from a feature of the grounded theory methodological approach known as “theoretical saturation” (Glaser and Strauss, 1967). Various qualitative research methodologies however explain “data saturation” in several ways and it is hardly clearly defined in research literature (O’Reilly and Parker, 2013). A researcher can argue to have attained data saturation during the process of collecting data, when no fresh information is

obtained from research participants (Coyne 1997) or when further coding is no more possible as no added information can be obtained (Guest et al., 2006). Walker (2012) also argues that when adequate information is collected to reproduce a research project, then data saturation can be said to have occurred.

Nevertheless, data saturation is commonly interpreted practically as a sign that data collection has been concluded (Bradshaw et al., 2017). Some qualitative research approaches including interpretative phenomenology (Smith et al., 2009) and hermeneutic phenomenology (Ironside, 2006) challenge the notion of data saturation. Ironside (2006) highlights that these research approaches emphasise the unique experiences of each participant, hence contending that it may be impossible to fully attain saturation of data. Congruent with this, it has been proposed that determining an acceptable sample size in qualitative study designs should not be subjected to a set rule, but rather a variety of factors such as the study design and sampling technique should be taken into account (LoBiondo-Wood and Haber, 2014). Hence, a sample size is ample if it satisfactorily meets the key objectives of the study, the aim being to gather cases considered to have a wealth of information. (Fawcett and Garity, 2009). In this study, the sample size of 24 was determined by not just the study design and sampling strategy, but also a combination of factors such as data saturation and other pragmatic factors such as the time allocated for data collection. For example, theories around the influence of the Ghanaian culture on speaking-up behaviours of radiographers became apparent quite early in the data collection and kept reoccurring in the subsequent interviews. The data collection process came to an end once it became clear that no new information was being obtained.

3.6 Inclusion and exclusion criteria

The inclusion criteria were as follows: senior diagnostic radiographers, junior diagnostic radiographers, intern diagnostic radiographers who work in the teaching hospitals and other public and private hospitals in Accra, Kumasi, Cape-Coast, Ho and Tamale. It also included stakeholders such as a representative each from the regulatory body (AHPC), the professional society (GSR) and the MoH who are practising in Accra. Those who were excluded are senior diagnostic radiographers, junior diagnostic radiographers, intern diagnostic radiographers not practising in the Accra, Kumasi, Cape-Coast, Ho and Tamale or those not willing to give consent.

3.7 Recruitment

Upon being granted ethical approval from the School of Healthcare Sciences of Cardiff University (see Appendix 3a) and The Ghana Society of Radiographers (GSR) (see Appendix 3b), invitation emails were sent to all potential study participants in the selected study regions based on the GSR list mentioned earlier. It should be noted that the GSR list has been used for similar research purposes in previous studies (Wuni et al. 2019) and those who are named in the list are aware and permit the list to be used for research purposes. It was ensured that the acquired list was used only for the purposes of this research work with no copies being kept after the study.

The invitation emails sent to potential participants were accompanied by information sheets (See Appendix 4a and 4b). These sheets described the purpose of the study and various rights and related actions which participants could take, including the right to withdraw at any instance even after consenting to participate. Individuals were given five days to decide whether or not to participate in the study. Those interested in participating informed the researcher via phone or email, following which they were contacted by the researcher via telephone for more deliberations to address any questions or concerns. During these discussions, a convenient date, time, and venue for the interview were agreed with each of the participants. A lot more males were interested in participating in the study than females. However, females were considered more for gender representation. For example, in study site A, a total of 15 diagnostic radiographers were interested in participating, of which 14 were males and only one female. A total of eight diagnostic radiographers were selected in this study site. Selection of study participants here was based on gender, availability and professional ranks. This selection criteria were applied in all the study sites. The interviews covered a period of four months commencing from October 2020 to February 2021. Informed consent was taken before each interview commenced (see Appendix 5). Generally, the response rate was enough, and so there was no need to send follow-up reminders via the GSR to participants.

3.8 Method of Data Collection

In qualitative exploratory studies, the main data collection sources are commonly one-to-one semi-structured in-depth interviews (Stanley, 2015). Employing one-to-one interviews allows the investigator to explore issues with individual study participants by way of promoting depth and rigour and hence fostering the development of new theories/ideas (Doody & Noonan, 2013; Fetterman, 1998) while promoting the "*richness of data*" required in qualitative-exploratory

studies (Bradshaw et al., 2017). Fetterman (1998: p 40) asserted that interviews take the investigator into the '*heart of the phenomenon classifying and organising an individual's perception of reality*'.

One-to-one face-to-face interviews were considered ideal instead of telephone interviews and focus groups for several reasons. For instance, the research necessitated detailed knowledge and deliberate explications based on personal tales and experiences Typically, these are collected through in-depth interviews with a select group of individuals to obtain their perspectives on a particular topic, plan, or circumstance (Boyce & Neale, 2006). Boyce and Neale (2006) assert that conducting detailed interviews is advantageous when attempting to learn as much as possible about a person's values and habits or when attempting to find every aspect of novel issues. Individuals may also feel more comfortable conversing with the researcher during an in-depth interview, creating an ideal setting for data capture (Boyce & Neale, 2006). Due to the relaxed environment of one-to-one interviews, the researcher was able to probe thoroughly into the personal challenges of the participants, a component that is frequently impossible in focus group interviews (Rubin & Rubin 2005; Johnson 2002).

The semi-structured component of the interviews was essential to this study because it permitted the study participants, as opposed to the researcher, to direct the process. This enabled the participants to provide more detailed and personal information regarding their experiences (Barbour 2014). This is further discussed in the following section.

3.9 Semi-structured Interviews

The adaptability of semi-structured interviews lies in the fact that they allow participants to elucidate difficulties while also allowing the researcher to delve deeper into perspectives that may have been expressed. *"A conversation with a purpose,"* according to Burgess (1984: p 102), and this conversation ought to be structured as Kvale (1996) explains. There is always a plan in place when gathering data, but that plan can vary greatly depending on the epistemological stance of the investigator. In contrast to conventional semi-structured interviews in which the researcher leads and directs the respondent more, exploratory interviews frequently employ open-ended queries in which the respondent is given the opportunity to steer their conversation (Arthur and Nazroo, 2003). When leading respondents, the researchers ensure that all respondents cover the same regions based on their prior knowledge of the regions they intend to question *(ibid*). This research employed a strategy of asking participants open-ended

questions which offered respondents the opportunity to steer the conversation. These types of broad questions were included in an interview guide. To ensure that the objectives of the study were met and to further investigate the highlighted issues, follow-up questions and prompts were utilised throughout the process.

Interviews were used as the data collection tool because the researcher intended to gain detailed insights about the topic from the participants. The researcher conducted interviews to acquire sufficient data to address the study question. Weiss (1994) argues that researchers should abandon the requirement that all participants be asked the same set of questions in the same way if they wish to explore for additional explication or dialogue. Due to the adaptability of the semi-structured interview method, new topics that surfaced during interviews were readily incorporated into the analysis.

Riessman (1993) and Patton (1997), who emphasise the necessity for research interview questions to be impartial, thoughtful, open-ended, and explicit, bring up the utilisation of an interview guide that encompasses a variety of areas depending on the research question. A semi-structured and open-ended interview guide were employed to avert limiting replies or answers and to urge study participants to communicate freely (Sandelowski, 2000). This was based on the research objectives, review of literature, discussions with supervisors and drawing from my professional and cultural insights into working as a radiographer in Ghana. The interview guide used was different for each category of participants, specifically radiographers (see Appendix 6) and stakeholders (see Appendix 7a, 7b and 7c). The interview guide and probes were piloted with my supervisor and some diagnostic radiographers in Ghana, in line with Janesick's (2000) recommendation to ensure clarity and the best possible understanding of the interview questions by participants. Some of the questions in the guide were revised following the findings from the pilot study. For example, a question that sought to inquire about speak-up systems within their workplace had to be changed from "Does your hospital have systems and protocols that support raising concerns or 'speaking-up' about patient safety issues?" to "Please describe any systems and protocols that support raising concerns or 'speaking-up' about patient safety issues in your workplace/s". Hence, the pilot study offered me an opportunity to better construct some of the questions. None of the radiographers that participated in the pilot study were recruited into the actual study.

All participants had the option to select a location for the interviews. The face-to-face interviews were conducted in a quiet office at the participant's place of employment and lasted between

thirty to forty-five minutes. All interviews were audio recorded with the participant's approval, using a digital recorder that was as inconspicuous as possible. Interviews were then later transcribed by the researcher.

3.10 Data Analysis

The rigour with which data analysis is conducted determines whether a study yields novel insights into a phenomenon (Pope et al., 2000). To ensure rigour during data analysis, verbatim transcripts were initially re-read repeatedly as the recordings were being listened to for errors and spelling mistakes. Software (NVivo 12 pro) was utilised to store data and during structured coding, analysis, and interpretation of the anonymised transcripts.

Thematic analysis was employed in analysing the data. Braun and Clarke (2006) argue that although qualitative study designs are numerous and diverse, the 'foundational method' in qualitative data analysis is thematic analysis. Thematic analysis typically offers a vivid, intricate, and rich account of data. It is comparatively flexible; not restricted by epistemology or theory, and hence making it a highly essential tool for research (Braun and Clarke, 2006). Thematic analysis can be deductive (theory-driven), or inductive. Nevertheless, it should be noted that it is not possible for researchers to entirely exempt themselves of their epistemological and theoretical beliefs, even in their conduct of inductive thematic analysis (Braun and Clarke, 2006). Choosing between inductive and deductive thematic analysis is reliant on why and how the data coding is done. According to Braun and Clarke (2006), the approach to coding can be inductive, that is for questions that emerge from the coding or deductive. This study's data underwent an inductive thematic analysis because the process of analysing the data was not foreshadowed by pre-conceived theories. The coding of data included interview data, my reflections. and some observations from the interviewing process. The same level of importance was assigned to all sources of data. The following section describes the specific process of data analysis undertaken in this study, based on Braun and Clarke (2006) six-phase guide for the thematic analysing, comprising of data familiarisation, generation of initial codes, searching for themes, reviewing themes, defining, and naming themes and producing report.

3.10.1 Data familiarisation

Braun and Clarke (2006) assert that when the researcher collects data personally especially through interactions, there is a good chance that the researcher approaches the analysis with some previous knowledge. Nevertheless, they further argue that in qualitative analysis, it is

imperative that the researcher becomes very familiar with the data by immersing themselves in the data (Braun and Clarke, 2006). Familiarisation with the data was required to comprehend the participants' daily lives in the study. This goal was reached by listening to the digital recordings and transcribing them as soon as it was possible following the interviews. The transcriptions were done by the researcher and undertaken within 14 days. The transcribed texts were read and reread multiple times to gain an in-depth understanding of the data. In this study, there were 24 interviews summing up to about 17 hours. I have attached a sample of the interview transcripts as Appendix 8. This stage also involved the researcher reading and thinking about the diary entries such as fieldnotes and the observations of the interviews. This was necessary as they were sources of data.

3.10.2 Generating initial codes

After achieving data familiarisation, the next step was to generate early codes. This was possible because I had gained a good idea and understanding of what the data looked like entirely and aspects that may be significant to the research. During this phase, initial codes were created. Whether the themes are motivated by data or theory determines the approach for developing the codes. In this study, the codes were driven by the data and not by any theory as the analysis process was inductive and not foreshadowed by any predetermined theories. The most fundamental state of unprocessed data that can be evaluated meaningfully about an occurrence are codes, and codes denote a portion of data that seems significant to the data analysts (Boyatzis, 1998).

Software such as NVivo could be used for coding although it can be done manually as well. This study used a combination of both ways. NVIVO is a qualitative data analysis software that helps to organise, store and analyse unstructured data. In this study, the researcher had a fairly large data set to work with and the software was beneficial in organising and analysing the data. It is important to bear in mind that in contrast to other analysis software, this software only aids in the analysis process and does not carry out the analysis (Yin 2009). Nevertheless, using the software is beneficial in ways such as enhancing rigour and saving time particularly with significant data volumes (Silverman, 2010).

In this study, the coding was done in a systematic line by line way, while giving each set of data the same attention and then assigning codes to parts of the data that were relevant to the study (Braun and Clarke, 2006).

3.10.3 Searching for patterns

After initial codes had been assigned to all the data, the codes were grouped into categories. The search for themes began after this. This process started with sorting the codes and aligning each code in a likely main theme. The next step was to then organise of all the data under each of the codes grouped under the likely main theme. Some of the codes were then organised to form early themes and early mind maps were made for these themes. This was important as it helped to establish relationships between generated codes and sub-themes and eventually, broad themes. In doing this, some codes developed into themes and sub-themes while others were rejected. An initial list of categories from the coding is attached as Appendix 9. Figure 3.2 below also illustrates an initial mid map for barriers and facilitators of speaking-up among diagnostic radiographers in Ghana.

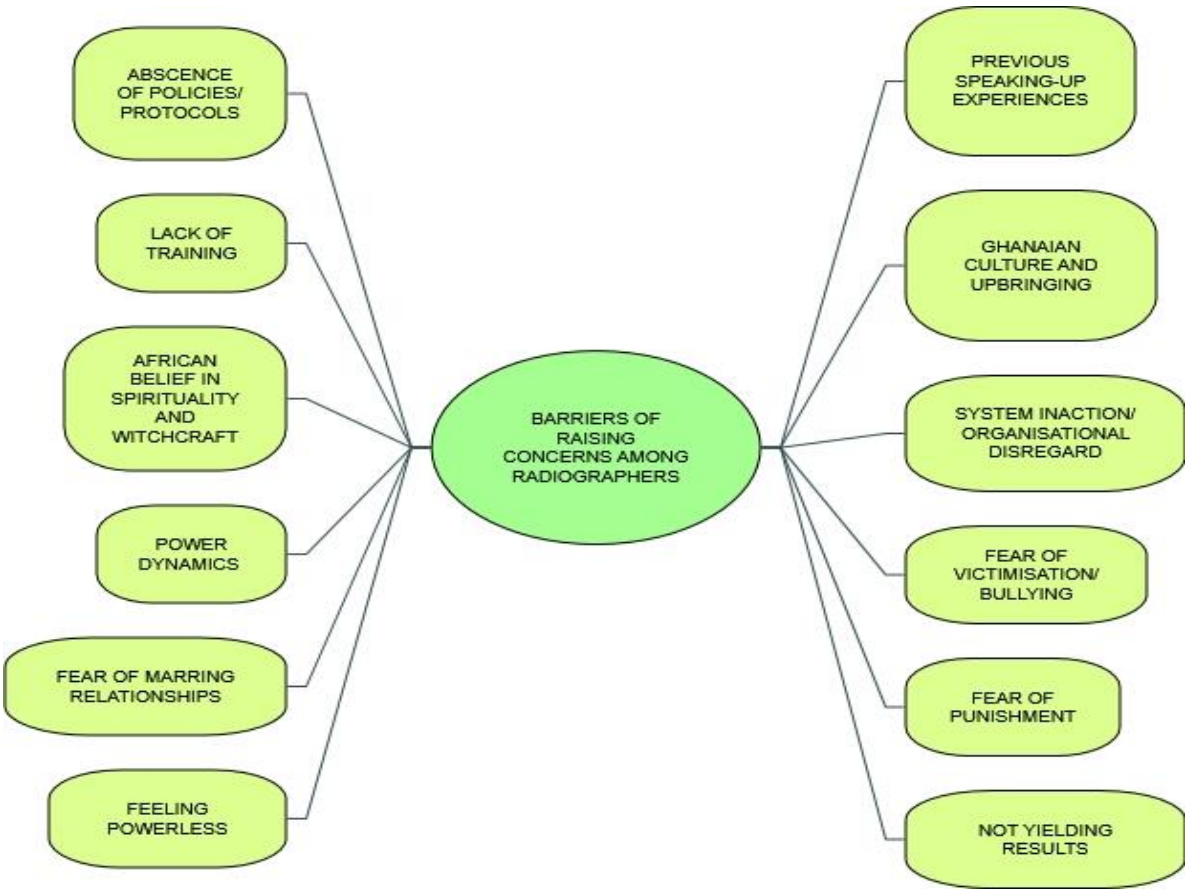


Figure 3.2. Initial mind map for barriers and facilitators of speaking-up

3.10.4 Reviewing themes

During this phase, the themes formed in the preceding phase were reviewed to ascertain their homogeneity internally and externally. Patton (1990) defines external homogeneity of a theme as when there is a clear distinction between the theme and others, while internal homogeneity of a theme determines if the data within the theme is coherently meaningful. The researcher that internal and external homogeneity were achieved during this phase. While some themes were merged, others had to be broken up. For example, there was a broad theme named barriers and facilitators of speaking-up which included the Ghanaian culture and African belief system but upon review, it became apparent that the Ghanaian culture and African belief system is broad on its own and hence can be broken up as another theme. There was also a theme for modes of raising concerns which was reviewed and combined as modes and response strategies for raising concerns. At the conclusion of this phase, it became evident how the many themes connect together and what kind of data story each theme presented. Some excerpts of this analysis process are attached below in figures 3.3 and 3.4 below. Other excerpts are also attached as Appendix 10. The early themes and sub-themes generated from the analysis are attached as Appendix 11.

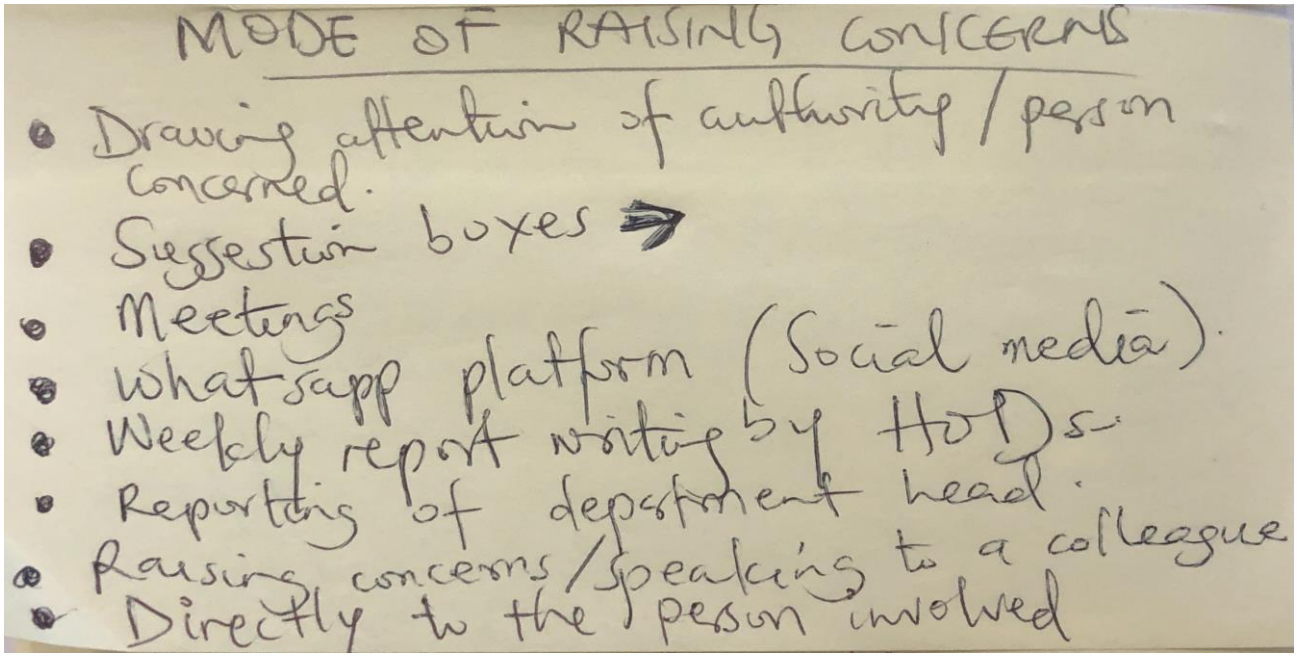


Figure 3.3: Excerpt 1 of thematic analysis

Figure 3.4: Excerpt 2 of thematic analysis

3.10.5 Defining and naming themes

The themes that were utilised in the analysis were further defined and refined during this stage. In order to determine the component of the data that each theme represents, the themes were characterised in terms of content, pertinence, or significance. Each theme's narrative was examined and integrated into the overall narrative of the data to make it cohesive. To guarantee that there is a flow to each theme structure, these are further improved. This stage also involved reviewing the theme names to make sure they were clear and gave the reader a sense of the topic. For example, theme 1 was previously “the divergence in understanding and perceptions of speaking-up and patient safety”. However, upon further refinement based on the content and data it captures, the theme name was changed to “the understanding and perceptions of speaking-up and patient safety”.

3.10.6 Producing the report

This is the last stage of the thematic analysis process. Braun and Clarke (2006) argue that not only should a report be cogent and contain examples with graphic data extracts, but it should also convey a compelling story about what the data means in a non-monotonous, reasonable and rationale manner. During this stage of writing, extracts that showed the themes' existence in the data in a clear and concise manner were included. Nevertheless, these extracts were critically analysed and not just included. Throughout this writing phase, my reflections on the

extracts within various themes were put together into memos to put certain remarks in perspective. Also, similarities were drawn across themes and put together for a discussion.

3.11 Rigour

Ensuring quality in the research process is imperative for all research approaches although qualitative research cannot be evaluated using the same measures as quantitative research (Bradshaw *et al.* 2017). Over the years, rigour has been linked with reliability and validity of research findings. Demonstrating the 'truth' of a person's experience and making sure that the researcher presents a transparent and representative account of the study participant's experiences and responses are basic requirements in qualitative research (Bradshaw et al. 2017). Bradshaw et al (2017) further indicates that in demonstrating quality in qualitative research, the main concerns of researchers are issues of trustworthiness encompassing principles of credibility, confirmability, transferability, and dependability. Lincoln and Guba (1985) first introduced and established these principles to simplify the demonstration of rigour in qualitative studies.

Some ways of demonstrating credibility include creating a trusting relationship with the interviewee, member checking and prolonged engagement (Bradshaw et al., 2017). Secondly, confirmability can be demonstrated by recording notes in a reflective diary, describing demography of study participants, utilising an audit trail for capturing data collection and analysis process and including direct quotations from study participants to show that findings are representative of the data collected and are not biased by the investigator (Bradshaw et al., 2017). Demonstrating dependability can be ensured by accounting for any change that may have occurred during the study (Bradshaw et al., 2017). Finally, maintaining a reflexive journal, purposive sampling, provision of sufficient study details to enhance a rich description of data are helpful in demonstrating transferability (Bradshaw et al., 2017). The proposed ways described above were adopted in this study to ensure quality and are further discussed below.

3.11.1 Credibility

Research credibility is said be associated with the degree to which the research account is believable and appropriate, specifically the extent of agreement between the investigator and the study participants (Lincoln and Guba 1986). It has been contended that this can be demonstrated by creating a trusting relationship with the interviewee, member checking and prolonged engagement and triangulation of data (Lincoln and Guba 1986; Bradshaw et al., 2017).

In this study, member checking was carried out by sending the transcripts back to the interviewees for confirmation of accuracy, however none of them responded. The interview approach initially focussed on settling the interviewee and creating rapport to enhance credibility. The study involved different range of participants i.e., radiographers and stakeholders hence the need for data triangulation. Data triangulation in this study enabled the researcher to analyse data from a range of perspectives and this in effect, enhanced the credibility of the study. Furthermore, to enhance credibility, peer debriefing which involved discussing findings and analyses with my supervisory team was adopted throughout the study.

3.11.2 Transferability

Transferability in qualitative research has been simply described as how well research results may be applied to new contexts or participant groups (Polit 1999). Researchers aid the transferability by generating '*thick descriptions*' (Lincoln and Guba 1986; Korstjens and Moser 2018). For example, it has been argued that to ensure transferability, researchers should go beyond reporting just experiences and behaviours of study participants, but the context as well, as this in effect gives more meaning to these behaviours and experiences to a reader or an outsider (Lincoln and Guba 1986; Sim and Sharp 1998).

In this study, the research design and the method chosen provided a very rich description of the data. The data extracts produced were in-depth and within a context which is also discussed (see background chapter, methods chapter and later findings chapters), which could be transferrable to other settings. This is predominantly because there were examples which were recurrent among the respondents, and this enhanced the likelihood of transferability.

3.11.3 Confirmability

Confirmability simply describes to what extent research findings presented by a researcher can be confirmed by other investigators (Lincoln and Guba 1986). It basically deals with ascertaining that the research data and interpretation of the results are undoubtedly drawn from data and not figments of the investigator's imaginations (Korstjens and Moser 2018).

The conduct of this study followed a research protocol which served as a guide in the planning and execution. There was therefore an audit trail demonstrating that the study was executed as planned. Measures that encourage researcher reflexivity were put in place to minimise researcher bias and ensure confirmability of the findings. All steps and decisions taken from the

commencement of the study to the generation and reporting of results are transparently described. Additionally, the records of the study pathway were retained throughout the study.

3.11.4 Dependability

The stability of study results over time is referred to as dependability. This entails the assessment of the study results, analysis, and recommendations to ensure that all are backed by the information provided by the study participants (Sim and Sharp 1998; Korstjens and Moser 2018). It has been suggested that an audit trail helps with dependability (Lincoln and Guba 1986).

In this study, records of the research process were maintained throughout the study, and all phases from the beginning of the project through the reporting of results were detailed. All transcripts used in the analysis were transcribed verbatim. Detailed quotes and data extracts were included in written reports to enhance dependability. Additionally, the researcher's supervisors received the reports in writing and examined them. However, due to budgetary and time constraints, an external audit procedure could not be utilised in this investigation.

3.12 Reflexivity

Reflexivity can be simply described as a critical introspection of a researcher's personal beliefs, inclinations, prejudices and relationships, and how these factors impact on the research process (Lincoln and Guba 1986).

By and large, interpretive researchers consider data to be generated rather than discovered. (Silverman 1993; Mason 2002). There is also the belief that the researcher's personality and the manner in which it is disclosed has an effect on the data collection process (Stake 1995). Therefore, in qualitative research, reflexivity is crucial as the investigator is the principal tool for data acquisition and analysis (Stake 1995; Holloway and Wheeler 2010). My role and professional status as a diagnostic radiographer positioned me as an insider in the field as the study required interviewing fellow radiographers. This may have had an effect on the style and tone of the interviews.

If a researcher is already a member of the community they are investigating, they may have an easier time gaining access, trust, and candour than an outsider. There is the likelihood that participants in a study may feel more at ease opening up to a fellow insider due to the insider's presumed familiarity with the culture and the prevalent belief that "they just don't get us" (Dwyer & Buckle, 2009). It has been stated that researchers have a much simpler time garnering

the trust of participants when they belong to the same social group as the individuals they are investigating. The result may be information that is normally unavailable to outsiders. (Bonner & Tolhurst, 2002). Since the information provided by respondents is more likely to be honest and genuine, insider research has the potential to be more rigorous (Rooney 2005). Being an insider or an outsider as a researcher may have certain positive effects but can also have negative effects on data collection and interpretation (Stanfield 1994), hence it is crucial for an investigator to do a self-reflection on their position. (Silverman 1993).

There is also the possibility for insider researchers to be erroneous in ways such as interviewing individuals they already know and relying on pre-conceived notions rather than collecting all the facts, as an outsider would do. Due to their prior knowledge and involvement, the researcher may be biased, preventing them from conducting an objective investigation. This may impact the analysis of the data, as the unique perspectives of certain individuals may be neglected. As a radiographer, I carried the risk of recruiting familiar colleagues. In accordance with Brannick and Coghlan's (2007) recommendation, I sent invitations to all eligible diagnostic radiographers in an effort to reduce this possibility. I made sure individuals who agreed to participate in the study were chosen depending on how available they were within the allocated time for collecting data. There was, therefore, no bias in the participant selection process. During the interview process, it was ensured that no assumptions were made. I consistently ensured that I did not prematurely close down any explanations or assume that individual's experiences accorded with my own. To ensure a better understanding of issues, additional questions were asked in all cases.

3.13 Data protection, confidentiality and anonymity

Ensuring the maintenance of privacy was highly prioritised throughout this research work. The respondents consented to audio recording of conducted interviews, with the researcher ensuring anonymity during transcription. The information provided by the respondents and the analysis of data did not, therefore, disclose their identity. Digital audio recordings of conducted interviews were downloaded from the recorders (Dictaphones) on to the hard drive of the researcher's personal laptop, which is password secured and the sound file on the Dictaphone was then deleted. Upon the researcher's return to the UK, the data was transferred onto the university computer system (Cardiff University) which is password secured and only accessible to the investigator in accordance with the Data Protection Act of 1998. The data/information was later backed up via the Cardiff University one drive account which is also password protected.

The storage of records pertaining to the study was undertaken according to Cardiff University's management of research data files (Cardiff University 2011). All information about this research was kept strictly confidential and participants were informed that the raw data (sound files) will be destroyed whenever the researcher successfully completes their study, while the anonymised data files including transcripts and field-notes will be kept for a period of up to fifteen years after completion of the study for purposes of audit and further analysis and publication. All respondents were informed that data will be shared with the supervisory team and a copy of the anonymised final written report will be distributed to the MoH, GHS, and other pertinent stakeholders in Ghana's healthcare industry. Respondents were also notified about the possibility of publishing the results of the study in academic journals or presenting at conferences.

During report writing, all data, study participants and organisations were anonymised. It was ensured that interview transcriptions complied with Cardiff University's data protection guidance and the Data Protection Act. Data files, transcriptions and field notes were given identifier codes, and the list of study participants and their corresponding identifier codes were kept separately. Study participants were constantly reminded to refrain from naming institutions and individuals during all stages of the data collection.

Study participants were informed as often as necessary, of the limits of anonymity/confidentiality in situations where any information revealed to the researcher during interviews indicates there is public interest in revealing issues to third parties. For instance, if a study participant shares information which indicates likely or real harm occurring to staff or patients, the investigator is obliged to disclose this with appropriate authority internally (e.g., patient safety team in the participant's organisation) or externally to regulators or relevant authorities within Ghana's legal system. Nevertheless, prior to disclosing confidential concerns of respondents or interviewees, it is standard practise to obtain their approval or permission. The researcher made plans to refer any study participant who felt obliged to report a misconduct or a wrongdoing to the appropriate regulatory body if need be. However, no such instances came up during the data collection process.

3.14 Ethical Considerations

It has been emphasised that an investigator's responsibility to resolve ethical concerns relevant to their study exhibits "*professional, legal and social accountability*" (Cluett and Bluff 2006: p

199). The research proposal gained ethical approval from the Ethics and Review Committee of the School of Healthcare Sciences of Cardiff University. Approval granting access to contact details of diagnostic radiographers was negotiated with the Ghana Society of Radiographers. This approval from the professional body allowed its members to participate in the research and recruitment.

A written informed consent was required of all research participants for the purposes of anonymity and confidentiality. Participants were informed that they were free to withdraw from the study at any point during the research was made known to them in order to reveal and exclude any disconcertment mostly linked with healthcare studies/investigations such as this. Verbal consent was also taken from all participants before the start of the interview. All study participants were informed that their privacy and identities would be protected throughout the duration of the study. Data acquired from the study was stored on the investigator's laptop, password protected and could only be accessed for research purposes. The commencement of the study was subject to the granting of ethical approval from the Ethics and Research Committee of the School of Healthcare Sciences, Cardiff University (dated 20th August 2020) Appendix 3a and also from the GSR (See Appendix 3b). The interview venues agreed with each of the participants where venues that protected the privacy and confidentiality of participants.

CHAPTER FOUR

CHALLENGES OF RADIOGRAPHY PRACTICE IN GHANA

4.0 Introduction

As mentioned in the earlier chapter, the thematic analysis of the data generated three broad themes which are explored and discussed in the chapters that follow. Nevertheless, it is good practice in qualitative research to not just describe the findings of a study but also offer a vivid description of the study context as it enhances transferability and hence rigour(Lincoln and Guba 1986; Sim and Sharp 1998). The earlier background and methods chapters describe the broad study context to the reader. This chapter adds further contextual detail, focusing on some of the challenges of radiography prcatice in Ghana that were identified during data collection across the study sites.

It should be noted that working conditions and professional context in healthcare varies greatly between higher resource and resource-constrained settings like Ghana (Mawuena and Mannion 2022) and this chapter is an attempt to better convey some of these contextual issues within which healthcare is practiced and speaking-up occurs. Furthermore, there is also a dearth of literature (generally) from resource-constrained healthcare systems on speaking-up experiences of healthcare professionals.

The data in this section were generated from the interviews conducted with radiographers and stakeholders. Although all the study partcipants offered their own perspectives on speaking-up for patient safety yielding from their unique experiences, the challenges associated with their professional practice were similar within and across all study sites. There was also a general sense of congruence about the challenges confronting radiography practice in Ghana expresssed by radiographers and stakeholders. A good example is the shared recognition of the challenges associated with the regulation of the profession which is evident in the prevalence of unqualified personnels practising as radiographers across the country.

It is imperative to explore these broader contextual challenges confronting radiography practitioners as they could pose a safety concern and may play a role in the speaking-up decision trail of radiographers. This chapter will also enable the reader to better understand the experiences that are discussed in the chapters that follow. Figure 4.1 below illustrates these challenges, which will now be discussed under six main headings.

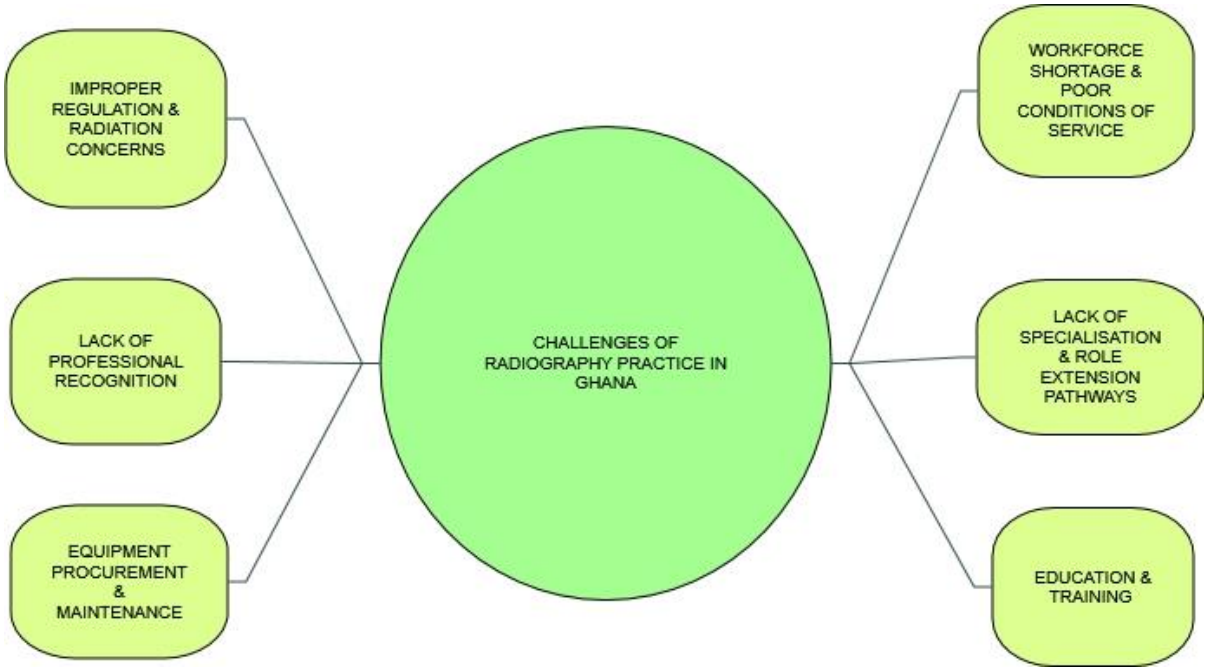


Figure 4.1 Schematic structure of some of the challenges associated with radiography practice in Ghana

4.1 Improper Regulation of Profession and Radiation Concerns

The Allied Health Professions Council (AHPC) has been in operation since the year 2013 to regulate the practice and the training of allied health professionals in Ghana. It is also authorised to grant accreditations for all academic programmes in the allied health profession. Furthermore, the Health Facilities Regulatory Agency (HeFRA) launched in 2011 by Act 829 is authorised to license and examine physical centres for private and public health care providers. Despite its existence and operation of these institutions over the years, it seems that the regulation of the allied health professionals such as radiographers still remains a challenge in Ghana. For example, the interview participants argued that the country had a large number of unqualified and unregistered people practising as radiographers, resulting from unaccredited radiography training institutions and unlicensed diagnostic facilities. Participants further stated that most unregistered radiographers generally operated in health facilities in the rural parts of the country, as qualified radiographers usually refuse postings to these areas due to poor working conditions and conditions of service. Hence, these rural health facilities when confronted with workforce shortages in these areas contracted unlicensed radiographers to

meet the workload demands in these areas. Across sites, radiographers expressed their displeasure with this situation. A senior radiographer in full-time private practice contended that one of the reasons for the improper regulation of radiography practice in Ghana was as a result of the politicisation of policies regarding the radiography profession. It should however be noted that the term "***quacks***" used in the extract below and elsewhere is simply a colloquial term often used among radiographers in Ghana to describe unqualified or unregistered personnel practising as radiographers.

> ***Besides conditions of service, job placement, salaries and salary arrears, our educational system, and the standard of education, the general practice of radiography is not completely regulated. There are a lot of quacks that are still in the system because some of the policies regarding radiography practice have been politicised. So, you have political parties giving contracts to people who are not qualified radiographers to do jobs in the rural areas because the radiographers refuse to go to those rural areas because the conditions of service were not favourable. So, it's more like, "if you won't go, then we will get people to go ". And these have been concerns of most radiographers. Because their national healthcare job market has been somehow politicised, infiltrated by quacks, not well regulated and the regulating bodies are also not able to track down these quacks because of the whole politics surrounding it*** *(Rad 2).*

Across sites, radiographers argued that the government and political parties played a major role in the improper regulation of the profession across the country, who actively ignored the issue of an unregulated workforce as they provided a service that others were unwilling to and. They further argued that the radiography workforce was not strong enough to "fight" the government. They made reference to a situation they had encountered where the government took a decision to train biomedical engineers for 2 weeks to work in health facilities that should have been staffed by registered radiographers. The reason for this was that radiographers who were originally posted to these areas had insisted on better conditions of service before accepting such postings:

> ***And I think there are still more quacks in the system. I think a strong radiography force can be able to get the government to do the right thing. One of the situations that happened recently was when the government was actually willing to push medical engineers into places where radiographers were supposed to be and I personally felt***

that it was as if the government didn't know much about radiation and the fact that if it is not well harnessed, it can bring a lot of harm to Ghanaians. *(Rad 9)*

From the interviews, it was not only radiographers who recognised the challenge with the regulation of the profession. The problems with unregistered workers were also acknowledged by stakeholders across sites. On the issue of the government's decision to train biomedical engineers for 10 days to fill up radiography vacancies, a stakeholder argued that the decision was halted upon the realisation of the illegalities involved and the possible health hazard it could pose to the general public. It was further argued that the council and the Society of Radiographers worked together for a better alternative, which was to post intern radiographers to those deprived areas instead of the initially intended biomedical engineers. Although it was not normal practice to engage intern radiographers in lone working without any form of supervision, it seemed this option was considered less risky, or the least worse option in a less than satisfactory situation. However, upon completion of the internship, the radiographers declined permanent postings to those areas when the Ghana Health Service offered, resulting in these stations still being vacant:

No, no. In fact, it did not even start … You know we put in some kind of arrangement where the interns even though they were not supposed to be on their own, but the agreement was that we'll post interns in a catchment area and then assign a radiographer you know, in that area supervising them. So, that was to stop that measure at that time you know, because that idea of training biomedical engineers to become radiographers, we've heard that it was against the law. Council stood strongly against that. And that worked at that time. But what happened was after the people had finished their internship and the GHS was very ready to absorb them and post them to these areas then the young radiographers refused to accept these postings. So, you can still go to a hospital and there is an x-ray machine standing there with no radiographer to operate it. This is the difficulty that we have. Like I said when the numbers begin to increase, and the cities are choked nobody will push somebody's people to accept postings to where are considered remote areas *(Stakeholder 3).*

The workforce shortage, especially in the deprived areas and its contributing factors are discussed further below. Although the policy stakeholder contended that the biomedical engineers training plan was not carried forward, some radiographers across sites believed

otherwise. To some of the radiographers, there were still some biomedical engineers in certain rural areas practising illegally as radiographers:

> ***I believe strongly that some of these bio-medical staff found their way and were duly employed and are hiding in some of the villages and practicing as radiographers. I still believe it. And so, they think that the radiographer numbers are few, and so when they talk no one listens. I was very sure the then (name of government official) was supporting that initiative*** *(Rad 17).*

The AHPC has the mandate to regulate 18 allied health professions across the various regions in the country. However, it's main operational office is based in Accra, previously the only office until it recently acquired offices in Tamale and Ho to cater for the northern and eastern parts respectively. At the time of the interview, there were plans to acquire offices in Kumasi, Sunyani and other regions. There are 16 regions in Ghana with allied health professionals scattered across these regions and so it can be argued that the council will need to establish a presence in at least most of these regions if not all to enable it to execute its regulatory duties effectively. Overseeing 18 professional groups across a country of 16 regions presents a huge logistical and resource challenge to executing their regulatory duties. At present, it is inevitable that the regulator's influence and reach across Ghana is patchy and hence issues such as promoting speaking-up and safe professional practices are also likely to be patchy and extremely scarce ***(****Reflective memos).*

As stated earlier, until the AHPC was established in 2013, allied health professions in Ghana were completely unregulated. A stakeholder argued that the many decades of unregulated allied health practice in Ghana had contributed to the current proliferation of quacks in the healthcare system. It was further argued that during the emerging years of the profession in Ghana, people who practised as radiographers did not receive any formal education or training but were rather trained on-the job, and so these on-the-job trained radiographers were still practising in some departments, adding up to the population of unlicensed radiographers:

> ***So, the issue about the quacks is not limited to the practice of radiography alone but almost to all the other clinical disciplines…So, because of that they have managed to sanitize the nursing and midwifery practice in Ghana. The AHPC is just about five years and…because of the way some of these professions emerged in Ghana like on the job training, you know, so you would notice that for some of the professions there was no formal training until maybe the last ten years so people are in some of these health***

facilities just because they are there, they have received some kind of on the job training okay. But now fortunately for us even in radiography it just used to be the University of Ghana which was running the programme but now fortunately I've heard two or three universities are also picking up *(Stakeholder 3).*

Furthermore, it was contended that a further legacy of the many years of unregulated practice was that many allied health professionals including radiographers not recognising the need to be licensed or regulated. A senior official of the AHPC reported a lack of understanding on the part of some allied health professionals and a lack of awareness of the existence of the council on the part of the general public. This situation he said to be improving as the allied health professions licence registration was gradually becoming a pre-requisite for employment in Ghana's healthcare sector:

…So, the challenge now is to get every professional or every allied professional you know to bring him or herself under regulation…But then, it's also encouraging that the license of the council is now being required for employment, for promotion, and so it appears that people are voluntarily coming to be registered for these reasons. And also, again because of the several years with non- regulation even the general public doesn't seem to be very much aware of the council, so we are trying to create more awareness so that if you went into a facility and you were either maltreated or unprofessionally handled then you'll be in a position to report such activity to the council for some disciplinary actions to be taken. *(Stakeholder 3).*

The Nuclear Radiation Authority (NRA) is the agency responsible for regulating and monitoring radiation levels in all institutions that operate with radiation in Ghana. A number of radiographers reported concerns with the radiation dose monitoring, emphasising that more could be done to improve radiation protection for patients and staff:

I think our radiation protection is a bit minimal. I would want us to be more conscious about that and would also want more seminars to be held to educate radiographers on speaking-up and radiation protection *(Rad 16).*

I think they are no continuous professional development or education, and I am uncomfortable with the way professionals are monitored in terms of radiation levels. It is a big area of improvement in terms of safety for professionals *(Rad 14).*

To summarise, this section has shown that national regulation of health professions and aspects of radiography safety is challenged by historical issues concerning the lack of workforce regulation and an absence of nationally mandated professional development and education. National regulatory bodies can play a key part in promoting and sustaining patient safety and staff safety, including raising the profile of speaking-up. Hence, the awareness of the historical and current context of professional and safety regulation in Ghana provided in this section will be useful as further findings are explored. The analysis of the data also revealed workforce shortages and the challenge this poses to radiography practice in Ghana, and this is discussed in the next section below.

4.2 Workforce Shortages and Poor Conditions of Service

> ***"If we are short of staff and we are really short of staff, we have to go through our human resource directorate, apply for recruitment. What you will be told is that we don't have financial clearance, okay. And if you don't have financial clearance from the Ministry, they cannot employ so as at now there are certain services, we cannot provide for 24 hours. We were providing 24-hour services, CT scan services but along the line we had to cut the night session. So, we are only…let's say from morning to afternoon, and then from afternoon to evening. We don't do any CT, so if there's somebody, maybe an emergency in the night. An accident or an emergency in whatever form there will be no CT services. So, I will say there isn't any strong policy by the Ministry on staffing…. A lot of the radiographers also left and there have been no replacements"*** *(Rad 8**).***

Across sites within public hospitals, the inadequate radiography staffing levels was apparent. This situation was most severe in the rural regions although the big cities especially Accra and Kumasi presented more workload pressures (Field notes). As indicated in the extract above, some large hospitals which served as referral centres for the whole region were unable to provide urgent radiological services for acute conditions and emergency services on a 24-hour basis as a result of staffing deficits:

Across sites and among participants, radiographer participants indicated that conditions of service were a strong determinant in their decision of choice of working in either a private or public hospital in Ghana. They argued that working in some private hospitals offered better conditions of service than in public institutions. Some radiographers reported that poor conditions of service were the reasons for the recent migration of radiographers from Ghana to highly advanced and high-income countries, adding up to the shortages in Ghana's healthcare system:

> ***I think that conditions of service are not the best for radiographers which is why in recent times there is massive migration of radiographers from the shores of Ghana*** *(Rad 6).*

This interview data led to reflections on how the radiography population in Ghana for many years has been described as inadequate. Until recently, the University of Ghana was the only institution training radiographers. About 5 more universities are now training radiographers and sonographers in Ghana. There are reports that some radiographers have declined job offers in the public hospitals for reasons of bad salary and poor conditions of service. Such radiographers argue that they would rather work for private hospitals than work for the government in public hospitals. The question that arises is whether the shortage of radiographers in public institutions necessarily means a national short supply of radiographers as there is evidence that most radiographers preferred to work in the private institutions and big cities (Reflective memos).

A number of radiographers reported that well-documented condition of service stipulating duties and benefits such as radiation allowance and other remuneration was lacking in radiography practice in Ghana:

> ***The second thing would be condition of service, maybe, renumeration and protection for radiographers. Because the job primary deals with radiation, and so having a well-documented condition of service will be a thing of concern to me*** *(Rad 4).*

A policy stakeholder confirmed that the profession lacked a documented or contracted conditions of service backed by the government and argued that it was because the body had not been offered an opportunity to negotiate for such provisions to the government on behalf of radiographers. He emphasised the need to have such a document or contract of service in place and suggested some provisions that could be included in drafting one for the society:

> ***…We don't have a codified condition of service for radiographers so assuming we are offered an opportunity to sit with government to draft conditions of service…we put in***

like for every month 10% of the basic salary shall be paid as radiation risk allowance. 10% of the basic salary shall be paid as rural incentive allowance for radiographers. It's established for government. So, when I go to a private hospital, I'll pick that conditions of service document and discuss with an employer that if you want to engage me, this is the government conditions of service for radiographers includes a 10% as rural practice allowance and maybe after 5 years I'll be entitled to study leave with pay. Please are you ready to meet me with this? The person says yes or no then you negotiate. But in a well-established quasi-government and all other that have a condition of service, you can make a suggestion for an inclusion of…the benefits I mentioned earlier depending on the establishment you find yourself in but as it stands now, we don't have anything backed by government and so you cannot really force an employer as there is no conditions of service for a radiographer that has to be followed. But there is the code of ethics that is going to be used to punish you. What about your benefits? That one nobody cares about it. So, we only care about make something wrong and let's punish you and that is what frustrates people working in the government sector *(Stakeholder 2).*

The closing lines of the extract above highlight some interesting perspectives from a broader safety point of view and issues of just culture in radiography practice in Ghana. While arguing about the absence of a contracted conditions of service, the policy stakeholder laments about the blame culture especially in the public hospitals where guidelines exist to promote punishments when mistakes occur although radiographers have to deal with poor working conditions. For a company to adhere to the tenets of a just culture, all managers must treat employees who participated in a patient safety incident in the same way. When employees are treated equitably, they are more likely to speak up when problems arise, which promotes open communication and the sharing of knowledge. A culture that is fair seeks to comprehend why failings occurred and how the system led to suboptimal behaviours, while also holding individuals accountable when there is evidence of egregious negligence or intentional conduct. By encouraging employees to disclose their mistakes, it may be possible to learn more about how to avoid them in the future. (Reflective memos)

A senior official from the AHPC acknowledged the shortage in radiography numbers across the country, attributing the shortage to inadequate numbers from the universities, whilst also referring to the issue of unregulated workers discussed in the previous section:

…The current number or radiographers…are not sufficient to cover the whole country. That is one of the challenges you know the council is confronted with. And almost all of the few radiographers that we have want to be in the big cities and not the rural settings…When this issue about somebody who has been trained on the job and he has been occupying a position in a rural site for 20 years is now seen as a quack, fine we will remove such a person but who is going to replace that person?...So, now the good thing is like I said is that the universities are beginning to turn up more numbers of radiographers and so giving ourselves few years where the cities would be chocked you know, then I foresee a situation where the people who are now coming will be prepared to be posted to some these areas... So, it's a balance that we have to face but I know that Cape-Coast this year came out with about 50 radiographers who are currently doing their internship. In Legon, you know, the average per a year was 30/35 which was mostly inadequate so with the numbers coming from Cape-Coast. Very soon we will be receiving numbers from UHAS and then UDS and then when we have such numbers and then we can completely do away with the issue of the quacks *(Stakeholder 3).*

In contrast with the AHPC official's argument on inadequate radiography numbers from the universities, a senior radiographer reported that newly qualified radiographers had no job placements:

For the conditions of service, we've complained about it, but government is really not doing much about it and new radiographers who have completed school and completed their mandatory service to the country don't have job placements. There's so much to say (Rad 2).

Reflecting on the extracts above, it is evident that while the senior official of the AHPC reported a shortage of radiography numbers across the country resulting from inadequate numbers from the universities, some radiographers reported that newly qualified radiographers who had completed their internships had not been given any job placements for years. Again, this raises questions about whether these radiographers were actually offered job placements in possibly rural areas which they rejected for reasons of poor conditions of service and lack of incentives as suggested by radiographers or nothing had actually been offered to them. It also raises questions about whether the radiography workforce shortages that are being reported in the Ghana Health Service is really as a result of inadequate numbers from the universities yearly or rather resulting from other factors. The council put forward an argument for contracting quacks in the deprived areas and hopes that an influx of more radiography numbers from the universities will create a reduced demand for radiographers in the urban centres and hence force some radiographers to accept rural postings, and in effect curb the problem of quacks eventually (Reflective memos).

Some radiographers expressed dissatisfaction with their salaries, stating that it was a source of demotivation and hence affecting their work attitudes. They believed that most radiographers would feel more encouraged to give their best in their role if their salaries were increased:

> ***Right from school, we feel this is a very good profession, and our services are very crucial when it comes to health service so from school days we feel like when we are done with school, we will have a good life because we would be paid very well. When you finish school, you realize that is not like that. And because of that mindset of a better future with a radiography in terms of living a good life, once you finish and you don't see that, that is where people allow students to be working when they are supposed to be working. When you tell the person, the person will tell you that why should I kill myself with all this radiation meanwhile there's nothing for me in this. So, I think if the radiographers are motivated very well It will go a long way to encourage them to put out their best (Rad 21).***

A number of radiographers raised concerns about the inadequacy of imaging and radiology facilities across the country. They suggested that the government should consider building more units in the urban centres and expanding imaging departments in rural areas to enable young radiographers to decide where they are happy to work. They further suggested incentives such

as accommodation and some allowances for rural radiographers to encourage them to accept placements:

> ***And the facilities that we have, the various facilities that we have in the country too, are not that many. And the government owned ones are in the remote areas. The young radiographers that are coming up, in the Ghanaian community once you complete school there is this perception that you also lend a helping hand to those behind you therefore people want to be in facilities that would bring them enough money to be able to take care of themselves and also their…, those behind them. So, if government can look into this and also expand the facilities in the urban areas so that people who can remain in the urban areas and also those who want to go to the remote areas if some benefit would be added to their salary. Benefit like accommodation, some few allowances. I think that will also help (Rad 13).***

A lack of recognition and respect for the radiography profession was emphasised as a major challenge by most radiographers across sites and this is discussed in the next section.

4.3 Lack of Professional Recognition and Respect

Recognition and respect for the radiography profession in Ghana was emphasised as a major concern for radiographers across sites. They argued that the profession lacked the needed recognition from the public and policymakers as well. Some radiographers contended that this lack of recognition resulted from the small radiography workforce numbers and the fact that, the radiography profession in Ghana was fairly new compared to other health professions. They emphasised that there was strength in numbers and Ghanaian radiographers could only have a voice on issues if they attained the numbers and the necessary recognition:

> ***One major thing is I think radiography in Ghana lacks recognition. Radiographers are not recognised probably because the profession has not been around for too long, so we don't have that recognition. The other challenge is our numbers. The numbers are too small. So, we need the recognition and the numbers so that when we speak, our voices will be heard. We also need good policies to govern the profession*** *(Rad 5).*

Radiographers expressed dissatisfaction with their workforce numbers across the country, arguing that their lack of numbers was a barrier to being heard and as the other quotes demonstrate this could be seen as a lack of respect:

> ***Our voices are not loud enough so our grievances and our concerns are not being addressed. Though we have them, you cry…to your president, your president also cries, it ends somewhere. Yeah. And I think I'll blame that largely on the workforce in Ghana as in the radiographers in Ghana. I think they are about… The last statistics I heard about them I think they were about three hundred of them…compared to nurses that are over 20,000. When we make a noise and they also make a noise I think their noise will be heard and their grievances, but to us not yet*** *(Rad 13).*

Across sites, most radiographers reported a lack of professional respect from the medical doctors they worked with. They stated that in the performance of their duties as radiographers, they mostly felt their opinions about the radiological examination requests and management of their patients were disregarded by medical doctors. They added that this behaviour of medical doctors made them feel inferior and disrespected:

> ***One of the greatest concerns I would say is lack of respect especially from medical doctors and they always feel that radiographers are inferior to them and sometimes they disregard opinion of radiographers and don't accord the necessary respect to radiographers. They mostly feel pompous or big to seek advice or consultation from radiographers for some of the procedures a patient is supposed to undergo (****Rad 12).*

A senior radiographer in rural practice believed radiographers were among the least regarded professionals in Ghana's healthcare sector. The radiographer contended that this was because even other working staff in their hospital barely knew the actual job description of a radiographer and hence this results in radiographers' concerns not gaining much attention:

> ***I think radiographers are not valued as far as the healthcare fraternity is concerned in Ghana… They don't value us to the extent that people working with, other staff working in the facility do not even know that somebody working in radiology, or the x-ray unit is called a radiographer. It's funny. They just refer to you as "x-ray man" or photographer. In this modern era, they just go like x-ray man is here…Yes, people can raise concerns on what they want, what they think is their problem and it's being solved. But radiographers, how many are we? Our voice doesn't get anywhere. So, if they begin to value us, I think that will also help*** *(Rad 13).*

Furthermore, across sites, radiographers reported that one of the reasons why the profession lacked recognition was due to the lack of a representation and, therefore, lack of voice, at the

management levels. They argued that governmental health structures did not have a representative for radiographers, and even at the GHS there were no radiographers. They further argued that this lack of representation resulted in radiography-related decisions being taken without any form of consultation of the radiographers themselves. Hence the radiographers felt they usually did not have a say in the decisions by the government as they were not represented at that level. They further reported that other health professions had attained success in negotiations for a place in top management but the case for radiographers was different:

> ***We do not have representation in management. You look at all the government health structures and managements in all government hospitals and there are no radiographers. So sometimes decisions are taken pertaining to the field without consulting radiographers, even at the national level. I see other underrated groups fighting for their place in management and already you can see the difference their efforts have made. Postgraduate institutions for higher learning in these fields have really helped. You can really make an impact when you have acquired higher learning (Rad 20).***

Some radiographers emphasised the need for radiographers to be consulted and involved in radiography policy-making to ensure that these policies work for the good of the radiographer:

> ***…I think that it will be also necessary that we are more involved with policymaking for our practice. As it stands now, we are almost always at the receiving end and other people take the decisions on our behalf, etc. So, it's important that we have more of us go into getting into the positions of policymaking so that we can influence policies in our favour (Rad 6).***

A senior representative from the GSR discussed the difficulty in getting radiographers represented in management, especially the GHS. It may be recalled from the background/introduction chapters that Ghana's healthcare system is entrusted with the MoH and the GHS, with the MoH having the duty of devising policies and managing healthcare delivery, which is carried out by the GHS (GHS 2004). Despite this national supervisory duty, the GHS has been indicated to oversee all health facilities except mission, teaching and private hospitals in Ghana (MOH 2018). Hence these hospitals exist and operate as separate entities to the GHS as they fall directly under the MoH (see healthcare structure figure 1.1 from the background chapter). This arrangement limits healthcare professionals working in these

hospitals which are directly under the MoH from occupying top managerial positions in the GHS. The stakeholder explains how this affects radiography representation at such senior levels:

> ***"The biggest challenge for me is career progression and because of that we cannot have people in higher positions. We tried, I tried, I lobbied to get a Rep at GHS, the question was who was going to occupy the position? I didn't get anybody, so I left it… We didn't get anybody in Accra and because most of them are in MoH. If you are in MoH you cannot go to GHS, so who in GHS can occupy the position? Then I was advised that "Do not go and create a slot that the radiologists will go and occupy", that's what I was told so I left it. And that's the problem (Stakeholder 2).***

Furthermore, the radiography workforce population has been reported to not only be small (347 at the time of data collection serving a population of 31 million Ghanaians), but also a youthful one. The stakeholder contends that lack of experience in this youthful radiography population is a contributing factor to the lack of representation at the top management levels at the GHS:

> ***We need a career progression path to be created so people can move up take up leadership roles in the various respective departments and then we are there. You see that when you compare radiography to other professions, they have more advanced practitioners, so they always have some turning in for leadership roles. It's not just about the clinical practice but policy formulation to cause change and that is what we don't have. Now look at my population, 347, they are a younger population, so we don't have people who are so old and have the requisite qualification to man the place. I could get someone who just completed radiography four years, and had his master's degree but has that person got the rich experience to be at the GHS? The person is just a radiographer, meanwhile we have senior radiographers, deputy chief radiographers, and all that but are they also competent enough to man that position? No!"*** *(Stakeholder 2).*

Teaching hospitals in Ghana are under the MoH and not the GHS. The GHS covers all government hospitals with the highest being regional hospitals, polyclinics and health centres. Accordingly, for the GHS headquarters to employ a representative for radiographers, that position would need to be occupied by a GHS employee, probably in the regional hospitals, to be appointed as the Chief Radiographer-GHS.

Radiology departments across the country are headed by radiologists and not radiographers. This arrangement usually puts radiographers in an uncomfortable position as they always have to channel their grievances and concerns through a radiologist to top management. In most cases, the radiographers are not offered the opportunity to make their own case and fight for their cause, leaving most of their concerns not addressed, and even in cases where there is a response, it did not always favour the radiographer. Should radiographers always be headed by radiologists? (*Reflective memos).*

Another challenge that was reported among participants across sites was the lack of specialisation and role extension pathways for radiographers. This challenge is linked to the attainment of a professional recognition which was previously discussed. The next section discusses this in further detail.

4.4 Lack of Specialisation and Role Extension Pathways

Among radiographers across sites, the need for the introduction of role extension and specialisation was emphasised. Some radiographers contended that the radiography job description was too limited and hence a demotivator to radiographers who pursued higher education, as the higher qualifications they attained were not used or seen as relevant by others in the clinical radiography practice in Ghana:

> ***I think one big challenge is the limitations of our job description. Radiographers are not allowed to write any comments on images which makes the job feel repetitive and does not encourage most radiographers to want to pursue further learning. This makes most radiographers who get their masters and PhD go into teaching since this system does not give much room to utilise their knowledge in health care practice*** *(Rad 19).*

A senior representative from the GSR put forward an argument about some of the challenges involved in creating role extension and career progression pathways for radiography in Ghana:

Currently the GHS has no provision for radiographers' who may do a PhD or do a Masters'…When you come with your master's instead of the usual three to five years to move to the next rank, you can be moved in two years and that's it for you.…Fortunately just before the elections I received a letter to draft a new scheme of service for radiographers and that the council was going to present this to the GHS…I met my executives together with the registrar to give me an idea of what we could do. Unfortunately, the registrar is not a radiographer and so he only told me that we should expand our ranks…to include a director position. One of the problems we were having was if you are a technician and you get to a senior principal technical officer and you do a degree you come back and start as a fresh radiographer on a lower salary…We managed to put it together such that all district hospitals should have a chief radiographer, regional hospitals should have an Assistant Director and teaching hospitals will have deputy director and at the GHS who will report to the director radiography services. I've submitted it to the registrar...One of the problems is that we were not called to make our own case but it was only the registrar of the AHPC governing 18 professions that is going to make a case for us. Granted the registrar is not a radiographer, whatever I submit if it doesn't make sense to him, he can cancel it *(Stakeholder 2).*

Across sites there were reports about many radiographers who had attained higher qualifications from various reputable universities outside Ghana to perform certain specialised radiographic examinations such as image reporting but were not allowed to practice with those qualifications in Ghana. They further emphasised that even in cases where these highly trained radiographers had better radiological opinions on certain radiological procedures, their voices were not always heard. It should be noted that although this sub-section mainly discusses the lack of specialisation and role extension pathways, it is undeniable that the issue of voices not being heard, and a lack of representation is coming through strongly in the data. This perception of not being heard is also linked to a lack of respect and recognition argued across sites by radiographers:

Some of the concerns, in my opinion are the fact that currently, you may have radiographers not being able to do certain things. We have a lot of radiographers now who have their master's degrees from the UK and USA and have qualifications to do certain specialised radiographic procedures, but they are not allowed to do it in Ghana.

> ***Some of them have even gone on to complete courses on radiograph report writing and yet they are not able to practice with these qualifications. In our daily practice, there are cases that come to the department and upon re-examining the patient, you know that if only certain radiological procedures would be done for the patient, it would provide a better diagnostic view and possibly better care for the patient so you may call the referring clinician for a discussion. But it's always a 50/50 situation because sometimes the doctors feel they know it all so they would come up to you and insist that you only what they requested for, but you know in your gut that would they have requested for is not in the best interest of the patient. Some of these doctors however accept your views and sometimes heed to your advice and in some cases even change their initial request or add your suggested procedures to the betterment of the patient's condition.*** *(Rad 10).*

Some radiographers further argued that unlike other health professions that were highly specialised, radiography practice in Ghana lacked specialisations:

> ***…Everything is seen like one. When you go to the biomedical scientists, you'll see that they have done theirs in specialties. They have microbiology, they have this, they have that…the nurses' one is better off because you have nurse practitioners, we have nurse physician assistants, and you can see, when you go to the salary scale you can see the different stratification. But when it comes to radiography it is the same radiography. There is no specialty with different salary grading*** *(Rad 17).*

The next section discusses concerns about radiography equipment procurement and maintenance as reported by some radiographers.

4.5 Equipment Procurement and Maintenance

Most radiographers in public or government-owned hospital reported issues of equipment breakdown in their facilities:

> ***…. most of our machines get broken down and they are not repaired. And also, we that use the machines are not part of those who make the decisions, so the machines are brought and there is a whole lot of chaos around it*** *(Rad 18).*

Public Procurement in Ghana is governed by the Act 663, 2003. The stipulations of this Act are that all public institutions must have a procurement entity with a duty to undertake all

procurements for that institution according to the requirements of the Public Procurement Act 663. However, assertions by participant radiographers suggested the requirements of Act 663 were not always followed in procuring radiological equipment. They argued that the approach adopted by government in procuring these equipment, usually did not involve arrangements for preventive maintenance; thus, once the equipment broke down, nothing could be done. They further argued that radiographers were not taken through the required quality assurance programmes needed to produce quality images and also maintain the equipment. Furthermore, there was an assertion that government relied on donor equipment from other countries and these donor machines often did not have any preventative maintenance contracts. They however emphasised that this challenge was not faced in private hospitals and diagnostic centres:

> ***In most of the situations, equipment is acquired and set-up without providing any proper maintenance agreement so you will get this very beautiful equipment installed but planned preventive maintenance systems are not normally in place. And then it presents a big challenge because it doesn't allow for smooth operation of services provided by the radiographer. In line with that will come with maybe quality assurance. If there isn't good preventive maintenance systems then obviously, we don't get good quality. The quality assurance systems will not be of the best…Government in their effort to increase radiology service in Ghana must not rely on these donors when…acquiring equipment. Proper procurement things must be done, and preventive maintenance arrangements must be part of the procurement of equipment. When that thing is there and government is committed to it, they will be willing to pay the owners of the machine and they will maintain the equipment according to how it should be in their books…*** *(Rad 8).*

Across sites, it was observed that a good number of radiology equipment in public or government-owned hospitals had broken down for many months without any sign of hope of repair. This was not the case in the private hospitals and diagnostic centres *(Fieldnotes).*

The last, but not least, challenge to be discussed in this chapter is one with education and training and the section below captures that.

4.6 Education and Training Challenges

Across sites and among radiography participants, concerns were raised about the radiography curriculum and educational structure. A senior radiographer managing a radiology department argued that most newly graduated radiographers were challenged with the clinical work although they had theory knowledge, hence suggesting that the radiography curriculum puts more attention on the practical aspects of radiography:

> ***That's a tough one! One would be the academic course. I think, I would put a little bit more emphasis on the practical aspect, as in clinical work. Because I have realized that there's a lot more that needs to be done in that aspect. I've dealt with a couple of young graduates. And I realized that it's a big issue for them*** *(Rad 4).*

Most radiographers across sites argued that postgraduate radiography programmes were not readily available in universities in Ghana, compounded with a lack of support or funds for higher education in radiography in Ghana. They further contended that the government did not provide any scholarship schemes or sponsorships or radiography education:

> ***One big challenge is that there aren't many schools running postgraduate programs. So, there are many radiographers who want to further their education but are unable to do so due to limited resources. This has personally affected me badly*** *(Rad 20).*

> ***The next challenge is radiographers do not receive enough support in terms of pursuing higher education. They don't get the funding needed from the governing bodies which is probably because the governing bodies also don't get the necessary support from government*** *(Rad 12).*

A senior representative from the GSR questioned government's commitment to supporting radiography education. The stakeholder suggests some ways radiographers could be better supported by the government such as through granting funding, paid study leave and some flexibility with work shifts:

> ***So, the solution is how we can encourage our membership to take up further education. It's expensive…Government should be able to help us in furthering studies. There's no opportunity for us for study leave with pay. So, no radiographer is able to go to school in the free path, so they always advance to go and do weekend programmes, business administration and others but doing radiography programmes are expensive…Now we***

have Masters' and PhD in Ghana, but employers are not ready to offer study leave...We should be able to grant study leave to radiographers to go for further studies and come back and perhaps bond them to continue working, and the schools do have flexible ways of producing foundation members…once you…produce foundation members these people will help with the human resource capacity aspect in the teaching. There could be flexibility in either executive weekend programmes or sandwich programmes so that radiographers are able to choose what suits them. And once they are able to acquire all these experiences and get to the top, they can also change or make policy. When we don't have anybody up there to speak for us it is difficult. We need to help each other for our betterment… *(Stakeholder 2).*

4.7 Conclusion

To conclude, this chapter summarises challenges faced in radiography practice in Ghana as gathered from the interviews. The regulation of the radiography profession in Ghana is challenged by the activities of unlicensed personnel and this is a major safety concern, given the use of radiation in radiography practice. Although regulators are aware about the activities of these quacks especially in the deprived regions, not much is being done about it for reasons of not having qualified radiographers to accept postings to these regions. Hence the proliferation of quacks in radiography practice in Ghana is not just a regulatory issue, but a workforce shortage one as well. Radiographers have argued that such rural postings will be accepted if they come with better conditions of service and incentives as done for other professionals such as medical doctors. Radiographers argued the radiation levels are not properly monitored in their facilities. There are also staffing deficits in most public hospitals, making them unable to run 24-hour shifts for acute injury scanning and emergencies. Radiographers expressed a displeasure with the lack of recognition of their professional roles coupled with not being represented at the top management levels and in government. This leads to a lack of voice/recognition and ultimately is perceived as a lack of respect which threatens staff engagement and motivation. They further argued that the lack of role of specialisation and role extension pathways for their practice in Ghana was a demotivating factor in attaining satisfaction in their roles as radiographers. There were concerns about equipment procurement and maintenance in most public or government-owned hospitals. Radiographers emphasised the need to be supported by government in their pursuance of higher education as they believed it was the only way to develop the profession in Ghana.

Lastly, this study sought to explore the experiences of Ghanaian radiographers in speaking-up about safety concerns through answering a number of research questions. One of such questions being "What is the willingness of Ghanaian radiographers to speak-up about patient safety concerns?" According to the Institute of Healthcare Improvement (2019), for speaking-up to occur in a health institution, there should be a psychologically safe environment, active leadership and management support. Furthermore, for speaking-up to occur, there is the need for transparency to ensure that the healthcare team and management are not being silent about safety issues but tackling them seriously and fairness such that people are not being punished or blamed due to system-based errors. Reflecting on these speaking-up conditions and bearing in mind the challenges discussed in this chapter, it is undeniable that speaking-up behaviours of Ghanaian radiographers may be compromised. The reason being that the existence of some speaking-up conditions such as psychological safety, management support and fairness may be questionable in the Ghanaian healthcare setting described by radiographers in the data. This, in addition to the other challenges also discussed in this chapter may play a role in a radiographer's decision to speak-up about safety concerns and this could in turn have an impact on patient safety. The next chapter discusses the understanding and perceptions of speaking-up and patient safety as revealed by the data. This theme explores the general perceptions of Ghanaian radiographers about speaking-up and patient safety and the influence of culture and beliefs on these perceptions.

CHAPTER FIVE

UNDERSTANDING AND PERCEPTIONS OF SPEAKING-UP AND PATIENT SAFETY

5.0 Introduction

As mentioned in the earlier chapter, the thematic analysis of the data generated three broad themes. Namely, the understanding and perceptions of speaking-up and patient safety, workplace barriers and facilitators of speaking-up and the current strategies in response to barriers and facilitators and future directions. This chapter discusses the first theme. The overall aim of the study was to explore the experiences of Ghanaian radiographers in speaking-up about patient safety concerns. In achieving this aim, one of the key objectives was to identify radiographers' understanding of patient safety and 'speaking-up'. This chapter addresses this objective and the research question: "What do radiographers in Ghana understand by the concept of speaking-up for patient safety?" Answering this question was very crucial for the researcher as it was considered a determinant of the answers to the other research questions which follow in subsequent chapters.

It is imperative to know the perceptions and understanding of Ghanaian radiographers about speaking-up and patient safety. It is also significant to know how these perceptions and understandings were informed as people's perceptions and understandings cannot be ignored in comprehending their intentions, and/or the actions they take, or choose not to take (Smith 1993). In effect, it may be argued that the perceptions and understanding of the concept of speaking-up by Ghanaian radiographers may be a determinant of their willingness to engage in the act of speaking-up about patient safety concerns. Hence, this chapter also addresses the second research question: "What is the willingness of Ghanaian radiographers to speak-up about patient safety concerns?"

Two main sources of understanding were apparent in the data, which are labelled in Figure 5.1 as formal and informal knowledge. Hence this chapter is divided into two main sections. The first section explores the 'formal' knowledge which mainly embodies the knowledge about speaking-up and patient safety that is conveyed through formal channels such as education as identified in the data. This is followed by the later section which discusses the 'informal' knowledge, which demonstrates the influence of Ghanaian societal culture and the African belief system on the

speaking-up perceptions and understanding of Ghanaian radiographers. Each of these sections are explored under three sub-headings as illustrated in Figure 5.1 below.

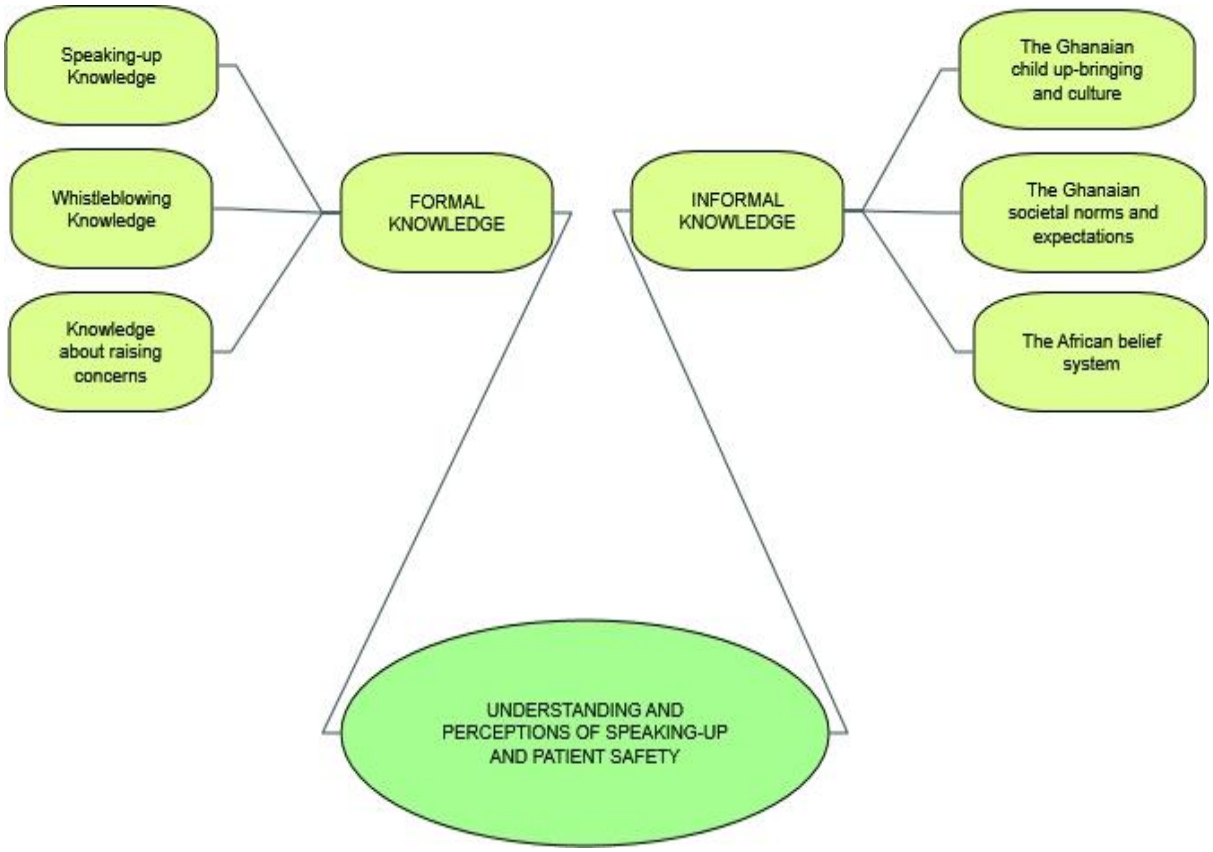


Figure 5.1 Schematic structure of the understanding and perceptions of speaking-up and patient safety in diagnostic radiography practice in Ghana.

5.1 Formal Knowledge

The term 'formal knowledge' is used in this chapter to describe the knowledge, perceptions and understanding about speaking-up that is or should be conveyed through formal channels, such as employers' policies or guidance, regulators and through training/education. During the interviews, the participants were questioned about their understanding of the term 'speaking-up' and other relevant terms such as raising concerns mentioned in the earlier chapters. The researcher dedicates these few pages to exploring at times somewhat subtle differences in understanding and usage of words that are often used interchangeably. The rationale for investing time to this form of analysis being that to date, there is no literature/research on these terms from Ghana and very little from elsewhere in Africa, therefore it cannot be assumed that

these words are necessarily known, shared, understood, or used. The views expressed by the radiographers about the terms are discussed in the sections below. Overall, the knowledge about speaking-up and patient safety were consistent across the different participants regardless of demographic factors such as age, gender, geographical location, or years of practice. The next section discusses formal knowledge about the term 'speaking-up' in detail.

5.1.1 Speaking-Up Knowledge

It should be noted that as mentioned in the literature review (see chapter 2) the terms 'speaking-up', 'whistleblowing' and 'raising concerns' are used interchangeably in the speak-up literature mainly from the west but may also refer to different types of speaking-up approaches, with whistleblowing often describing more formal routes (although not always), external to the organisation of the whistle-blower. Across sites, the majority of radiographers had a partial formal understanding of the term 'speaking-up', where they understood some aspects more than others and they described their understanding in diverse ways.

A number of radiographers described speaking -up as the drawing of attention of relevant 'higher' authorities to concerns:

> ***…speaking-up is first drawing the attention of appropriate authorities on concerns you have or certain things you feel are not right or certain things you feel must be known to someone of a higher authority so that the appropriate measure or action can be taken (Rad 1).***

Most of the radiographers explicitly linked their understanding of speaking-up to patient safety. They explained speaking-up as raising concerns or reporting wrongdoing to an unspecified person or body, to ensure the safety of the patient:

> ***Speaking-up in general basically means raising concerns for the benefit of an individual or an organization and in terms of radiography practice, speaking-up simply means raising concerns for the benefit of patients' safety and quality of care, upon recognizing or becoming aware of a risk or a potential risk (Rad 12).***

> ***What I understand by this is when a worker reports a wrongdoing at work, so in this case a radiographer reporting a wrongdoing at the department mainly in regard to patient safety so that the diagnosis or treatment procedures can be carried out without exposing patients to any harm (Rad 20).***

Similar to some descriptions in the speak-up literature reviewed in chapter 2, some radiographers said that they considered the term 'speaking-up' to be the same as whistleblowing:

> ***Speaking-up is just like whistle blowing, it's about unearthing or uncovering vices that need to be discussed in work areas or in general life. That's my understanding of speaking-up.… (Rad 10)***

The concept of speaking-up was also deemed relevant to potential harm occurring to both patients and staff:

> ***Speaking-up, as the name implies refers to raising concerns about wrongs being done against patients and staff in the workplace or reporting colleagues who are not doing the right things generally. (Rad 8).***

Speaking-up was also described as patient advocacy by some radiographers across sites. Participants in this case believed that engaging in the act was mainly, or specifically, for the benefit of the patient as indicated in the extracts below:

> ***I think it is being like a patient advocate. So maybe the patient is the one that is undergoing some sort of discomfort, for example you as a professional have to speak on behalf of the patient so being the voice and hence advocating for the patient. (Rad 14)***

> ***I think it basically has to do with being able to speak-up when there's something that is going wrong with a patient, something that has to be done, right, and you need to rectify it, or bring it to the attention of those in charge of maybe rectifying the situation. That's basically what I think. (Rad 20)***

Several radiographers across sites explained the concept of speaking-up from a specific radiography perspective, stating it could be described as voicing out uncertainties about radiography imaging protocols, or wrongdoing in the department as illustrated in the extracts below:

> ***Bringing it into radiography, I would say if there's probably a policy or a protocol that you don't agree with, you would want to speak-up or you would want to let someone know that you do not agree with that situation. (Rad 3).***

Bringing it into the circle of radiography, I will say that it could be described as any happening in a radiography unit, which I do not agree with, or think is not safe for either patients or staff and so would want to speak on it so that it is corrected. (Rad 9).

While majority of the radiographers across study sites had a partial understanding of speaking-up and patient-safety, others only gave literal or general meanings of the term "speaking-up", without linking it to healthcare generally, or patients and patient safety as illustrated in the extracts below:

Speaking-up basically to me is a matter of voicing out your feelings, disagreements on issues generally or being bold and speaking out on things that you don't like or like. (Rad 5)

basically, means trying to speak-up or making known what the problem is. (Rad 12).

Interestingly, not all radiographers rightly understood the term 'speaking-up', providing definitions that did not provide a clear understanding of the term. These definitions, although not wrong were more literal and lacked a complete understanding from the perspective of speaking-up in the context of work and patient safety:

To speak-up is just to speak loudly, or make others hear what you have to say. It usually happens when you want to defend a person or protest about something that maybe you're not in line with and you are speaking-up against it. (Rad 3).

What I understand by this is expressing yourself in a loud manner over an issue. Saying what you think should be done. (Rad 19).

At one of the sites, a junior radiographer explained the term 'speaking-up' by providing an example, reflecting the literature, linked to 'whistleblowing' and 'raising concerns', while emphasising the need for moral courage to engage in the act:

Like I said, there are things that when people see, they find it difficult to say it. For example, if somebody is doing the wrong thing and it needs to be talked about or reported but no one actually talks about it so if you get the courage to voice it out or bring it to bare, it means that you are exposing wrongdoing and you are speaking-up or raising concerns or whistleblowing. (Rad 7).

To recap, this section demonstrates the differences in the Ghanaian radiographer's knowledge about the term 'speaking-up'. Not many radiographers could distinguish between 'speaking-up'

and ‘whistleblowing’. While some radiographers across sites offered a full understanding of the term, others gave literal meanings of the term, and some seemed to not fully understand the term in relation to healthcare. The next section of the formal knowledge sub-theme explores the Ghanaian radiographers’ knowledge about the term ‘whistleblowing’.

5.1.2 Whistleblowing Knowledge

Although the terms ‘speaking-up’ and ‘whistle-blowing’ are sometimes used interchangeably as indicated in literature, it should be noted that these terms also have their respective individual meanings as defined in the earlier background chapter. Across sites, radiographers described whistle-blowing in diverse ways. To some radiographers, the term was simply discretely reporting unlawful actions against patients or institutions to external bodies, or a higher authority as illustrated in the extracts below:

> ***whistle blowing is when something unlawful to a patient or organization is being done and you silently inform a higher authority with the aim that what you perceive to be wrong will be corrected by that higher authority. (Rad 15).***
>
> ***Whistle blowing is basically when you tell on somebody in a higher authority. And so, you report somebody who is in a higher authority to someone who has the power to do something about it behind their back, but then you try to hide your identity as well. (Rad 14).***

Although there are slight differences in their understanding of the term, both participants agreed that the whistleblowing involves reporting a wrongdoing to a higher authority, or an external body. The need for ensuring anonymity in the process of whistleblowing was also emphasised by these radiographers.

Furthermore, across sites, a number of the radiographers linked their understanding of whistle-blowing to raising concerns. They argued that the act of whistleblowing could be described as raising concerns about a wrongdoing. Although this section is quite similar to some of the extracts discussed on page 4 which demonstrates that some radiographers thought speaking-up and whistleblowing were the same terms, the extracts discussed here are based on the terms “raising concerns” and “whistleblowing”:

> ***So, whistle blowing simply means you raising concerns about happenings that you see to be wrong or incidence that you see to be things that shouldn’t be happening. (Rad 13)***

I think they are more or less the same thing. Because when someone is blowing a whistle, they are basically raising a concern or speaking out on something they are not happy about. So, they generally arrive at the same thing. (Rad 5).

Among the radiographers who linked their understanding of whistle-blowing to raising concerns, a senior radiographer tried to differentiate between the terms 'raising concerns' and 'whistleblowing'. The radiographer contended that the main difference between these terms was that 'whistle-blowing', was associated with vices and negativity and 'raising concerns' was only relevant for issues that were known to all and expressed openly. However, the explanation that /both parties are aware about what is happening suggests a degree of misunderstanding of the term raising concerns.

I think there is a slight difference between raising concerns and whistle blowing. For raising concerns, it's something everybody is aware about, I would say both parties are aware about what is happening. They have a legitimate claim as that, oh, this could have done this way or the treatment I've seen, wasn't fair enough or good enough. Whereas whistleblowing is about uncovering a vice such as somebody extorting a patient or there is some particular form of process or practice that is being done, which is not the right thing. And the patient or another person decides to blow the whistle or, circumvent the person to report to a higher authority for actions. That's the main difference, I know between raising concerns and whistleblowing (Rad 1)

Just as mentioned earlier for the term 'speaking-up', some radiographers explained whistleblowing literally or without offering in-depth descriptions or necessarily linking it to patients or staff as illustrated in the extracts below:

I understand whistleblowing to be letting people know about something (Rad 19).

Whistleblowing is simply someone giving a tip off (Rad 16).

Furthermore, few radiographers across sites linked their explanations of whistleblowing to issues concerning patients and staff. Among these were some who described it as speaking about a concern quietly to fellow staff at work and not necessarily to an authority**.** Unlike some of the other participants, these radiographers explained that whistleblowing involved reporting to a colleague and not necessarily a higher authority:

Whistleblowing, I think means when there is a problem, you identify a problem in your work and you say it, maybe not loudly, but to those around you. You just say that you

have found a problem here. Maybe not directly to the one who is supposed to solve the problem maybe with your colleagues or anyone around you think is necessary the person knows. (Rad 18).

To summarise, this section demonstrates the Ghanaian radiographer's knowledge about the term 'whistleblowing' generally. As was the case for the term 'speaking-up', some radiographers across sites offered an in-depth understanding of the term, while others gave literal meanings, and some had limited understanding of it. Nevertheless, some of the explanations about whistleblowing offered by the radiographers were linked to specific elements such as anonymity, the legality of the issue of concern, the need to report to external bodies or individuals. While some radiographers explained that whistleblowing involved reporting to a higher authority, others argued that the report could be made to a colleague, or just anyone, hence suggesting the role of sharing concerns, no matter who it is to. Furthermore, a key commonality that was noted across all the explanations was the acknowledgement that for a practitioner to speak-up, or blow the whistle or raise a concern, something first has to go wrong. The next section of this sub-theme explores formal knowledge about the term 'raising concerns' as identified from the data.

5.1.3 Knowledge about Raising Concerns

Across sites and among radiographers, the term 'raising concerns', just as in the earlier mentioned terms was explained in diverse ways. Some of these descriptions were more generalised and not linked to patients, staff or radiography practice in Ghana:

Raising concern is noticing a problem and saying it as it is. (Rad 16).

… raising concerns is to be raising an alarm about an issue or making people know about the hazards of a situation. (Rad 19).

Other radiographers described how raising concerns involved reporting directly to the person involved in the act or reporting to members of the public. Neither of these approaches are representative of the literature definition of raising concerns:

Raising concerns is talking to the one committing the act and telling him or her that what he is doing is wrong (Rad 15).

> ***… raising concerns is about talking about things that especially happen at your workplace that you think needs to be reported to the general public at large. So basically, that's it. (Rad 4)***

Although the majority of the radiographers were more familiar with the term 'raising concerns' than 'speaking-up' and 'whistleblowing', there were many overlaps in their explanations of the term 'raising concerns'. Across sites, radiographers interchangeably described raising concerns in term of speaking-up for patient and staff safety:

> ***I believe the term raising concerns just as the other terms mean to speak-up about safety of patients or even about your own safety as a health professional. (Rad 20).***

> ***It basically concerns issues that you think are not in line with professional practice and speaking-up about those things, especially when they affect the safety of patients or staff (Rad 14).***

Some radiographers linked their definition of raising concerns to whistleblowing. They argued that to raise a concern simply means to blow the whistle on wrongdoing, hence demonstrating an overlap in their understanding of the term 'raising concerns' and its associated terms:

> ***Well, in my understanding if someone wanted to raise a concern about something, that will basically mean that there's an issue on board, and the person wants to talk about it. So, I mean, there's something you actually don't agree with, or you probably don't understand or you're not comfortable with and so you want to talk about it. I believe that's what we call raising concerns. I think whistleblowing goes along a similar line. I mean, if there's anything going on, which is not so good, and so you want to talk about that is for me, whistleblowing. (Rad 9).***

In another light, a senior radiographer at one of the rural sites explained the term 'raising concerns' using a clinical/legal scenario around child protection. This demonstrated a subtle difference to some of the earlier descriptions as this was similar to an incident reporting or reporting a safeguarding issue which is more specific process/procedure than raising concerns more generally:

> ***Raising concerns, whistleblowing and voice, they are all probably interchangeable. You can use them interchangeably. We can look at it from different angles. For instance, if a child comes in limping but the parents are not ready to give full details of what transpired. You may have done x-ray and realised that the fracture or abnormality is***

most probably as a result of trauma. Possibly a trauma case involving the parents. Then you can from that point notice that they are trying to hide something. In that case, you need to fight for the child's right by reporting such parents. (Rad 17)

Radiographers argued that throughout their radiography training and practice, they had never had any formal knowledge on speaking-up disseminated to them either through teaching, training, regulation or policy document. For majority of the participating radiographers, their exposure to the topic was as a result experience than education, training or policy. Most participants explained that they have had speaking-up experiences either as someone who speaks up or someone who receives and responds to concerns. These issues are discussed in detail in the chapters that follow as they explore speaking-up experiences of radiographers, current strategies and their associated barriers and enablers.

Across sites, the responses given by some radiographers showed a lack of understanding of the topic:

I haven't heard about whistleblowing before. I think raising concerns isn't something that I have heard before in radiography. I think it's basically got to do with when something happens, and you want to know more about it and how it happened. (Rad 11)

Some radiographers across sites stated that they had a very limited knowledge about the terms. They stated that they did not have any understanding of the terms:

…I do not know what it means. (Rad 15)

Across sites, participating radiographers were asked if they could tell any differences between 'speaking-up', 'raising concerns' and 'whistleblowing'. The majority expressed an inability to clearly distinguish between them:

I'm not able to distinguish these terms. From my personal view, I see them to be the same thing. I cannot distinguish between them. (Rad 1)

I can't really say clearly what the difference is, but I think generally they mean raising concerns about issues of talking about something that needs to be rectified. (Rad 2)

To conclude, the opening of this chapter has explored Ghanaian radiographers' formal knowledge and understanding about speaking-up for patient safety in a general sense. It was observed that the terms 'speaking-up', 'whistleblowing' and 'raising concerns' meant seemingly

different things to these Ghanaian radiographers. It should be noted that the terms are not always distinguishable in the speak-up literature or policy and in some ways, the understanding of Ghanaian radiographers reflected this. Although explanations given by radiographers were linked to specific elements such as anonymity, the legality of the issue of concern and the need to report to external bodies or individuals, some similarities could be drawn from these definitions and explanations. For example, all the definitions offered acknowledged that for a practitioner to speak-up or blow the whistle or raise a concern, something first has to go wrong.

While some of the data discussed here demonstrated overlaps in Ghanaian radiographers' understanding of speaking-up and its associated terms, others illustrated a flawed or partial understanding of the terms as these terms originate from the west. Furthermore, some radiographers revealed that they had limited knowledge about the term 'whistleblowing' prior to the commencement of the interviews**.** It was noted that, overall, there was a lack of formal knowledge about 'speaking-up' and its associated terms. Radiographers, for instance made no direct or indirect reference when explaining their understanding of these terms to sources of formal knowledge such as education, training, specific national or professional regulation or national or local policy. This suggests that Ghanaian radiographers' understanding and perceptions about these terms generally emanates from hearsay, experiences and societal culture. The next section of this chapter therefore explores the informal knowledge about speaking-up for patient safety among Ghanaian radiographers.

5.2 Informal Knowledge

The process of thematic analysis of the data also identified that Ghanaian radiographers' understanding and perceptions about speaking-up are influenced by informal sources, hence the term 'informal knowledge'. This refers to knowledge and perceptions about speaking-up that are influenced by informal sources, channels or structures such as belief systems, tradition, culture and families. This section therefore explores the influence of the Ghanaian culture and the African belief system on the understanding of speaking-up for patient safety. As already discussed in the earlier chapters, the review of literature prior to the data collection demonstrated a dearth in literature from Low-to-Middle-Income Countries (LMICs). Consequently, reflecting on the predominantly 'westernised' literature (from Europe, North America and Australia), I was highly interested in identifying in the data how healthcare professionals working in under-represented geographical areas and cultures explained and

understood these terms. I believed that it was not prudent to readily transfer the understanding and experiences of people from different national and workplace cultures into the Ghanaian context.

Culture is simply *"a set of distinctive spiritual, material, intellectual and emotional features of society or a social group, that encompasses, not only art and literature, but lifestyles, ways of living together, value systems, traditions and beliefs"* (UNESCO, 2001: p12). In contrast, it is interesting to note here that culture in relation to the speak-up literature is largely mentioned as workplace culture rather than this broader social way of understanding culture. Consequently, reflecting on culture in the broader societal sense is described here, it was evident that to better comprehend Ghanaian radiographers' understanding and perceptions about the topic, it was imperative to be enlightened about these cultural values and belief systems which may inform their speak-up decisions. This will be discussed under three headings as illustrated in Figure 5.1 above.

5.2.1 The Ghanaian Child's Upbringing and Culture

Across sites, radiographers described how their upbringing as a Ghanaian child influenced their perceptions about speaking-up when they observed a wrongdoing. They discussed, for example, that the hierarchical nature of Ghanaian culture resulted in raising children to accord the highest level of respect to the elderly or people in authority. They explained that their upbringing positioned speaking-up as a character flaw, such that engaging in speaking-up resulted in being considered too proud or as a troublemaker and not submissive. It should be noted that within the speak-up literature documents and more general public discourse, these words are well known tropes attached to stigmatise whistle-blowers:

> ***In the Ghanaian context, we are brought up to believe that the elderly and people in authority are always right. And so, you are not expected to challenge authority, you always have to submit. When it comes to speaking-up, we don't speak-up because of the way we are brought up. You have to subdue to authority. An adult is always right all the time. So, if something is going wrong, and that wrong is being perpetrated by someone who is an adult or someone in authority we feel like telling on him or her will mean that we are disrespectful or not submissive or we are proud. (Rad 1)***

Radiographers contended that the Ghanaian culture and child upbringing made the act of speaking-up a difficult one to engage in throughout their childhood lives and eventually shaped

their perceptions of speaking-up in adulthood. They emphasised that this in essence, affected their willingness to speak-up about concerns in their workplaces. In these extracts child upbringing is reinforced as a powerful form of socialising and engendering or inculcating children to societal values which may have been similarly passed down across generations. The phrase "***it's very difficult to overcome that ideology"*** as used by Rad 1 below emphasises the struggle of individuals to repress ideas and societal values passed on to them by their predecessors:

> ***…. these things make it really difficult. Our culture and our upbringing, I would say is against speaking-up. (Rad 10)***
>
> ***That is how we were brought up. It's the very the foundation we exist from. It starts from our home to school so, that kind of foundation has already been laid, and it's very difficult to overcome that ideology of you being expected to always respect someone in authority or the belief that an adult is always right. So, it plays a very huge role at our workplace. The way we were brought up plays a very huge role on the way we think or the way we do things at our workplace and in our Ghanaian setting, we are brought up not to speak-up so this is transferred to our workplace, and we do not speak-up. (Rad 1)***

The following sections further demonstrate that Ghanaian culture was argued by participants to profoundly not support the act of speaking-up and these things that are learnt in the home, or society more generally, is usually transferred to the workplace. They therefore contended that workplace interactions around speaking-up and raising concerns were in effect shaped by the home and parenting/grandparenting environment and, in relation to this, reflects the national culture.

> ***In Ghana, for instance, even in our homes, going up against your parents or your older siblings is frowned upon. It's a culture that we unluckily have to live with and being brought up in the community that shares the same beliefs has resulted in the same thing happening within facilities. So, I think that form of intimidation is the main barrier towards speaking-up in my facility and in the nation……the Ghanaian culture profoundly doesn't support it (Rad 10)***
>
> ***Okay, there is an adage that says, "Charity begins at home". You know something that is practised over a period of time becomes a habit. If society doesn't shape you in such a way that you are able to speak-up, raise your concerns, bring out issues that is***

bothering you, it does become a problem in the long run and so if you have a problem in the workplace, you find it difficult to actually speak-up. You think you would not be heard or acknowledged, and it is something that has affected you from the society, and that perception has been transferred to the workplace so that is actually a contributing factor to why people can't speak-up at the workplace. (Rad 12)

The majority of the radiographers were very emphatic about how much their perceptions about speaking-up were influenced by culture. For most of them, speaking-up about issues or reporting wrong-doing was not a typically Ghanaian characteristic. The Ghanaian culture and upbringing position the act as a character flaw, and not only is upbringing reinforced as a powerful tool of socialisation, but the difficulty to subdue some of these ideas passed down to generations. Radiographers, although aware of the importance and possible benefits of raising concerns especially about safety issues in the workplace, mostly perceived the act to be culturally incorrect and counter-cultural? (Reflective memos).

Building further on these insights, a senior radiographer contended that introducing the act of speaking-up about wrongdoing into a typical Ghanaian society would be very challenging to introduce in the short-term, considering the demands of the Ghanaian culture:

The Ghanaian society that I know, hasn't gotten there yet yes. We will get there one day when we the younger ones change the norm. But I don't think so. I think it will be difficult for us to get there because we are learning from elderly ones and if that is the culture that they are inculcating into us then it's going to be difficult. And I think we will not give up; we will not give up. Some of us will continue to talk when we are supposed to talk. (Rad 13)

Some radiographers across sites linked the hierarchical nature of the Ghanaian societal culture (which is further discussed in the next section) to the radiology department, workplace culture and management situation in Ghana. They argued that because the Ghanaian societal culture was very emphatic about deferring to older people and people in authority, societal culture influenced their workplace culture. This has practical consequences for workplace interactions and patient safety. For example, a typical radiology department consists of radiographers and radiologists. However, those interviewed contended that radiologists who were higher up on the hospital organogram and hierarchy, were usually the ones expected to raise concerns, and not radiographers, as they were regarded to have inferior status compared to radiologists. Although

this situation could be argued to be prevalent in radiology departments in other parts of the world, they believed it was particularly the case in Ghana, because of the Ghanaian culture of deference towards authority and, at times, patriarchy:

> ***I would say that the Ghanaian society from one's infancy, more emphasis has been placed on the elderly or people in higher authorities actually speaking. When you take a critical example of a radiographer, management always expect radiologists to speak-up for these concerns because looking at the hierarchy in these departments, it's the radiologists who are always on top so then the Ghanaian society is such that people who are always on top or have higher positions are always right. Even in the African home, it's the father who is always right. So, the Ghanaian culture in general doesn't encourage speaking-up from a very young age. (Rad 12)***

The Ghanaian culture, like most African countries is deeply entrenched with patriarchal beliefs and ideologies. Perceptions of male supremacy is widespread therefore and, in most instances, men control women in the private sphere, who may be forced to do things they do not want to. For example, in a typical Ghanaian home, the quintessential wife is the one who does not question her husband's decisions and choices but simply submits and obeys. (Reflective memos)

Some radiographers also argued that the Ghanaian society only embraced speaking-up when the person raising the concern was an older person. Hence for those radiographers, the Ghanaian society's perception about speaking-up was solely dependent on the individual involved in the act rather than the merits of the concern being raised:

> ***I think that it is only accepted if it is an elderly person who is raising the concern to someone else. Well, that's in my view. (Rad 15)***

In our culture, Ghanaian culture doesn't permit a younger person talking back on the elderly. So, if even something is wrong and your facility head, it has to do with your head of department, you are being the junior member or subordinate can't go and complain to anyone because that's your head (Rad 13).

Listening to the radiographers during the interviews brought back some childhood memories. The last thing a typically raised Ghanaian child would want to do is to challenge an adult about an issue or speak-up about a wrong done by an adult, especially your parents or anyone older than you. I still remember my mum telling me never to say to an elderly person that they were telling lies even if I knew for sure that they were. As funny as this may sound, it was my reality as a child growing up in Ghana. Even in situations where you felt that your point had been made in the kindest of ways, you were still very likely to get yelled at, insulted or in some cases even punished. As you grow up, you are likely to unconsciously develop a laid-back attitude towards reporting wrong-doing or challenging norms in society especially when it involves the elderly or people in authority. (Reflective memos)

5.2.2 Ghanaian Societal Norms and Expectations: Personal Detriment

Generally, it is believed that the norms and expectations of a particular society influences the attitudes and perceptions of the people living in that society. Nevertheless, this point has not been translated into understanding that society also influences workplace culture, attitudes and perceptions. Radiographers across sites contended that people who engaged in the act of speaking-up or raising concerns were labelled negatively, ignored and usually suffered name-calling within Ghanaian society. This was consequential for speaking-up, as participants argued that this situation discouraged Ghanaians from engaging in the act. It should however be noted that name-calling or being tagged negatively are also reported in the international speak-up literature as a consequence of whistleblowing:

fingers are pointed at you, and you are seen as a snitch. (Rad 10)

Generally, there's a perception that comes with a person who tries to speak-up. You are seen in a different light, as someone who complains too much or says things about other people. You are too petty so whenever you speak-up, it's like you are hushed or ignored. So, you don't see a reason why you should eventually when you have to. (Rad 2).

Furthermore, the Akan who are the largest ethnic group in Ghana have a phrase "Fa ma Nyame" which literally translates in English as "leave it to God's judgement", which can also be interpreted as "vengeance is the Lords". This phrase is commonly used by sympathisers when a person has experienced an unpleasant or bad situation and wishes to seek justice or compensation for the harm done. For example, in some poorly developed villages in Ghana, if a child was raped by an adult or a person of authority in society, instead of the rapist being reported to the police for proper criminal actions, the rapist may send a delegation to the family of the child to plead with them to forgive and not take the case further, or possibly not to the police. They may be offered a substantial amount of money and some gifts depending on the social class of the culprit for their trouble. This is a typical example of the "Fa ma Nyame" attitude in the Ghanaian society.

Radiographers argued that the Ghanaian society did not support the act of speaking-up or raising concerns because of this attitude of not pursing things and leaving everything to God's judgement. They further argued that this stance was even worse when the offender was of a higher social class. The extracts below illustrate this:

> ***Unfortunately, our religious beliefs also do not help much. Because we are tended more to say in our local dialect; "Fa ma Nyame" meaning "leave it to God", "vengeance is the Lord's, "The Lord will take charge", "The Lord will deal with the perpetrator", "The Lord will sort out the issue" … So basically, you don't pursue anything and most especially when it involves a senior member of society. When that happens, all we say is "let's try and not make this happen next time. As for remedial actions most of the time, it doesn't happen. (Rad 6).***
>
> ***No. Our culture doesn't does not support the society, I don't know, what our society has done, as far as speaking-up is concerned. What we are used to seeing is workshops and seminars on work ethics and others but speaking-up had never been part of the topic. So, I'm not sure they see it as a priority, because it has never come. But as I said earlier, in our culture, you are discouraged from reporting issues like that, or speaking-up about issues like that, especially publicly, or to the extent that somebody suffers a punishment. So, people tend to try to talk to whoever is involved and usually tell the one who suffered the wrong to let it go. "Fa ma Nyame" as is said in our local dialect. So, we don't take up issues in our culture, people don't suffer for wrongs they are***

involved in, especially in the hospital settings. People don't sue us, so we tend to get away with a lot of things. (Rad 8).

Some radiographers contended that they had a negative perception about speaking-up publicly about issues because of the possible consequences of the act on the offender or the colleague who has committed the offence. They further argued that the societal norm of leaving things to God, and not pursuing things, positioned the act of speaking-up about a wrong done by a colleague as a negative, especially if it would result in some sort of punishment or possibly a job loss*:*

Most definitely! You know, we always leave things to God. It's a cultural thing. It's like you are being a snitch so nobody wants to be called a snitch and nobody wants to be blamed that you reported this and so I've lost my job, or I'll be punished. It's just a cultural thing I don't know whether to place it in religion or superstition but it's just there. We just leave everything to God. I think education should be the way forward. As for religion, I don't even want to talk about it. (Rad 4).

Radiographers argued that this attitude of many Ghanaians resulted in speaking-up being regarded as an act in futility. They reported that this was because, even in cases where an attempt had been made to expose a wrongdoing with the intention of ensuring the safety of a patient, that patient involved may not be interested in pursuing the case further to ensure that the right thing is done. This demonstrates that the belief or perception of speaking-up being counter-cultural and not proliferated among just radiographers, but patients as well, as often times, they also regarded staff speaking-up as counter to norms and might not even support moves to introduce it. Consequently, this may discourage radiographers from raising concerns or speaking-up for patients when they witness a wrongdoing.

Because, if I report a case to you, okay and the family members may feel like 'it's okay, "fa ma Nyame" Let's give it to God' and that ends it. Probably, the next moment, it may be a demotivation factor for somebody to even go ahead to report. You see, but as a professional colleague you still need to voice out. And it will alert them that oh this attitude or this behaviour or this act is bad (Rad 17).

… there were instances where people had to be punished or at least warned for what they did, because the issues were quite serious, but this didn't happen. For example, the issue with the HOD (Head of Department), I believed that if he is not punished, or at least warned, he might go and repeat the same thing. In all instances, they were not punished the way I wanted them to be. Because it's like we have this attitude of leaving everything to God when it happens. I feel that sometimes that's what discourages me. Because even when you take it up, it may not go very far. So as much as we can, we try to talk to whoever is involved in these issues. But there is nothing like punishment that anyone suffers. (Rad 9)

5.2.3 The African Belief System

A key element of group culture is their belief systems (Craig and Douglas 2006). This belief system

Some radiographers here emphasised the need for punishments to be administered to 'offenders' when things go wrong, and a speaking-up attempt is made. It should however be noted that the main purpose of speaking-up for patient safety in radiography is not necessarily to condemn or point fingers at radiographers or radiology staff who have made mistakes or errors in their delivery of care. It is also not focussed on just meting out punishments for committing errors or mistakes as the researcher recognises that mistakes are definitely inevitable in any system that involves human beings. The call for speaking-up for patient safety is more inclined towards recognising learning outcomes from the errors that have been made and taking the necessary actions to ensure that those mistakes are not repeated to ensure the overall goal of promoting the safety of the patient. It was observed that not enough education has been given on the importance and possible benefits of speaking-up about safety concerns in radiography practice in Ghana and the healthcare setting as a whole. (Reflective memo)

influences ideologies and Africa is also a massive continent with diverse religious and other socio-cultural traditions. However, as mentioned in the earlier background chapter, the three main religious traditions in the continent and Ghana are the African traditional religions, Christianity and Islam. The African belief system has strong faith in spiritual powers. The term "spiritual" can be traced back to the African culture and history. Africans are motivated by their beliefs, which are predicated on their life experiences.

Across sites, radiographers contended that the African belief in spirituality, particularly juju, witchcraft, black magic, voodoo, curses, necromancy and spells negatively influenced their perceptions and attitudes towards speaking-up about issues and reporting wrongdoing in society and within their workplaces. They believed that a person involved in whistle-blowing or raising concerns could be harmed spiritually by the person who has committed the offence or linked with the person at fault. These beliefs discourage most Ghanaians including radiographers from blowing the whistle on wrongdoing or reporting things that go wrong in the society. It should however be noted here that the concerns raised may not always be about offences but sometimes a general worry about low or unacceptable standards.

> ***I grew up in a typical village where juju is held in high esteem. When someone says, "I will show you", it speaks volumes, so you don't want to step on the toes of anyone, so you don't get into their bad books. You sort of want to mind your own business and not fall into trouble with anyone. You just stay to yourself, and watch things slide. (Rad 16).***
>
> ***when you report someone, the person might even curse you and in our culture, we believe in curses. We believe that when someone curses you, it affects you and so if I'm going to report you because maybe I have just seen you abusing a patient, and my act of reporting so that you are punished or you are corrected for doing that, will result in me being cursed and affect me somehow, then I would rather refrain from reporting. So, it does affect the way we do things. (Rad 8).***

However, there were some radiographers who, although accepting of the power of the deeply rooted African spirituality and the role it plays in the Ghanaian society, they argued that they did not believe that they could possibly be harmed spiritually for raising concerns. As a result, speaking-up could continue unfettered by spiritual concerns:

> ***we cannot run away from spirituality as far as our culture is concerned. Being it traditional or Christian or Islamic we cannot run away from those things. But personally, I don't put my trust or believe in those things that someone could harm me because I've raised a concern. I always tell myself if something happens to me it's meant to happen. It is not anybody's power or a spiritualist that caused something to happen. But you can't run away from it so, far as our culture is concerned. (Rad 13)***
>
> ***There are things that people believe in, and belief is an individual affair so someone might think that if they report a certain individual who has done some wrong, that***

person may find out and cast a spell on them or harm them spiritually but for me, if I know what I 'm saying is the truth and nothing but the truth, I will still go ahead and say it. I don't care what happens if only I'm reporting the right thing and not any fabricated story. I don't have any such fears. (Rad 7).

Furthermore, a senior radiographer contended that the spiritual beliefs should rather encourage people to speak-up and report wrongdoing. In this instance, being a Christian was an enabler to speak-up about wrongdoing as the Christian faith considered the act as virtuous:

Where I stand when it comes to spiritual beliefs is, I think our spiritual beliefs should rather encourage us more to speak-up and not pose a barrier. Because I am a Christian and the bible encourages us to speak-up without fear or panic and stand for the truth as Christians. (Rad 5).

Issues around religion and spirituality are extremely sensitive in the Ghanaian society and are usually considered carefully. Growing up in Ghana, I have witnessed countless instances where occurrences, some good and bad have been attributed to some spiritual or supernatural power. In cases where something good has happened to someone, for example a couple giving birth to twins it is believed that they have been blessed by God or the powers of the universe. However, if a person suffers a strange disease or dies under mysterious circumstances, it is equally believed that that person is being punished by the gods for an offence or an ancestral curse. The question that then arises is, if a person witnesses a wrongdoing in society or in the workplace, and decides to blow the whistle or report this wrongdoing with the intention of protecting others or making things better, why should it be believed that the person could be harmed spiritually if speaking-up or whistle-blowing is considered to be good and not bad? What is the perceived crime of the person who speaks-up? Does this mean the Ghanaian society considers whistle-blowing and speaking-up about wrongs taboos? Do the supernatural powers, gods and deities believed to be 'responsible' for punishing wrongdoing in society consider speaking-up about wrongdoing or whistle-blowing as intrinsically wrong or 'evil? (Reflective memos).

In some sites, while radiographers recognised the existence of these spiritual powers and their influence in society, they contended that they did not believe in being harmed or affected negatively by these spiritual powers for raising concerns as they considered the act a good deed. Although these extracts seem quite similar to the ones discussed just above, there are some

important differences. For example, arguments made by radiographers here were not based on a religious duty as in the earlier extract. While Rad 5 above contended that Christian faith obliged them to speak-up about wrongdoing without fear, the radiographers here contended that they were encouraged to speak-up about wrongdoing without fear of spiritual attacks because they believed it is for a worthy cause and not necessarily because of a religious obligation:

> ***I do believe these things exist but if I call you out on an issue, as long as you were wrong and I was right in doing so, I believe nothing bad will happen to me. I know these things exist but personally it does not prevent me from speaking-up. (Rad 19).***
>
> ***Well, to some extent yes. For instance, you do something and the patient's relative will tell you 'You will see'. Ahaaah. So, yes, I have seen a few of them. You are right. You are right. Well for me, okay, all I do is for the good of the patient, you understand. So, I go ahead to do it anyway but it's the reality. I have witnessed a couple of people fighting and quarrelling at the department and it has amounted to some of those things. Yes, it is real, it's real (Rad 17).***

5.3 Conclusion

To conclude, this chapter summarises the understanding and perceptions of speaking-up about patient safety among radiographers. Two research questions are answered in this chapter. The first question being "What do radiographers in Ghana understand by the concept of 'speaking-up for patient safety'?" This chapter demonstrates that Ghanaian radiographers' understanding and perceptions about speaking-up and patient safety is based on two divergent sources which are formal and informal. Although radiographers in Ghana have a fair (adequate among some radiographers and inadequate among others) knowledge and understanding of the speaking-up and its associated terms such as 'whistleblowing' and 'raising concerns', it is evident there is a lack of formal knowledge about the topic. This could possibly be as a result of the topic not being introduced into the radiography education curriculum in Ghana.

It is also noted that the knowledge about the topic expressed by radiographers in Ghana were mostly drawn from hearsay, experiences, societal culture and norms. As a result, most radiographers' understanding of speaking-up is dominated by these informal sources of knowledge. Importantly, these sources of knowledge are created, reinforced and disseminated across generations by families and society more generally. The absence of formal sources of knowledge in the workplace creates a space within which these informal sources proliferate and

remain unchallenged. It is imperative, however, to also note that these knowledge sources do not exist separately as they may be interlinked. This connection will be further explored in the discussion chapter.

Overall, Ghanaian radiographers had varying understanding about what speaking-up meant and its purpose. Although explanations given by radiographers were linked to specific elements such as anonymity, the legality of the issue of concern and the need to report to external bodies or individuals, some similarities could be drawn from these definitions and explanations. For example, all the definitions offered acknowledged that for a practitioner to speak-up or blow the whistle or raise a concern, something first must go wrong. This however is not unlike other countries. While some of the data discussed here demonstrated overlaps in Ghanaian radiographers' understanding of speaking-up and its associated terms, others illustrated a flawed and incorrect understanding of the terms. Furthermore, while some radiographers believed that speaking-up about safety concerns was solely for patient safety, others argued that the act should have the ultimate goal of protecting both patients and staff.

It is also evident that the Ghanaian culture and African belief system cannot be overlooked when examining the Ghanaian radiographer's understanding and perceptions about speaking-up for patient safety. Radiographers argued that the Ghanaian child-upbringing and culture, which is entrenched in hierarchy and patriarchy typically does not support the act of speaking-up or raising concerns about wrongdoing. They contend that the Ghanaian child is raised to respect the elderly and people in authority and hence not attempt to challenge them under any circumstance whatsoever. They further argue that this system of hierarchy and notions of entitled deference causes intimidation in the children who eventually grow to become adults creates a negative perception about speaking-up about mishaps or wrongdoing in the workplace and the society at large. They also argue that the act of speaking-up is only supported in the Ghanaian society when the person attempting to speak-up is an adult or a person of authority and this attitude is transferred to the workplace and in effect, negatively influences their perceptions about speaking-up in the department.

Furthermore, radiographers argue that their perceptions about speaking-up about wrongdoing is negatively influenced by Ghanaian societal norms and expectations. They believe the Ghanaian society labels any individual involved in speaking-up about mishaps or reporting wrongdoing as a snitch or a bad person. Radiographers reported the "Fa ma Nyame" attitude of Ghanaians as negative influence on their perceptions about speaking-up about mishaps or reporting

wrongdoing. They contend that this attitude which results in most Ghanaians leaving things to God's judgement and not addressing mishaps or wrongdoing in society makes them perceive speaking-up as an act in futility, and hence discouraging them from engaging in the act.

Lastly, Ghanaian radiographers argue that the African belief system strongly influences their perceptions about speaking-up for safety. They explained that the belief in religion, spirituality, witchcraft, juju, superstition, voodoo, black magic, curses and spells deterred most radiographers from engaging in the act of speaking-up or reporting wrongdoing in the department as they feared being harmed spiritually by the person involved in the wrongdoing. This fear therefore yielded a negative effect on their perceptions about speaking -up for safety. Nevertheless, few radiographers, though acknowledging the influence of the African belief in religion and spirituality, argued that they did not believe in being affected by spiritual spells and curses for speaking-up about a wrongdoing as they perceived the act to be a virtuous deed. The Christian faith was also argued to be supportive of the act of speaking-up, hence positively influencing the perception of radiographers.

It is imperative to note that the focus on societal norms and culture explored in this chapter is an original contribution to the existing speak-up literature and breaks interesting and uncovered ground. This is mostly absent in the existing healthcare speaking-up literature where interactions between society and workplace cultures have barely been explored, resulting in assumptions that are yet to be tested.

I recognise that the perceptions about speaking-up expressed by the radiographers in this chapter may in effect influence their willingness to participate in the act. Hence the views expressed in this chapter partly answer the second research question: "What is the willingness of Ghanaian radiographers to speak-up about patient safety concerns?" The next chapter discusses the workplace barriers and facilitators of speaking-up or raising concerns as deduced from the data. This theme explores how workplace factors facilitate or limit speaking-up behaviours of Ghanaian radiographers.

CHAPTER SIX

WORKPLACE BARRIERS AND FACILITATORS OF SPEAKING-UP

6.0 Introduction

This chapter discusses the second theme from the data analysis which mainly covers the workplace barriers and facilitators of speaking-up for safety as identified by radiographers in Ghana. The overall aim of the study was to explore the experiences of Ghanaian radiographers in speaking-up about patient safety concerns. In achieving this aim, some key objectives had to be met. These were to firstly, establish the factors affecting speaking-up behaviours of Ghanaian radiographers, determine the willingness of radiographers to speak-up about patient safety concerns, and determine the experience of radiographers with institutional culture and inter-professional relationships on patient safety.

Accordingly, three research questions are answered in this chapter. The questions being "What are the factors affecting speaking-up behaviours of Ghanaian radiographers?", "What is the willingness of Ghanaian radiographers to speak-up about patient safety concerns?" and "What are the experiences of Ghanaian radiographers with institutional culture and inter-professional relationships when speaking-up about patient safety concerns?".

Establishing the factors affecting speaking-up behaviours provided a crucial insight into the willingness of Ghanaian radiographers to speak-up about safety concerns. Building on the findings of the previous chapter that discussed the perceptions of Ghanaian radiographers about speaking-up about safety concerns and explored the influence of the Ghanaian societal culture and African belief system on speaking-up, this chapter focusses on how workplace cultures and the experiences of speaking-up barriers and facilitators impact on Ghanaian radiographers willingness to speak-up, thereby answering the second question above. It is imperative to know the barriers and facilitators affecting speaking-up behaviours of Ghanaian radiographers in the workplace. It is also significant to know where these barriers and facilitators originate from. The importance of the factors that influence speaking-up behaviours of Ghanaian radiographers cannot be ignored in comprehending their intentions, and/or the actions they take or choose not to take. This chapter also answers the third research question above by discussing some shared experiences of radiographers with organisational culture and other health professionals when raising patient safety concerns.

The data analysis resulted in five main groups of workplace barriers and facilitators being identified, which are labelled in Figure 6.1 below. Each of these groups is further explored under key sub-groups as the chapter progresses.

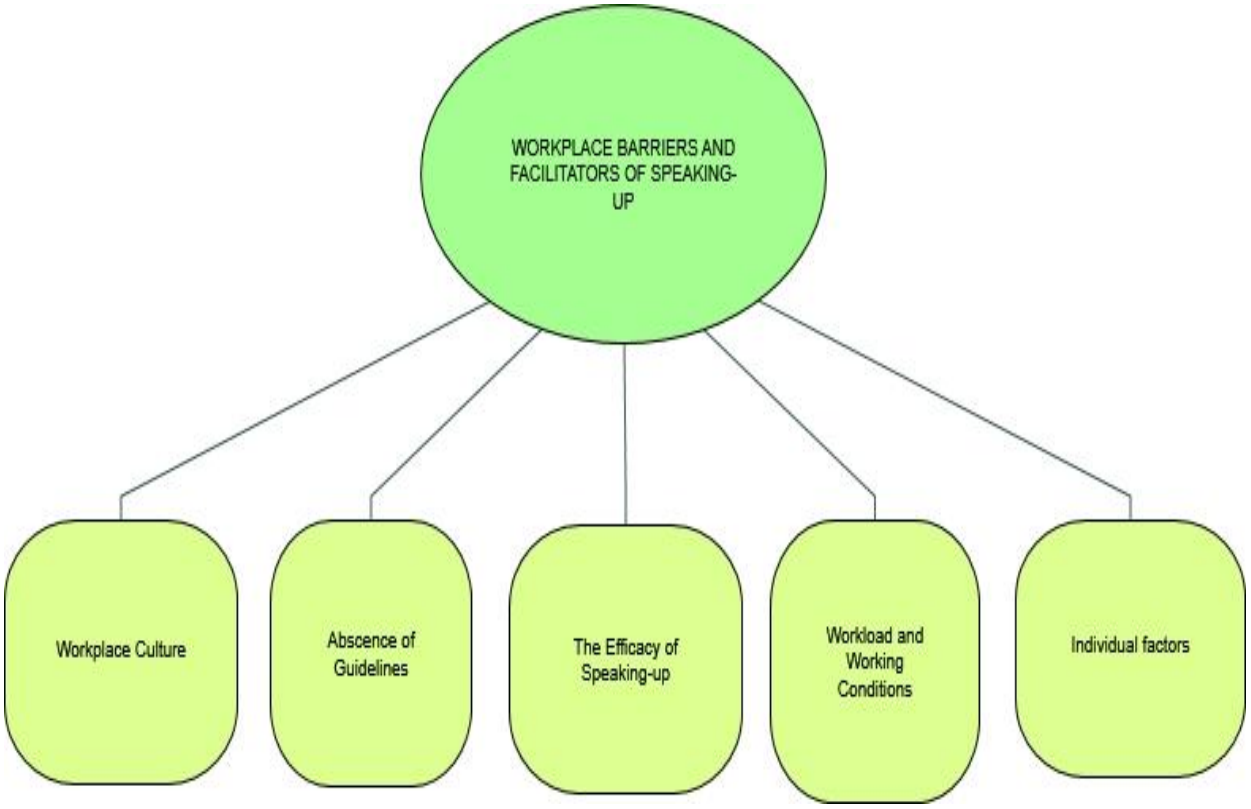


Figure 6.1 Schematic structure of the workplace barriers and facilitators of speaking-up among radiographers in Ghana.

While most of the factors discussed here are not necessarily unique to the Ghanaian context, a few others are, such as the absence of policies and guidelines to guide speaking-up are notable, especially when compared to many other healthcare systems. Workplace or organisational culture is the first main factor to be explored in this chapter, and this is discussed under five sub-groups in the section below.

6.1 Workplace Culture

It may be recalled that the introduction chapter defined workplace or organisational culture. While this term may be used very broadly, only aspects demonstrated in the data are discussed in this chapter. Aspects of workplace culture explored here include the effect of an open culture on speaking-up, the fear of detriment or being ignored, hierarchy and the infiltration of societal

norms, employee-employer relationships and professional loyalty as illustrated in figure 6.2 below. Radiographers contended that the workplace culture affects speaking-up behaviours either positively or negatively.

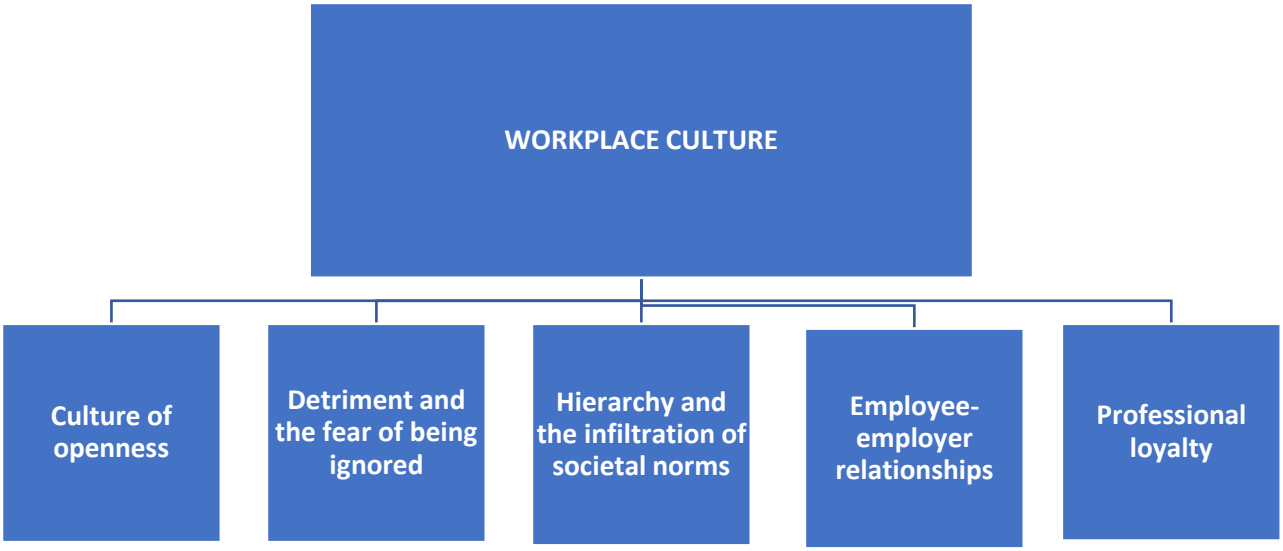


Figure 6.2: Schematic diagram of aspects of workplace culture explored among Ghanaian radiographers.

6.1.1 Culture of Openness

The influence of workplace culture of openness on speaking-up behaviours of radiographers was explained from a range of perspectives. It was argued, for example, that the act of raising concerns about mishaps in the department would be better enabled if their managers created a culture of openness, which currently did not seem to be present. They further contended that if managers responded to concerns more effectively, radiographers would be more encouraged to speak-up about concerns when the need arises:

> ***For us to be encouraged to speak-up, managers or administrators of hospitals should try and create a culture where employees discuss concerns, and they should take employees' concerns seriously. They should also consider concerns carefully and investigate incidents that are reported (Rad 12)***

Similarly, a radiographer in a managerial role, while supporting the earlier assertion about the positive influence of an open culture and efficient managerial response on speaking-up behaviours, rather insisted that their staff felt supported enough to raise concerns about issues in the department when they had any:

I think the organisational culture determines the willingness of staff to speak-up about concerns. Like I told you, I am approachable, and the workplace is not a very big clinic. It's like a family so we don't restrict people from talking or speaking-up. They come to me all the time if they have an issue that they think is above them and I need to handle, and I handle them well. But like I said, it will be really nice to have something on paper as a guide for the employees to follow when they have a concern. (Rad 4).

While the radiology manager's assertion of the hospital staff feeling supported enough to raise concerns may be true, it is however hard to conclude whether the radiographers in the department felt the same way about the situation, as none of them consented to participate in the study (Reflective memo).

Radiographers described an interesting connection between patient's voice and staff voice, arguing that both channels working together creates an open workplace culture. They contended that when an organisation's culture is centred on improving patient experiences, staff are in effect encouraged to speak-up about issues or events that compromise the safety of patients in the healthcare delivery process. They pointed out that this however was not the practice in their department:

I would say that when an organisation focuses on the experiences of patients, unlike what happens in my workplace, and has someone in charge of reaching out to patients to find out their overall experience and any problems encountered, staff will be more encouraged to speak-up…. For instance, when you have patients telling you their experience or their outcomes, and radiographers are aware of this, before us reaching out to patients, radiographers would report any incidence to the Head of department before the patient gives their account or experience. (Rad 1).

6.1.2 Detriment and The Fear of Being Ignored

The fear of negative feedback following an act of raising concerns is an aspect of workplace culture that negatively influences speaking-up behaviours of Ghanaian radiographers. The data analysed in this study showed that a Ghanaian radiographer's decision to speak-up about a safety compromise or wrongdoing they have witnessed was mostly determined by the feedback from their previous speaking-up experiences, whether good or bad. It was noted that some of the previous speaking-up experiences of radiographers often resulted in apathy towards raising

concerns in the workplace due to the fear of negative feedback, and in some cases no feedback at all. For some radiographers, the fear of being silenced or ignored hindered their decisions to speak-up about issues that require attention within their workplaces. They, therefore, contend that this tends to encourage an attitude of withholding voice on safety concerns:

> ***Whenever you speak-up, it's like you are hushed or ignored. So, you don't see a reason why you should eventually when you have to (Rad 2).***

The fear of negative feedback for other radiographers was the perceived fear of personal detriment such as being tagged as a snitch as indicated in the extracts below:

> ***The main thing is the fear of the responses that would come. You wouldn't want to be blacklisted or labelled a snitch in your department (Rad 9).***

> ***People think that they could be tagged negatively as someone who complains too much or likes reporting issues and might also be victimized for talking (Rad 7).***

Although the final extract above also highlights the fear of being tagged negatively as a barrier to speaking-up behaviours, the radiographer however adds the likelihood of being victimised as a form of punishment for reporting wrongdoing or a safety concern. A typical form of victimisation reported by radiographers across some sites was the fear of repercussions such as termination of employment, or job loss. They argued that this fear posed a barrier to speaking-up about safety concerns at the workplace.

> ***Sometimes people fear the consequences of the aftermath, how the superior or the administration is going to react. Whether it is going to affect their work, questions like whether their contract could be terminated? Or something of that sort. I think that's the main barrier. (Rad 3).***

Furthermore, it was interesting to note that not all radiographers who argued about the fear of negative feedback as a barrier to speaking-up behaviours, did so from the perspective of reporting the wrongdoing of others. For some radiographers, their fear of negative feedback following reporting a wrongdoing or safety concern was the issue of blame culture resulting in their competencies being questioned if they themselves were the ones who made the mistake. They highlighted that this fear restrained them from speaking-up, especially when the issue involved them: Similarly, this situation also reflects an absence of what some commentators have referred to as a "just culture" where healthcare practitioners are not to be blamed for their actions, or at least only be blamed where there are clear grounds of an error being criminally or

negligently cause (Marx 2001). Just culture highlights that, in many such instances errors, occur due to systems issues such as staffing, resources, among others which are more likely causes to blame.

> ***And if you did something wrong, you wouldn't want to speak-up because of the fear of being seen as incompetent. (Rad 9).***

Another radiographer described how the act of speaking-up about safety concerns in their workplace was hindered by the perceived fear of punishments such as job loss. The radiographer asserts that this barrier, however, can be overcome should there be a well-established structure or system in place for raising concerns:

> ….. ***People don't want to be intimidated, people don't want to lose their jobs, go on suspension, and all that so some harbour this fear and do not take any initiative but once there is a clear system in place giving everyone the right to speak-up about patient care this would help. These are some of the barriers I have noted which may not be all the barriers but the few I have noted. (Rad 20).***

While the extracts discussed earlier in this section have described the fear of perceived detriments such as victimisation and punishments such as job loss, a radiographer who has experienced actual detriment describes a number of previous experiences which have resulted in a lack of motivation to raise safety concerns at the workplace:

> ***When you raise concerns about certain things in my facility, instead of addressing the concern they would rather come after you. "Who told you to say this? Who asked you to mention this?" I've been running on-call services without payment, without anything else apart from my basic salary, all because I spoke up about an issue. We have a bus that picks up the staff who need picking up to work but whenever I ask a driver to come and pick me up, it depends on whether he wants to come and pick you up or not. The receptionist can talk to you in any manner that she wants but you dare not talk about it. All because you have labelled negatively as a trouble-maker (Rad 13).***

The extract below further describes some of the negative experiences encountered by the senior radiographer. The term ***"emfa me ho"*,** a local Akan saying, literally translated as "it is none of my business" is used in this extract to express the radiographer's attitudinal change towards speaking-up about things that go wrong in the department. The radiographer expresses an

absolute disinterest in raising concerns about mishaps in the department, resulting from previous bad speaking-up experiences, hence describing the act as none of his business:

> ***Yeah. There was this instance, the receptionist made a comment about our department at a general staff meeting that I was not present. I heard about it I went to confront her. I only asked her, "can you tell me the person who told you about it so I can go and meet the person?". When I did, she didn't respond but she rather went straight to the administrator to report to her that I have come to attack her. I was made to apologise to the administrator, receptionist and the worse part of this was that the medical director added his stake to the matter, saying that if we ever come to attack them again, they should call the police on us. So, looking at all this negativity, even if you saw things going wrong or had concerns about happenings within the department or the hospital, you would probably just keep it to yourself. Just like we say in our local dialect 'emfa me ho'. (Rad 13).***

The radiographer reported a complete disinterest in engaging in speaking-up acts as a result of the negative previous experiences:

> ***Nothing motivates me to speak-up again. Yeah, from all the experiences I've narrated to you, I don't think something motivates me to speak-up. So, what I do is I come to finish my work and go. That is what I'm being paid for. (Rad 13).***

I observed that this senior radiographer was particularly emotional and bitter about engaging in any form of speaking-up about safety concerns within their department and the entire hospital. He revealed that he had suffered victimisation in his workplace by virtue of questioning happenings and raising concerns about safety compromises within the hospital (Field notes).

Speaking-up about errors or wrongdoing has been described as a "high-risk, low benefit" act as a result of negative experiences of people who have previously spoken up about critical issues. Another radiographer who has previously suffered victimisation for speaking-up about wrongdoing in the workplace described the act as a risky one to engage in, expressing apathy for the act:

> ***No. Speaking-up is rather a risk as you can be seen as a threat. Nothing encourages me to speak-up given all that I have suffered I try and handle issues to the best of my ability. I report any issues beyond my control to the technical head who is next in the chain of command. (Rad 19)***

Reflecting on the extracts discussed in this section, it is evident how psychological safety and just culture are either compromised or non-existent in radiology departments across Ghana. The views expressed by radiographers are loud enough to show how speaking-up behaviours of radiographers may be inhibited by this (Reflective memos).

It was interesting to note that while a majority of radiographers reported negative feedback from their previous speaking-up experiences, only one radiographer reported otherwise. The radiographer described how positive response from previous speaking-up experiences enabled speaking-up behaviours of radiographers, reporting a strong motivation to raise concerns about safety concerns in the department resulting from experiences of safe and constructive reception of the concerns:

> ***Oh yes, I am encouraged to speak-up and I speak-up a lot because I do not get bad feedback. For most of the concerns I raise, we mostly discuss them and add additional suggestions for progress. (Rad 15)***

Overall, the extracts discussed here illustrate that feedback from previous speaking-up experiences sometimes enable or mostly limit speaking-up behaviours of radiographers, depending on whether the experiences are perceived positively (listening and safe environment) or negatively (fear of or actual detriment occurring). While radiographers who were fortunate enough to not have faced detriment from speaking-up experiences felt encouraged to raise safety concerns within the department, the reverse however seemed true for those who unfortunately had been victimised or punished following a speaking-up experience. The fear of none or only negative feedback, with perceived or actual detriment, poses a barrier to speaking-up behaviours of Ghanaian radiographers.

6.1.3 Hierarchy and The Infiltration of Societal Norms

The data analysed in this study highlights hierarchy or authority gradients as a barrier to speaking-up behaviours of radiographers in Ghana. It may be recalled from the earlier chapter on culture, that the Ghanaian societal culture is deeply rooted in hierarchy, such that, people are accorded respect by virtue of their experience, age, wealth, and/or position. Older people are considered to be wise and are accorded the highest form of respect. It is also commonly observed that preferential treatment is mostly given to the eldest members of societal groups in Ghana. Speaking-up about mishaps is unfortunately one of the privileges only given to the elderly. By this, as mentioned in the previous chapters, the act of speaking-up frowned upon in society when

it is attempted by a younger person. Radiographers contended that this hierarchical societal culture is transferred to the workplace, making speaking-up about wrongdoing a difficulty for junior staff. They argued that to prevent being seen as disrespectful or societally non-conforming, junior staff refrain from speaking-up about wrongdoing in the workplace:

> ***The workplace culture and I think generally the societal culture supports these values of respect for authority and respect for hierarchy. It makes people very hesitant to speak-up against people that they think are of a higher authority and have direct control over them. So, there is a power dynamic there, and also culturally trying to appear humble and non-confrontational to your colleagues is also another reason. (Rad 14).***

As much as the influence of Ghanaian societal norms of hierarchy on speaking-up has been discussed in the earlier chapter, the data analysis in this chapter also illustrates that the boundaries between work and society are blurred to the extent these societal norms are played out in workplaces. Consequently, radiographers argued that they were discouraged from speaking-up because of the societal culture which, in turn, influences the workplace culture:

> ***In Ghana, for instance, even in our homes, going up against your parents or your older siblings is frowned upon. It's a culture that we unluckily have to live with and being brought up in a community that shares the same beliefs has resulted in the same thing happening within workplaces. So, I think that form of intimidation is the main barrier towards speaking-up in my facility and the nation (Rad 10).***

In the same vein, some radiographers also reported the difficulty associated with junior staff engaging in acts of speaking-up about wrongdoing at the workplace. However, unlike the earlier assertions of merely appearing humble or societally "correct", it was contended here that this difficulty results from the fear of the perceived bad repercussions of their speaking-up acts such as being punished or being denied favours or perhaps future opportunities for career and personal development by their superiors. While this may be argued to be similar to the fear of detriment earlier discussed in this chapter, the data suggests that there may be a greater fear of actual or perceived detriment associated with junior staff involved in raising concerns compared to senior staff, hence making the situation hierarchical.

> ***But in our setting, because of our culture, it's very difficult to do things like reporting wrongdoing especially when it's a senior because as a junior radiographer, you look***

forward to getting promoted or getting transferred to another facility or plans for higher education and you will probably need a recommendation or reference from such people, so you don't want to be blacklisted in your workplace. (Rad 9).

Some junior staff would fear things like going up against say one of the heads or administrators as they would feel like they will be I'll be victimised later or "maybe my work shifts will be made difficult". So, because of those things, people tend to be scared to go against their superiors (Rad 10).

Furthermore, it was argued that some junior radiographers believed that attempting to speak-up about issues or wrongdoing in the department showed an act of disloyalty towards the leaders or people in authority in the workplace. Consequently, these radiographers mostly assume the position of not reporting wrongdoing or taking up issues to play "safe":

Talking about barriers of speaking-up, for instance, like my institution you know when you have eerrrh what do we call it, the leaders ahead of you it's like you cannot say something behind your leaders or go and do something above…Your superior is there and you have gone past, somebody will think that you are taking up his/her position, okay. So, you end up just leaving it with your superior, and whatever he/she does with it you can't say otherwise (Rad 17).

Lastly, the final data extract demonstrates some awareness of hierarchy by more senior staff. For example, a senior radiographer described the difficulty faced by junior radiographers in speaking-up about safety concerns or wrongdoing especially when it involves senior staff or people with a higher professional status or position of power:

Some colleagues, let's say, subordinates would fear things like going up against say the medical director (Rad 10).

6.1.4 Employee-employer relationships

Another element of workplace culture that the data analysis demonstrated to influence speaking-up behaviours of Ghanaian radiographers in the workplace was employer-employer relationships. Radiographers reported that the nature of the relationship between themselves and their colleagues and/or managers influenced their speaking-up behaviours in the workplace. For example, a radiographer reported a strong motivation to speak-up or raise concerns about safety compromises was the cordial relationship that exists between the department manager and the radiographers. This was however not a common situation across other sites.

I don't think I have barriers with the person I'm supposed to report concerns to. Yes, in my department it's not very difficult because of the relationship we have with our boss. He is very cool and open. So, it's very easy to tell him when we have a problem, or we identify something that is not right. So, I don't think there's any barrier in terms of communication with him. it's very easy for us to tell him what we want. He is very welcoming. I can go to his office at any time. I can even call him, even if I meet him in the corridor, I can tell him. He is okay. He is very simple. (Rad 18).

This radiographer seemed to have a very good relationship with their manager, hence making him very confident about raising concerns or reporting wrongdoing to this manager. It seemed as if the manager, either intentionally or not had created some psychological safety for raising concerns within the department. Nevertheless, I wondered whether that same level of confidence would come to play in a situation that directly involves him (the radiographer) or the manager himself. Are speaking-up behaviours of Ghanaian radiographers limited when they themselves are the ones at fault? As already demonstrated in some of the earlier extracts, some radiographers would withhold voice on patient safety concerns in situations when they themselves are the ones at fault but are however quick to report the mistakes of others. Again, what happens in situations when the manager is at fault? The radiographer in the extract above emphasised how easy it was for him to report safety compromises to his manager. However, was this the same case for safety compromises that involved himself? (Reflective memos).

At another site, radiographers contended that their speaking-up behaviours were inhibited by the disunity between the staff in the department. They argued that this was because they believed certain groups of staff within the department were made to feel more important and powerful than others; always having their concerns addressed, while others barely got listened to. This has eventually generated displeasure among some staff and hence discouraging them from raising safety concerns even when they really need to:

I think there's a lack of unity in this department. The staff is divided and until that is worked on to the point where no staff feels inferior or superior to the other when it comes to being listened to. If that gap is merged so that there's no longer a situation like a certain group of radiographers or doctors or specialists are listened to when they raise concerns while others are ignored, then speaking-up and raising concerns can be

promoted in the department. If people continue to feel as if other staff have more power than they do, they won't be encouraged to speak-up. Because some people speak, and they are listened to, and others are made to feel like a nobody. (Rad 5).

6.1.4 Professional Loyalty

The term 'professional loyalty' used here simply describes a strong sense of belongingness towards a professional group of people or an organisation. The data analysis demonstrated that workplace speaking-up behaviours of Ghanaian radiographers were also influenced by the professional loyalty of other healthcare professionals such as radiologists. A typical imaging or radiology department is made up of not only radiographers, but radiologists, sonographers, radiology nurses, and assistants among others. A radiologist is a medical doctor that specialises in medical imaging (radiology) and this role involves interpreting radiological examinations for diagnosis and performing interventional radiological procedures. As already mentioned in the context chapter, most radiology departments in Ghana are managed by radiologists and not radiographers.

Radiographers reported that radiologists (who are also doctors) tend to be very protective of their fellow doctors and did not consider errors committed by them seriously. They contended that the commonest of such cases had to do with radiological procedure requests that breach the principle of justification in the Radiation Protection Laws issued by the NRA in Ghana. For example, a doctor requesting a chest x-ray or CT Brain scan for a patient with no or insufficient clinical history stated on the request form making the request unjustified. They explained that per the authority of these radiologists in the department, the departmental protocol was to double-check such unclear radiological procedure requests with the in-house radiologist before the procedure is done. Although radiographers frequently reported these cases, the professional loyalty and allegiance of radiologists to their fellow doctors meant that the concerns of these radiographers were often ignored or minimised. They argued that in such instances, radiologists often tried to cover up these errors made by their fellow doctors, making excuses for them, and asking radiographers to proceed with the examinations regardless.

And sometimes, some of the radiologists for instance, okay, because they see themselves as medical doctors when you report a House officer to them, they tend to portray it as 'oh there may be a reason why he is asking for it when it is very obvious that this is unnecessary request. So, because they want to protect the integrity of their professional colleagues, they will make it look like oh why do you want to report this.

It's a small matter and they just want to protect their professional colleagues, yes. So, some radiologists are protective of each other. (Rad 17).

To summarise, the first section of this chapter demonstrates that speaking-up behaviours of Ghanaian radiographers are influenced by workplace culture, and this has been explored through sub-themes such as the influence of a culture of openness, detriment and the fear of being ignored, hierarchy and the infiltration of societal norms, employee-employer relationships and professional loyalty. While radiographers argued that they would be better enabled to speak-up about safety concerns in the workplace if their managers created a workplace culture of openness, some managers also contended that an open culture already existed in their departments and believed that the workplace culture supports radiographers enough to raise concerns if need be. Radiographers also argued that a workplace culture that is focused on improving patient experiences in effect encourages staff to report any occurrence that could jeopardise the safety of patients. Ghanaian radiographers also reported the culture of victimisation, bullying, and intimidation as inhibitors of their speaking-up behaviours.

Furthermore, feedback from previous speaking-up experiences was contended to either enable or limit speaking-up behaviours of Ghanaian radiographers, depending on what these experiences were. While most radiographers with negative feedback such as victimisation or punishment from previous speaking-up experiences described the act as a "high-risk, low benefit" activity, expressing apathy for it, few others on the other hand who were fortunate to have good feedback from previous experiences were rather motivated to engage in the act. Radiographers also contended that their speaking-up behaviours in the workplace were restrained by the fear of negative feedback, whether in the form of being silenced, tagged as a snitch, having their competencies questioned, or being told about their inability to effect any change. The influence of the hierarchical nature of Ghanaian societal culture and norms on the speaking-up behaviours of Ghanaian radiographers could not be overlooked. Radiographers argued that they were discouraged from speaking-up because of the societal culture which in turn affected the workplace culture, hence resulting in the act being regarded as disrespectful especially when it involved a senior staff and a junior staff. Speaking-up behaviours of Ghanaian radiographers in the workplace were also contended to be hindered by the attitude of other health professionals such as radiologists and other doctors. Radiographers argued that doctors were more loyal to their fellow doctors than to other health professionals and hence they mostly covered-up errors made by their colleagues.

Lastly, employee-employer relationships were also reported to influence speaking-up behaviours in the workplace. While some expressed a strong motivation to speak-up or raise concerns about safety compromises as a result of the cordial relationship that existed between themselves and their department managers, others reported that they were inhibited by the disunity among the staff in their department. The data analysis also demonstrated that workplace speaking-up behaviours of Ghanaian radiographers are influenced by the absence of guidelines and structured speak-up procedures, and this is explored in the next section.

6.2 Absence of Guidelines and Structured Speak-Up Procedures

In healthcare settings where speaking-up policies and structures are more established, guidelines offer direction to healthcare workers who wish to raise concerns in their workplaces. Although the successes of these interventions have not eradicated the challenges of speaking-up, these structures have played a role in usefully guiding the act of raising concerns by thousands of workers in these settings. Nevertheless, in this study, radiographers revealed that not only did the GHS lack a national policy for speaking-up, formal departmental guidelines and protocols were also absent, resulting in most departments developing semi-formal and informal strategies for raising concerns. (These strategies will be discussed in detail in the next chapter). Across all the sites, radiographers argued that this absence of speak-up guidelines posed a barrier for radiographers to raise concerns:

> ***I think our biggest speaking-up barrier is lack of a policy and clearly spelled-out protocols or procedures for speaking-up. Because these things are not there even if you experience anything like that, you wouldn't even know where to take up such an issue in the first place. There are no clear guidelines to follow when you see a patient in abuse, a colleague being abused, or the patient suffering at the hands of a colleague or staff. So, what usually happens is if you experience something like that, instead of trying to take it up, I try to defend the patient or the client, and rebuke the colleague if he's a junior, or maybe try to convince the person who is a senior not to repeat that. So, in a way, we try to talk about it so that it does not evolve into a full-blown conflict. We try to solve it there, instead of taking it up for the person who did that, if it's so grievous an offence to be punished for that. But we don't have any clear guidelines or policies in place to direct you as to where to go when they happen. Because if there were, then you wouldn't even need to try to convince the person not to do that again. You would***

take it up because there are colleagues who have been doing some of these things over and over again because they always get away with it, and do not get punished. Every day, people come to me say this, this person is troublesome, so I don't want to work with this person, because of such acts, but if you have someone in charge, or protocol or a guideline, it will keep this person in check and I'm sure with one or two query letters and punishment, that person will stop committing the offence but unfortunately, there is nothing. And then the fact that patients too are in a way, "timid", the hospital setting is so intimidating. So, they come in, and they see you in a gown or nicely dressed, they think you can't go wrong. You can talk to them anyhow. So, the patients themselves are not ready to take up such issues. Even when you do something wrong to them, they feel you may be right, and the patient rather thinks that he/she may be the one who did the wrong thing. Because of this, if someone offends them, they usually wouldn't even take it up, so they leave it at that and whoever did that can get away with it. (Rad 8)

While the extract above clearly describes the absence of speak-up policy and guidelines, the closing lines of the extract above suggest that silence and/or acquiescence is also a factor for patients and perhaps the society more generally, as has been discussed earlier. The radiographer suggests that patient silence makes speaking-up more difficult in the workplace. It may be recalled that the preceding chapter on Ghanaian culture explored the laid-back attitude of patients and more generally Ghanaians when it comes to reporting wrongdoing and speaking-up about concerns.

Thinking about the extract, I wondered if the development of healthcare speak-up policies, structures and guidelines alone would really be enough to improve the speaking-up situation in hospitals across Ghana, given the issue of patient silence also being a barrier. Perhaps it would take more than just policies! The ordinary Ghanaian may need a lot of education and support to be empowered to speak-up in situations where necessary beyond just policies. (Reflective memos)

Another radiographer, who also argued that absence of speak-up policies and guidelines were a barrier added, that the absence of relevant independent speak-up institutions and organisations to handle concerns that are raised and resolve them properly did not encourage radiographers to speak-up about concerns in the workplace. The radiographer further contended that the establishment of relevant structures and institutions to handle speak-up concerns might make them more courageous about engaging in speaking-up acts while offering a sense of protection

from detriment. Similar to what is captured in the existing speak-up literature, the closing lines of the extract below also demonstrates that encouraging speaking-up among Ghanaian radiographers is linked to positive response whereas negative consequences following the act inhibit speaking-up:

> ***If there is a formal policy instituted to guide radiographers on how to go about speaking-up, it would encourage staff to be open about instances of that sort and not be timid or scared of speaking-up in case they have to do so…. And then secondly, if the relevant institutions can establish independent bodies to look into issues when staff or a colleague speaks against a client or another colleague, and resolve it without being biased, I think that would encourage people to speak-up. (Rad 2).***

There were however local guidance and structure in some sites to guide staff who had concerns, but these were rather cumbersome and tedious in some cases. (The next chapter explores these structures in much detail). A radiographer involved in both public and private practice made a comparison of the structures in these places. This radiographer asserted that unlike the private facility where it is easier to raise concerns and these concerns are promptly addressed, reporting safety concerns in public hospitals comes across as a very tedious task because of the bureaucracies involved:

> ***I think some of the barriers we have especially for the Government hospital is that there is a lot of bureaucracy. We have to go through a lot of channels before issues can be addressed but for the private sector, I think it is almost immediately addressed when issues are being raised. (Rad 16)***

At another site, a radiographer argued that in their facility, local semi-formal structures such as suggestion boxes and formal structures such as meetings for managers enabled their staff to raise concerns:

> ***I think the suggestion boxes where you can drop your views in anonymously, and the in-charges' meetings within the hospital management are some of the structures that enable staff to speak-up within the hospital. (Rad 10).***

Unlike the extracts discussed earlier that describe some structures in place for staff raising concerns, other hospitals had some guideline provisions only for patients and not for staff. These provisions that had been made for patients however were yet to be considered as an intervention that would be useful for staff raising concerns. A radiographer contended that

compared to other hospitals that provided the use of suggestions boxes by patients and staff for raising concerns their facility had these suggestion boxes and notices with contact numbers for patients to call if they needed to report anything untoward. It was however argued that these systems did not exist to support radiographers to raise safety concerns:

> ***Not sure much has been done to enable staff to raise safety concerns in this facility. There is a number boldly placed on notices for patients to call and boxes placed outside for people to drop in suggestions. I don't think there are any more avenues for you to put out your complaints. (Rad 16).***

It cannot be overlooked that some of these local organisationally-established speak-up procedures for example, suggestion boxes have obvious pitfalls or shortcomings, and these will be discussed further in the next chapter.

6.3 The Efficacy of Speaking-up

Despite the existence of several barriers, diverse concerns were raised by radiographers concerning happenings within their departments. These concerns, some less and others more serious, ranged from clinical concerns, radiation protection issues, and even sexual malpractices. While radiographers across sites recognised the difficulty faced in speaking-up about wrongdoing in their respective workplaces, they argued about whether engaging in the act was efficient. The efficacy of speaking-up has been highly argued in the international speak-up literature and in this study, Ghanaian radiographers reflected on the effectiveness of the act in their departments and workplaces. They highlighted that the perceived inefficacy of speaking-up served as a discouragement to them and other radiographers whenever the need arises for safety concerns to be raised.

A radiographer recounted how MRI equipment was left idle until it became non-functional although concerns had previously been raised to the hospital management to train the radiographer to be able to operate the scanner. The radiographer further expresses how this experience has resulted in a nonchalant attitude towards speaking-up about safety concerns in the department.

> ***They may hear your concern but it's up to them to respond to it or not. Because one of the concerns I raised some time ago was when I met the medical director and discussed, I spoke to him about our MRI machine which was lying idle. I told him to give me further training to be able to operate the machine for the facility. However, I was told I'm not***

a permanent worker, and so they won't send me for any training. So, I decided to give some suggestions on how to run the department. And there were other nice suggestions that I made to them to ensure that the facility would run smoothly. They declined all so I'm now in my corner. I come from my house, finish my work and go back home. The MRI machine is now not functional at all… (Rad 13).

More so, radiographers also reported that their speaking-up behaviours in the workplace were inhibited by the fear of futility:

…The fear of being told that you have no power to make a change (Rad 9).

Radiographers expressed disappointment about how safety concerns were handled in their department. They argued that even in cases where wrongdoing by a colleague had been reported to a manager, these concerns never seemed to be addressed or acknowledged to say the least. It was unclear to them if any actions were being taken at all concerning the issues raised. This occurrence demonstrates some form of ***'organisational disregard'***, as originally coined by Jones and Kelly (2014) where they argue that the issue of safety compromises in organisations is not always a case of staff not speaking-up about their concerns when they witness harm, but rather a case of raised concerns by staff not being addressed.

In this study, I describe this occurrence with the term ***'system inaction'***. This is because, across sites, study participants expressed a lack of confidence in not just their managers, but their entire hospital systems with regard to addressing safety concerns raised by staff. A radiographer narrated how an incident that compromised the safety of a patient was reported to their manager, yet nothing was done about it. According to the report, the radiographer in question was not queried and the issue was never addressed. The extract below illustrates this:

Not that I know of. I mean I expected that it was going to be brought up maybe at the weekly meeting or that he will be queried. I am not sure of what they did, and I don't have any knowledge of them telling him directly. (Rad 14).

At one of the sites, radiographers, while describing the perceived inefficacy of the act of speaking-up, highlighted that if prompt actions are taken and feedback given by managers when staff raise concerns, they would feel more encouraged to speak-up when things go wrong:

Managers need to understand the difficult position of employees in even considering to speak-up about a concern. There is also the need for managers to try to take prompt actions to resolve concerns or refer the concerns to an appropriate person while keeping

the employees informed about the process of addressing their concerns. There should also be a review after some time to find out if concerns have been addressed. If these things are done, we will be more encouraged to raise concerns about safety (Rad 12)

Furthermore, it was contended that the departmental 'norm' of not addressing concerns raised by staff had gradually resulted in radiographers perceiving the act of speaking-up as one that did not yield results and hence an act in futility. A radiographer argued that this perception of the act being futile was a barrier to speaking-up behaviours of radiographers in the department:

When concerns are raised, as to whether the proper actions are being taken is the next challenge…so people do not see any results, and based on that, they tend not to even speak-up or just let the issue pass or go. They do not follow up on anything, because they know that it's not going to be acted on or yield results. So, if you waste your time complaining about an issue or raising a concern, it's not going to get anywhere. So, you tend to just keep quiet. (Rad 1)

Just the fact that from experience I know when I speak-up it doesn't make any change. I mean I won't get results from it. So, I have to just focus and move on (Rad 21)

While the following radiographer's comment is similar to those who express futility, the focus here is for speak-up concerns to be addressed properly, such that the person at fault acknowledges their mistake and some form of justice is served yielding learning outcomes for the person at fault, and also for the entire staff, instead of the act being regarded as a ploy to tarnish someone's image. It was highlighted that this would enable radiographers to be more encouraged to speak-up.

For me, it's when the issues are dealt with appropriately. When the wrongdoer accepts his or her fault, it encourages people to speak-up but when matters are not addressed well, people may feel that maybe you want to destroy their reputation or something of the sort. But when the issues are addressed well and the people involved accept their wrongs, more people will be encouraged to speak-up or raise concerns. (Rad 7).

A junior radiographer also expressed disappointment with how concerns raised about wrongdoing and/or safety compromises against patients have been treated in their workplace. It was reported that in such cases, although radiographers speak-up, there's usually little attempt by the relevant authorities to address or resolve the issues, leaving these radiographers with nothing much to do than console the affected patient(s):

I think it's the fact that you would pursue the matter endlessly and eventually, you just get frustrated, because you just realize that there's no real effort to resolve the issue. So, radiographers generally, would rather console the victim and try to placate the victim and that's it. I mean, you just don't have the energy to follow something, you know will take almost all of your time and yet, be fruitless, especially when again, involves senior members of staff, doctors, etc. The fact that you're just aware, this will not yield much, more or less a fruitless journey, so you don't even want to embark on it to start with (Rad 6).

Overall, radiographers expressed a gross lack of confidence in the efficacy of the act of speaking-up in their departments. Most radiographers reported their perceptions of not being able to effect any change within their department by raising concerns or speaking-up about things that go wrong. Some experiences of radiographers have resulted in their feeling that engaging in the act is a complete waste of time and hence described as an act in futility.

6.3 Workload and working conditions

Workforce shortages and poor working conditions have already been discussed in general detail in the earlier background chapters as major features of the overall context of Ghanaian healthcare and presenting challenges in radiography practice in Ghana. In the more specific context of speaking-up in the workplace, this section will demonstrate how these workforce challenges and working conditions negatively affect speaking-up behaviours of Ghanaian radiographers.

A senior radiographer at one of the sites commented on how understaffed their department was, contending that this made engaging in acts such as reporting wrongdoing or safety compromises rather demanding, as being understaffed results in a higher patient-to-radiographer ratio, putting pressure and stress on radiographers in the department and hence resulting in radiographers perceiving reporting errors or safety compromises as an added responsibility.

As radiographers, so much is expected from us. In the whole of this hospital, there are only three qualified radiographers. We barely get time off because we are always understaffed. So, when I come to work, I just want to finish and go home. Going to report things that went wrong is like an added job. There's already too much pressure here (Rad 13).

There are not many of us here to serve all the patients. One radiographer can be responsible for CT, x-rays, and MRI on some shifts because you may be working alone. In that case, even if something went wrong, you wouldn't bother because you are already stressed with the numbers (Rad 21).

6.4 Individual Factors

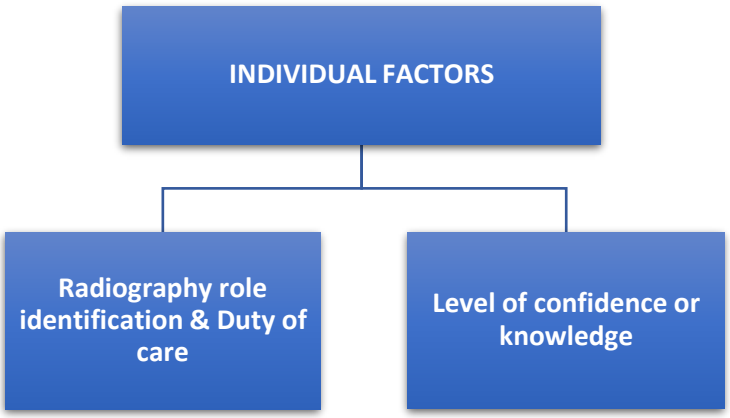


Figure 6.3: Schematic diagram of individual factors explored among workplace speaking-up barriers and facilitators of Ghanaian radiographers.

While the chapter so far has demonstrated that workplace speaking-up behaviours were influenced either positively or negatively by factors such workplace culture, absence of guidelines, the efficacy of speaking-up and workload/working conditions, the analysis of data also demonstrated that workplace speaking-up behaviours of Ghanaian radiographers are influenced by personal or individual factors as well. The section will explore these factors under two subthemes as shown in figure 6.3 above. It should however be noted that the factors mentioned here are individualistic and may not apply to the entire population of Ghanaian radiographers interviewed in this study, as they may vary from radiographer to radiographer.

6.4.1 Radiography Role Identification and Duty of Care

Role identity describes ***"the goals, values, beliefs, norms, interaction styles, associated with a particular role"*** (Ashforth 2001: p6; Sluss & Ashforth 2007 : p11). 'Duty of care' used here also simply refers to a lawful or moral responsibility to ensure the welfare or safety of patients. The data analysis demonstrated that workplace speaking-up behaviours of Ghanaian radiographers were also influenced by the radiography role identification and duty of care.

As already discussed in detail earlier, the Code of Ethics of the GSR stipulates those radiographers ***"shall advocate for the most appropriate care for patients and shall intervene in circumstances of abuse or unsafe, incompetent, or unethical practice"***. Although this stipulation compels Ghanaian radiographers to advocate for the safety of patients, it does not clearly provide guidelines on how such issues should be handled. In addition, the AHPC, which is the regulatory body, is yet to have an accepted code of conduct for allied health professionals, as the document is currently still being worked on. Despite the non-existence of a code and regulatory guidance to guide Ghanaian radiographers in speaking-up about patient safety compromises, some radiographers across some sites contended that they perceived the act of speaking-up as their duty of care aligned with their professional role. They believed they owed it to the client/patient to raise concerns whenever they observed a compromise in safety.

> ***The reason I will speak-up is that I owe the client a duty. And as a professional, if something is happening and even if I cannot do anything, I should be able to talk about it. So that my conscience will be clear that I would have done better if I had the power to do it. (Rad 21)***
>
> ***I think that the only motivation for speaking-up is your love for your patients. There's a common statement that says that; radiographers are like gatekeepers. When you play your role as the gatekeeper you try to make sure that at least whatever you are doing is justified. Aside from that if there's been a safety compromise or wrongdoing, which you have reported, and your superior has done nothing about it, there isn't really much you can do. If you try to show up somebody will think that you are taking his/her position and you end up being victimised. Well, as a radiographer I will always make sure that every radiological procedure I perform on a patient is justified. That is my main, you are thinking about the patient's wellbeing, and you don't want to harm your client, so in doing that, you always think about the patient's well-being. And that is my number one priority (Rad 17).***

While these radiographers described how they perceived speaking-up about patient safety as their duty of care to the patient, others contended that they would report a safety compromise because they believed it was morally right. For them, their decision to speak-up decision is greatly influenced by the human feeling of empathy to do right to a patient and not only because they were under a professional obligation or a code of conduct to speak-up.

Well, sometimes you feel that you owe it to your patient to provide the best form of care. You want to put yourself in the shoes of the family, imagine yourself being a patient and thinking that if such bad practice was met out to me would I be happy? And so, for the fact that you feel that is your moral responsibility to your patients. You definitely want to speak-up about anything that is way out of line (Rad 9).

Similarly, a radiographer contended that apart from the human conscience that makes a person feel like intervening or speaking-up for patient whose safety is being compromised, nothing else encourages them to raise concerns or report wrongdoing within the department. They argued that they were only triggered to action by conscience rather than organisational or legal requirements:

Maybe our conscience, when you see somebody being abused, your conscience pricks you and you try to step in and try to save the situation. But there is nothing that encourages us to speak-up or go and report wrongdoing (Rad 8).

6.4.2 Level of confidence or knowledge

For some Ghanaian radiographers, their decision to speak-up about a safety concern or wrongdoing in their department was highly determined by how knowledgeable and/or highly educated they were considered to be among their peers. A senior radiographer contended that one of the challenges often faced in attempting to speak-up about safety compromises or wrongdoing is having your knowledge levels and competence questioned, resulting in a feeling of inadequacy. It was further argued that supporting radiographers to pursue further education (postgraduate studies) could potentially increase their knowledge base and eventually boost their confidence levels raise concerns about issues when there is a need to. More so, in the extract below, the radiographer discusses the paucity of knowledge about speaking-up as an act and its potential benefits with the overall goal of improving patient outcomes. This challenge of the paucity of speaking-up knowledge among radiographers however has already been discussed in detail in the earlier context chapter.

I have only recently gone back to school after 12 years; we need a voice that we can only get through education. Sometimes when you speak-up your credibility and knowledge are questioned, statements like you are just a radiographer, what do you know? Radiography has been in practice for several years now, but radiographers are not being heard. We are seen but we are not heard. There is still more we can do as

professionals. The system also creates a barrier for not making it easy to pursue further education. The first barrier to speaking-up in the department is inadequate knowledge. I cannot speak for the others, but I do not know so much about it with regards to what it entails, who you can talk to, how far it can go, all those things. I believe the system needs to do much more about training staff about this concept. (Rad 20).

Also, a junior radiographer reported inexperience as a barrier to speaking-up behaviours of radiographers in Ghana, highlighting that it lowers confidence levels as indicated in the extract below:

feeling as if you don't have enough experience to speak on the matter impacts on confidence and usually holds me back in my decision to speak-up about such concerns. (Rad 12).

It is interesting to note here that while a senior radiographer with over 12 years working experience argues that lower levels of education results in a lack of confidence to speak-up about issues, a junior radiographer on the other hand also contends that inexperience is the main barrier to speaking-up behaviours of Ghanaian radiographers. It is undeniable that the act of speaking-up requires some level of confidence. Is this level of confidence a result of educational levels or experience levels (years of practice)?? The international speak-up literature however classifies confidence, education, and experience levels as determinants of speaking-up behaviours of healthcare professionals (Reflective memos)

6.5 Conclusion

To conclude, this chapter summarises the workplace barriers and facilitators of speaking-up about patient safety among radiographers in Ghana as gathered from the interviews. Three research questions are answered in this chapter. The first being "What are the factors affecting speaking-up behaviours of Ghanaian radiographers?". Establishing these factors was very crucial for the researcher as it gave insight into the willingness of Ghanaian radiographers to speak-up about safety concerns. While the previous chapter discusses how the Ghanaian culture and African belief system influence the willingness of radiographers to speak-up, this chapter adds how workplace barriers and facilitators also impact speaking-up behaviours of Ghanaian radiographers and sometimes overlap with societal culture, hence establishing their willingness to speak-up. It, therefore, answers the question, "What is the willingness of Ghanaian

radiographers to speak-up about patient safety concerns?". Some shared experiences of radiographers with organisational culture and other health professionals when raising patient safety concerns were also discussed in this chapter, therefore, answering the question "What are the experiences of Ghanaian radiographers with institutional culture and inter-professional relationships when speaking-up about patient safety concerns?".

This chapter demonstrates that the speaking-up behaviours of Ghanaian radiographers' are influenced mainly by workplace barriers and enablers such as workplace culture, absence of policies and guidelines, the efficacy of speaking-up, workload/working conditions and lastly individual factors. Aspects of workplace culture explored in this chapter were the influence of a culture of openness, detriment and the fear of being ignored, hierarchy and the infiltration of societal norms, employee-employer relationships and professional loyalty. Individual factors affecting speaking-up behaviours were also explored under subthemes such as the radiography role identification, duty of care, and level of confidence in this chapter. While radiographers argued that they would be better enabled to speak-up about safety concerns in the workplace if their managers created a workplace culture of openness, some managers also contended that an open culture already existed in their departments and believed that the workplace culture supports radiographers enough to raise concerns if need be. Radiographers also argued that a workplace culture that is focused on improving patient experiences in effect encourages staff to report any occurrence that could jeopardise the safety of patients.

Similar to reports documented in other settings (for example, The Robert Francis Mid-Staffordshire Report on the NHS Foundation Trust Public Enquiry in 2013), Ghanaian radiographers also reported the culture of victimisation, bullying, and intimidation as inhibitors of their speaking-up behaviours. Furthermore, feedback from previous speaking-up experiences was contended to either enable or limit speaking-up behaviours of Ghanaian radiographers, depending on what these experiences were. While most radiographers with negative feedback such as victimisation or punishment from previous speaking-up experiences described the act as a "high-risk, low benefit" activity, expressing apathy for it, few others on the other hand who were fortunate to have good feedback from previous experiences were more motivated to engage in the act. Radiographers also contended that their speaking-up behaviours in the workplace were restrained by the fear of negative feedback, whether in the form of being silenced, tagged as a snitch, having their competencies questioned, or being told about their

inability to effect any change. This finding is consistent with the already existing speak-up literature.

The findings presented in this chapter demonstrated some overlapping with the data discussed in the previous chapter. For example, the influence of the hierarchical nature of Ghanaian societal culture and norms on the speaking-up behaviours of Ghanaian radiographers could not be overlooked. Radiographers argued that they were discouraged from speaking-up because of the societal culture which in turn affected the workplace culture, hence resulting in the act being regarded as disrespectful especially when it involved a senior staff and a junior staff.

Furthermore, radiographers reported that the absence of clear-cut speak-up policies and guidelines from national stakeholders such as the GHS, the AHPC and the GSR posed a barrier to speaking-up behaviours of Ghanaian radiographers. It was further reported that the absence of formal departmental guidelines and protocols at the local level discouraged radiographers from speaking-up about safety concerns in the workplace. In the absence of formal policies and guidelines however, some radiographers described a form of innate or personal ethic that intervened in their decisions to speak-up, based on respect for the patient, a sense of duty, and also underpinned by empathy. This is similar to findings reported in a UK study by Jones and Kelly (2014) where they found that a sense of personal ethics often had a stronger effect on actions than professional or legal obligation.

Interestingly, the UK is one of the countries that have long-established speak-up guidelines and codes of conduct for healthcare professionals. However, ongoing problems and issues with speaking-up in the UK raises questions about whether the existence of policy and guidelines alone is enough to influence speak-up decisions of Ghanaian radiographers (Hughes 2019). It was further reported that in the absence of formal policies, informal or unofficial strategies for raising concerns were being used in some departments. While these modes of raising concerns have some obvious pitfalls, radiographers also complained that these reporting procedures were very unstructured and cumbersome in some cases. The next chapter explores these modes/strategies in further detail. The absence of relevant independent speak-up institutions and organisations to handle concerns that are raised and resolve them properly was also contended to limit speaking-up behaviours of Ghanaian radiographers in the workplace. On comparing the process of raising a safety concern in public facilities to private facilities in Ghana, it was argued that unlike the private facilities where it was easier to raise concerns and these concerns were also

promptly addressed, reporting safety concerns in public hospitals came across as a very tedious task because of the bureaucracies involved.

Overall, most of the barriers and enablers discussed in this section were not necessarily unique to the Ghanaian setting as they are widely discussed in the international speak-up literature. Interestingly, few factors such as the absence of speak-up policies or guidelines, workload/working conditions were peculiar to the Ghanaian setting. Although radiography workforce shortages are existent in westernised countries such as the UK, their severity is not comparable to the deficit in Ghana. (The background chapter discusses this in much detail).

This chapter also demonstrates that although speaking-up behaviours of Ghanaian radiographers are challenged or enabled by diverse workplace factors, the influence of the societal culture on the workplace culture is grossly undeniable. While elements of just culture and psychological safety are demonstrated here in how Ghanaian radiographers could be better enabled to speak-up in the workplace, the influence of societal norms and culture would need to be carefully considered. Lastly, the development of speak-up policy and codes of conduct alone may not necessarily be enough to enable Ghanaian radiographers to speak-up as some speak-up decision trails may be influenced by empathy, a sense of duty and respect for the patient. The next chapter discusses the current strategies in response to the barriers and facilitators and future directions as deduced from the data. This theme explores how some of the barriers and facilitators discussed here are being addressed and what the future holds with respect to speaking-up in radiography practice and healthcare in Ghana.

CHAPTER SEVEN

CURRENT STRATEGIES IN RESPONSE TO BARRIERS AND FACILITATORS AND FUTURE DIRECTIONS

7.0 Introduction

As already mentioned in previous chapters, the thematic analysis of the data generated three broad themes. Two of these themes have been discussed in the earlier results chapters. This chapter draws the curtains on the results by discussing the third and final theme. As may be recalled, the preceding chapter explored the workplace barriers and facilitators of speaking-up in radiography departments in Ghana. Building on these earlier discussed factors, this chapter mainly explores the current strategies in response to these workplace speaking-up barriers and enablers and future directions for speaking-up in healthcare in Ghana.

In accordance with the key objectives of this study, the earlier chapters explored Ghanaian radiographers' understanding and willingness to speak-up, the factors affecting their speaking-up behaviours, their experiences with institutional culture, and inter-professional relationship when speaking-up about concerns. Finally, in addition to the study seeking to determine if Ghanaian radiographers had speaking-up training needs, it also aimed at establishing if there were procedures, policies, and guidelines on speaking-up in hospitals in Ghana, and if so, whether these were usefully guiding radiographers' practices. This chapter, therefore, aims to meet these objectives by discussing in depth the current strategies in response to the barriers and enablers of speaking-up behaviours of Ghanaian radiographers discussed in the preceding chapters. The chapter also discusses future directions such as the possibility of speak-up interventions in healthcare in Ghana.

Although the earlier chapters discussed numerous barriers to speaking-up such as an absence of policy or guidelines and enablers such as previous experiences, the thematic analysis of data also demonstrated some current strategies in response to these barriers and enablers. It is imperative to discuss these existing strategies as it offers an understanding of how and what some organisations or individuals have deployed steps to support workers to speak-up in the absence of national, regional or professional initiatives. Based on the results of the data analysis, this chapter is divided into two main sections. The chapter begins with an exploration of the

current strategies in response to the speak-up barriers and facilitators of Ghanaian radiographers and the later section mainly explores the future directions of speaking-up in healthcare in Ghana. Each of these sections is discussed under 4 sub-themes.

7.1 Strategies in Response to Barriers and Facilitators

As mentioned earlier, analysing the data did not only illustrate the speaking-up barriers and facilitators of Ghanaian radiographers, but it also demonstrated the current strategies in response to these barriers and facilitators at various levels which will be discussed here. Figure 7.1 below illustrates the four sub-themes under which this will be explored.

Figure 7.1 Schematic structure of the current strategies in response to workplace barriers and facilitators of speaking-up among radiographers in Ghana

7.1.1 National-level Strategies

National-level strategies here refer to the speaking-up strategies such as policy and guidelines that exist for healthcare professionals in Ghana at the national level. As mentioned in the early background and introduction chapters, Ghana's national health sector aims *"To improve access to quality, efficient and seamless health services that is gender and youth friendly and responsive to the needs of people of all ages in all parts of the country"* (MoH 2014 p.19). The MoH has the duty of policy development and healthcare delivery management, and this function is performed through the GHS. Furthermore, as mentioned in the earlier background chapters, healthcare

staff in Ghana have an ethical and legal obligation to patients (Nsiah 2019). They are mandated by the Patient Charter "*to protect the rights of the patient to safe, competent and quality care"* (GHS 1992: p2). However, clear guidelines to support health professionals in the performance of this mandate are non-existent. Interviewees commented on the absence of national guidelines or formal policy frameworks to guide speaking-up activities across healthcare facilities in Ghana:

> ***I haven't been told or I haven't come across any national policy since I started working, but the only informal way I know is that, once there's a problem or I identify something going on, I tell my chief radiographer. But written policy I don't have a fair knowledge of whether it exists or not. (Rad 18).***

Internationally, speak-up frameworks have been developed to guide speaking-up acts across healthcare facilities. For example, these include The Whistleblowing Policy and the Freedom to Speak-Up Guardians in NHS England. However, radiographers asserted this was not the case in Ghana as they reported no knowledge of a whistleblowing or "Speak-Up" guidance developed by the MoH or the GHS. A senior official from the MoH responsible for policy creation confirmed this assertion by also stating that no specific guidelines existed to regulate practising radiographers speaking-up about patient safety compromises in Ghana. The official however stated that in the absence of a specific policy document to guide the practice in that regard, radiographers were expected to report safety concerns in their incident logbooks:

> ***No, for raising concerns I don't think there's any specific. We haven't yet got any specific policy for raising concerns in healthcare. I believe what radiographers typically do when they need to raise concerns or if you see something within your imaging room that is not right is to log into your book. If it is an equipment error you log in, if something happens to a patient you log in. If maybe you are at the CT scan centre, you started scanning before realizing that you didn't close the door, which is a very bad practice, you log it in the book. So that you can later investigate how it came. So, these are some of the things they do (Stakeholder 2).***

Furthermore, other key stakeholders such as the professional body for radiographers, the GSR, and the regulatory body for allied health professionals in Ghana, the AHPC also reported the absence of guidelines or policy for raising concerns on issues regarding patient safety. (It should be noted that the term "Rep" used in the extract below is simply an abbreviation for the term representative"). The GSR official contended that while the society was aware of the absence of a national speak-up policy for healthcare professionals including radiographers, the society did

not have the capacity to push the agenda as a result of the lack of representation of radiographers at the ministry level. It may be recalled that in the earlier background chapter of the results section, one of the major challenges reported by Ghanaian radiographers was the lack of representation at the health ministry level unlike other health professionals such as doctors and nurses. The official further argued that for a speaking-up policy to work effectively among Ghanaian radiographers, their representation at the health ministry level will need to be put in place:

> ***There is nothing like a policy. And I will put that to the doorstep of my calls for having a Rep at the GHS. If you have a Rep at the GHS, that becomes his job. So, there is a formal policy that will come from there replicating to all GHS hospitals that a, b, c, d, this is the channel. So, you cannot report to me at the headquarters. You report to the regional radiographer recognised by GHS. The regional radiographers report to the national Rep at the GHS. That way, it becomes a formalised channel but because we don't have it, that policy is not there. Until that is done, the policy cannot be implemented. The GSR alone doesn't also have that to put one together because what happens when we do? where do we send it to? It stays at our doorstep, and we just make the noise through the media. So, we don't have any document so far (Stakeholder 1).***

Similarly**,** the AHPC official while reporting a lack of a national policy for raising concerns in healthcare, highlighted that the council, which is fairly new was still in the process of putting together various policies for allied health professions in Ghana. Despite the absence of this, the official emphasised that as a council, they still expected allied health professionals to report patient safety compromises when they came across such instances in their workplaces:

> ***I won't say a policy as such because we are now also developing some of the policies you know. But we encourage our people to speak-up. If you are in a health facility and the safety of your patients is at stake, we expect you as a professional to raise concerns so that you can protect the clients and if people fail to report some of these issues and it comes to our attention, we take them seriously on such occurrences (Stakeholder 3).***

Moving on from national policies, stakeholders such as the MoH through the GHS, AHPC and the GSR are expected to have professional codes of conduct/ethics for all healthcare professionals including radiographers. The availability of professional conduct regulations and standards that encourage speaking-up has been argued in literature to enable speaking-up behaviours of

healthcare professionals (Kingston et. al. 2004, Jackson et. al. 2010). The Society of Radiographers' Code of Professional Conduct in the UK contains explicit guidelines for raising concerns or speaking up about safety issues. (Society of Radiographers 2013). Unfortunately, the interview data reported that neither the Code of Conduct for the GHS nor the GSR present such equivalent provisions. The GSR official further reported that the society currently did not have an approved Standard Operating Procedure (SOPs) document for radiography departments across the country as the drafted document was still awaiting approval by parliament:

> ***We have a code of conduct and ethics for radiographers. And we have the code of conduct and ethics in the GHS as well which is sadly only used when they want to take disciplinary actions against someone. So, although we have the code of ethics for radiographers in Ghana, it does not have specific guidelines for raising concerns unfortunately, no, but what is there is about patient safety. This is for the one developed by the GSR. That is the only one. We were supposed to have standard operating procedures. But we don't have it. It's supposed to be under the LI for the AHPC. We drafted it but the LI has not been approved by parliament. So, the Act is there but has not yet been approved and that's where we are now. So, we are just hanging on with our Code of ethics. But it is very detailed with specifics of, say if you want to do a chest x-ray what are you supposed to have done, a, b, c, d. you did not do a, b, c, d, so you faulted this way or that way. The drafted document also includes a revised code of ethics and guidelines for child protection (Stakeholder 2).***

Similarly, the MoH while confirming the existence of a code of conduct through the GHS reported that this document did not clearly stipulate guidelines for raising safety concerns. Concerns about whether the current code of conduct was usefully guiding practices of radiographers across the country were also raised by the ministry official:

> ***We have a Code of Conduct for radiographers which is the guiding principle for all radiographers in Ghana. Whether it is being obeyed strictly I cannot tell but there's a Code of Conduct. However, I don't think it's explicit on raising concerns (Stakeholder 2).***

Nevertheless, the AHPC reported an absence of an approved code of conduct document and SOP for allied health professionals in Ghana. According to the official, these documents were far advanced in the development process and will include guidelines for raising safety concerns in the workplace when it is completed and validated:

We are now about finalising some of the policies. Standard of practice for instance, code of practice, scope of practice, these have gone very far but we are yet to finalise some of these policies….Yes, it includes guidelines for raising concerns about safety. You know, in the workplace, among the practitioners themselves, and the practitioner-client. So, these are some of the things that, the codes that we are developing seem to have taken care of (Stakeholder 3).

Despite the absence of an approved code of conduct and SOPs as reported by the AHPC, the council expressed its commitment to tackling safety issues that are brought to their attention. In the extract below, the official describes some instances where appropriate sanctions were taken against facilities that breached safety standards:

Even the absence of approved policies doesn't stop us the council in dealing with issues of unsafe practice, diligence, so when such issues happen, we receive a lot of complaints from the general public and also some of the professionals themselves that this thing is happening in such a hospital or in this facility and quickly move in to try and ascertain the, if really those things are happening. And there has been instances where we have taken issues with the owners of facilities, you know, I quite remember months ago we had to move to close some facilities where the practice there didn't meet up to standard so even though we don't have the documents in place but that doesn't stop the council to ensure that right things are done in the health sector because the whole essence of health regulation is to protect the general public by ensuring that standards are met and then quality care is given to the population so that is what we have been doing (Stakeholder 3).

Similarly, the GSR contended that although the society lacked SOPs and professional policies on raising safety concerns among radiographers, there were arrangements for annual facility visitations to radiology departments across the country by the GSR. The official argued that these visitations were useful for hearing concerns of radiographers in the workplace and provides an avenue for speaking-up about patient safety concerns. It was contended that concerns raised during these visits were compiled by the National Executive Council (NEC) who then try to address them:

I introduced that facility visitation so maybe it's just about having that policy done that the society should have an annual facility visitation and that would help. But we have regional chairmen who are so close with the various respective regions so if there is any

problem, they bring it up to the national executive council to try to address it, so they do the little facility visitation, and we get to know (Stakeholder 1).

It is evident that there's a lack of national and professional policies to support Ghanaian radiographers in their speaking-up activities. Despite the absence of these policies, the MoH official's view about whether the other already existing stipulations are usefully guiding radiography practices across the country is worth thinking about. Although international evidence suggests that the existence of these policies and standards of practice may enable speaking-up behaviours of healthcare professionals, will this apply in the Ghanaian context? Will the existence of policies really make a difference? It is also evident that Ghana's healthcare system is currently undergoing considerable reformation given the number of policies that are either being developed or awaiting validation. There are also questions about whether some of the activities of the GSR in the absence of policy such as the annual facility visitation is useful in supporting radiographers to speak-up about concerns. How effective are these visits? Do radiographers feel safe enough to raise concerns to these executives who conduct these visitations. Is their anonymity assured in attempts to address these concerns? How long does it take for these concerns to be addressed if they are at all? Furthermore, the MoH official's reference to the incident logbook for reporting concerns takes me back to my days of practising as a radiographer in Ghana. Incident logbooks in radiology departments that actually have them were reduced to reporting equipment faults only. However, it is undeniable that a lot more could go wrong in a patient's visit to a radiology department than just an equipment error. My albeit limited experience in radiology departments in UK paints a completely different picture of incident logging. For example, if a radiographer performed an unjustified radiological procedure on a patient, this was considered an incident, and it is straight-away logged into Datix or any incident log-system deemed appropriate. If a patient was overly exposed by a radiographer for even a justified examination, the same rule applies. These are just but a few examples of how some patient safety compromises are handled in radiology departments in the UK. In the Ghanaian setting, we carry on

7.1.2 Organisational-level Strategies

The term organisational-level strategies here refer to formal, semi-formal, and informal modes of speaking-up that currently exist at the hospital level in healthcare facilities across Ghana as reported by radiographers. Similar to what was reported at the national level during stakeholder interviews, radiographers also reported an absence of clearly outlined formal speaking-up policies and guidelines at the hospitals:

Personally, I haven't come across any document that directs you as to how to channel your grievances or your complaints to the appropriate authority (Rad 13)

as far as I am concerned, I have not seen any written down policy on this issue in both the government and the private sector wherever. (Rad 17).

On the other hand, radiographers who worked in both private and public hospitals reported that while they had no knowledge of a formal policy or guidelines for raising concerns in their public hospitals, in their private workplaces guidance existed which reiterated the importance of speaking-up about concerns and offered some guidance on how to go about it:

I don't know of any written down policy here…. However, in my private setting, there is a document that talks about what to do when you see something wrong. It emphasizes the need to say something when you see something wrong so that something can be done about it. (Rad 7).

The data analysis also demonstrated that in the absence of formal speak-up frameworks and guidelines nationally and at hospital management levels, other semi-formal and informal modes of raising concerns existed in healthcare facilities across the country. Some of these speaking-up strategies were regular meetings for heads of departments and managers organised by the hospital management. A senior radiographer described how such meetings, some daily, weekly, and monthly serve as an avenue to raise concerns or speak-up about anything going untoward:

Within the hospital, we have what we call huddles or standing meetings that we do every single day, generally for heads of departments or in-charges of the wards where concerns are raised and whatever was done on the previous day or within the week among the departments is discussed. If there's something you experienced in a department, which you didn't really like you can bring it there, before the heads of departments. For instance, in department A, this happened or some of my subordinates reported that this event took place and so we should discuss it and find a way forward. So that is what we do at the department heads and then from there, we advance to the administrator. The heads of departments meet the hospital administrator once every month to discuss some of these issues. The head of departments also meets top management regularly to discuss concerns raised for them to also take action. (Rad 10).

While the extract above demonstrates how some concerns raised through or by department managers are taken further up to senior hospital management in an attempt to address them,

the efficacy of this approach in managing all staff concerns may be questioned. For example, it appears concerns raised through this approach may require the approval of the department manager to be considered worthy of address. Furthermore, although all forms of speaking-up in the workplace require some level of psychological safety and moral courage, raising certain safety concerns, for example, errors committed by radiographers through this approach may require higher levels of these factors. The reason being that this approach does not offer any form of anonymity for radiographers who do not wish to be identified and concerns will need to be raised in the presence of other staff, and hence possibly inhibiting voice. Similarly, another senior radiographer and radiology manager described how concerns are raised in the workplace through report writing by department heads and managers. The manager stated that department managers in their facility were required to submit weekly reports on the day-to-day running of the department to senior management and safety compromises were included in these reports:

> ***In my hospital, it is mandatory that on a weekly basis, I submit a report as head of my department concerning any unforeseen or irregular encounters that I encounter pertaining to patients' safety and also compliance of that by other staff but basically pertaining to the safety of our patients. It is the sole duty of the head of the radiology department to compile these occurrences on a weekly basis. (Rad 12).***

In addition to management meetings and report writing as strategies for raising safety concerns at the organisational level, radiographers mentioned that their hospitals organised open gatherings for all staff every quarterly to discuss the successes and failures of the organisation. They mentioned that these gatherings offered an opportunity for staff to raise concerns. It is however apparent that this approach may only work for certain types of safety concerns given the fact it does not offer any form of privacy or anonymity:

> ***The hospital organises something like a forum or durbar every quarter. Once they try to put up the health information status page, every quarter, they project, and we get to know whether we are progressing or retrogressing. So, during those programs, the floors are opened up for all staff to attend, and for them to bring up some of these issues (Rad 10).***

Lastly at the hospital level, another strategy that was predominant across sites was the use of suggestion boxes for raising concerns. While the approaches discussed so far in the extracts above are targeted at promoting speaking-up among staff only, the use of suggestion boxes was

open to both patients and staff. Radiographers stated that their hospital management provided suggestion boxes at vantage points within the hospital premises for patients or staff to drop in their complaints, comments, or suggestions. While this approach may be argued to be a good way to ensure anonymity in raising concerns on wrongdoing, it is however unclear how the concerns are subsequently addressed, if they are at all. It is also unclear how timely this approach may be in addressing more immediate and serious complaints about staff or patient safety, hence its usefulness in promoting safety and improving patient outcomes may be questioned:

> ***Okay so generally, or for the whole hospital, we have suggestion boxes around which you can drop your comments or concerns in without revealing your identity? (Rad 10).***
>
> ***So, at the private facility, we have a suggestion box placed at the entrance of departments where whatever concern any staff have can be written and dropped in the box which is sent to the appropriate authorities to be read and addressed (Rad 16).***

Moving on from the discussion on speaking-up strategies at the hospital or organisational level, the next section explores the strategies that exist at the departmental or local level.

7.1.3 Departmental/local-level Strategies

Departmental or local level strategies here refer to modes of speaking-up that currently exist at the department level in healthcare facilities across Ghana as reported by radiographers. Similar to reports given at the national and organisational levels, radiographers here also reported an absence of formal policy or guidelines for raising safety concerns in their departments. Despite this absence, radiographers contended that they were urged to raise concerns through semi-formal and informal channels:

> ***There are no formal or established policies for that in most places where I work. However, informally speaking-up and raising concerns are encouraged. (Rad 15).***

Building on these insights and similar to reports in the earlier sections of this chapter, radiographers mentioned that within their departments, weekly meetings were organised to deliberate on issues concerning the day-to-day running of the department. A senior radiographer describes these meetings as an avenue for speaking-up about safety concerns:

> ***we have meetings that we organise, at the end of every week in my department, for instance, I meet my subordinates, and whatever their concerns are, or what's going on wrong, or what we could change, they bring it up. We all discuss it, then we find lasting***

solutions to it, … within the department itself. Although we have nothing written down, these are some of the protocols in place within the department for people to speak-up (Rad 10).

A junior radiographer mentioned that within the department, they raised concerns through their senior radiographers, describing that they basically followed the chain of command until the concern is addressed. Upon being questioned about what then happens if the safety compromise or wrongdoing involved the senior radiographer or the manager, the radiographer asserted they would still speak-up to that senior radiographer/manager:

If you have a concern, you go to your immediate superior and if it doesn't get resolved on that level, you go to the next in line…If the problem is with your superior, you still have to tell him so that you can sort it out. You have to address it to him first, if it doesn't get resolved with him, you move to the next manager. So, it's either you get out of that environment, or the superiors sit with you, and you sort it out…. (Rad 5)

It is evident from the extract above that the approach does not provide any form of anonymity for the person raising the concern. In addressing questions regarding anonymity, the radiographer mentioned that the only way to achieve this was perhaps by the use of anonymous letters. However, the radiographer also asserts this approach is unacceptable, emphasising that the identity of the person raising a concern needs to be known for the concern to get the necessary attention and be addressed. While it is true that it may be more difficult to investigate anonymous reports as it may not be possible to ask follow-up questions, it should be noted that sometimes it is in the best interest of the whistle-blower or the person raising the concern that they remain anonymous. Nonetheless, it is customary to provide your name while requesting confidentiality, so that the individual or organisation you disclose to takes all reasonable steps to safeguard your identity:

In making reports, the only way you can shield your identity is probably through a written letter. And if shielding your identity is a big issue for you then I don't think it's possible to make such reports. Because you are making a complaint and if you are making a complaint, you have to show up, whoever is going to handle your complaint needs to know who is making the complaint so your identity for sure will be known. (Rad 5)

The need to go by hospital hierarchy in raising concerns was emphasised by radiographers across departments. It may be recalled that Rad 5 while reporting that radiographers usually spoke up about concerns through their immediate supervisors, shared the opinion that even in cases where the wrongdoing or concern was about the immediate supervisor or manager, the radiographer raising the concern still needed to speak to the said supervisor or manager about it first. Building further on these insights, it was contended that 'ignoring' immediate supervisors and heads of departments to report concerns directly to other top management was considered a violation of hierarchy:

> ***Other radiographers may not raise their concerns to the head of department, and it would be a breach of not following the hierarchy. There is a strong policy of moving up the hierarchy and not just moving past the head of the department to any other person to report your concerns. (Rad 12).***

Contrary to this opinion of Rads 5 and 12 and the emphasis on complying with hierarchical expectations in every instance, other radiographers, while admitting awareness of the expectation to 'obey' hierarchy, argued that they would move past their immediate supervisor or head of department and report to a more senior person if that immediate supervisor or manager was involved in the wrongdoing or concern they intend to report. Radiographers further highlighted that in some hospitals, junior staff were offered opportunities to personally meet top managers such as medical directors to report concerns that they are unable to report to their department heads:

> ***At the radiography department where I work, the simple policy is that you report immediately to the next second higher authority. So, for me as a radiographer, my first point of report is the senior radiographer whom I will most likely be working with on my ordinary working day. If there is any issue that comes up, they are my first point of report but if they are the people that I am reporting against then I can bypass them and go to the chief radiographer. I would say I haven't really seen it as a written document that states this, but I think it is just the culture of the work environment. (Rad 14).***
>
> ***But for the department level, what happens is if you have an issue, and let's say, it's between a subordinate and the head of department, that concern can be reported to the medical director. The medical director has days of meeting people individually to address concerns they have within their departments that cannot be reported to their***

unit heads. The medical director who acts as the head of all clinical departments will now try and solve all those issues. (Rad 10).

Furthermore, speaking-up strategies at the department levels were not limited to only directly raising concerns through senior radiographers or radiology managers. Radiographers reported that some informal approaches such as the use of WhatsApp platforms were also employed. In the extract below, the radiographer explains that this approach could be used unless the staff raising concern the staff raising the concern preferred speaking directly to a manager or a senior radiographer. Again, while this approach may be useful in reporting some concerns within the department, it may not be ideal in cases where the person speaking-up requires some form of anonymity or confidentiality:

Well basically if I wasn't happy about something, we have a radiographers WhatsApp platform, where I can air my opinions. We also have a directorate page where you could actually air your concerns, or you could actually speak to the chief radiographer in person and if possible, the head of department. (Rad 9).

While all the extracts discussed so far at the departmental level describe strategies in place for raising concerns among radiographers, it may be worth mentioning that some facilities had put in some systems for patients to speak-up about concerns about their care delivery when they had any. Radiographers stated that some departments within the hospital promoted speaking-up among patients through the use of posters encouraging them to raise a concern, and in some cases, telephone numbers of the department managers were attached as well. While the efficacy of this approach in actually promoting speaking-up among patients cannot be proven, it may however worth be a way of enhancing patient safety and improving patient outcomes in those departments as staff compliance to departmental protocols and local rules may perhaps be high:

I'm not aware of any official policies in place. But I know that we try as much as possible to encourage people to speak-up. In several departments you find notices, and in some, you'll find contact numbers that you could call or send messages to when something untoward happens or you are treated badly in a place… These interventions are for clients and not the staff and in the few places where they are, the contact numbers are for the departmental heads. (Rad 6).

At the Government teaching hospital, we have the contact of the chief radiographer boldly placed on notices around the department which people can call to make known their concerns or complains. (Rad 16).

While speak-up strategies discussed so far explore national, organisational and departmental levels approaches to speaking-up, the thematic analysis also demonstrated that individual approaches to speaking-up existed among radiographers in Ghana. The next section discusses these approaches.

7.1.4 Individual-based Speak-up Approaches

As the name of this theme suggests, individual-based speak-up approaches used here refer to the various ways that radiographers personally choose to raise concerns about safety compromises within their workplaces in Ghana. Radiographers contended that while some approaches such as the use of suggestion boxes and speaking-up through supervisors existed at the organisational and departmental levels also had individual approaches to raising concerns about safety. It was reported that when radiographers had concerns, they often spoke-up to fellow colleagues, trusted friends or people who were not in any position to effect change. In the extract below, Rad 12 highlights that this approach of speaking-up to colleagues was most common in cases where the radiographer who intends to raise the concern is unable to speak-up to their immediate supervisors because the said supervisor may be involved in the wrongdoing or the concern that needs to be addressed. Radiographers further reported that it was either they use this approach or perhaps not speak-up at all:

if your problem is with the HoD then with such an issue, it becomes difficult and that means that the person may either not speak-up at all or end up confiding in another colleague who might just leak information for management to hear but this hardly occurs. (Rad 12).

I've had but I didn't raise concerns to anyone that matters. Yes, I kept it to myself and even those that I complained to were not people that could be of help. (Rad 13).

In another light, the approach of speaking-up to the colleague involved in the wrongdoing or concern was also mentioned by radiographers as an informal strategy. They stated that if they witnessed a colleague doing something wrong and the action or in some cases, inaction had the tendency to compromise patient safety, they would raise a concern directly to that colleague. In the extract below, Rad 15 argued that this approach is the best practice:

A colleague was doing an examination, and his approach was not all that good. And so I approached him and said there was a better way of doing what he was doing and I taught him how to…… I believe it's best you approach the person about his or her faults or you talk to a higher authority about them. (Rad 15).

I would confront my colleague and talk to him about the consequences of what he/she is about doing highlighting the harm to the patient if done. (Rad 16).

To summarise, this chapter has so far explored the current strategies in response to the barriers and enablers of speaking-up discussed in the preceding chapter. Speak-up strategies on the national, organisational, departmental and individual levels have been explored. While an absence of a national speak-up policy or well-structured guidance was noted across levels, it was evident that other strategies adopted for raising concerns existed. Although these approaches may be useful in raising concerns about some issues within the workplace, some of them had obvious shortcomings. For example, the approach of speaking-up at departmental meetings or directly through supervisors which may not offer any form of anonymity, and the use of suggestion boxes which may offer anonymity but present a challenge of delay in addressing concerns. The efficacy of these strategies in promoting speaking-up about safety concerns and actually improving patient safety may also be questioned.

The next section discusses future directions such as the likelihood of a speak-up policy and other speak-up interventions at national and local levels.

7.2 Future Directions

So far, this chapter and the preceding ones have explored the speaking-up experiences of Ghanaian radiographers, highlighting some contextual issues, the Ghanaian speaking-up understanding, perceptions and culture, barriers and enablers as well as the current strategies in response to these barriers and enablers. Building further on these insights and looking forward, the researcher, therefore, sought to inquire about the possibility of promoting speaking-up in the Ghanaian society. The significance is that it is not enough to discuss the current speaking-up situation in healthcare in Ghana without exploring ways of improving the situation and what the future holds, that is if there is any future at all for it in Ghana and perhaps other culturally complex and resource-constrained settings.

Across sites, radiographers affirmed their support for promoting speaking-up in healthcare in Ghana. In the extract below, the radiographer highlights the possibility of a future for speaking-up in healthcare in Ghana:

> ***Because there is growing awareness, and because of education and exposure to other cultures, people are becoming more aware of what to do and what not to do through exchange of ideas with all kinds of people. So, generally, things are changing. And so yes, it's very, very much possible that these things can happen, and the change can come. As I said, there are some initiatives from individuals and NGOs in various other sectors that are doing quite well. And so, all we need is a consistent effort at it and hopefully, it will yield results. (Rad 6).***

Another radiographer, while recognising the challenges pursuing a change from the current situation may come with, argues about how patients may be supported to speak-up about safety compromises they face in their care delivery process. It may be recalled that radiographers have highlighted in the preceding chapters how promoting patient speaking-up may in turn influence speaking-up behaviours of radiographers. ***"…education is the way to go, change of culture, change of mindset"*** as quoted from the closing lines in the extract below demonstrates some ways the radiographer believes a future for speaking-up in healthcare in Ghana can be pursued:

> ***Why not? It is possible. If Ghanaians are educated on what to do and have knowledge of the topic, they are more likely to speak-up. A lot of the patients who come to the hospital are not even aware when their rights are being trampled on. They lack knowledge. If patients who come to the hospital become more knowledgeable about their rights and responsibilities as clients, then they are more likely to speak-up when things go wrong. So, education is the way to go, change of culture, change of mindset. If these things are done, then speaking-up can be promoted. It will be a long process, but it is possible. (Rad 5).***

Furthermore, radiographers while affirming their support for promoting speaking-up In Ghana, suggested some ways they believed a change could be pursued. These suggestions are described with the term 'speak-up interventions' for the purposes of this chapter. The remainder of this chapter explores these future speak-up interventions for radiography practice and perhaps healthcare in Ghana in much detail. These interventions are discussed under four sub-themes namely policy interventions, education and training interventions, societal/cultural interventions, and other workplace interventions as illustrated in figure 7.2 below.

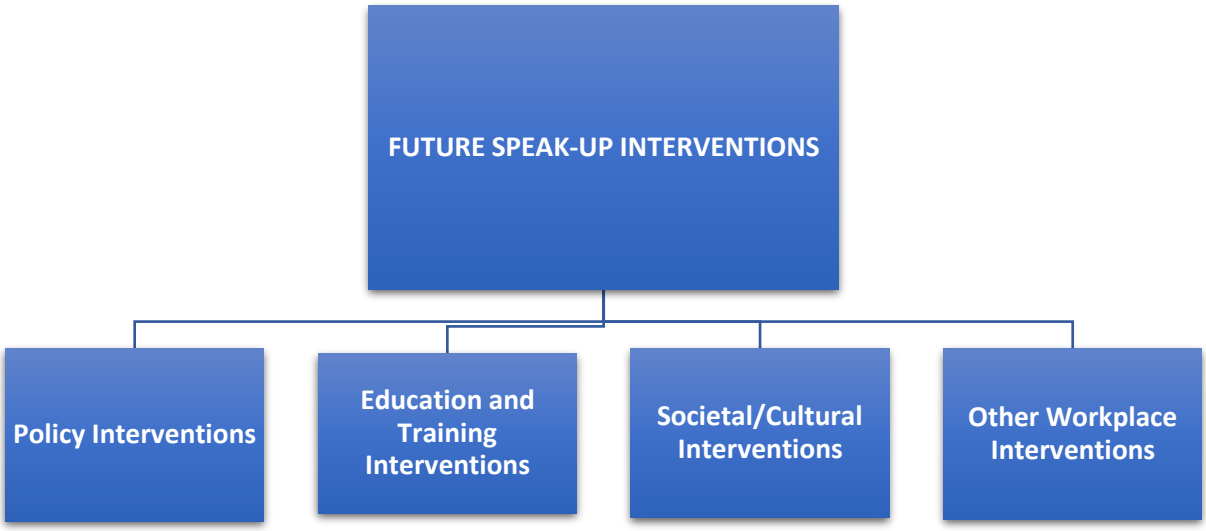


Figure 7.2 Schematic structure of future speak-up interventions for radiography practice in Ghana

7.2.1 Policy Interventions

This section discusses the future of speak-up policy development and its effective enactment in radiography in Ghana. It identifies the importance of the existence of policies at national and local levels to guide radiographers in their speaking-up roles and the effective implementation of these policies in diagnostic radiography in Ghana. The section also considers the necessary processes for policy development to make certain the ultimate outcome is viable, and hence reducing the possibility of implementation non-success. Some of the issues proposed by radiographers here include the need for guidance or frameworks for speaking-up, who should be involved in the policy planning, who should have the duty of regulation and implementation, policy funding, and anonymity concerns, just to mention but a few. Policy interventions are explored under two levels in this section, national and local levels.

7.2.1.1 National Level Policy Intervention

National-level policy intervention used here simply refers to speak-up policy planning and implementation at the national level for radiography practice and healthcare in Ghana. It discusses the possibility of developing and implementing a speak-up policy at the national level.

Given the apparent absence of guidance and policy to guide speaking-up behaviours of radiographers and healthcare professionals in Ghana, it is unarguable that there is a need for policy formulation to guide these practices across departments. Evidence from international literature shows the existence of policy and frameworks to guide speaking-up behaviours of healthcare professionals, although the implementation of these structures has been problematic in some cases (Hughes 2019). Radiographers, in recognition of the barriers and in some cases lack of clarity on what exactly to do argued that speaking-up practices in radiography and healthcare in Ghana require guidance through policy. They further argued that the introduction of this policy would not only offer guidance but also promote speaking-up behaviours of radiographers across the department(s):

> ***If there is a formal policy instituted to guide how to go about speaking-up, it would encourage staff to be open about instances of that sort and not be timid or scared of speaking-up in case they have to do so. That is if a formal policy is instituted to openly discuss the matter… if there's policy concerning that, you don't feel like you are doing something wrong when speaking-up. And whatever you are speaking-up against would have to be listened to. Because when you speak-up to someone, and the person knows that there is a policy concerning this and you have a roadmap about how to go about it, everybody is in the position to speak-up, it's not limited to only a senior colleague. I believe that everyone, either senior or junior should be able to speak-up and be heard. If that is done, it would make it more open, and people would actually be encouraged to speak-up if something is not being done right because there's a policy (Rad 2).***

In discussing the need for policy formulation, suggestions about who should be involved in the planning were given by radiographers across sites. Radiographers argued that highly experienced personnel with senior expertise in successful speak-up policy planning and implementation will need to be consulted for their input in the decision-making process to ensure that this works:

> ***We will need to get an expert on speaking-up to incorporate a system that has previously worked in other institutions. There can be clear guidelines printed out and pasted at various vantage points. Also, as I mentioned earlier there should be scheduled training sessions on this (Rad 20).***

Some radiographers also argued that it was not prudent for a speak-up policy to be designed for them without their involvement in the planning process. They, therefore, contended that for the policy to work well for Ghanaian radiographers, their views and opinions would need to be taken

into consideration, either by contacting the radiographers directly or through the professional body, the GSR:

> ***Well, I believe that the policy developers will need to work in line with radiographers because sometimes people make decisions for you without coming to you on the ground, okay. So, it will be a good thing to get radiographers involved in working on such policies. In view that they can get the general consensus of radiographers regarding raising concerns and speaking-up (Rad 17).***
>
> ***I think that in creating that policy, they should involve the GSR. They certainly have a smorgasbord of ideas they actually want to bring on especially with raising a taskforce that can actually squash out quacks. I don't have much to say but I think that the GSR have enough ideas on what they want you to do so if anything, I'll just recommend that they actually contact them. (Rad 9).***

Furthermore, the healthcare industry and other government sectors in Ghana have a pattern regarding the introduction of policies without adequate funding which have contributed to implementation failures of these otherwise good policies. Although the implementation of speak-up policies in high resource settings has not been without challenges, low-resource settings like Ghana may have bigger challenges especially when it comes to policy funding. Radiographers therefore contended that putting together a good speak-up policy would require adequate resourcing to ensure its success:

> ***It will have to be properly funded. The real challenge with most of our institutions and structures is that, although they are set up, very little funding goes into it so eventually the people working in these institutions and structures tend to be very demotivated. And so, they are not able to execute their responsibilities. So, very importantly, for something like that the funding has to be properly worked out so that the people involved in that endeavour are properly taken care of so they can focus and do the job. That is the most important thing because we have the people with a kind of mindset to turn things around if they are given the necessary accoutrement, they will be able to create a change. (Rad 6).***

Significantly, suggestions on policy provisions about how speak-up concerns should be received and addressed were given by radiographers across sites. Radiographers mentioned that for a speak-up policy to work well for radiographers, it would have to stipulate in detail a clear

pathway for raising concerns and what the expectations of radiographers should be when they speak-up in the workplace about safety compromises:

> ***I think one of the things that can be incorporated are the appropriate person to speak to or to raise a particular concern if you have to, how long it might take for these concerns to be resolved or to be answered, the appropriate time these concerns can be channelled. Yeah, I think when some of these things are incorporated, people will become knowledgeable about what exactly to do, where exactly to go and who to speak to. And so, if some of these things are outlined in the policy, where to go to, where to raise a concern and what to expect, I think it's going to help the Ghanaian radiographer (Rad 1).***

In addressing questions about who to report to and how speak-concerns should be addressed in the policy, radiographers argued that the policy should ensure that they should not have to raise concerns through other staff such as radiologists. It may be recalled that one of the challenges of radiography practice in Ghana reported by the radiographers in the earlier chapters was the perceived lack of voice as a result of having to raise concerns through radiologists in the departments. This approach was one they were often unhappy with due to the perception of these radiologists not sharing their common interests. Consequently, radiographers contended that a speak-up policy will work better for Ghanaian radiographers if it enables them to raise concerns through their fellow radiographers and not other healthcare professionals such as radiologists:

> ***Radiographers should not have to report concerns directly through radiologists. Yes, because the radiologists belong to a different fraternity which is the GMA and radiographers belong to the AHPC. So, if you are channelling your issues to someone belonging to a different fraternity, it is more like just pouring water on a stone because that person gets whatever he/she wants from his mother association. So, if there's anything you also want anything, you too go and fight for yours. There should be a clear cut between radiographers and radiologists. You can have the radiologist fine, radiographers fine. But we shouldn't be directly under them. Currently, the radiologist is our direct head and radiographers don't have the right to be their own head. I think that is one of the things that anyone who wants to formulate a policy to govern our practice needs to consider. (Rad 13).***

While radiographers argued for the speak-up policy to enable raising safety concerns or speaking-up through their fellow radiographers, other radiographers on the other hand highlighted the need for the establishment of nominated neutral institutions to receive and address concerns devoid of prejudice or favouritism. They argued that this would empower more radiographers to speak-up about safety concerns when the need arises:

> ***And then secondly, if the relevant institutions are able to establish independent bodies to look into issues when staff or a colleague speaks against a client or another colleague, to look into the issue and resolve it without being bias, I think that would encourage people to speak-up. (Rad 2).***

Furthermore, radiographers highlighted the need for the speak-up policy to reiterate the appropriateness of speaking-up and offer the confidence of safety for all radiographers who take a decision to engage in any form speaking-up when they have a safety concern in their workplace:

> ***the policy should be one that would reassure staff that it is safe and acceptable to speak-up and raise their concerns if they have any. (Rad 12).***

Similarly, radiographers expressed views on how safety, confidentiality, and anonymity will need to be ensured in the speak-up policy. They contended that for a speak-up policy to work well for Ghanaian radiographers, not only is there a need for the safety of staff who decide to speak-up to be ensured by the policy, but their confidentiality and anonymity as well. Radiographers emphasised that the fear of negative repercussions or punishment as a result of speaking-up about wrongdoing should be allayed by the policy:

> ***I think anonymising the reporter's identity is one thing and ensuring that nobody would be dismissed for blowing a whistle, so job security. I should not lose my job or be witch-haunted because I reported wrongdoing or a concern. (Rad 4).***

> ***The policy should ensure the safety of those who speak-up. Because in Ghana there are instances where people report wrongdoing, and they end up in trouble. It's either they lose their jobs, or they are attacked, or something will happen to them someway somehow. If the policy will really work, then the person must ensure the safety of the whistle-blower. (Rad 21).***

Furthermore, radiographers highlighted that for a policy to usefully guide speaking-up behaviours in the workplace, there would be a need to be for a strong commitment to follow it

orthodoxly. It was further argued that this can be achieved if the policy is made easily accessible to all radiographers while putting structures in place to ensure that the set rules are followed:

> ***One of the things will be strict adherence to all safety protocols. People should be mandated to adhere to safety guidelines. Also, if the policy is going to work, it should be ensured that every radiographer has access to the guidelines or policy so that they can adhere to it. (Rad 7).***

Imperatively, issues of the legality of the policy were raised by radiographers. They contended that for a speak-up policy to work well for Ghanaian radiographers, it would have to be backed by law. Radiographers highlighted that legal support for the speak-up policy would help to make the policy more established and encourage more radiographers to speak-up when the need arises:

> ***I think it should be a good policy, the policy should have strength and it should have some form of legal backing. It should be acknowledged and repetitively inculcated into the hospital setting that this is the only governmental policy being backed by law, it becomes a decree or legislation so in tandem with the law, radiographers would know that they can make suggestions and raise concerns and be assured that the law backs it. If only the policy follows that direction, then it can be sustained then once something is sustained for a long period of time, it becomes a norm and if that becomes a norm then radiographers in Ghana can now have a voice and can be heard and when they are heard, all their concerns will hopefully be addressed (Rad 10).***

Furthermore, the senior official from the GSR described how the body could push the agenda for a speak-policy for allied health professions in Ghana. It may be recalled from the earlier chapters that one of the key challenges confronting radiography practice and perhaps the allied health profession in Ghana as reported by the radiographers was the lack of representation of the profession at the ministry level. In the extract below, the senior official illustrates how some arrangements have been made in an attempt to address this concern. The official further contends that addressing these concerns is crucial to pushing the agenda for a speak-up policy to guide radiography practice and allied health professions in Ghana:

> ***The MoH wants to appoint a CPO for Allied Health…analogous to a director position. So, that office when created will have 2 deputy directors…: one clinical and the other non-clinical. With that, all the eighteen professional groups under the allied health***

professions council will have a Rep at the MoH. We can then champion such things, and the recommendations from your research can be used in formulating policies up there… All 18 allied health professions and the association came together and made a singular voice that we should be represented at the board level of the teaching hospitals because the teaching hospital board has representatives of all the councils except allied health, so we made a voice through the media. Fortunately, they have asked the board to include a Rep from Allied health. So, out of the eighteen professions one person will be appointed. Since that agreement, they've now formed the Ho teaching hospital board and the Korle-Bu teaching hospital board as well. So, they have an Allied health Rep on the boards…. When we have those Reps on those boards the various associations or the council of presidents of the allied health have the vision of meeting the board members to put our case across. So, when they push the agenda at the teaching hospital level, then we also put it across the MoH through the director or chief programmes officer at the MoH. The director will help in formulating policies that will work for the benefit of allied health practitioners. So, these things can happen based on the recommendation that we can hold on to. The evidence-based fact is that there is research now through your study that has shown that this a, b, c, d, is lacking and needs to be implemented. So, your work can inform, and bring new things into the country which will benefit or help us achieve the sustainable development goals that we set to achieve in 2030. (Stakeholder 1).

Lastly and most significantly, radiographers argued that there is a precedence that most policies do not actually work for the purposes for which they were created. They therefore emphasised that as much as a lot of work could go into putting together a speak-up policy for healthcare in Ghana, there must be a willingness to ensure that it truly works to promote the safety of staff and service users which is the ultimate goal:

We will all have to make it work. If we are not willing to make it work, it will be written and be there, but it will not work. Just like we have in other institutions in Ghana. The policies are there but they don't work. So, I think they will have to make it work. (Rad 18).

7.2.1.2 Local Level Policy Intervention

The term 'local-level policy interventions' used here simply refers to speak-up policy interventions for workplaces or departments. In addition to speak-up policy planning at the

national level, the data analysis also demonstrated calls by radiographers for speak-up interventions at the department or local levels. They argued that it was not just enough to focus on formulating a national policy as local guidelines and directives for speaking-up about safety concerns are crucial in radiology departments across the country. This sub section explores these local level policy interventions as reported by radiographers. In the extracts below, Rads 1 and 14 highlight the need for local guidelines for raising concerns within the department:

> ***…Also, departments must develop local procedures for reporting such instances or situations must be well outlined so that everybody is aware of what exactly to do at what point, or to go about it, whom to report to, at what point in time it should be done, so that everything regarding raising concerns or speaking-up must be well outlined and structured…. So, I think if these things are done, eventually, there will be a change (Rad 1).***

> ***I think that beyond the general hospital safety policies, they need to draw departmental specific safety policies and laid down procedure of speaking-up or reporting issues of concern. That way there is a specific procedure to follow in your own department and you are not left confused when something is to happen… I think that once it is like a laid down procedure it will make people feel obligated to follow it and so if it is part of department rules that you need to follow when you are employed, people will most likely adhere to it because they feel like they are obligated to follow it and consider side lining their personal beliefs. (Rad 14)***

Across sites, radiographers did not only highlight the need for local policy and guidelines for raising concerns but also considered how practically concerns are going to be raised. In addressing this, radiographers argued that the use of suggestion boxes may be employed across departments for raising concerns. It may be recalled that the earlier section of this chapter discussed the use of suggestion boxes to raise concerns in some departments across Ghana. The merits of using this approach such as ensuring anonymity, as well as the demerits such as lack of response for the concerns raised were also discussed. In the extracts below, radiographers propose that the policy through the GHS should mandate and task an independent local team with the duty of putting together these concerns and transferring them to the GHS to ensure that they are addressed or investigated:

> ***I think there should be a suggestion box where people can anonymously submit any suggestions. Also, a monitoring and evaluation team should be formed outside the***

region, so they are not in any way biased or influenced by management. There should be scheduled times for these suggestions to be picked up and sent to the GHS where they can have a look and address the concerns expressed and monitor the progress of any implementations (Rad 19)

We probably can have anonymity suggestion boxes whereby you can anonymously put in a report. I think with that one you to know that you will be free from being blacklisted. (Rad 9).

While some radiographers argued for the use of suggestion boxes as a local guideline for raising concerns within the department, others proposed the use of toll-free telephone numbers as a way of raising concerns:

At the hospital level, contact numbers made available all over so that people can freely call numbers and make their case or complaint. That way, everyone will know that they can have an opportunity to be heard, and that's, very important. Nobody would say things like "don't bother" because at least some effort is made (Rad 6).

…The guidelines could focus on creating contacts that are put all over the place, so, everybody and anybody can easily call to lodge a complaint or make a claim… More notices should also be placed to give easier access to higher authorities to report any concerns or issues (Rad 20).

In addressing concerns about who was better placed to receive speak-up concerns within the department, radiographers suggested that the policy could enable reporting safety concerns through nominated local GSR representatives in radiology departments across Ghana. This however was not a view shared by all participating radiographers:

Well, I think if our mother association, the GSR gets a representative in every department, who reports directly to them concerning poor standards of practice and anything happening that is not good, or things that affect radiographers personally, it's going to help in speaking-up (Rad 3).

Rather than reporting concerns through GSR representatives in departments, other radiographers suggested the establishment of walk-in centres within workplaces where radiographers and other healthcare professionals could visit to raise safety concerns:

I think complaint centres should be set up in facilities where one can easily walk in and voice out concerns. I think if that is instituted everywhere it would go a long way to help (Rad 16).

Furthermore, radiographers also suggested that the local speak-up guidelines establish independent units within hospitals with the core mandate to investigate safety concerns raised and ensure that these concerns are properly addressed in a timely manner:

And if the hospital has a structure or committee that looks into issues that are being escalated to management to ensure that these issues are resolved and do not become a lingering situation that brings about other things and related concerns afterwards, I think people will be encouraged when this is done. (Rad 2)

7.2.2 Education and Training

The data analysis also demonstrated that in addition to planning a speak-up policy as an intervention for speaking-up in healthcare in Ghana, education and training may also be useful. This section discusses how education and training might work as a speak-up intervention in healthcare in Ghana as suggested by radiographers. It identifies the significance of educating and training radiographers about their speaking-up role and how this might better support radiographers in their decisions to speaking-up about safety concerns in the workplace. The current curriculum for training radiographers in Ghana does not specifically include any modules for speaking-up about safety concerns in the workplace. The module closest to the topic in the curriculum is on health law and ethics which raises the need to report unethical practice. However, it presents nothing on speaking-up and how safety concerns should be raised by radiographers. Radiographers highlighted the need for speaking-up modules to be introduced in the curriculum for health education in Ghana. It also became apparent in the data that Ghanaian radiographers have speaking-up training needs. Radiographers emphasised the need for training on speaking-up and its potential benefits to improve their speaking-up behaviours. All the extracts discussed here demonstrated the need for education on speaking-up. However, radiographers argued along different lines. While some advocated for the need for education on speaking-up at the basic levels even before they became adults/radiographers, others were in support of being educated on the significance of speaking-up and the policy as radiographers.

In the extract below, a radiographer highlights the need for speaking-up to be inculcated in Ghana's educational system even at the very basic level. While the radiographer supports the need for policy as discussed in earlier extracts, it is further contended that it may not be enough to just to focus solely on that without first educating Ghanaians about the importance of speaking-up about issues right from childhood, that way it may become easier to overcome some of the normalised and enculturated fears involved in engaging in the act:

> ***It can be promoted if it can be added to our curriculum… Speaking-up should be inculcated into our educational system even if it could start from our primary school so that kids grow with it just like the outside world where people have the chance to talk back, question their parents about things that they feel is not right. Yes, something like that can be introduced into our system, our school system then we also learn and with time once the older generation fades away that particular thing will become part and parcel of us. If you expect me to just read a policy document and go and confront my CEO, it's like a goat going to attack a lion. It will never work! (Rad 13).***

Similar arguments are made by the radiographer in the extract below. Again, the need for education on speaking-up at the basic levels is emphasised:

> ***First of all, the change can happen at the fundamental level or lower level. Issues regarding speaking-up or raising concerns should be incorporated into our educational system at the primary level or the lower levels so that the children become very, very much aware of what it means to speak-up or raise concerns, how to go about it and the reason why you have to speak-up. So, when these things are made clear, at a lower level or elementary level or at the primary level it becomes easy for people to speak-up when they grow up or when they begin to work, or they are in any other position. They are able to speak-up better because they have been brought up with it, because we have to think in that manner. (Rad 1).***

Another radiographer also suggested the need for speaking-up to be incorporated into Ghana's educational system. However, unlike the earlier extracts where radiographers suggested the curriculum inclusion at the basic levels, Rad 9 in the extract below suggests a speaking-up module as a curriculum inclusion for health professional courses only:

I think there should actually be a curriculum in our educational system for speaking-up or a module that needs to be added to the curriculum for training health personnel. (Rad 9).

While the extracts above demonstrate arguments by radiographers in support of basic level education on speaking-up, other radiographers also supported the need for speaking-up and policy education even before the implementation of the proposed speaking-up policy. In the extract below, the radiographer contends that it is imperative to educate radiographers on not just the importance of speaking-up but also the speak-up policy, and how concerns may be raised and properly addressed:

I believe a policy should come with education. So, before the policy is implemented, a general education on the need for people to speak-up and then the readiness of people to listen to concerns is needed. So, when people see the need to speak-up concerning something that has happened or things that have been going on and they know they are going to be heard and something is really going to be done about it, they will be encouraged to do. So, the policy would work better around educating people on how they should go about situations between colleagues, senior management, etc, so more like a laid down procedure as to how to report incidences of this nature or that nature, a procedure on how to go about resolving issues on speaking-up involving different categories of people so that if something of that sort comes up, they wouldn't be found wanting and being uncertain about whether it will be a problem or not. But they will be assured that whomever they are assigned to speak to is supposed to listen. So, there are people who are responsible for receiving complaints and have roles to listen to and resolve issues of that nature. (Rad 2).

Similarly, radiographers highlighted the need for public education on speaking-up about safety compromises and their possible benefits. They argued that educating people would encourage raising concerns among patients and as has been contended earlier, this may in effect enhance speaking-up behaviours of radiographers. In the extract below, the radiographer, while arguing in support of public education, recognises some of the complexities that may often influence speaking-up decisions in the typical Ghanaian society such as societal culture/norms and religion:

The general public needs to have some form of education to sensitize them on some of these things…. They need to be sensitized to know their rights so they can speak-up any time they feel their rights are being infringed upon…. I believe that things can

change…nothing is permanent. When people are aware of why certain things need to be done and how it benefits them, I believe that we will embrace it. Except for the few occasions where because of some cultural or family issues they may want to just keep quiet on issues like rape cases, and some people say oh religion, oh let's forgive, let's do that. But I believe that when people are aware of their rights, they will fight for it (Rad 17).

Interestingly, another radiographer argued that advanced education in radiography may enable radiographers to yield better responses/results when they speak-up about concerns in the workplace. It may be recalled from the preceding chapter that low knowledge levels translating into a lack of confidence was argued to be a barrier to speaking-up within the workplace. Radiographers reported that they were discouraged from raising concerns about safety in the workplace because of the fear of having their credibility and knowledge questioned following an act of speaking-up through ***"statements like you are just a radiographer, what do you know?"*** **(Rad 20).** Building further on this insight, the radiographer argues that pursuing higher education may increase knowledge levels of radiographers and put them in a better position to not only raise concerns, but perhaps have their concerns addressed without their competencies being questioned. ***"it will make it easier for us to get what we want to be done for us"*** used in the extract below demonstrates this:

…when we are more educated, and we further our education more and we have a wide range of knowledge of our practice it will make it easier for us to get what we want to be done for us (Rad 18).

In another light, radiographers highlighted the need for speaking-up education for not just the public or radiographers, but for senior management as well. They contended that educating senior managers about the potential benefits of speaking-up on safety in the workplace may improve psychological safety and facilitate speaking-up behaviours of radiographers:

…. this must start with educating people at the top to understand that people on the ground are privy to information that would benefit everyone when they are allowed to freely speak-up without fear of any form of retaliation and people in management accept and act on these issues. (Rad 19).

Furthermore, in addition to education, training was also suggested as a speak-up intervention for radiography practice and perhaps healthcare in Ghana at the national and local levels. It may

be recalled that one of the key objectives of this study was to determine if Ghanaian radiographers had any speaking-up training needs. The data analysis demonstrated that indeed radiographers across Ghana could be supported better to speak-up about safety concerns in the workplace through training. In the extracts below, radiographers, while supporting the need for education on the proposed speak-up policy, also highlighted the need for training on speaking-up in the workplace:

> ***I think we should consider the fact that we, as radiographers need training on speaking-up and raising safety concerns. Radiographers need to be educated on the policy as well if one is put together so that we will know exactly what to do when issues arise. (Rad 5).***

> ***We are in the modern world, things are changing. We can't stick to the old ways. As things are changing, we should also move with it and begin to do things in a modern way. I believe that, in this changing environment, there are things we need to incorporate into our system to make things work well and training radiographers to speak-up is one of such things. (Rad 7).***

Similar to earlier assertions which argued about the significance of education in better supporting radiographers to speak-up, radiographers also contended that training radiographers on how to speak-up about safety issues would help them to better communicate and boost their confidence levels while engaging in the act:

> ***I also think there has to be training in addition to education. When we are trained, it will build our confidence and our communication skills (Rad 9).***

More so, while supporting the need for training, radiographers further suggested how best this training could be done, as indicated in the extract below:

> ***I think there should be a trusted committee set up especially headed by HR who will train staff on the essence or importance of speaking-up and the committee should also ensure that high quality and safe patient care is adapted. There should also be training sessions regularly for staff on how to speak-up, why they should speak-up and who to go to when such issues occur. (Rad 9).***

> ***I think staff should be trained on speaking-up through seminars on how to speak-up and procedures to follow (Rad 20).***

7.2.3 Other Workplace Interventions

In addition to interventions such as policy, education and training discussed so far in this chapter, the analysis of data also identified other workplace speak-up interventions for radiography practice in Ghana. This final section explores these workplace interventions and their potential to promote speaking-up behaviours of Ghanaian radiographers as reported in the data.

Radiographers suggested that given the courage required to speak-up, there is the need for all staff to be offered incentives to encourage them to speak-up about safety concerns within the workplace:

> ***There should be some form of motivation. As I said speaking-up currently requires stepping out of our comfort zone (Rad 20).***

Furthermore, radiographers also suggested the need for departmental meetings geared towards pushing an agenda to promote speaking-up within the workplace. They highlighted that this would encourage more radiographers to speak-up. It should be noted however that the utilisation of departmental meetings suggested by radiographers already existed across some sites, although its usefulness in actually guiding speaking-up behaviours of radiographers may be questioned:

> ***So, meetings geared towards encouraging radiographers must be held either departmentally or in the hospital, from time to time to encourage staff to speak-up if they have concerns…. If people start hearing about speaking-up or raising concerns, eventually there's going to be a change along the line (Rad 1).***

> ***There should also be regularly scheduled awareness and workshop programs. It can be incorporated into our monthly staff meetings (Rad 20).***

Lastly, establishing a just culture in workplaces was emphasised by radiographers across sites. The principles of just culture and psychological safety and the role they play in influencing speaking behaviours have been discussed in earlier chapters. Radiographers contended that for speaking-up about safety compromises in the workplace to be promoted, managers must work on creating a just culture in the workplace such that, errors made as a result of systemic problems would not be unfairly blamed on radiographers. The extract below summarises this argument nicely:

And I also think that in a case where maybe someone makes a mistake, in as much as we want to punish, or we want to be quick to sanction. I think that if we think that the error did not necessarily come from the person and is due to a system failure, we should not be too quick to blame so that people from their volution and freewill come out and say, okay, I think I did this wrong, but I actually would want to talk about it. As I said, in my case, where I did the Waters view, as much as I felt that there was nothing causing that and the patient was taken to triage and taken care of, I still felt that I should talk about it. People will probably not talk about it that way, but I felt that once it has happened to someone, it can happen to anybody. So, because of that experience, I have personally made it my routine that if anybody comes to my department for that radiological view, I'm going to ask you if you have an issue with your jaw. So, I think that as much as we want to sanction people, we should attach some reasoning to it, so people come out voluntarily to report errors. And leadership should also begin to actually be transparent and begin to take matters into their hands and work on issues when these concerns are raised. Everybody will be confident if we actually know we have proactive management that is working on our concerns when we actually speak-up, equity will come out. (Rad 9).

7.2.4 Societal/Cultural Interventions

In addition to policy, education/training and other workplace speak-up interventions, the analysis of data also demonstrated some societal/cultural interventions for speaking-up in Ghana as proposed by radiographers. The term 'societal/cultural interventions' used here simply refers to proposed strategies in response to speaking-up barriers related to the Ghanaian societal norms and culture, with the ultimate goal of promoting speaking-up in healthcare in Ghana.

It may be recalled that the Ghanaian culture, societal norms, and child upbringing have been explored in the earlier chapters. The influence of these societal norms and childhood upbringing on workplace culture around speaking-up and how it poses a barrier was demonstrated in these chapters. In this section, radiographers contend that to promote speaking-up in Ghana, a societal cultural change may be necessary. In the extract below, Rad 21, while emphasising the role of the family/home as the primary source of socialisation, argued that the Ghanaian child upbringing may need to be geared towards training children to be more assertive and support them to speak-up about wrongdoing. The radiographer added that doing this may contribute to

eventually building a societal culture that is more supportive of speaking-up about wrongdoing which may in turn influence the workplace culture:

> ***Well, as I said earlier, these attitudes are transferred from the homes to the workplace. So, if we can train our young ones coming up to always speak-up against wrongdoing… When that concept is understood and accepted by all, then we can speak when someone is doing something wrong. So, I think we need to start everything from scratch and train our children differently. In our homes, we should train our children to always speak-up when they see any wrongdoing. Once we start training from a very tender age and the parent also exhibits a positive attitude, and the attitude is built and they grow up with it, I think it will go a long way to help with speaking-up (Rad 21).***

Similar to the earlier assertion, Rads 2 and 16 in the extracts below, while supporting the need for a change in the Ghanaian child upbringing to be more supportive on speaking-up, the radiographers emphasise the need to not just be more supportive of children speaking-up about their concerns, but to also be supportive when the concerns the children have are against elderly people:

> ***I think people will be more encouraged to speak-up if some things change such that kids at home, will not be hushed or if an older person sees anything odd about a child, you don't just assume that it's your child is fine, you enquire and find out what exactly is wrong with the child. Ask the child, and let the child speak. And when the child speaks about their concerns, you shouldn't silence the child if the child has something against an elderly person. I think children should be encouraged to speak-up about things they don't like and things they like or things they've seen and want to comment about because there's a traditional saying that goes like this: "children are supposed to be seen but not heard" so if you are encouraged to be heard as you are seen and they are able to practise it when they step out and anything untoward is done to them, they won't feel restricted to speak-up against it and they grow with that confidence. I think this would encourage speaking-up in our society (Rad 2).***

> ***Speaking-up can be promoted in Ghana. I would refer to the earlier point I made about growing up and not being able to speak-up to the elderly because they are always right but if we are brought up to know that it is good to speak-up and that is the only way you can make your concerns known we will accept that there is nothing wrong with voicing out your concerns (Rad 16).***

In another light, the need for social campaigns to normalise speaking-up in not just the approach to child upbringing in homes, but in the society at large was highlighted. In the extract below, the radiographer adds that this may promote speaking-up behaviours in the society:

> ***Generally, in a Ghanaian society as I mentioned earlier, if you speak-up against someone, you are seen in a different light, but if this is made a normal thing, people would be able to openly speak their opinions of people and they will not be offended by this because we asked for it. I think people will be more open and encouraged to speak-up when they see something wrong (Rad 2).***

7.3 Conclusion

To conclude, this chapter draws the curtains on the analysis of the data and the presentation of the results of this study. The thematic analysis of the data generated three broad themes. This chapter explored the third and final theme which summarises the current strategies in response to the barriers and enablers of speaking-up reported by Ghanaian radiographers and future directions such as possible speaking-up interventions for radiography practice and perhaps healthcare in Ghana. The interventions and strategies introduced in this chapter can only be understood in the context of the previous two chapters.

The overall aim of the study was to explore the experiences of Ghanaian radiographers in speaking-up about patient safety concerns. To achieve this, there was a need to answer a number of research questions. The first two questions were: "What do radiographers in Ghana understand by the concept of 'speaking-up for patient safety?" and "What is the willingness of Ghanaian radiographers to speak-up about patient safety concerns?". These questions were answered in the chapters that explored themes one and two. Other questions the researcher sought to answer in the study were: "What are the factors affecting speaking-up behaviours of Ghanaian radiographers?" and "What are the experiences of Ghanaian radiographers with institutional culture and inter-professional relationships when speaking-up about patient safety?". These questions were also answered in the chapter that explored theme two. The last two research questions are answered in this chapter. The questions are: "Are there procedures, policy, and guidelines on speaking-up in hospitals in Ghana, and if so, are they usefully guiding radiographers' practices?" and "Do Ghanaian radiographers have speaking-up training needs?"

This chapter explored the current speaking-up strategies that exist at the national, organisational, departmental, and individual levels. It demonstrates a lack of national and

professional policies to support Ghanaian radiographers in their speaking-up activities. Although the Patient Charter (1992: p2) mandates all health practitioners *"to protect the rights of the patient to safe, competent, and quality care"*, clear procedures to guide health professionals in performing this mandate do not exist. Although stakeholders such as the MoH, GHS, and GSR confirmed the existence of codes of conduct, they stated that these documents do not include specific guidelines to regulate practicing radiographers in speaking-up about safety compromises in Ghana. Other stakeholders such as the AHPC however reported an absence of an approved code of conduct document and SOP for allied health professionals, stating that these documents were far advanced in the development process and would include guidelines for raising safety concerns in the workplace when completed and validated. It is also evident that Ghana's healthcare system is currently undergoing considerable reformation given the number of policies that are either being developed or awaiting validation. The use of the incident log books (which are currently only used to report equipment faults) to report safety concerns in the absence of a specific policy and guidelines was contended by a stakeholder. Despite the absence of these policies, questions were raised about whether the other already existing stipulations were usefully guiding radiography practices across the country. International evidence suggests that the existence of these policies and standards of practice may enable speaking-up behaviours of healthcare professionals. Nevertheless, it is also evident some advanced healthcare systems such as the NHS in the UK where speaking-up policies and guidelines have long existed still face some challenges in ensuring success. Hence it raises questions about whether the existence of policies alone would be enough to normalise speaking-up in the Ghanaian context.

Furthermore, other strategies for raising concerns existed at organisational and department levels across radiology departments in Ghana. Some of these approaches were the use of suggestion boxes, management and departmental meetings, report writing, reporting directly through supervisors and WhatsApp platforms among others. Although these approaches may be useful in raising concerns about some issues within the workplace, some of them had obvious shortcomings. For example, the approach of speaking-up at departmental meetings or directly through supervisors which may not offer any form of anonymity, and the use of suggestion boxes which may offer anonymity but present a challenge of delay in addressing concerns. The efficacy of these strategies in promoting speaking-up about safety concerns and actually improving patient safety may also be questioned. Despite the existence of these approaches, some radiographers also had individual approaches to raising concerns about safety, where they often

spoke up to fellow colleagues, trusted friends, or people who were not in any position to effect change.

The possibility of a future for speaking-up in healthcare in Ghana that takes account of all the complexities involved was also explored in this chapter. Radiographers while affirming their support for promoting speaking-up in healthcare in Ghana, suggested some speaking-up interventions through which they believed a change could be pursued. These interventions were grouped into policy interventions, education and training interventions, societal/cultural interventions, and other workplace interventions. Radiographers suggested the need for formulation and implementation of formal speak-up policies and guidelines for healthcare in Ghana at not just national levels, but local/workplace levels as well. Resources ranging from financial support, education and training of radiographers, managers, and the general public on speaking-up and its potential benefits in ensuring safety and improving patient outcomes were also highlighted as interventions. While some radiographers made calls for the inclusion of speaking-up modules in the curriculum for basic-level education in schools across Ghana, others advocated for its inclusion in the curriculum for training all healthcare professionals in Ghana.

Additionally, societal and cultural interventions were also suggested by radiographers given the influence of these societal norms and child upbringing on workplace culture around speaking-up and how it poses a speaking-up barrier. Radiographers contend that a societal cultural change around child upbringing in homes and societal attitude towards speaking-up (especially of younger people) may be necessary to ensure a future for speaking-up in healthcare in Ghana. Other workplace interventions suggested by radiographers include motivation for staff who speak-up, meetings geared towards encouraging staff to speak-up, and more importantly establishing a just culture in workplaces.

Overall, I recognise the complexities as well as barriers and enablers involved in exploring speaking-up in a culturally rich and resource-constrained setting like Ghana. With that in mind, the next section will discuss some of the key issues raised in the findings chapters in comparison to the already existing literature and theories around cultural sensitivity, psychological safety, and just culture as these resonate most with my findings. The discussion will consequently propose a useful framework for speaking-up in radiography practice in Ghana.

CHAPTER EIGHT

DISCUSSION AND CONCLUSION

8.0 Introduction

The preceding chapters explored, analysed, and summarised the findings from the data collected through interviews in this study. This chapter will discuss and evaluate the key findings with regard to how best they answer the research questions. The chapter compares the key findings with the existing speak-up literature and relevant theories. A conceptual framework for speaking-up in radiography in Ghana is also proposed, based on the key issues arising from the findings and the relevant theories.

The overall goal of the study was to explore the experiences and perceptions of Ghanaian radiographers in speaking-up on patient safety concerns, with the overall goal to improve practice, patient safety and to inform policy and education. After reviewing the relevant existing literature on the topic, I established six main objectives that would need to be met to be able to answer the research questions and achieve the overall aim of the study. These study objectives are as follows:

- Identify radiographers' understanding of patient safety and 'speaking-up'.
- Determine the willingness of radiographers to speak-up about patient safety concerns.
- Establish the barriers and facilitators affecting speaking-up behaviours by radiographers.
- Determine the experience of radiographers with institutional culture and inter-professional relationships on patient safety.
- Identify the training needs of radiographers in speaking-up which are culturally sensitive to the Ghanaian context.
- Generate findings that may inform policy and educational development in order to facilitate raising concerns and supporting those who do.

The first section of this discussion chapter focusses on these study objectives and how far these research questions have been addressed. For the purposes of this discussion, the research questions and objectives have been merged into three broad concepts and these will form the main themes of the discussion. These three concepts are the Influence of Ghanaian Culture on the Understanding, Perceptions and Willingness of Radiographers to speak-up about patient

safety concerns; Challenges of Radiography Practice, and Workplace Barriers & Enablers of Speaking-Up in Radiography and lastly; Speaking-Up Interventions and Policy Planning for Radiography. The key findings under these themes are compared with the literature reviewed in chapter 2 to establish any similarities or new findings. Existing theories on psychological safety, just culture, and cultural sensitivity in promoting speaking-up in healthcare are also discussed here to explore what a model for speaking-up in radiography in Ghana might look like, given the different dimensions of the phenomenon and the complexities involved.

The later sections of this chapter highlight the limitations and strengths of the study, its implications for professional, clinical, and sociocultural practice, as well as suggested recommendations for further research. The chapter ends by demonstrating how this piece of work contributes to the body of knowledge on speaking-up in Ghana, followed by the conclusion of the study.

8.1 The Influence of the Ghanaian Culture on the Understanding, Perceptions, and Willingness of Radiographers to Speak-Up about Patient Safety Concerns

This study demonstrated that Ghanaian radiographers' understanding and perceptions about speaking-up and patient safety is based on both formal and informal sources. Although radiographers in Ghana have a fair knowledge and understanding of speaking-up and its associated terms such as 'whistleblowing' and 'raising concerns', it is evident there is a lack of formal knowledge about the topic. This could be due to the topic not being introduced into the radiography education curriculum in Ghana. The knowledge about the topic expressed by these radiographers were mostly drawn from hearsay, experiences, and socio-cultural norms. As a result, most radiographers' understanding of speaking-up is dominated by these informal sources of knowledge. These knowledge sources are created, reinforced, and disseminated across generations by families and society more generally and the absence of formal sources of knowledge in the workplace creates a space within which informal sources proliferate and remain unchallenged. Interestingly, these knowledge sources do not exist separately as the study further demonstrated how informal knowledge is transferred to workplaces and influences workplace speaking-up behaviours, hence making them interlinked. Ghanaian radiographers had varying understandings about what speaking-up meant and its purpose. Although explanations given by radiographers were linked to specific elements such as anonymity, the legality of the issue of concern, and the need to report to external bodies or individuals, some similarities could be drawn from these definitions and explanations. For

example, all the definitions offered acknowledged that for a practitioner to speak-up, blow the whistle or raise a concern, something first must go wrong. This however is not unlike other countries (Mannion *et al*. 2018). While some of the data demonstrated overlaps in Ghanaian radiographers' understanding of speaking-up and its associated terms, others illustrated a flawed and incorrect understanding of the terms. In mainly western literature, the terms 'speaking-up', 'whistleblowing' and 'raising concerns' however are used interchangeably but may also refer to different types of speaking-up approaches, with whistleblowing often describing more formal routes (although not always), external to the organisation of the whistle-blower (Mannion *et al*. 2018; NHS Improvement 2020).

Research from Japan, the USA, China and South Korea convincingly imply that how an individual perceives, understands or is willing to speak-up is usually dependent on the individual's national culture. A good example is Korea and Japan where people seldom openly challenge one another due to strong societal standards of respect, and this could in turn make it difficult for healthcare practitioners to speak-up even in the face of patient harm (Roh *et al*. 2015; Omura *et al*., 2018). Both personally and as a group, healthcare practitioners may have varied beliefs and social norms around raising concerns by virtue of the *'multi-nationality'* of the population of healthcare professionals in many nations (Granvill 2000; Park et al. 2008; Ohnishi et al. 2008; Cheng et al. 2015; Blenkinsopp *et al*. 2019; Omura *et al*.2018). While variances in culture can be a limiting factor to speaking-up behaviours of staff due to the challenge in identifying and interpreting normality, *'multiculturality'* in organisations is beneficial with regards to experiencing diversity (Ng et al., 2019). Similarly, this study established that the Ghanaian culture and African belief system cannot be overlooked when examining the Ghanaian radiographer's understanding and perception of speaking-up for patient safety. Radiographers argued that elements of the culture such as children's upbringing, which is entrenched in hierarchy and patriarchy typically, did not support the act of speaking-up about wrongdoing. They explained that the Ghanaian child is raised to respect the elderly and people in authority, and hence not attempt to challenge them under any circumstance whatsoever. This system of hierarchy and notions of entitled deference is argued to cause intimidation in the children who eventually grow to become adults creating a negative perception of speaking-up about mishaps in the workplace and the society at large. The "Fa ma Nyame" attitude of Ghanaians was also demonstrated in this study to have a negative influence on speaking-up perceptions of radiographers. They contend that this attitude which results in most Ghanaians leaving things to God's judgement and not addressing wrongdoing in society

makes them perceive speaking-up as an act in futility, hence discouraging them from engaging in the act. This finding is, however, not reported in the existing speak-up literature.

Furthermore, this study demonstrated that the African belief system negatively influences their perceptions about speaking-up for safety. Radiographers argued that their willingness to report wrongdoing or safety compromises in the department was hindered by the fear of being harmed by the person involved in the wrongdoing through the use of supernatural forces. ***"I grew up in a typical village where juju is held in high esteem. When someone says, "I will show you", it speaks volumes, so you don't want to step on the toes of anyone, so you don't get into their bad books. You sort of want to mind your own business and not fall into trouble with anyone. You just stay to yourself, and watch things slide"*** echoes the perceptions of radiographers about this***.*** These findings are congruent with findings from a study in the finance sector of Ghana which first reported the 'fear of spiritual attacks' following an act of whistleblowing (Antwi-Bosiako, 2018).

"*Spiritual attacks reflect deeply held belief and fear of superstitions in Africa, including the belief in witchcraft; specifically, juju, suspicions, ghost, sorcery, ancestors, necromancy, gods and black magic"* (Ofori 2014; Tetteh et al. 2022: p. 921). It is believed that these attacks may cause, among other calamities, inexplicable maladies *(ibid).* This belief precedent has woefully led to a great deal of Africans experiencing unending apprehension about reporting wrongdoing (though not limited to this) (Ofori 2014). This demonstrates that it is not possible to properly investigate the speaking-up behaviours of a group of people without considering their cultural backgrounds, beliefs and customs (Jones *et al*. 2021). Although the willingness to speak-up is known to be affected by the culture and beliefs of a nation, the *''fear of spiritual attacks''* is a new concept that has not been addressed in the predominantly westernised literature on speaking-up (Tetteh et al. 2022).

8.2 Factors Influencing Speaking-up Behaviours of Radiographers in Ghana

This study established the factors affecting speaking-up behaviours of radiographers in Ghana. In addition to the elements of societal culture and norms which have been discussed above, workplace speaking-up barriers/enablers and other challenges of radiography practice in Ghana collectively determine a radiographer's speak-up decision trail, as illustrated in figure 8.1 below.

Figure 8.1: Diagrammatic illustration of factors influencing speaking-up behaviours of Ghanaian radiographers

These factors can further be classified under macro, meso, and micro levels based on their extent of influence as indicated in the figure 8.2 below.

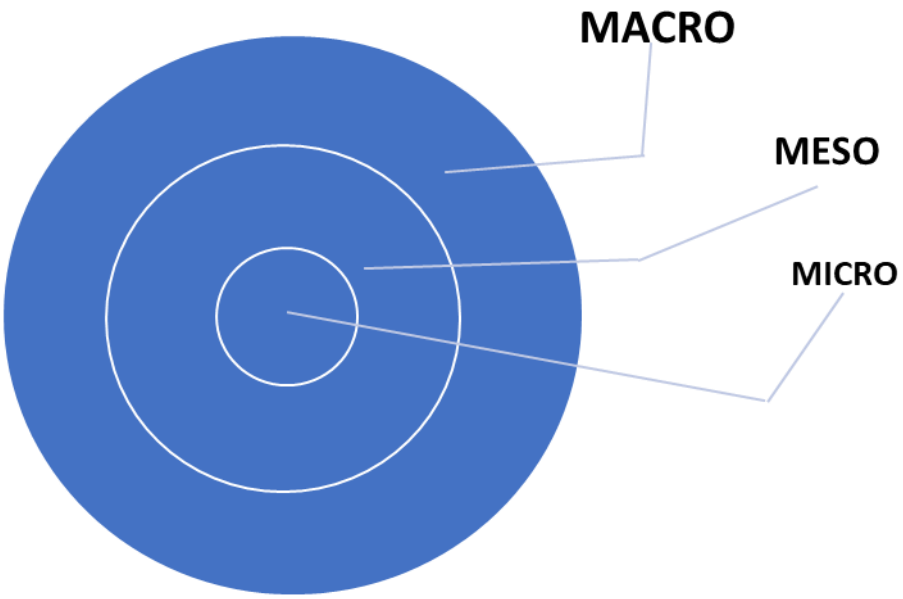


Figure 8.2: Classification of speaking-up behaviour determinants of Ghanaian radiographers

8.2.1 Macro-level Factors

The likelihood of speaking-up has been argued to be strongly dependent on context (Lyndon et al. 2012; Schwappach and Gehring 2015; Landgren 2016;). Contextual factors reported in the

literature to affect speaking-up behaviours include work policies, teamwork and communication, managerial support, hierarchy, reporting mechanisms (infrastructure and technical challenges), staffing issues and workload, organisational support, leadership, blame culture, and culture of safety (Szymczak 2015; Schwappach & Gehring 2015; Lee et al. 2018; Garon, 2012; Blanco, Clarke and Martindell, 2009; Rainer 2015; Jones & Kelly 2014; Sur et al., 2016; Edrees et al., 2017; Landgren et al., 2016). Macro-level factors discussed here refer to factors that influence speaking-up behaviours at the national level. These include national/societal culture and norms, absence of policy/guidelines, regulatory challenges, education/training, equipment procurement and maintenance, role extension, specialisation and professional recognition concerns, and workload/working conditions. Most of these factors are also considered to be contextual factors. National/societal culture and norms and their effect on speaking-up behaviours have however been already discussed just above. Hence the rest of these factors are discussed in the sections below.

8.2.1.1 Absence of Policy/Guidelines and Professional Codes of Conduct

This study demonstrated an absence of a national speak-up policy and clear-cut guidelines from national healthcare stakeholders such as the MoH and GHS. Although all health professionals have a duty to defend their patients' rights to receive treatment that is both effective and risk-free (Patient Charter 1992), clear procedures to guide health professionals in performing this mandate do not exist. Although stakeholders such as the MoH, GHS, and GSR confirmed the existence of codes of conduct, they stated that these documents do not include specific guidelines to regulate practicing radiographers who wish to speak-up about safety compromises in Ghana. Other stakeholders such as the AHPC, however, reported an absence of an approved code of conduct document and SOP for allied health professionals, stating that these documents were far advanced in the development process and would include guidelines for raising safety concerns in the workplace when completed and validated.

Radiographers argued that the absence of these guidelines discouraged them from speaking-up about safety compromises as in some cases they were just unaware of the process. The absence of speak-up policies is not unique to Ghana as some West African countries such Nigeria also face the same challenge (Onakoya & Moses 2016). Globally, studies have shown that healthcare professionals have a higher likelihood to speak-up about safety concerns when policy guidelines, professional codes and practice standards exist (Kingston et al. 2004; Jackson

et al. 2010; Okuyama *et al*. 2014). Ghana's healthcare system stands in distinct disparity to that of other nations, such as the UK, where there are numerous national-level and professional regulations in place. For instance, In the UK, the Society of Radiographers Code of Professional Conduct includes explicit procedures to guide radiographers who wish to speak-up about safety hazards (Society of Radiographers, 2013). However, the GSR Code of Conduct does not contain any requirements or regulations that are comparable. Programmes such as NHS England's National Speaking-Up and Whistleblowing Policy and the implementation of Freedom to Speak-Up Guardians have contributed to promoting speaking-up in the health service even though there have been some challenges in its implementation in certain areas (Martin et al. 2020). Although it is also that evident that some advanced healthcare systems such as the NHS, where speaking-up policies and guidelines have long existed still face some challenges in ensuring success, the usefulness of existing policies in offering guidance on speaking-up practices cannot be downplayed.

The MoH must develop a whistleblowing or speak-up policy to encourage Ghana's radiographers and, ultimately, all healthcare professionals to speak up. The Ghanaian health system must also enhance its attempts to promote patient safety by soliciting feedback from radiographers and all other practising healthcare professionals in the nation. For instance, to offer a clear pathway for raising safety concerns in the health sector and eventually promote patient and staff safety, there is an urgent need for a national speak-up policy with clear-cut structures and guidelines at all levels of the healthcare delivery system. Furthermore, the current update of the AHPC Code of Conduct offers a brilliant chance to advocate for guidelines to enhance a *"blame-free"* work environment where health workers feel supported to speak-up about safety compromises without fear. in which healthcare professionals can raise safety concerns unaccompanied by any fear of negative consequences.

8.2.1.2 Regulatory Challenges, Workload and Working Conditions

Globally, all healthcare professionals are regulated, with their practices being governed by set standards and protocols. Nevertheless, a key challenge of radiography practice in Ghana is proper professional regulation. Prior to the establishment of the AHPC in 2013 to regulate the practice and training of allied health professionals in Ghana, these professionals, unlike other healthcare professions in Ghana, were unregulated, leading to a proliferation of unlicensed personnel practicing as allied health professionals. While some of these unlicensed personnel may in fact have received some training in the profession, others may have no formal training

at all. The AHPC is also authorised to grant accreditations for all academic programmes in the allied health profession. Furthermore, the HeFRA launched in 2011 by Act 829 is authorised to license and examine physical centres for private and public health care providers. Despite the existence and operation of these institutions over the years, the regulation of allied health professionals such as radiographers still remains a challenge in Ghana. In this study, radiographers argued that the country had a large number of unqualified and unregistered people practising as radiographers, resulting from unaccredited radiography training institutions and unlicensed diagnostic facilities. They further stated that most unregistered radiographers generally operated in health facilities in the rural parts of the country, as qualified radiographers usually refuse postings to these areas due to poor working conditions and conditions of service. Hence these rural health facilities when confronted with workforce shortages, contracted unlicensed radiographers to meet the workload demands in these areas. This however poses a major safety threat given the use of radiation involved in the practice. Although the AHPC is aware of the activities of these quacks, especially in the deprived regions, not much is being done about it for reasons of not having qualified radiographers to accept postings to these regions.

While this professional regulatory challenge may be argued to be just a contextual issue, it should be noted that not only is this a safety concern but it could also potentially negatively influence a radiographer's speak-up decision trail. The act of speaking-up is considered a daunting task for even licensed healthcare professionals, hence for an unlicensed radiographer, it may be more unlikely to speak-up in an event of a safety compromise given the fear that he/she may not be licensed to administer radiological care in the first place. The poor regulation of the profession may potentially influence the decision of licensed radiographers to speak-up about a safety compromise as they may feel that the profession is already experiencing much more concerning safety hazards such as the proliferation of quacks. Although the existing speak-up literature suggests that speaking-up behaviours may be influenced by contextual factors, professional regulatory challenges have not yet been mentioned as one of such factors to affect speaking-up attitudes. Assessing radiological care from unlicensed facilities and/or personnel is dangerous and should not be encouraged as it may compromise patient safety. In this study, radiographers expressed disappointment in the AHPC's inability to properly regulate the allied health professions. A mandate to regulate 18 allied health professions across the 16 regions of the country and yet lacking operating offices in these regions presents a huge logistical and resource challenge to executing their regulatory

duties. The council will need to establish a presence in at least most of these regions if not all to enable it to execute its regulatory duties effectively. At present, it is inevitable that the regulator's influence and reach across Ghana is patchy and hence issues such as promoting speaking-up and safe professional practices are also likely to be patchy and extremely scarce. For a successful implementation of speaking-up in allied health professions in Ghana, there may be the need for an agenda focused on addressing the difficulties experienced by the regulatory body as its efficiency in overseeing the professions would need to be determined first.

Furthermore, regulatory issues reported in this study were not limited to just professional regulation. This study also established an improper regulation of radiation in radiology departments across Ghana. The NRA is the agency responsible for regulating and monitoring radiation levels in all institutions that operate with radiation in Ghana. Radiographers reported concerns with the radiation dose monitoring, emphasising that more could be done to improve radiation protection for patients and staff. This study however could not establish the challenges faced by the radiation authority in performing its regulatory duties. Similar to professional regulatory challenges, improper radiation regulation could pose a safety concern and also potentially inhibit speaking-up behaviours of radiographers. Again, the existing speak-up literature does not mention improper radiation regulation as part of the contextual factors that influence speaking-up. There may be a need for regulatory authorities to seriously pay attention to radiation monitoring concerns for a successful implementation of speaking-up interventions in radiography practice in Ghana.

8.2.1.3 Workload and Working Conditions

This study established that a major challenge of radiography practice in Ghana is workload due to workforce shortage and poor working conditions. Globally, studies suggest that workload and working conditions could potentially influence speaking-up behaviours (Diamond, 1992; Halm et al., 2005; Landgren et al., 2016). Working conditions and professional context in healthcare however vary greatly between higher resource and resource-constrained settings like Ghana. Nevertheless, this study demonstrated that speaking-up behaviours of Ghanaian radiographers are inhibited by workload and working conditions. Similarly, recent studies from Ghana and Korea suggest that a heavy workload greatly undermines employee voices regarding unsafe care. (Mawuena and Mannion, 2022; Lee et al., 2022).

The issue of heavy workload, deficits in staff numbers, and the negative impacts on staff morale, which are specifically related to patient safety were all reported in this study as barriers to speaking-up. They argued that being understaffed puts unnecessary pressure on the department's radiographers, resulting in their perception of reporting safety compromises or errors as an added responsibility. Mawuena and Mannion (2022) reported that surgical staff in Ghana preferred to be silent over patient safety compromises due to high workload pressures, in an attempt to avoid any additional work. The worldwide scarcity of health professionals is strongly mirrored in medical imaging, given the continuing growth in demands for radiological services and staffing deficits, with a dearth of radiologists and radiographers (Society and College of Radiographers, 2018). While shortfalls in labour are a worldwide problem, they are particularly severe in Ghana and other similar nations with limited resources. As previously noted, Ghana now has 350 documented radiographers servicing an overall population of 31.07 million, resulting in a radiographer-to-population ratio of 1-88,771. This indicates a sharp contrast to the United Kingdom, where 33,789 radiographers serve a population of 66.8 million, a ratio of 1 to 1,980.64 (Office of National Statistics 2020). Furthermore, the limited radiographer numbers may raise the chance of being recognised in a workplace after speaking-up, even if the issue is anonymised. As a result, being regarded as someone who communicates assertively raises the perceived danger of retaliation among co-workers (Bolderston et al., 2014; Siewert et al., 2018).

Furthermore, this study also demonstrated that Ghanaian radiographers have a significant role to play in dealing with increasing demand for health services in an evolving field where patient safety, employee satisfaction and raising concerns must be promoted and protected. Radiographers were unhappy about the poor conditions of service such as salaries and other incentives. Similarly, it has been indicated that radiographers in Ghana are typically unimpressed with their careers as a result of difficulties such as low wages, heavy workload, among others (Ashong et al., 2016; Adesi et al., 2015).

Chapter 4 of this study also demonstrated that the proliferation of quacks, discussed earlier, was not just a regulatory issue, but a workforce shortage one as well. While some reasons for the proliferation of quacks were attributed to the unwillingness of radiographers to accept rural postings, radiographers also argued that such rural postings might be accepted if they came with better conditions of service and incentives as done for other professionals such as medical doctors. While the challenge of workforce shortages in Ghana is not limited to only the

radiography profession, the approach taken by the MoH and GHS in addressing this concern has not been the same for all healthcare professions. Recent evidence from Ghana suggests that, unlike radiographers, medical officers always get their conditions/demands for accepting rural postings met. It was argued that because most policymakers are medical officers and hence, they are more inclined to taking decisions in favour of their professions while undermining other healthcare professions such as radiography (Wuni, 2019; Ashong, 2021). This practice creates a feeling of lack of respect and recognition among radiographers and could potentially inhibit their speaking-up behaviours when faced with safety compromises. Perhaps it may be time for the MoH and GHS to pay more attention to workforce/workload conditions in other health professions such as radiography and reconsider better ways to remedy the situation. This is imperative as it could improve patient safety and better successes of speak-up interventions.

8.2.1.4 Role Extension, Specialisation, and Professional Recognition Concerns

This study established that the radiography workforce in Ghana is challenged with a lack of role extension and specialisation pathways as well as a feeling of lack of professional recognition. Radiographers expressed disappointment in how limited the job description and career structure was, making it almost impossible to advance within the field. The current career structure for radiographers in the clinical setting in Ghana's healthcare section only recognised the basic undergraduate radiography certification, with no place for higher postgraduate radiography or specialisation certification holders. Wuni (2019) confirms this situation with findings of a recent case study on opportunities for role extension in Ghana where the non-existence of a career structure for radiographers was also reported. Consequently, this situation was not only a demotivator to pursue higher education or take up more responsibilities, but also potentially influenced speaking-up behaviours of radiographers who had attained these qualifications but were not given any form of recognition in the clinical setting because of the career structure. For example, there were many instances where although some highly trained radiographers had better radiological opinions on certain radiological procedures, their voices were not always heard. Although the existing speak-up literature does not include contextual factors such as the non-existence of role extension/ specialisation pathways as potential inhibitors of speaking-up behaviours, studies however suggest that perceptions of not being heard often inhibit speaking-up behaviours in the workplace (Jones and Kelly, 2014; Antwi-Bosiako, 2018; Rauwolf and Jones, 2019).

Furthermore, studies also suggest that individuals who were more satisfied with their jobs usually made more open attempts to speak-up and voiced their concerns in a positive way (Morrison and Milliken 2003; Tangirala & Ramanujam 2008; Okuyama et al. 2014).

Radiographers emphasised the need for the introduction of role extension and specialisation pathways in this study. Kelly et al (2008) demonstrated that the creation of a four-tier national career framework in the UK laid the groundwork for employment opportunities and established a roadmap of growth from an assistant practitioner through the ranks to consultant practitioners. Consequently, the speaking-up behaviours of Ghanaian radiographers may be improved with the launch of role extension which involves the designing of a national radiography career framework that considers duties, academic qualifications, and years of practice in cooperation with pertinent stakeholders (Wuni et al. 2019).

Furthermore, the perception of not being heard is also linked to a lack of respect and recognition for the radiography profession in Ghana and were emphasised as major concerns for radiographers in this study. This lack of respect and recognition was attributed to the low workforce numbers compared to other health professions and a lack of representation at top management and government levels. Radiographers argued that there was strength in numbers and Ghanaian radiographers could only have a voice on issues if they attained the numbers and eventually the necessary recognition. They further argued that the GHS currently had no representative for radiographers, hence resulting in radiography-related decisions being taken without any form of consultation with the radiographers themselves. Also, imaging departments globally and in Ghana are headed by radiologists and not radiographers in accordance with the radiology department hierarchy. Consequently, Ghanaian radiographers argued that this usually puts them in an uncomfortable position as they always have to channel their grievances and concerns through a radiologist to top management, without having the opportunity to make their own case and fight for their cause, hence leaving most of their concerns either not being addressed or responses not always favouring the radiographer. These factors create a feeling of a lack of voice/recognition and ultimately is perceived as a lack of respect which threatens staff engagement and motivation, thereby inhibiting speaking-up behaviours. Similarly, Lewis et al (2008) argued that the constant subservience to radiologists and poor professional autonomy often results in feelings of inferiority, valuelessness and intimidation hence negatively influencing Australian radiographers' ability to speak-up when

necessary or when an unethical situation had arisen. They however concluded that the introduction of role extension would boost their professional status.

8.2.1.5 Education and Training

Education and training are the foundation upon which all professions are formed (McNulty et al. 2017). Globally, studies suggest an ongoing discussion on the best ways to teach radiography and how the acquired knowledge and abilities should be evaluated (England and McNulty, 2020). Similarly, this study demonstrated that one of the key challenges of radiography practice in Ghana is education and training. While this may be a contextual issue, it could potentially influence speaking-up behaviours of radiographers. Senior radiographers had concerns about the radiography curriculum and educational structure, arguing that newly graduated radiographers had difficulties with clinical work although they had theory knowledge, therefore suggesting the need for the current radiography curriculum to put more attention on the practical aspects of radiography.

The educational background of a healthcare professional cannot be entirely ignored in understanding his/her speaking-up behaviour (Okuyama et al., 2014). It has been asserted that healthcare professionals who were more educated exhibited a higher likelihood of the use of safety voice. In this study, while Ghanaian radiographers argued that their decision to speak-up about a safety concern or wrongdoing in their department was strongly determined by how highly educated they were considered to be among their peers, they further explained that the challenge of having their knowledge levels and competence questioned results in a feeling of inadequacy. Similarly, evidence from Nigeria also reported educational background as a barrier to whistleblowing (Onakoya and Moses, 2016). Attempts to pursue higher education radiography have also been challenging with radiographers arguing that postgraduate radiography programmes were not readily available in universities in Ghana, coupled with a lack of government funding support. There is therefore the need for government and stakeholders such as the MoH, GHS and the GSR to work together with the goal of exploring ways to better support radiographers to pursue postgraduate radiography education. For example, funding, paid study leave and some flexibility with work shifts. Supporting them to achieve may enable them to be more assertive in the workplace.

Imperatively, due to the constant changes in radiography techniques and healthcare requirements, such as speaking-up, there is a need for effective and well-designed training curricula. (Sloane and Miller, 2017; England and McNulty, 2020). Undergraduate students need

to have a strong foundation in evidence-based practice to meet future healthcare requirements. (Hung et al., 2019). Consequently, there is a need for the introduction of speak-up training and interventions in Ghana's radiography training curriculum (as it presently lacks speaking-up modules), with the goal to inculcate in freshly qualified radiographers the mindset of asking questions about practices and communicating assertively even before they start practising (Tetteh et al. 2022).

8.2.1.6 Equipment Procurement and Maintenance

This study found that Ghanaian radiographers were dissatisfied and pessimistic about radiography equipment purchase and maintenance. Radiographers complained that they are not included in decisions about the purchase of equipment and that even when their opinions are requested, any recommendations offered are not taken into consideration. These findings are congruent with recent studies from Ghana (Wuni, 2019, Ashong 2021). The feeling of radiographers' professional opinions not being valued could potentially influence speaking-up behaviours of radiographers in the workplace.

Although the existing speak-up literature does not include contextual factors such as equipment and procurement concerns as a barrier to speaking-up, feelings of opinions not being valued have been demonstrated to inhibit speaking-up behaviours in the workplace.

Although the Public Procurement Act 663 regulates the purchasing of radiology equipment in Ghana, the findings of this study suggest the government relied a lot on donor equipment from advanced countries. Consequently, the necessary requirements were not always followed, and hence this often results in procurement contracts lacking crucial elements such as spare parts availability for the equipment delivered, after-sales services, training of local staff to function as front-line technical support, and timetables for planned maintenance and repairs. Clinical service delivery is impacted when these crucial elements are absent from procurement contracts. While equipment breakdowns are unavoidable, it, however, becomes exasperating when there is no contract mandating suppliers to fix them, no deadline for getting them back into clinical use, no assurance that local experts can fix them, and no assurance that replacement parts will be available locally, leading to extended idle time.

Recently, Mawuena and Mannion (2022) found that one of the difficulties faced by surgical staff in Ghana was malfunctioning laboratory and surgical equipment, reporting how surgeons were compelled to use unsuitable tools in a manner that put their safety at risk and

consequently grew so upset with these tools in procedures that they got rid of them. They concluded that while team members were reluctant to speak-up about enhancing safety to surgeons who were already battling with sub-standard equipment, surgeons mostly tended to dismiss comments about how care could be improved. Working with equipment that is unfit for function or experiencing regular breakdowns as a result of poor systems of equipment acquisition is frustrating. Therefore, it may be crucial to address problems producing despondency and frustration before speaking-up interventions are implemented to ensure better chances of success. A disgruntled workforce may not be enthusiastic about normalising speaking-up within the workplace. It should however be noted that the findings suggest that this situation was most prevalent in public-owned hospitals and not private imaging facilities.

8.2.2 Meso-level Factors

The findings of this study demonstrate that in addition to the macro-level factors discussed in the previous section, speaking-up behaviours of Ghanaian radiographers are also influenced by meso-level factors. Meso-level factors discussed here include workplace culture and the efficacy of speaking-up. Globally, studies suggest that speaking-up behaviours are affected by workplace culture (Attree 2007; Francis 2015; Yurtkoru and Wozir 2017; Etchegaray et al. 2017; Hughes 2019).

According to the Institute of Healthcare Improvement (2019), in order for speaking-up to occur in a health institution, there should be a psychologically safe environment, active leadership and management support. Similarly in this study, Ghanaian radiographers argued that they would be better enabled to speak-up about safety concerns in the workplace if their managers created a workplace culture of openness. Some managers also contended that an open culture already existed in their departments and believed that the workplace culture supports radiographers enough to raise concerns if need be. Furthermore, for speaking-up to occur, there is the need for transparency to ensure that the healthcare team and management are not being silent about safety issues but tackling them seriously and fairly such that people are not being punished or blamed for systemic errors. Similar to reports on other settings documented in international literature (for example, The Robert Francis Mid-Staffordshire Report on the NHS Foundation Trust Public Enquiry, 2013) Ghanaian radiographers also reported the culture of victimisation, bullying, and intimidation as inhibitors of their speaking-up behaviours. These findings are also congruent with studies on Canadian and American radiographers where the fear of punishment was reported as a speaking-up barrier (Jackson et

al. 2010; Bolderston et al. 2014; Siewert et al. 2018). Findings also resonate with previous studies from Nigeria (Onakayo and Moses 2016) and Ghana (Antwi-Bosiako 2018). Although just culture holds individuals accountable when there is proof of egregious carelessness or malicious activity, it also makes a major effort to comprehend why mistakes were made and how the system contributed to less-than-ideal behaviours (Foster 2022). By encouraging employees to be honest about their failures, useful lessons may be learned, and the same mistakes can be avoided in the future (NHSI 2018).

Furthermore, congruent with findings reported in previous studies (Schwappach, 2018), this study demonstrated that feedback from previous speaking-up experiences was contended to either enable or limit speaking-up behaviours of Ghanaian radiographers, depending on what these experiences were. While most radiographers with negative feedback such as victimisation or punishment from previous speaking-up experiences described the act as a "high-risk, low benefit" activity, expressing apathy for it, few others on the other hand who were fortunate to have good feedback from previous experiences were rather motivated to engage in the act. Similarly, Lyndon et al. (2012) also indicated that speaking-up behaviours among healthcare professionals were improved by prior positive speaking-up experiences. The findings of this study also demonstrate that speaking-up behaviours of Ghanaian radiographers in the workplace were restrained by the fear of negative feedback, whether in the form of being silenced, tagged as a snitch, having their competencies questioned, or being told about their inability to effect any change.

More so, hierarchy was found to inhibit speaking-up behaviours of Ghanaian radiographers in this study. This finding is congruent with previous studies on radiographers in Canada and the United States (Bolderston et al. 2014; Siewert et al. 2018). Similarly, the finding is also congruent with findings of previous studies on other professional groups (Ahern and McDonald 2002; Kingston et al. 2004; Lyndon et al. 2012; Landgren et al. 2016; Schwappach et al. 2017; Siewert et al. 2018; Schwappach 2018; Omura et al. 2018; Fisher and Kiernan 2019; Jones et al. 2021). Nevertheless, the study profoundly establishes that the boundaries between work and society are blurred to the extent that the Ghanaian societal norms of hierarchy and deference are played out in workplaces, hence inhibiting speaking-up behaviours of junior radiographers when they need to speak-up to more senior staff about a safety compromise as it was viewed as an act of disrespect and disloyalty.

Blenkinsopp et al (2019) suggest that speaking-up behaviours of health workers could be influenced by the attitudes of particular professional groups. Similarly, this study also established that speaking-up behaviours of Ghanaian radiographers were hindered by the attitude of other health professionals such as radiologists and other doctors. Radiographers argued that doctors were more loyal to their fellow doctors than to other health professionals and hence they mostly covered-up errors made by their colleagues. This finding is consistent with previous studies which suggest that medical culture generally promotes tackling incidents through informal channels (Kingston et al. 2004). Although the fear of marring good working relationships is reported as a speaking-up barrier in the existing literature (Schwappach and Gehring 2014), this study however reported that the kind of relationship between themselves and their colleagues and/or managers influenced their speaking-up behaviours in the workplace. While some expressed a strong motivation to speak-up or raise concerns about safety compromises as a result of the cordial relationship that existed between themselves and their department managers, others reported that they were inhibited by the disunity between the staff in their department.

Globally, perceptions about the efficacy of speaking-up have been reported in the existing speak-up literature to influence speaking-up behaviour (Attree 2007; Tangirala and Ramanujam 2008; Okuyama et al. 2014). For example, Jones and Kelly (2014) argue that employees regularly raised their concerns in spite of difficulties to speaking up, however it may be even more difficult for concerns to be heard and the necessary actions taken. Similarly, this study demonstrated that Ghanaian radiographers' perceived inefficacy of the act discouraged them from engaging in it, even when they need to. Radiographers expressed a lack of confidence in not just their managers, but their entire hospital systems with regards to addressing safety concerns raised by staff, a phenomenon the researcher describes as 'system inaction'. The characteristics of Ghanaian hospital systems described in this study by radiographers are consistent with the '*Deaf Effect*', a term emerging from the field of management (Robey & Keil, 2001) that describes the unwillingness of top managers to listen to and action on confronting views from junior staff. Ghanaian radiographers maintained perceptions of not being able to effect any change within their department by raising concerns about things that go wrong, hence resulting in the feeling that engaging in the act was a complete waste of time. This is also consistent with findings from a previous study from Ghana (Antwi-Boasiako 2018).

8.2.3 Micro-level Factors

The findings of this study demonstrate that in addition to the macro-level and meso-level factors discussed, speaking-up behaviours of Ghanaian radiographers are also influenced by micro-level factors. Micro-level factors, also known as individual factors, discussed here include duty of care, role identification, and knowledge and/or confidence levels. Globally, the existing speak-up literature suggests that speaking-up behaviours are influenced by individual factors such as interpersonal skills, confidence in clinical skills, knowledge gap, gender, language, personal values and beliefs, situation awareness, communication skills, personal decision making, assertiveness, bravery, to mention but a few (Schwappach & Gehring 2014; Okuyama et al. 2014; Garon, 2012).

Similarly, in this study, despite the non-existence of a code and regulatory guidance to guide Ghanaian radiographers in speaking-up about patient safety compromises, some radiographers argued that they perceived speaking-up as their duty of care aligned with their professional role. They believed they owed it to the patient to raise concerns whenever they observed a compromise in safety. A UK study by Jones and Kelly (2014) found that a sense of personal ethics often had a stronger effect on speak-up actions than professional or legal obligation. Correspondingly, this study also found that in the absence of formal policies and guidelines, some Ghanaian radiographers described a form of innate or personal ethic that intervened in their decisions to speak-up, based on respect for the patient, a sense of duty, and also underpinned by empathy.

Landgren et al. (2016) reported that the decision to either speak-up or withhold voice is partly influenced by the lack of an individual's knowledge on how to speak-up and a lack of confidence in clinical skills. Similarly, Okuyama et al (2014) reported a perceived lack of adequate knowledge as an inhibitor to speaking-up, stating that health professionals often hesitate to speak-up when they feel a sense of inadequacy in knowledge or information or uncertainty about a concern. Correspondingly, this study demonstrated that Ghanaian radiographers' decision to speak-up about a safety concern or wrongdoing in their department was highly determined by how knowledgeable they were considered to be among their peers. A senior radiographer contended that one of the challenges often faced in attempting to speak-up about safety compromises or wrongdoing is having your knowledge levels and competence questioned, resulting in a feeling of inadequacy.

8.3 Speaking-Up Interventions and Policy Planning for Radiography in Ghana

Globally, numerous speaking-up interventions have been designed in various healthcare settings in response to the barriers identified in the existing speak-up literature (Law and Chan 2015; Raemer et al. 2016; Omura et al. 2019; Hanson et al. 2020). While some of these interventions have been effective in overcoming some of the speak-up barriers in some settings, others on the other hand have either been partly effective or ineffective. Similarly, this study demonstrated some of the strategies in response to the speaking-up barriers identified in the Ghanaian context and possible future interventions with the goal of improving speaking-up behaviours of Ghanaian radiographers. These are discussed under four themes below.

8.3.1 Policy Interventions

This study established the non-existence of clear-cut policies and guidelines in Ghana, unlike other westernised settings to usefully guide speaking-up behaviours of radiographers. It should however be noted that although policy interventions and guidance have been implemented in many jurisdictions to support and protect healthcare professional in their duty of speaking-up, there is still evidence of the existence of various speaking-up barriers in these settings (Black 2011; Jones and Kelly 2014; Lewis et al. 2014; Fasterling 2014; Cleary and Duke 2017, Jones et al. 2021). Evidence from international literature also shows that the implementation of these structures has been problematic in some cases. For example, the Whistleblowing Policy for the NHS and the Freedom to Speak-Up Guardian (FTSUG) initiative in the UK (Freedom to Speak-Up Annual Report 2022). While the introduction of these policies in the UK have been far from perfect, it cannot be denied that it still offers guidance in how speak-up concerns are raised and handled. Similarly, the need for the formulation of a national speak-up policy for healthcare in Ghana was emphasised in this study as radiographers contended that the introduction of this policy would not only offer guidance but also promote speaking-up behaviours of radiographers across departments.

Healthcare policy formulation in Ghana is undertaken by the MoH and these policies are executed through the GHS. The MoH plays an integral part in the formulation of a policy to facilitate the implementation of speaking-up in Ghana. It therefore vital that the MoH receives overwhelming proof regarding the prospective advantages of speaking up and its effect on the patient's experience and safety. As the formulation of new policies begin with consultation, in this study, radiographers argued that highly experienced personnel with top expertise in

successful speak-up policy planning and implementation will need to be consulted for their input in the decision-making process to ensure that this works. They also argued that this process will need to be an all-inclusive involving all relevant stakeholders as it would not be prudent for a speak-up policy to be designed for them without their involvement in the planning process. The healthcare industry and other government sectors in Ghana have a pattern regarding the introduction of policies without adequate funding, which have contributed to the failures of these otherwise good policies. Radiographers, therefore, contended that putting together a good speak-up policy would require adequate resourcing to ensure its success.

In addressing questions about who to report to and how speak-concerns should be addressed in the policy, radiographers argued that the policy should ensure that they should not have to raise concerns through other staff such as radiologists. In the UK, NHS workers, such as employees, volunteers, students, service providers, managers, and other individuals, can contact the NHS FTSUG as another option to communicating with a supervisor. Guardians originate from a variety of professions, disciplines and levels of experience (Hughes, 2019). Similarly, some lessons may be adopted from this approach in Ghana's healthcare speak-up policy planning.

The role of the NHS freedom to speak-up guardians in the UK initiative is neutral and unbiased, and they operate quickly and effectively to maintain anonymity while inquiring about harm (Hughes, 2019). Similarly, Ghanaian radiographers highlighted that for a speak-up policy to work well for them, not only is there a need for the safety of staff who decide to speak-up to be ensured by the policy, but their confidentiality and anonymity as well. Radiographers emphasised that the fear of negative repercussions or punishment as a result of speaking-up about wrongdoing should be allayed by the policy. Radiographers also highlighted that for a policy to usefully guide speaking-up behaviours in the workplace, there would be a need to be for a strong commitment to follow it orthodoxly. It was further argued that this can be achieved if the policy is made easily accessible to all radiographers while putting structures in place to ensure that the set rules are followed. Although the UK has long had speaking-up policies and guidelines in place, evidence suggests that NHS trusts continue to have difficulty adopting the established national policy consistently, with a number of hospitals establishing distinct 'whistleblowing' and speaking-up' policies and leaders and failing to address competing interests when hiring investigative staff. Other concerns have also been workers not being

frequently requested to register competing interest, inquiries not being performed in due time, and people not getting the conclusion on a regular basis (Hughes, 2019).

While some policy planning lessons can be learnt from whistleblowing policies from the UK and other healthcare systems with advanced speaking-up systems, it is worth noting that these lessons would need to be carefully considered to suit the Ghanaian context and cultural setting.

8.3.2 Educational and Training interventions

This study demonstrated that in addition to planning a speak-up policy as an intervention for speaking-up in healthcare in Ghana, education, and training may also be useful. Radiographers contended that the existing undergraduate radiography programme was not developed with speaking-up in mind. As a result, it has been proposed that it ought to be examined to determine what adjustments need to be made to the curriculum considering the necessity for speaking-up and other abilities that may be necessary in years to come. However, there were also some suggestions about introducing the concept of speaking-up at basic education levels as it may become easier to overcome some of the fears involved in engaging in the act. The need for educational interventions for radiographers, managers and the general public, targeted at raising awareness on the potential benefits of speaking-up, policy and how concerns may be raised and properly addressed even before its implementation was also emphasised in this study.

Globally, educational speak-up interventions have been implemented in various healthcare settings in response to the speak-up barriers with the goal of improving speaking-up behaviours. These educational interventions have yielded varied results. In some cases, it has been successful in improving speaking-up behaviours. For example, the educational programme developed by Fleit et al. (2017) to improve medical students' understanding of speaking out procedures and how to handle concerns about faculty harassment during clinical placements, as well as a mechanism for anonymously reporting and guaranteeing a quick response to issues, was successful in increasing students' awareness of pertinent procedures for raising concerns, however, the fear of retaliation after reporting mistreatment remained a worry. Other educational interventions have been ineffective. For example, Raemer et al.'s (2016) '*conversational skills'* workshop and Delisle et al.'s (2016) '*crucial conversations'* curriculum. Some educational interventions were also found to be partially effective (Kent et al., 2015; Roh et al., 2015; Oliver et al., 2017).

In another light, one radiographer also argued that advanced education in radiography may itself be a speak-up intervention. It was argued that pursuing higher education may increase knowledge levels and potentially confidence of radiographers and put them in a better position to not only raise concerns, but perhaps have their concerns addressed without the fear of having their competencies being questioned. Lessons from the existing speak-up literature indicates that while education may be useful in addressing some of the speak-up barriers and potentially improve speaking-up behaviours, it is however imperative to note that education alone may not be enough to enhance speaking-up behaviours of Ghanaian radiographers. Also, the majority of the educational interventions in the literature were implemented in westernised settings, hence lessons may need to be considered carefully to suit resource-constrained and culturally complex settings like Ghana.

Literature has identified a number of successful training programmes that included team communication training techniques to enhance speaking out in a variety of clinical contexts. (Gupta et al. 2015; Hanson 2017; Savage et al. 2017; Weiss et al. 2017; Dwyer & Faber-Langendeon, 2018). For example, the implementation survey conducted by Gupta et al. (2015) to evaluate the impact of teamwork training, which included fostering a speaking-up culture within teams, revealed statistically significant changes in respondents' views of speaking-up challenges. Similar to education interventions, some training interventions have only been partially effective (O'Connor et al. 2013).

This study demonstrated that Ghanaian radiographers have speaking-up training needs. Consequently, in addition to education, training was also suggested as a speak-up intervention for radiography practice in Ghana. Radiographers highlighted that they could be better supported to speak-up about safety concerns in the workplace through training. They further argued that training radiographers on how to speak-up about safety issues would help them to better communicate and boost their confidence levels while engaging in the act. Again, while there are lessons to be learnt about the effectiveness of training in addressing speak-up barriers among healthcare professionals in literature, it should be noted that training alone may not be enough to improve speaking-up behaviours of Ghanaian radiographers.

8.3.3 Societal/Cultural Interventions

This study demonstrated that in addition to policy, education, and training intervention for speaking-up in Ghana, there is also the need to address societal, belief systems, and norms of deference as these elements were indicated to strongly influence workplace speaking-up

behaviours of Ghanaian radiographers. It should however be noted that the existing speak-up literature does not explore socio-cultural speaking-up interventions, their implementation, and efficacy.

This study established that based on insights from Ghana's culture around speaking-up, a societal cultural change may be necessary to promote speaking-up in the region. Radiographers suggested that given the role of the family in Ghanaian child-upbringing, social interventions geared towards training children to be more assertive and supporting them to speak-up about wrongdoing may be effective to ensure that speaking-up is normalised in Ghanaian society. The ripple effect of this may potentially influence workplace behaviours of radiographers around speaking-up. Furthermore, it was suggested that these social interventions should also be focused on addressing elements of hierarchy/deference to ensure that the society of supportive of children who wish to speak-up about concerns involving elderly people. The need for social campaigns to normalise speaking-up in not just homes but the society at large was also suggested as a possible intervention.

8.3.4 Other workplace interventions

Globally, workplace speaking-up interventions have been implemented in various settings with the goal of improving speaking-up behaviours. Some of these workplace interventions in the literature have been partially effective in improving speaking-up. For example, in order to promote speaking-up about administrative and clinical concerns, Pannick et al. (2017) established an organised team-briefing policy on wards. This policy helped junior clinicians feel more comfortable voicing concerns because they knew the team would not judge, humiliate, or otherwise penalise them for doing so. However, disagreements about the validity of some worries or an implicit knowledge that other worries were judged taboo, such as examining the performance of a team member, greatly curtailed this feeling of confidence. Similar findings were also reported by Balasubramian et al. (2010), Curry et al. (2018) and Amiri et al. (2018).

This study reported that some strategies already existed to address speaking-up barriers in radiology departments across Ghana. These approaches included the use of suggestion boxes, huddles, management and departmental meetings, report writing, reporting directly through supervisors and WhatsApp platforms among others. Although these strategies may be useful in raising concerns about issues within the workplace, some of them had obvious shortcomings. For example, the approach of speaking-up at departmental meetings or directly through supervisors may not offer any form of anonymity, and the use of suggestion boxes which may

offer anonymity but present a challenge of delay in addressing concerns. While evidence suggests that some of these approaches have been implemented in other clinical settings with some success and failures, there is however no measured evidence to show if these already existing strategies have been effective in improving speaking-up behaviours of radiographers across Ghana. For example, staff forum/meetings implemented by Balasubramian et al (2010) was successful at some sites and unsuccessful in others. Hence, the efficacy of these strategies in promoting speaking-up about safety concerns and actually improving patient safety may be questioned. Despite the existence of these approaches, some radiographers also had individual approaches to raising concerns about safety, where they often spoke up to fellow colleagues, trusted friends, or people who were not in any position to effect change.

Furthermore, radiographers suggested that given the courage required to speak-up, there is the need for all staff to be offered incentives to encourage them to speak-up about safety concerns within the workplace. The need for departmental meetings (although already-existing at some sites) specifically geared towards pushing an agenda to promote speaking-up within the workplace was also suggested. Establishing a just culture in workplaces was also emphasised by radiographers across sites. Radiographers contended that for speaking-up about safety compromises in the workplace to be promoted, managers must work on creating a just culture in the workplace such that, errors made as a result of systemic problems would not be unfairly blamed on radiographers. Evidence suggests establishing a just culture significantly contributes to enhancing speaking-up behaviours in the workplace (Khatri et al. 2009; Barnsteiner and Disch 2017).

Lastly, while these interventions may achieve some success in improving speaking-up behaviours of radiographers in Ghana, Jones et al. (2021) argue that policymakers and healthcare researchers, irrespective of location, with the goal of enhancing employee speaking-up will have to contend with workplace norms and pre-existing societal complexities. These may however be long-standing in nature or emerging or global or even local. The next section of this chapter explores the dynamics of psychological safety, just culture, and cultural sensitivity in promoting speaking-up in radiography in Ghana.

8.4 Psychological Safety and Speaking-Up

Radiographers demonstrated in chapter 6 (theme 2) that the perceived safety of speaking-up such as the fear of personal detriment negatively influences their speaking-up behaviours.

Psychological safety is simply an individuals' judgements of the level of interpersonal hazard in their workplace. Nembhard and Edmondson (2012) define it as a conviction that one feels at ease being oneself—being honest, genuine, and direct—in a specific situation. It has also been described as ***"feeling able to show and employ one's self without fear of negative consequences to self-image, status, or career."*** Kahn (1990, p 708). It comprises assumed beliefs about the reactions of others when an individual puts themselves on the line through activities such as suggesting an idea, asking a question, risk-taking, feedback seeking, and disclosing an error (Edmondson 1999). Psychological safety in work environments ought to be emphasised as a key element of good interaction, confidence, and making decisions that improves team efficiency (Singer and Edmondson 2012; Edmondson and Lei 2014; Newman et al. 2017). Psychological safety is particularly crucial in *'high-risk'* workplaces such as the healthcare sector (Newman et al. 2017). It is well acknowledged that members of a psychologically safe team feel safe to be more engaged, speak-up, and take risks without fear of repercussions (Edmondson 1999). This employee involvement has been shown to help healthcare organisations deal with the growing information they must learn, the varied specialties of health professionals, and the subsequent dependency among these occupations (Nembhard and Edmondson 2006).

Numerous studies on psychological safety show how important it is for encouraging people to speak-up. In one of the ground-breaking studies in this field, Edmondson (1996) found that nurses were more willing to report medication mistakes if they characterised their hospital unit as "nonpunitive" and "non-judgmental", suggestive of psychological safety. Similarly, Dutton and colleagues (1997) demonstrated that middle managers made decisions about raising concerns based on their perceptions of psychological safety. Detert and Burris (2007) and Siemsen et al (2009) also report similar findings on psychological safety.

While the existence of psychological safety is vital to safe and efficient healthcare in high-risk workplace settings, there is still evidence of low levels of psychological safety and a culture of fear in healthcare settings (Edmondson 2003; Moore and McAuliffe 2010; Moore and McAuliffe 2012). This study demonstrated considerably low levels of psychological safety in radiology departments in Ghana. Hence many radiographers were not confident that their work environments were safe enough to voice their concerns without fear of negative repercussions. Radiographers argued that they would be more encouraged to speak-up about safety concerns in their workplace if a culture of openness existed.

It is imperative to design and implement speaking-up interventions tailored to enhance psychological safety for radiographers in Ghana given the significant research outcomes.

8.5 Just Cultures and Speaking-Up

Chapter 4 demonstrated numerous systemic failures in the radiography profession in Ghana. Challenges such as workload/working conditions, professional and radiation regulatory challenges, equipment problems among others are key systematic failures that need to be looked at. Theme 2 of the findings (see chapter 6) highlighted that non-existence of a just culture in departments across Ghana when things go wrong. Evidence suggests establishing a just culture significantly contributes to enhancing speaking-up behaviours in the workplace (Khatri et al. 2009; Barnsteiner and Disch 2017). Radiographers contended that for speaking-up about safety compromises in the workplace to be promoted, managers must work on creating a just culture in the workplace such that, errors made as a result of systemic problems would not be unfairly blamed on radiographers.

A just culture achieves a compromise between the need for a transparent and sincere reporting environment and the advantages of an ideal learning atmosphere and culture (Paradiso and Sweeney 2019). Although organisations have obligations to their staff and eventually clients, each staff member is also responsible for the calibre of the decisions they make in their line of duty. Just culture simply calls for a focus on systems and management of employee behavioural choices rather than mistakes and results (Marx 2001). In a just culture, risk, system design, human behaviour, and patient safety are prioritised while holding both the organisation and its employees accountable.

In the aviation industry, non-blaming systems for reporting faults are used to enhance safety and dependability. The aviation industry's focus in the 1970s switched from identifying the mistake's perpetrator to pinpointing the conditions in which it occurred (Gerstle 2018). Changes to prevent the recurrence of the error can be made by comprehending the circumstances around it. Presently, the safest way of transportation is air travel. The first strategy in establishing the basics of just culture is blame-free incident investigation. To improve patient safety results, healthcare organisations have used nonpunitive incident management systems. This ideally fosters a culture of trust between managers and their staff and has a good effect on employees' readiness to disclose results when they do not meet

expectations (Agim et al. 2013). The second strategy in establishing the basics of just culture is comprehending the decisions a person makes in terms of their behaviour. Three kinds of behavioural choices of employees can result in mistakes (see figure 8.3 below).

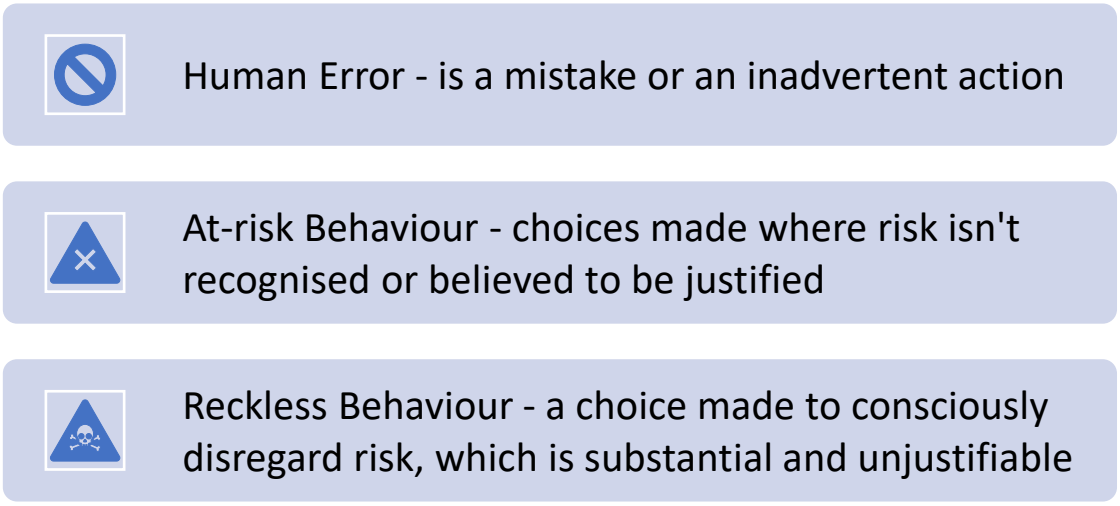


Figure 8.3: An illustration of the behavioural choices that lead to errors.

A fair and equitable culture improves patient safety by allowing employees to closely observe their work environment and participate in safety activities (Barger et al. 2011). By concentrating on controlling human behaviour (or assisting others to control their own behaviour) and restructuring systems, improving patient safety lowers risk. It has been indicated that employees in a fair culture are held accountable for their decisions and behaviours as well as for one another, which may assist some people to overcome their innate reluctance to cope with damaged or incompetent co-workers (Wachter 2013).

When required, a just culture organisation analyses workplace systems around the behavioural decisions of staff and enhances process designs to limit the risk of safety compromises (Barger et al. 2011). A just culture, therefore, does not absolve anybody of responsibility; rather, it promotes shared accountability. Ensuring patient safety is a resultant of not just individual behavioural decisions but organisational system designs as well (Famolaro et al. 2018).

8.6 Cultural Sensitivity/Appropriateness

Elements of national culture and societal norms were very profound in the exploration of radiographers' speaking-up behaviours in this study. It may be recalled that theme 1 (chapter 5) established that Ghanaian radiographers' understanding and perceptions of speaking-up were based on knowledge drawn from hearsays, experiences, and socio-cultural norms which

remain unchallenged in the absence of formal knowledge. For example, radiographers demonstrated the Ghanaian societal culture and child upbringing were unsupportive of challenging the elderly or people in authority and raising children to be assertive. The ***"Fa ma Nyame"*** attitude of typical Ghanaians was also argued to often result in wrongdoing in society not getting exposed or reported. Furthermore, other elements of national culture such as the African belief in spirituality which includes the fear of spiritual attacks following an act of reporting wrongdoing was demonstrated to inhibit speaking-up behaviours in Ghanaian society. While it may be imagined that the effects of these cultural and societal norms are perhaps limited to speaking-up behaviours in the society, theme 2 (see chapter 6) established that the boundaries between work and society are blurred to the extent these societal norms and cultural traits are played out in workplaces, hence affecting speaking-up behaviours of Ghanaian radiographers. It is therefore undeniable that the Ghanaian culture and social norms cannot be ignored in understanding the Ghanaian radiographer's speaking-up decision trail. Hence the need to explore the role of culture and cultural appropriateness in promoting speaking-up in radiography in Ghana.

Social scientists and theorists disagree on the exact definition of culture, but they all agree that it is learnt, shared, and passed down from one generation to another and that it manifests itself in the values of a group, conventions, customs, systems of meaning, ways of living, as well as other societal consistencies (Kreuter et al. 2003). Nevertheless, for the purposes of this discussion, I adopt the definition of Kelly and Papadopoulos (2009: p78) as ***"integrated patterns of human behaviour that include the languages, thoughts, communications, actions, customs, beliefs, values and institutions of ethnic, religious or social groups".*** There is widespread agreement that cultural sensitivity should be a priority in healthcare interventions or health promotion (Resnicow et al. 1999). Surprisingly not much conceptual work has been done to define cultural sensitivity (CS) or outline a framework for creating culturally sensitive interventions, despite the fact that it is extensively used in public health research and practice, with most of the early published material focussed on the nursing and social work sectors (Sabogal et al. 1996; Marin et al. 1995). For the purpose of this discussion cultural sensitivity is:

"The extent to which ethnic/cultural characteristics, experiences, norms, values, behavioural patterns and beliefs of a target population as well as relevant historical, environmental, and social forces are incorporated in the design, delivery, and evaluation of targeted health promotion materials and programmes" (Resnicow et al. 1999: p 11).

Cultural sensitivity has also been described with other terms such as '*cultural targeting', 'cultural competence', 'cultural pluralism', 'culturally relevant', 'cultural diversity', 'culturally syntonic', 'multicultural', 'culturally appropriate', 'ethnically sensitive', and 'culturally consisten*t' (Marin et al. 1995; Schlesinger et al. 1995; Henderson et al. 1992). It should however be noted that for the purposes of this discussion, the term 'cultural sensitivity' may be used interchangeably with the term 'cultural appropriateness'. It has been argued that *'surface structure and deep structure'* are the two main dimensions that make up the idea of CS. These phrases, which have been appropriated from sociology and linguistics, have been employed to define related aspects of culture and language Mauner et al. 1995; Liu 1995). A target group's visible, "superficial" (but nevertheless significant) features are aligned to intervention materials and messaging through surface structure (Resnicow et al. 1999). 'Surface structure' simply refers to how effectively interventions reach the target group and the degree to which they integrate with their experiences and cultural context (*ibid*). Being similar to face validity (in psychology), it is often achieved by expert and community assessment, as well as by including the target population in the intervention designing process (*ibid*). Achieving this level of CS has mainly been effective for public health workers (Resnicow et al. 1999). Deep structure on the other hand, which has not been given much interest refers to how sociodemographic and racial/ethnic populations vary generally (i.e., fundamental cultural values), as well as how history, culture, environment, ethnicity, and social elements may affect particular health behaviours (Sabogal et al. 1996; Marin et al. 1995; Airhihenbuwa et al. 1992; Pasiek et al. 1996). Deep structure communicates salience, but surface structure often promotes the "acceptance" or "receptivity" of information. While surface structure is a need for feasibility, deep structure defines a programme's effectiveness or influence. (Resnicow et al. 1999). Deep structure mainly involves comprehending how members of the target group see the origin, progression, and treatment of a disease. For example, many Africans believe that some ailments are the product of the "evil eye" or are retribution from God. (Mbiti 1970; Kiev 1964). Evidence suggests that in designing interventions for Africans, it is imperative to take into account fundamental cultural values such as family, religion/spirituality, respect for elders and authority, morality, norms, customs, traditions, etc (Akpa-Inyang and Chima 2021). For example, this study demonstrates the Ghanaian societal norms of respect for the elderly and authority, which consequently frown on children being assertive towards their parents or the elderly. It also demonstrates the African belief in spirituality, witchcraft, and necromancy which is seen in the perceived fear of spiritual attacks following the act of reporting wrongdoing.

It has however been argued that an assumption of a considerable degree of target heterogeneity is crucial to attaining CS whether at the levels of surface or deep structure (Sabogal et al. 1996; Pasiek et al. 1996).

8.7 Strategies for Enhancing Cultural Sensitivity/Appropriateness

While there is a wide range of pathways to attaining cultural sensitivity, interventions and programmes in the field of health education will always be more successful if they are tailored to the cultural needs of the target communities (Krueter et al. 2016). The African population, like many other ethnic groups, has distinctive values that are absent from traditional healthcare methods. Although the ways to achieve cultural appropriateness may differ (Kreuter et al. 2002), Kreuter and Haughton (2006) concur that one option to assist minimise health inequality is to integrate the culture of the particular community in health interventions rather than sticking to a one-size-fits-all method.

Krueter et al (2002) classified cultural sensitivity strategies into five primary groups namely socio-cultural, peripheral, constituent-involving, evidential, and linguistic (illustrated in Figure 8.4 below). They however reiterate it is common practice to use methods from more than one group when designing interventions as these classifications are not mutually exclusive (*ibid*).

Figure 8.4: Illustration of strategies for enhancing cultural sensitivity as proposed by Krueter et al (2002).

Kreuter et al (2002) argue that all five cultural sensitivity approaches illustrated here are a form of targeting. Kreuter and Skinner (2000) define "cultural targeting" as using a particular intervention strategy for a specific demographic subgroup that considers the shared traits of the members of the subgroup. A sixth approach known as "*cultural tailoring*" is therefore introduced, arguing that this approach may offer better chances of developing more effective interventions for cultural audiences (Kreuter et al. 2002). Cultural tailoring is defined as the formulation of interventions, techniques for training, and resources to adhere to particular traits (Pasiek et al., 1996). A combination of "culture" and "tailoring," may be debatable as "culture" implies a common experience, and "tailoring" implies an individual. Nevertheless, Kreuter et al. (2002: p 137) noted that members of the same culture will "have various degrees of the same cultural beliefs". Culturally tailored interventions take into account these values, perceptions, and customs with the goal of improving participation (Kreuter et al (2002). While research has not yet proven if tailored cultural sensitivity approaches yield better

results than targeted approaches, making a decision to choose one approach over the other may not be prudent (*ibid*). Krueter et al (1999) suggest that it may be best practice to meticulously consider the best ways of combining the strategies to achieve the best results, given that not all information requires tailoring to suit single members of a target population. Tailoring may be unwarranted in cases where a population's demands are substantially similar, as there will be little differences between tailored messages. In such cases, it may be more suitable to use a targeted strategy. Krueter et al (2003) therefore suggest that culturally sensitivity techniques should be designed to fit the kind of problem being tackled.

8.8 What might work for Radiography in Ghana?

According to the Institute of Healthcare Improvement (2019), for speaking-up to occur in a health institution, there should be a psychologically safe environment, active leadership, and management support, and transparency to ensure that the healthcare team and management are not being silent about safety issues but tackling them seriously and with fairness; such that people are not being punished or blamed due to system-based errors. These conditions essentially make up a psychologically safe and just workplace. While policymakers and other stakeholders will need to urgently address the contextual challenges and ensure the existence of psychological safety and just culture across workplaces, it may not be enough to ensure that Ghanaian radiographers are encouraged to speak-up about safety compromises, given the societal norms and cultural differences that also exist in Ghana. Speaking-up processes developed in westernised cultures may not be readily transferrable to the Ghanaian context.

I therefore propose an additional condition for speaking-up that may be acceptable in the Ghanaian context. This is known as cultural sensitivity/cultural appropriateness. The blurred lines between workplace culture and societal culture demonstrate that the concept of speaking-up will need to be tailored to fit into Ghana's cultural context. Speaking-up interventions designed for Ghana will be culturally appropriate to ensure better chances of success. Figure 8.5 below illustrates a proposed model of the determinants of speaking-up behaviours of Ghanaian radiographers based on the findings of this study. This will need further refinement and testing, but the basic elements can be identified now as a result of this research.

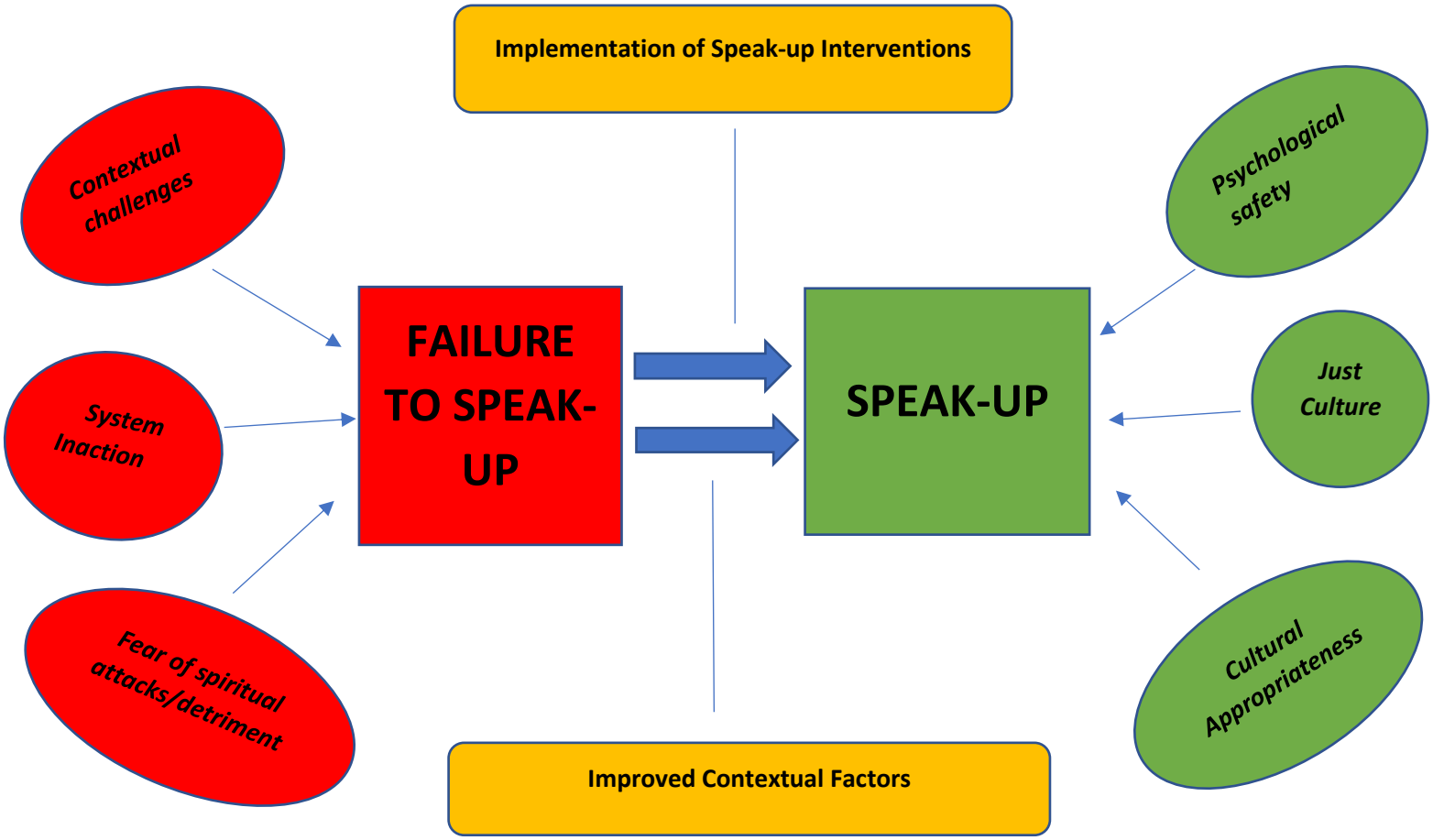


Figure 8.5: Model of the determinants of speaking-up behaviours of Ghanaian radiographers

8.9 Limitations and Strengths of the study

To begin with, the data collection for this study was undertaken during the Covid-19 global pandemic. This presented a challenge as I had to travel to Ghana to be able to interview radiographers and some stakeholders for the project. Travelling during the pandemic came with an added risk, extra unbudgeted costs for quarantining as well as multiple covid testing. Fortunately, the rate of spread in Ghana was much lower than in the UK, hence face to face interviews were still permitted at the time of the data collection although Covid-19 protocols such as the use of face covering, and the 2-metre social distancing were adhered to during the conduct of interviews. Although the pandemic had an impact on the workload and working conditions for healthcare professionals in Ghana, including radiographers, I am now convinced that this did not greatly impact the quality of the data. I also did not have to adjust timelines for the data collection as the data was still collected as expected.

The literature review presented a dearth of literature on speaking-up experiences of radiographers in Ghana and this study, through the data presented, explored these experiences in a novel way and in some depth. While this study offered a good insight into the speaking-up situation in Ghana through the discussion of radiographers' understanding, perceptions, and willingness to speak-up, the societal culture, and norms around speaking-up, workplace speaking-up barriers and facilitators, and interventions such as the need for policy, socio-cultural interventions and education in addition to education/training among others, it is imperative to note that only radiographers and radiography stakeholders were included in this study, hence the researcher cannot overstate the findings to cover speaking-up experiences of other practicing healthcare professionals in Ghana.

Furthermore, the flexibility of the qualitative-exploratory approach, which employed the use of one-to-one semi-structured interviews, allowed study participants to freely talk about their unique speaking-up experiences without feeling intimidated or perhaps unsafe, given the sensitivity of some of the issues discussed. I however, recognise that the use of focus group interviews could have presented a wider and more interactive discussion on some issues such as the Ghanaian societal culture's influence on speaking-up and potential interventions among others. Additionally, the use of interviews was the only data collection tool adopted for this study, as the study sought to provide an in-depth understanding of the speaking-up experiences of Ghanaian radiographers and not necessarily the generalisability of these experiences to other settings. However, using multiple data sources such as observations or documents may have presented broader perspectives of the speaking-up phenomenon. Nevertheless, it is imperative to note that observing the act of speaking-up about safety compromises or wrongdoing in the workplace may be very difficult to do and there may be a possibility of participants altering their behaviours.

The sample population recruited for the study was from only five out of the 16 regions of Ghana, focusing on radiographers practicing in teaching hospitals and other public and private hospitals in these regions. Although the purposive sampling of participants could be argued to be representative of the Ghanaian radiographer population, it cannot be denied that including all 16 regions in the study perhaps may have offered additional understanding into the speaking-up experiences of radiographers across Ghana.

Lastly, the study included only radiographers and policy stakeholders and not patients. Exploring the experiences from a patient perspective could have added a broader perspective

of speaking-up for patient safety in healthcare in Ghana. Nevertheless, this was not practicable as a result of limited resources and time. Also, not much was known about radiographer speaking-up experiences in Ghana prior to the conduct of this study, hence a trade-off between study scope and depth was unavoidable. The broader exploratory design adopted for the study lessened the likelihood of closing down potential fertile areas which might have resulted in the identification of a wide variety of issues. Some of these areas have been proposed for future research (please see the recommendations section). Despite the limitations discussed here, areas that necessitate additional research, socio-cultural, professional practice, and policy changes have been highlighted.

8.10 Implications for Policy, Societal and Professional Practice

To begin with, the findings of this study highlight not just policy and professional practice concerns but also important socio-cultural issues. The overall aim of the study was to explore the speaking-up experiences of Ghanaian radiographers with regard to patient safety concerns. Although globally, the concept of speaking-up in healthcare and its implementation successes and failures in developed healthcare settings have been documented in literature, not much is known about speaking-up in radiography practice and healthcare in Ghana as has been stated earlier. This study demonstrates new knowledge and insights about how speaking-up about safety compromises can be better promoted in radiography practice and healthcare in Ghana,

The findings demonstrate an urgent need for a speak-up policy to guide radiographers and all other healthcare professionals to speak-up for safety at national and workplace/local levels. From these data, the effect of the absence of speak-up policies and structures on the willingness of radiographers to speak-up is undeniable. It is therefore imperative for the Ghanaian government, with the help of the MoH to begin to look into formulating speak-up policies to support healthcare professionals in promoting patient outcomes and safety in health facilities across the nation. Supporting healthcare workers to raise safety concerns in the workplace could potentially improve the quality of care and ultimately enhance patient safety. It is impossible to attain patient safety when systems to address staff concerns are non-existent. Consequently, Ghana's ambition to deliver a high-standard healthcare delivery system and Universal Health Coverage (UHC) by the year 2030 could be jeopardised by the routine provision of risky healthcare in conjunction with a workforce unable to speak-up. Thus, an

urgent need exists to begin to develop speaking-up policy formulation across all healthcare levels.

In addressing speak-up policy formulation, there is a need for an all-inclusive approach to ensure that no relevant stakeholder is left out as this could impact the success of the policy implementation. Radiographers have lamented how their lack of representation at top management and ministry levels results in their views or opinions not being taken into consideration when policy decisions are taken. This may well be a contributing factor as to why some policies in healthcare in Ghana in the past have not yielded the expected results. Hence, to increase the chances of success of a speak-up policy in healthcare in Ghana, the MoH, GHS, representatives of all healthcare professionals including radiographers and their regulatory bodies, and all key stakeholders should be involved in all speak-up policy deliberations at national and local levels to ensure that the agreed guidelines are informed by their advice.

In addition to policy, the findings of this study have implications for socio-cultural practice. As is evident from the literature, speaking-up as a concept is considered to be of western origin, consequently, policy guidelines and structures that already exist in most developed healthcare settings are very likely suited to the western culture. Evidence strongly suggests that national cultures such as strong societal norms of deference make it rare for people to challenge each other publicly, and hence could make speaking-up problematic for health professionals.

In this study, radiographers also describe the Ghanaian culture through elements such as child upbringing, male supremacy, and the societal norms of deference to be unsupportive of speaking-up. The African belief system (including the belief in spirituality, witchcraft, and voodoo), specifically the fear of spiritual attacks, has also been contended by radiographers to be a barrier to speaking-up in Ghanaian society. It can therefore not be assumed that the speaking-up guidelines and structures in the already existing literature are readily transferrable to the Ghanaian context. This calls for the need for policymakers, such as the MoH and all other key stakeholders, to carefully consider these cultural differences in the Ghanaian context in formulating the speak-up policy to ensure that it is appropriate for the Ghanaian society. There may also be a need for a wave of change through an attitudinal change in child upbringing in homes and social campaigns on speaking-up to sensitise the public about the potential benefits of encouraging people, irrespective of their age, gender, or social class to speak-up about concerns and wrongdoing in society.

Furthermore, the findings of this study also have implications for education and training. Radiographers contend the need for speaking-up modules to be introduced in the curriculum for health education in Ghana. The current curriculum for training radiographers in Ghana presents nothing on assertive communication techniques. Introducing speaking-up in radiography education would necessitate a review of the curriculum by the MoH in collaboration with the Ministry of Education, the Ghana Education Service (GES), and all other relevant stakeholders to include modules and interventions for speaking-up about safety concerns in the workplace. This would facilitate the inculcation of assertiveness in freshly qualified radiographers prior to their placement in practice. Education could also be introduced at basic levels as the findings in this study suggest that this approach could play a role in inculcating the attitude of speaking-up and challenging norms in children even before they become adults. In addition to this, there is a need for public education by stakeholders such as the MoH and the GHS, not just speaking-up about concerns and the potential benefits of doing so but also on the policy once it is established to ensure that people have adequate guidance on what to do. Given that the educational levels of radiographers have been argued to boost confidence levels in speaking-up decision-making, there is a need for Ghanaian radiographers to be offered more opportunities to pursue higher education while still working. This could potentially enhance speaking-up behaviours of radiographers in the workplace and improve patient outcomes. To achieve this goal, it is imperative for key stakeholders such as the MoH to allocate more funds for postgraduate education for healthcare professionals including radiographers.

Regarding implications for training, the findings of this study indicate that radiographers do have speaking-up training needs. Hence in addition to education, it is imperative for stakeholders such as the MoH and the GHS to organise national and local levels scheduled training workshops and seminars on speaking-up, how best to do it, and its potential benefits for all healthcare professionals including radiographers and support mechanisms for staff who speak-up. This is necessary given that radiographers through the data demonstrated a lack of speaking-up training while highlighting the need for training opportunities. At local levels, there is a need for hospital managers to organise these training sessions to ensure that their employees are fully equipped on how to speak-up about a safety concern at the workplace.

The findings of this study also have implications for clinical practice and patient safety. A key finding that needs to be addressed critically and carefully is the operation of

unqualified/unlicensed radiographers across some facilities in Ghana, as this potentially poses a radiation safety concern. In rural areas where these persons are argued to be helping to address a workforce shortage, regulatory bodies such as the AHPC and the GSR in conjunction with some universities could organise short radiographer practitioner courses tailored to train them on basic radiological procedures and radiation safety. Consequently, they can be licensed after successful completion and their practice can be regulated to ensure the safety of patients. Perhaps it may also be time for the stakeholders such as the MoH and GSR to consider making provisions for incentives to encourage young newly qualified radiographers to take up job roles in the rural areas instead of the preferred urban centre choices.

Lastly, for radiographers and all other health professionals in Ghana to be more encouraged to speak-up in workplaces, there is a requirement for the existence of not just psychological safety but a just and blame-free culture as well. The findings indicate that the fear of being blamed or victimised is a barrier to speaking-up behaviours of Ghanaian radiographers. It is imperative for employers to cultivate a culture of shared accountability when things go wrong and safety is compromised, such that radiographers and other healthcare professionals are not blamed for systemic failings. Additionally, given that the futility of the act of speaking-up was questioned by radiographers in this study, managers need to be more supportive when safety concerns are raised by ensuring that these concerns are addressed in a timely manner and not disregarded.

8.11 Recommendations for Further Research

The current study explored the factors affecting speaking-up behaviours of radiographers in Ghana. This study has served as a baseline study to establish the possibility of promoting speaking-up in radiography in Ghana as no previous research had been done in the field prior to this. The study however focused on only five selected regions in Ghana, hence a future study covering all 16 regions of Ghana would be useful as this would offer a broader perspective on the experiences of radiographers in speaking-up about patient safety concerns in the workplace.

It would be useful if further research could explore how best the concept of speaking-up could be successfully introduced and accepted as a norm in healthcare systems in Ghana. This would be essential given the complexities and nature of the factors affecting speaking-up behaviours and the major challenges confronting radiography practice and healthcare in Ghana as established in this study. The future study would be useful in exploring where to start with

regard to addressing some of the barriers confronting speaking-up behaviours in radiography practice in Ghana while tackling the major challenges of the profession such as professional regulatory issues, equipment procurement concerns, workforce/workload issues, and education/training challenges among others.

Research involving all other healthcare professionals such as doctors, nurses, and pharmacists among others in Ghana would be significant as this study only focussed on radiographers and associated key stakeholders. Further studies would not only explore their speaking-up experiences but also offer a broader perspective on the topic which may not have been demonstrated in this study. It would also better inform stakeholders such as the MoH on a speak-up policy formulation for all healthcare professionals in Ghana.

Furthermore, future research exploring the speaking-up experiences and perspectives of patients would be essential as this study only explored speaking-up experiences of radiographers and not patients. The new study would not only offer another perspective on speaking-up experiences but would also provide an opportunity to compare their experiences to those of radiographers or other healthcare professionals in Ghana and elsewhere.

A major safety concern raised by radiographers in this study was the professional regulatory challenges with the AHPC leading to the proliferation of unqualified/unlicensed persons (quacks) practising as radiographers. Hence it is imperative to conduct a future study that investigates the possible causes of the failures of the AHPC in regulating the professions and how best these challenges can be addressed. Also, exploring the likely reasons for radiography workforce shortages and workload challenges would be useful as these issues were raised by practising radiographers in this study as a major concern. The findings could help policymakers in decision-making to address these challenges and improve practice.

Radiology equipment procurement concerns were raised by radiographers in this work as a major problem, although it was not possible to investigate this in much detail. Hence, further studies aimed at exploring the process of radiology equipment procurement in Ghana would be beneficial to inform key stakeholders such as the MoH and the GHS about the best considerations to improve the procurement process.

Lastly, calls for a change in the curriculum for training radiographers and other healthcare professionals to include modules on speaking-up were made by radiographers. It would therefore be beneficial if further studies could review the current curriculum to ascertain

whether this is necessary and also advise stakeholders on what the changes should be to ensure that it meets the goal of educating and training radiographers and other healthcare professionals to speak-up about safety compromises in their line of duty.

The key findings of the scoping review of literature carried out early in this study were published in an article (please see Appendix 12) and further publications are now planned to share these findings.

8.12 Key Contributions to Knowledge

The goal of this research was to explore the experiences of Ghanaian radiographers in speaking-up about patient safety concerns. Hence this study distinctively contributes to the speaking-up literature as it explored the barriers and enablers of speaking-up in not just an under-explored healthcare field such as radiography but also a resource-constrained setting such as Ghana. This study also mainly determined the significance of the introduction of speaking-up for patient safety as a norm in radiography and healthcare in Ghana as well as the need for speak-up policy and guidelines for radiography, healthcare in Ghana, and other resource-constrained settings. The findings of this study also offer a foundational guide and lessons that can be tailored for a successful formulation and implementation of a speak-up policy and frameworks in not just Ghana, but other similar resource-constrained and culturally complex settings. It may be recalled that, unlike this study, most of the already existing speak-up literature and policy frameworks originate from westernised and higher-income settings, hence it could not be assumed that the literature was readily transferrable to the Ghanaian context and other culturally similar settings. It therefore cannot be denied that the findings of this study could necessarily be transferrable to other contextually and culturally similar resource-constrained settings such as Ghana.

Finally, it is worth noting that to the best of my knowledge, no other study or piece of work has explored the experiences of Ghanaian radiographers in speaking-up about patient safety concerns.

8.13 My conclusions

This research illustrates that, although speaking up' is a subject of global significance, most research concentrates on medical and nursing practice, omitting other fields in healthcare such as radiography. The majority of research is also conducted in better-resourced and westernised

healthcare settings, leaving the topic of speaking up in health sectors in Ghana and Africa underdeveloped. This was a notable shortfall, as the speaking-up practices and culture presently researched in the literature may vary from the cultural beliefs and speaking-up norms in African nations including Ghana. As a result, an assumption that the literature-documented speaking-up experiences were readily transferrable to Ghana's cultural context or other resource-constrained contexts could be inaccurate.

A key finding from the study was the factors influencing the understanding and perceptions of speaking-up among Ghanaian radiographers. The study established that due to lack of formal speaking-up knowledge, most radiographers' understanding of speaking-up was dominated by these informal sources such as hearsay, experiences, and societal culture and norms which are created, reinforced, and disseminated across generations by families and society more generally. This consequently created a workplace space within which informal sources proliferate and remain unchallenged. This study also found that the African belief system strongly influences Ghanaian radiographers' perceptions about speaking-up for safety. Interestingly, the fear of being harmed spiritually by the person involved in the wrongdoing following an act of speaking-up was a deterrent for most radiographers in considering to speak-up about wrongdoing. This unique key finding is not presented in the already existing speak-up literature. This study therefore demonstrated that the Ghanaian culture and African belief system cannot be overlooked when examining the Ghanaian radiographer's understanding and perceptions about speaking-up for patient safety. The findings therefore demonstrate the need for the introduction of formal speaking-up education and interventions by policymakers and stakeholders such as the MoH to address socio-cultural norms and beliefs in an attempt to improve speaking-up understanding/perceptions and willingness of Ghanaian radiographers.

Furthermore, this study also found various workplace speaking-up barriers and enablers among Ghanaian radiographers. While most of the barriers and enablers found were not necessarily unique to the Ghanaian setting, a few factors such as the absence of speak-up policies or guidelines, and workload/working conditions were peculiar to the Ghanaian setting. The existence of speaking-up conditions such as psychological safety, management support, and just culture was questioned in the Ghanaian healthcare setting and argued by radiographers to compromise their speaking-up behaviours. This study also demonstrated that radiography practice in Ghana is challenged by major contextual factors which do not only compromise patient safety and outcomes but also inhibit staff engagement and speaking-up behaviours of

radiographers. The influence of societal culture on workplace culture was grossly undeniable in this study despite the existence of these workplace factors and challenges. There is therefore an urgent need for stakeholders and policymakers such as the MoH to not only address the workplace speaking-up barriers and contextual issues, but more importantly cultural sensitivity as well to ensure that radiographers feel safe enough and better supported to engage in the act.

This study also found some existing strategies to address speaking-up barriers across all sites although their effectiveness in facilitating speaking-up behaviours remained questionable due to obvious pitfalls of these strategies. The need for the introduction of speak-up interventions through policy, education/training and socio-cultural approaches was emphasised by radiographers in this study to ensure that radiographers and perhaps other healthcare professionals who wish to speak-up are better supported.

To conclude, although Ghana's healthcare system generally appears to be undergoing reformation in various divisions, there is still a lot more that needs urgent attention. Radiography practice in Ghana is confronted by many challenges that need to be addressed to ensure that professionals are better positioned and supported to deliver safe care to patients. An absence of speaking-up policies and clear-cut guidelines indicates that policymakers have largely omitted the concept of speaking up, both in general healthcare and particularly in Ghanaian radiography practice. While the current revision of the Code of Ethics indicates a shift may be near, it is not certain how well the appropriate policy and regulatory bodies are cognisant of the significance of speaking up in promoting patient safety or of the critical problems associated with workplace cultures and workload that pose the danger of consistently compromising safety and safety-related actions, including speaking up. When there are no structures in place for handling employees' concerns, it is impossible to attain patient safety. The need for a curriculum review for healthcare professionals is also crucial to address the speaking-up knowledge gap and prepare newly qualified professionals for speaking-up. The routine provision of risky healthcare in conjunction with a workforce unable to speak-up may jeopardise Ghana's objectives to provide a high-standard healthcare delivery system and Universal Health Coverage (UHC). Nevertheless, the influence of societal norms and culture would need to be carefully considered by policymakers such as the MoH and other key stakeholders in culturally sensitive speak-up intervention planning.

8.14 A reflection on my journey

Pursuing education to the highest of levels has been one of my life goals. While it was not fully clear how this goal was going to be achieved, I have been hopeful and kept the dream alive. Being the second of four girls in a typical Ghanaian home where male children were more desirable, due to the societal notion that the girl-child is not ambitious enough, I have built and maintained a resilience to not just dream big, but also believe that all my dreams are valid and achievable. Throughout my education from the basic level through to the tertiary level, I have been blessed and privileged to be considered among the best students by my teachers and my peers. I have also been lucky to be considered for many student leadership roles due to my distinctive academic excellence and assertiveness. Being an assertive child and young lady in a typical Ghanaian society has resulted in some not so pleasant experiences as this behaviour is often seen as disrespectful. For example, some teachers found me to be troublesome because I was always the one who would ask the difficult questions that others were just too afraid to ask, and whenever something was going untoward, I would be the first to point it out.

While I recognise that the possibility of making mistakes is inevitable in every institution, I have always believed in the need to speak about these errors to be able to better understand the cause and how things could be made better. In one of my early jobs as a newly-qualified radiographer, I noticed a mistake that had been made by a senior radiologist I was working with (a patient had come to do an examination and was handed a radiological report for a different examination bearing her name and details) and decided to inform him about it in an attempt to get the correct report for the patient. However, my decision to speak to him about this made me an enemy as he felt I was just a radiographer and had no right to point out an error to him. This and many other similar experiences sparked my interest in investigating speaking-up experiences of radiographers in Ghana.

Gaining admission to pursue a PhD at Cardiff University in 2018 was very exciting although I did not have funding or adequate support to travel then. Unfortunately, my dad who had earlier promised to sponsor my education got all his funds locked up in a bad investment and was no longer able to sponsor me. I quickly started applying for scholarships from various institutions but unfortunately none of them came through that year, which resulted in my decision to defer the start of the programme to October 2019, with the hope of having ample time to chase up my scholarship applications. After a number of unsuccessful applications and few interviews, I finally

got offered a full government scholarship in September 2019 to pursue my PhD – this was my ticket to fulfilling my dream and I am forever grateful for the opportunity.

Travelling to the UK to begin my PhD journey has been an experience, especially because it was the first time I was travelling outside Africa. Studying in a completely different geographical, cultural and climate context came with its joys and sorrows. It is interesting how you imagine the experience to be before you embark on the journey as opposed to the reality when you actually arrive. I have had very low moments, from being home-sick and lonely to suffering bereavement, being unwell and having some financial difficulties. All in all, it has been tough but worthwhile and definitely rewarding. I was blessed to have the best of supervisors (who made my journey a lot easier), made some good friends, met my husband and now expecting a baby. While I know there is a lot more I could have done aside from working on my thesis, I am thankful for at least being able to publish a paper, present my work to undergraduate students/lecturers, fellow PhD researchers and also winning Dr Tina Gambling's prize for the Best Fire Talk Presentation during the 2022 School of Healthcare Sciences PGR symposium.

Pursuing a PhD in a foreign country during a global pandemic, coupled with planning a wedding, travelling back home to get married and having a baby have not been the easiest of things to do. Nevertheless, looking back now, I can boldly say that embarking on this journey has made me more resilient and taught me the value of determination, hard work, and perseverance. Having come this far in my journey despite the many challenges has strengthened my faith in God. I now more than ever believe than we can be anything we set our minds to with the help of God if only we do not give up. The challenges we face only make us stronger!

REFERENCES

Adesi K.K, Antwi K. William, Pokua R. K. A Need Assessment for Prevention of Work-Related Stress Experienced by Radiographers in Ghana. Adv Tech Biol Med. 2015;03(01). DOI: 10.4172/2379-1764.1000124

Agim T, Sheridan L. James (2013). Reason's safety culture in aged care: frontline staff perspectives on reporting, just, learning and flexible culture in a large Australian residential aged care provider. J Health Saf Environ. 29(2):103–112

Ahern K, McDonald S. The beliefs of nurses who were involved in a whistleblowing event. J Adv Nurs. 2002; 38(3):303–9.

Airhihenbuwa CO, DiClemente RJ, et al (1992). HIV/AIDS education and prevention among African Americans: a focus on culture. African Americans Prevention. 4(3):267–276

Akpa-Inyang, F., Chima, S.C. (2021). South African traditional values and beliefs regarding informed consent and limitations of the principle of respect for autonomy in African communities: a cross-cultural qualitative study. BMC Med Ethics 22, 111. https://doi.org/10.1186/s12910-021-00678-4

Alingh, C. W. et al. (2019) 'Speaking-up about patient safety concerns: the influence of safety management approaches and climate on nurses' willingness to speak-up.', BMJ quality & safety. England, 28(1), pp. 39–48. doi: https://dx.doi.org/10.1136/bmjqs-2017-007163.

Amiri M, Khademian Z, Nikandish R. (2018). The effect of nurse empowerment educational program on patient safety culture: a randomized controlled trial [published online ahead of print July 3, 2018]. BMC Med Education. https://doi.org/10.1186/s12909-018-1255-6

Anderson S, Allen P, Peckham S, Goodwin N. Asking the right questions: scoping studies in the commissioning of research on the organisation and delivery of health services. Health Research Policy System. 2008;6(7):12. 4

Anim-Sampong, S., Antwi, W.K., Antwi, F.A.A. and Botwe, B.O. (2022). The assertiveness of final year student radiographers during their clinical practice: A study in Ghana. Journal of Medical Imaging and Radiation Sciences, 53(4), pp.605-611.

Antwi WK. Child protection in Ghana: Exploring the perception and behaviour of radiographers. Sheffield Hallam University (United Kingdom); 2016. http://shura.shu.ac.uk/id/eprint/20712

Antwi-Boasiako, J. (2018) 'Why People Refuse to Blow the Whistle in Ghana', 8(4), pp. 1–7.

Arksey H, O'Malley L. Scoping studies: towards a methodological framework. International Journal of Social Research Methodology. 2005;8(1):19-32.

Arthur, S & Nazroo, S. (2003). Designing fieldwork strategies and materials. Qualitative research practice. 109-137.

Ashforth, B. (2001). Role Transitions in Organizational Life: An Identity-based Perspective (1st ed.). Routledge. https://doi.org/10.4324/9781410600035

Ashong GGNA, Rogers H, Botwe BO, Anim-Sampong S. Effects of occupational stress and coping mechanisms adopted by radiographers in Ghana. Radiography [Internet]. 2016; 22(2):112–7. Available from: http://dx.doi.org/10.1016/j.radi.2015.09.002

Attree M. Factors influencing nurses' decisions to raise concerns about care quality. J Nurs Manag. 2007; 15(4):392–402.

Badger, D., Nursten, J., Williams, P., & Woodward, M. (2000). Should all literature reviews be systematic? Evaluation and Research in Education, 14, 220–230

Balasubramanian BA, Chase SM, Nutting PA, Cohen DJ, Strickland PA, Crosson JC, et al. (2010). Using Learning Teams for Reflective Adaptation (ULTRA): insights from a team-based change management strategy in primary care. Ann Fam Med. 8:425–32. https://doi.org/10.1370/afm.1159

Barbour, R. (2014). Introducing Qualitative Research: A Student's Guide. DOI:10.4135/9781526485045

Barger D, Marella W, Charney F. (2011). Gap assessment of hospitals' adoption of the just culture principles. PA Patient Saf Adv. 8(4):138–143.

Barnsteiner J, Disch J. Creating a Fair and Just Culture in Schools of Nursing. Am J Nurs. (2017). 117(11):42-48. doi: 10.1097/01.NAJ.0000526747.84173.97. PMID: 29076855.

Baumeister R. F., Leary M.R. (1997). Writing narrative literature reviews. Review of General Psychology. 1(3):311–320.

Bearfield D. A., Eller W. S. (2007). Writing a literature review: The art of scientific literature. In Yang K., Miller G. J. (Eds.), Handbook of research methods for public administration (pp. 61-72). New York, NY: CRC Press.

Becker P. H. (1993). Common pitfalls in published grounded theory research. Qualitative Health Research, 3, 254-260.

Becker L. A., Oxman A.D. (2008). In: Cochrane handbook for systematic reviews of interventions. Higgins J. P. T., Green S., editors. Hoboken, nj: John Wiley & Sons, Ltd. Overviews of reviews; pp. 607–631.

Beckstead, J. W. (2005) 'Reporting peer wrongdoing in the healthcare profession: The role of incompetence and substance abuse information', International Journal of Nursing Studies, 42(3), pp. 325–331. doi: 10.1016/j.ijnurstu.2004.07.003.

Bell, J. (2010). Doing Your Research Project. A guide for first-time researchers in education, health and social science. Open University Press. Fifth Edition

Bernard, H. R. (2002). Research methods in anthropology: Qualitative and quantitative approaches (3rd ed.). Walnut Creek, CA: Altamira Press.

Bickhoff, L., Levett-Jones, T. and Sinclair, P. M. (2016) 'Rocking the boat - nursing students' stories of moral courage: A qualitative descriptive study.', Nurse education today. Scotland, 42, pp. 35–40. doi: https://dx.doi.org/10.1016/j.nedt.2016.03.030.

Black LM. (2011). Tragedy into policy: a quantitative study of nurses' attitudes toward patient advocacy activities. Am J Nurs. 111:26–35. https://doi.org/10.1097/01.NAJ.0000398537.06542.c0

Blanco, M., Clarke, J. R. and Martindell, D. (2009) 'Wrong Site Surgery Near Misses and Actual Occurrences', AORN Journal, 90(2). doi: 10.1016/j.aorn.2009.07.010.

Blenkinsopp J, Snowden N, Mannion R, Powell M, Davies H, Millar R, et al. (2019) Whistleblowing over patient safety and care quality: a review of the literature. J Health Organ Manag [Internet]. 2019;33(6):737–56. Available from: http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=prem&NEWS=N&AN=31625824

Bolderston A, Di Prospero LS, French J, Adams R. (2016). Speaking-up: An International Comparison of the Willingness of Radiation Therapists to Report Errors in Clinical Practice. J Med Imaging Radiation Sci [Internet]. 2014;45(2):172. Available from: http://dx.doi.org/10.1016/j.jmir.2014.03.039

Bolderston, A. (2016) 'Patient Experience in Medical Imaging and Radiation Therapy.', Journal of medical imaging and radiation sciences. United States, 47(4), pp. 356–361. doi: https://dx.doi.org/10.1016/j.jmir.2016.09.002.

Bonner, A & Tolhurst, G. (2002). Insider-outsider perspectives of participant observation. Nurse researcher. DOI:10.7748/nr2002.07.9.4.7.c6194

Borenstein M., Hedges L., Higgins J., Rothstein H. (2009) Introduction to meta-analysis. Hoboken, nj: John Wiley & Sons Inc.

Bradshaw, C., Atkinson, S. and Doody, O. (2017) 'Employing a Qualitative Description Approach in Health Care Research', Global Qualitative Nursing Research, 4. doi: 10.1177/2333393617742282.

Brannick, T and Coghlan, D (2006). To know and to do: academics' and practitioners' approaches to management research Irish Journal of Management, 26 (No.2) (2006), pp. 1-22

Bryman, A. (2006) 'Integrating quantitative and qualitative research: How is it done?', Qualitative Research, 6(1), pp. 97–113. doi: 10.1177/1468794106058877.

Burgess, R.G. (1984). In the Field: An Introduction to Field Research (1st ed.). Routledge. https://doi.org/10.4324/9780203418161

Caelli, K., Ray, L. and Mill, J. (2003) '"Clear as Mud": Toward Greater Clarity in Generic Qualitative Research', International Journal of Qualitative Methods, 2(2), pp. 1–13. doi: 10.1177/160940690300200201.

Cheng X, Karim KE, Lin KJ. A cross-cultural comparison of whistleblowing perceptions. Int J Manag Decis Mak. 2015;14(1):15–31.

Cleary S, Duke M. (2017). Clinical governance breakdown: Australian cases of wilful blindness and whistleblowing. Nursing Ethics. Nov 14;0969733017731917.

Coalition GA-C. Whistleblowing in Ghana. 2010. http://www.gaccgh.org/publications/A_Guide_to_Whistleblowing_in_Ghana.pdf

Code of professional conduct, Society of Radiographers. 2013. Available from: https://www.sor.org/learning-advice/professional-body-guidance-and-publications/documents-and-publications/policy-guidance-document-library/code-of-professional-conduct.

Colquhoun, H. Levac. et al. 2014. Scoping reviews: time for clarity in definition, methods, and reporting. Journal of Clinical Epidemiology 67(12), pp. 1291-1294. doi: 10.1016/j.jclinepi.2014.03.013

Coyne, I. T. (1997). Sampling in qualitative research: Purposeful and theoretical sampling, merging or clear boundaries? Journal of Advanced Nursing, 26, 623–630.

Craciun H. Risk Management in Radiology Departments. World Journal of Radiology. 2015; 7(6):134.

Crilly T, Jashapara A, Ferlie E. (2010). Research utilisation and knowledge mobilisation: a scoping review of the literature. London: Department of Management, King's College London

Curry LA, Brault MA, Linnander EL, McNatt Z, Brewster AL, Cherlin E, et al (2018). Influencing organisational culture to improve hospital performance in care of patients with acute myocardial infarction: a mixed-methods intervention study. BMJ Qual Safety. 27:207–17. https://doi.org/10.1136/bmjqs-2017-006989

de Chavez AC, Backett-Milburn K, Parry O, Platt S. (2005). Understanding and researching wellbeing: Its usage in different disciplines and potential for health research and health promotion. Health Education Journal. 64(1):70-87.

de Vries EN, Ramrattan MA, Smorenburg SM, et al. (2008). The incidence and nature of in-hospital adverse events: a systematic review. Qual Safety Health Care.17:216–23.

Decaria J, Sharp C, Petrella R. (2012). Scoping review report: obesity in older adults. International Journal of Obesity.36(9):1141-50

Delisle M, Grymonpre R, Whitley R, Wirtzfeld D. (2016). Crucial conversations: an interprofessional learning opportunity for senior healthcare students. J Interprof Care. 30:777–86. https://doi.org/10.1080/13561820.2016.1215971

Detert, J. R., & Burris, E. R. (2007). Leadership behavior and employee voice: Is the door really open? Academy of Management Journal, 50(4), 869–884.

Denzin, N. K., and Lincoln, Y.S., eds. (1994). Handbook of qualitative research. Thousand Oaks, CA: Sage.

Diamond T, (1992). Making Gray Gold - Making Gray Gold: Narratives of Nursing Home Care (Women in Culture and Society Series) https://press.uchicago.edu/ucp/books/book/chicago/M/bo3684346.html

Dixon-Woods, M. et al. (2019) 'Improving Employee Voice About Transgressive or Disruptive Behaviour: A Case Study.', Academic medicine: journal of the Association of American Medical Colleges. United States, 94(4),pp.579 585.doi:https://dx.doi.org/10.1097/ACM.0000000000002447.

Doody O., Noonan M. (2016). Nursing research ethics, guidance and application in practice. British Journal of Nursing, 25, 803–807.

Dutton, J. E., Ashford, S. J., O'Neill, R. M., Hayes, E., & Wierba, E. E. (1997). Reading the Wind: How Middle Managers Assess the Context for Selling Issues to Top Managers. Strategic Management Journal, 18(5), 407–423. http://www.jstor.org/stable/3088168

Dwyer J, Faber-Langendoen K. (2018). Speaking up: an ethical action exercise. Academy Med J Assoc Am Med Coll. 93:602–5. https://doi.org/10.1097/ACM.0000000000002047

Edmondson, A. (1999). Psychological safety and learning behaviour in work teams. Administrative Science Quarterly, 44(2), 350–383.

Edmondson, A. C., & Lei, Z. (2014). Psychological safety: The history, renaissance, and future of an interpersonal construct. Annual Review of Organizational Psychology and Organizational Behaviour, 1(1), 23–43.

Edrees, H. H. et al. (2017) 'Examining influences on speaking-up among critical care healthcare providers in the United Arab Emirates.', International journal for quality in health care : journal of the International Society for Quality in Health Care. England, 29(7), pp. 948–960. doi: https://dx.doi.org/10.1093/intqhc/mzx144.

Etchegaray, J. M. et al. (2017) 'Barriers to Speaking-up About Patient Safety Concerns.', Journal of Patient Safety. United States. doi: https://dx.doi.org/10.1097/PTS.0000000000000334.

European Society of Radiology (ESR) communications@ myesr. org, European Federation of Radiographer Societies (EFRS) info@ efrs. eu. Patient safety in medical imaging: A joint paper of the European Society of Radiology (ESR) and the European Federation of Radiographer Societies (EFRS). Insights into imaging. 2019; 10:(1-7).

Fasterling B. Whistleblower protection: a comparative law perspective. In Brown A, Lewis D, Moberly R, Vandekerckhove W, editors. International Handbook on Whistleblowing Research. Cheltenham: Edward Elgar Publishing; 2014. pp. 331–49. https://doi.org/10.4337/9781781006795.00023

Famolaro T, Yount N, Hare R, et al. (2018). Hospital Survey on Patient Safety Culture: 2018 User Database Report. Rockville, MD: Agency for Healthcare Research and Quality.

Fawcett, J., & Garity, J. (2009). Evaluating research for evidence-based nursing practice. Philadelphia: F.A. Davis.

Fetterman D. M. (1998). Ethnography: Step by step (2nd ed.). Newbury Park, CA: Sage

Fisher, M. and Kiernan, M. (2019) 'Student nurses' lived experience of patient safety and raising concerns.', Nurse education today. Scotland, 77, pp. 1–5. doi: https://dx.doi.org/10.1016/j.nedt.2019.02.015.

Fleit HB, Iuli RJ, Fischel JE, Lu WH, Chandran L. (2017). A model of influences on the clinical learning environment: the case for change at one U.S. medical school. BMC Med Educ. 17:63. https://doi.org/10.1186/s12909-017-0900-9

Francis R. (2013) Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry, 2013, https://www.gov.uk/government/publications/report-of-the-mid-staffordshire-nhs-foundation-trust-public-inquiry

Fusch, P. I., & Ness, L. R. (2015). Are we there yet? Data saturation in qualitative research. The Qualitative Report, 20, 1408–1416.

Gabriel, D. (2013). Qualitative data analysis. Accessed on 17th March 2020 from https://deborahgabriel.com/2013/04/25/qualitative-data-analysis/

Gagnon, M. and Perron, A. (2019) 'Whistleblowing: A concept analysis', Nursing and Health Sciences, (October), pp. 1–9. doi: 10.1111/nhs.12667.

Garon, M. (2012) 'Speaking-up, being heard: Registered nurses' perceptions of workplace communication', Journal of Nursing Management. England, 20(3), pp. 361–371. doi: 10.1111/j.1365-2834.2011.01296.x.

Gay, L. R., Mills, G. E., & Airasian, P.W. (2006). Educational Research: Competencies for analysis and applications (8th ed.). Upper Saddle River, NJ: Merrill Prentice Hall. Gay, pp29- 44.

Gerstle CR. (2018). Parallels in safety between aviation and healthcare. J Pediatr Surg. 53(5):875–878.

Glaser B. G. (1998). Doing grounded theory: Issues and discussions. Mill Valley, CA: Sociology Press.

Glaser B. G., Strauss A. L. (1967). Discovery of grounded theory: Strategies for qualitative research. Chicago, IL: Aldine

Ghana Society of Radiographers (2020). Accessed on 17/03/2020 from https://ghanasor.org/

Granvill K. The implications of differences in cultural attitudes and styles of communication on peer reporting behaviour. Cross Cult Manag An Int J [Internet]. 2000 Jan 1;7(2):11–7. Available from: https://doi.org/10.1108/13527600010797066

Green B. N., Johnson C. D., Adams A. (2006). Writing narrative literature reviews for peer-reviewed journals: secrets of the trade. Journal of Chiropractic Medicine. 5(3):101–117

Greenhalgh T, Thorne S, Malterud K. Time to challenge the spurious hierarchy of systematic over narrative reviews? Eur J Clin Invest. 2018;48(6):1–6.

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. Field Methods, 18, 59–82.

Gupta RT, Sexton JB, Milne J, Frush DP (2015). Practice and quality improvement: successful implementation of TeamSTEPPS tools into an academic interventional ultrasound practice. AJR Am J Roentgenol. 204:105–10. https://doi.org/10.2214/AJR.14.1277

Hall, N. et al. (2018) 'Speaking-up: Fostering "silence breaking" through leadership.', Nursing management. United States, 49(6), pp. 51–53. doi: https://dx.doi.org/10.1097/01.NUMA.0000533774.22167.f2.

Halm M, Peterson M, Kandels M, Sabo J, Blalock M, Braden R, et al. (2005) Hospital nurse staffing and patient mortality, emotional exhaustion, and job dissatisfaction. Clin Nurse Spec.19(5):241–51.

Hanson, J. et al. (2020) '"Speaking-up for safety": A graded assertiveness intervention for first year nursing students in preparation for clinical placement: Thematic analysis.', Nurse education today. Scotland: Elsevier, 84(October 2019), p. 104252. doi: https://dx.doi.org/10.1016/j.nedt.2019.104252.

Heath H. (2006). Exploring the influences and use of the literature during a grounded theory study. Journal of Research in Nursing, 11, 519-528.

Heath H., Cowley S. (2004). Developing a grounded theory approach: A comparison of Glaser and Strauss. International Journal of Nursing Studies, 41, 141-150

Hein de Vries, Margo Dijkstra, Piet Kuhlman, (1988) Self-efficacy: the third factor besides attitude and subjective norm as a predictor of behavioural intentions, Health Education Research, Volume 3, Issue, Pages 273–282, https://doi.org/10.1093/her/3.3.273

Henderson DJ, Sampselle C, Mayes F, Oakley D. et al. (1992). Toward culturally sensitive research in a multicultural society. Health Care for Women International. 13:339 – 350.

Higgins J. P. T., Green S. (2008). Cochrane handbook for systematic reviews of interventions: Cochrane book series. Hoboken, nj: Wiley-Blackwell

History of Radiography In Ghana. https://ghanasor.org/history-of-radiography-in-ghana/

https://ghanahealthservice.org/ghs-subcategory.php?cid=11&scid=46

Holloway, I. and S. Wheeler. (2010). Qualitative Research in Nursing and Healthcare. 3rd ed. West Sussex: Wiley-Blackwell.

Huang, F. F. et al. (2020) 'Self-reported confidence in patient safety competencies among Chinese nursing students: a multi-site cross-sectional survey.', BMC medical education. England, 20(1), p. 32. doi: https://dx.doi.org/10.1186/s12909-020-1945-8.

Hughes H. Freedom to speak-up - the role of freedom to speak-up guardians and the National Guardian's Office in England. Future Healthcare J [Internet]. 2019;6(3):186–9. Available from: http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=prem&NEWS=N&AN=31660523

Hughes, H. (2019) 'Freedom to speak-up - the role of freedom to speak-up guardians and the National Guardian's Office in England.', Future healthcare journal. England, 6(3), pp. 186–189. doi: https://dx.doi.org/10.7861/fhj.2019-0031.

Hutchinson S. A. (1993). Grounded theory: The method. In Munhall P. L., Boyd C. O. (Eds.), Nursing research: A qualitative perspective (pp. 180-212). New York, NY: National League for Nursing.

Institute of Healthcare Improvement (2019). A Framework for Safe, Reliable, and Effective Care https://hcifonline.org/wp-content/uploads/2019/04/IHI-White-Paper_FrameworkSafeReliableEffectiveCare.pdf

Ironside, P. M. (2006). Using narrative pedagogy: Learning and practising interpretive thinking. Issues and Innovations in Nursing Education, 55, 478–486. doi:10.1111/j.13652648.2006.03938.x

Jackson, D. et al. (2010) 'Understanding whistleblowing: qualitative insights from nurse whistleblowers.', Journal of advanced nursing. England, 66(10), pp. 2194–2201. doi: https://dx.doi.org/10.1111/j.1365-2648.2010.05365.x.

Jaeger, R. G., & Halliday, T. R. (1998). On confirmatory versus exploratory research. Herpetological, S64-S66.

Janesick, V. J. (2000) The Choreography of Qualitative Research Design: Minuets, Improvisations and Crystallization. In Denzin, N. K. and Lincoln Y.S Eds. Handbook of Qualitative Research pp. 379-399. Thousand Oaks, CA: Sage

Jha AK, Larizgoitia I, Audera- Lopez C, et al. The global burden of unsafe medical care: Analytic modelling of observational studies. BMJ Qual Saf 2013;22:809–15.

Jones A, Blake J, Adams M, Kelly D, Mannion R, Maben J. Interventions promoting employee "speaking-up" within healthcare workplaces: A systematic narrative review of the international literature. Health Policy (New York) [Internet]. 2021;125(3):375–84. Available from: https://doi.org/10.1016/j.healthpol.2020.12.016

Jones A, Hannigan B, Coffey M, Simpson A (2018) Traditions of research in community mental health care planning and care coordination: A systematic meta-narrative review of the literature. PLoS ONE 13(6): e0198427. https://doi.org/10.1371/journal.pone.0198427

Jones, A. and Kelly, D. (2014) 'Deafening silence? Time to reconsider whether organisations are silent or deaf when things go wrong.', BMJ quality & safety. England, 23(9), pp. 709–713. doi: https://dx.doi.org/10.1136/bmjqs-2013-002718.

Jones, A., Lankshear, A. and Kelly, D. (2016) 'Giving voice to quality and safety matters at board level: A qualitative study of the experiences of executive nurses working in England and Wales', International Journal of Nursing Studies. Elsevier Ltd, 59, pp. 169–176. doi: 10.1016/j.ijnurstu.2016.04.007.

Kahn WA. (1990). Psychological conditions of personal engagement and disengagement at work. Academy of Management Journal, 33, 692–724.

Kelly, D. and Jones, A. (2013), "When care is needed: the role of whistleblowing in promoting best standards from an individual and organizational perspective", Quality in Ageing and Older Adults, Vol. 14 No. 3, pp. 180-191. https://doi.org/10.1108/QAOA-05-2013-0010

Kelly F., Papadopoulos I. (2009). Enhancing the cultural competence of healthcare professionals through an online course. Diversity in Health and Care 6:77–84. Radcliffe Publishing

Kent L, Anderson G, Ciocca R, Shanks L, Enlow M. (2015). Effects of a senior practicum course on nursing students' confidence in speaking up for patient safety. J Nurs Educ. 54(Suppl. 3):12–15. https://doi.org/10.3928/01484834-20150218-04

Khatri, Naresh & Brown, Gordon & Hicks, Lanis. (2009). From a Blame Culture to a Just Culture in Health Care. Health care management review. 34. 312-22. 10.1097/HMR.0b013e3181a3b709.

King W. R., He J. (2005). Understanding the role and methods of meta-analysis in IS research. Communications of the Association for Information Systems.16:1.

Kingston MJ, Evans SM, Smith BJ, Berry JG. Attitudes of doctors and nurses towards incident reporting: A qualitative analysis. Med J Aust. 2004;181(1):36–9.

Kirkevold M. (1997). Integrative nursing research — an important strategy to further the development of nursing science and nursing practice. Journal of Advanced Nursing. 25(5):977–984

Kreuter MW, Skinner CS (2000). Tailoring, what's in a name? Health Educ Res.15:1–4. doi: 10.1093/her/15.1.1.

Kreuter M, Lukwago S, Bucholtz D, Clark E, Sanders-Thompson V. Achieving cultural appropriateness in health promotion programs: Targeted and tailored approaches. Health Education & Behaviouspeaking-up barrier

r. 2002;30(2):133–146.

Kreuter MW, Lukwago SN, Bucholtz RD, Clark EM, Sanders-Thompson V (2003). Achieving cultural appropriateness in health promotion programs: targeted and tailored approaches. Health Educ Behaviour Apr;30(2):133-46. doi: 10.1177/1090198102251021. PMID: 12693519.

Kruse J, Lehto N, Riklund K, Tegner Y, Engström. Scrutinized with inadequate control and support: Interns' experiences communicating with and writing referrals to hospital radiology departments – A qualitative study. Radiography. 2016;22(4):313–8.

Kvale, S. (1996). Inter Views: An introduction to qualitative research interviewing. Thousand Oaks, CA: Sage

Landgren R, Alawadi Z, Douma C, Thomas EJ, Etchegaray J. (2016). Barriers of Pediatric Residents to Speaking-up About Patient Safety. Hosp Pediatric. 6(12), pp. 738–743. doi: 10.1542/hpeds.2016- 0042.

Law, B. Y.-S. and Chan, E. A. (2015) 'The experience of learning to speak-up: a narrative inquiry on newly graduated registered nurses.', Journal of clinical nursing. England, 24(13–14), pp.1837–1848. doi: https://dx.doi.org/10.1111/jocn.12805.

Lee, H.-Y., Hahm, M.-I. and Lee, S. G. (2018) 'Undergraduate medical students' perceptions and intentions regarding patient safety during clinical clerkship.', BMC medical education. England, 18(1), p. 66. doi: https://dx.doi.org/10.1186/s12909-018-1180-8.

Leonard, M., Graham, S. and Bonacum, D. (2004) 'The human factor: the critical importance of effective teamwork and communication in providing safe care.', Quality & safety in health care. England, 13 Suppl 1, pp. i85-90. Available at: http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=med5&NEWS=N&AN=15465961.

Levac D, Colquhoun H, O'Brien KK. (2010) Scoping studies: advancing the methodology.

Lewis, J. L., & Sheppard, S. R. J. (2006). Culture and Communication: Can Landscape Visualization Improve Forest Management Consultation with Indigenous Communities? Landscape and Urban Planning, 77, 291 313.http://dx.doi.org/10.1016/j.landurbplan.2005.04.004

Liu, J.H., Campbell, S. M. & Condie, H. (1995). Ethnocentrism in dating preferences for an American sample: The in-group bias in social context. European Journal of Social Psychology, 25, 95-115.

LoBiondo-Wood, G., & Haber, J. (2014). Nursing research, methods and critical appraisal for evidence-based practice (8th ed.). St. Louis, MI: Mosby.

Lukewich, J. et al. (2015) 'Undergraduate baccalaureate nursing students' self-reported confidence in learning about patient safety in the classroom and clinical settings: an annual cross-sectional study (2010-2013).', International journal of nursing studies. England, 52(5), pp. 930–938. doi: https://dx.doi.org/10.1016/j.ijnurstu.2015.01.010.

Lyndon A, Sexton JB, Simpson KR, Rosenstein A, Lee KA, Wachter RM (2012) 'Predictors of likelihood of speaking-up about safety concerns in labour and delivery.', BMJ quality & safety. England ([Erratum in: BMJ Qual Saf. 2013 Feb;22(2):182]), 21(9), pp. 791–799. doi: https://dx.doi.org/10.1136/bmjqs-2010-050211

Malterud, K., Siersma, V. D., & Guassora, A. D. (2015). Sample size in qualitative interview studies: Guided by information power. Qualitative Health Research, 26, 1753–1760.

Mannion, R. Blenkinsopp J, Powell M, McHale J, Millar R, Snowden N, et al. (2018) 'Understanding the knowledge gaps in whistleblowing and speaking-up in health care: narrative reviews of the research literature and formal inquiries, a legal analysis and stakeholder interviews', Health Services and Delivery Research, 6(30), pp. 1–190. Available from: http://dx.doi.org/10.3310/hsdr06300

Marin GBL, Connell CM, Gielen AC, Helitzer-Allen D, Lorig K, Morisky DE, et al (1995). A research agenda for health education among underserved populations. Health Education Quarterly.22(3):346–363.

Martin GP, Armstrong N. (2021) Speaking-up in resource-constrained settings: how to secure safe surgical care in the moment and in the future? BMJ Quality & Safety Published Online First: 15 March 2022. doi: 10.1136/bmjqs-2021-014624

Martin GP, Chew S, Dixon-Woods M. (2020) Uncovering, creating or constructing problems? Enacting a new role to support staff who raise concerns about quality and safety in the English National Health Service. Heal (United Kingdom).

Martin, G. P. et al. (2018) 'Making soft intelligence hard: a multi-site qualitative study of challenges relating to voice about safety concerns.', BMJ quality & safety. England, 27(9), pp. 710–717. doi: https://dx.doi.org/10.1136/bmjqs-2017-007579.

Martinez, W. et al. (2015) '"Speaking-up" about patient safety concerns and unprofessional behaviour among residents: validation of two scales.' BMJ quality & safety. England Nov; 24 (11):661-3; PMID: 26217039

Martinez, W. et al. (2016) 'Measuring Moral Courage for Interns and Residents: Scale Development and Initial Psychometrics.', Academic medicine : journal of the Association of American Medical Colleges. United States, 91(10), pp. 1431–1438. Available at: http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=medp&NEWS=N&AN=27384109.

Martinez, W. et al. (2017) 'Speaking-up about traditional and professionalism-related patient safety threats: a national survey of interns and residents.', BMJ quality & safety. England; Jun 6;357: j2720; PMID: 28588049

Marx D. (2001). Patient Safety and the "Just Culture": A Primer for Health Care Executives. New York: Trustees of Columbia University in the City of New York, Columbia University.

Mason, J. (2002). Qualitative researching (2nd ed.). London: Sage.

Mauner G, Tanenhaus MK, Carlson GN. (1995). A note on parallelism effects in processing deep and surface verb-phrase anaphora. Lang Cognitive Processes.10:1-12

Mbiti S. J. (1970). Christianity and Traditional Religions in Africa. https://doi.org/10.1111/j.1758-6631.1970.tb00979

McNabb D.E. (2002). Research Methods in Public Administration and Non-profit Management. M.E. Sharpe, 2002ISBN 0765628791, 9780765628794

Ministry of Health G. Health sector medium term development plan. Ministry of Health (MOH). 2014. p. 75. https://www.moh.gov.gh/wp-content/uploads/2016/02/2014-2017-Health-sector-medium-term-dev-plan.pdf.

Ministry of Health. (2004) The Ghana health sector annual programme of work 2004. 2004;(January) https://www.moh.gov.gh/wp-content/uploads/2016/02/Annual-Programme-of-Work-2004.pdf.

Moore, L., & McAuliffe, E. (2010). Is inadequate response to whistleblowing perpetuating a culture of silence in hospitals? Clinical Governance: An International Journal,15, 166–178.

Moore, L., & McAuliffe, E. (2012). To report or not to report? Why some nurses are reluctant to whistle blow. Clinical Governance: An International Journal,17, 332–343.388

Morrison, E. W. and Milliken, F. J. (2003) 'Speaking-up, Remaining Silent: The Dynamics of Voice and Silence in Organizations', Journal of Management Studies, 40(6), pp. 1353–1358. doi: 10.1111/1467-6486.00383.

Munn Z, Peters M, Stern C, Tufanaru C, McArthur A, Aromataris E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. BMC Medical Research Methodology. 2018; 18:143. doi: 10.1186/s12874- 018-0611-x

National Academies of Sciences Engineering and Medicine. Crossing the global quality chasm: improving health care worldwide. The National Academies Press, 2018.

National Guardian's Office. Freedom to Speak Up Index Report 2022. London: National Guardian's Office; 2022.

NCCE deepens citizens' understanding of Whistle blowers' Act - Graphic Online. https://www.graphic.com.gh/news/politics/ghana-news-ncce-deepens-citizens-understanding-of-whistleblowers-act.html.

Ndebugri, H. and Tweneboah Senzu, E. (2018) 'Examining the Whistle Blowing "Act" of Ghana and Its Effectiveness in Combating Corporate Crime', SSRN Electronic Journal, (85602). doi: 10.2139/ssrn.3209469.

Near, J. P. and Miceli, M. P. (1985) 'Organizational dissidence: The case of whistle-blowing', Citation Classics from The Journal of Business Ethics: Celebrating the First Thirty Years of Publication, 4, pp. 153–172. doi: 10.1007/978-94-007-4126-3_8.

Neergaard, M. A. et al. (2009) 'Qualitative description-the poor cousin of health research?', BMC Medical Research Methodology, 9(1). doi: 10.1186/1471-2288-9-52.

Nembhard, I.M. & Edmondson, Amy. (2012). Psychological Safety: A Foundation for Speaking Up, Collaboration, and Experimentation in Organizations. The Oxford Handbook of Positive Organizational Scholarship. https://doi.org/10.1093/oxfordhb/9780199734610.013.0037

Newman, A., Donohue, R., & Eva, N. (2017). Psychological safety: A systematic review of the literature. Human Resource Management Review, 27(3), 521–535.

Ng, G. W. Y. et al. (2017) 'Speak-up culture in an intensive care unit in Hong Kong: a cross-sectional survey exploring the communication openness perceptions of Chinese doctors and

nurses.', BMJ open. England, 7(8), p. e015721. doi: https://dx.doi.org/10.1136/bmjopen- 2016-015721.

Ng, K. Y., Van Dyne, L. and Ang, S. (2019) 'Speaking out and speaking-up in multicultural settings: A two-study examination of cultural intelligence and voice behaviour', Organizational Behaviour and Human Decision Processes. Elsevier, 151(February), pp. 150–159. doi:10.1016/j.obhdp.2018.10.005.

Nnadi Matthias. Whistleblower policy_ a panacea for financial corruption in Africa _ Public Finance Focus. https://www.publicfinancefocus.org/viewpoints/2020/05/whistleblower-policy-panacea-

Noble H. & Smith J. (2018). Reviewing the literature: choosing a review design BMJ; Evidence Based Nursing. 10.1136/eb-2018-102895

Nsiah C, Siakwa M, Ninnoni JPK. (2019) Registered Nurses' description of patient advocacy in the clinical setting. Nurs Open. 6(3):1124–32.

O'Connor P, Byrne D, O'Dea A, McVeigh TP, Kerin MJ. (2013). 'Excuse Me:' teaching interns to speak up. Jt Comm J Qual Patient Safety. 39:426–31. https://doi.org/10.1016/S1553-7250(13)39056-4

Office for National Statistics https://www.ons.gov.uk/ Date accessed: August 1, 2020

Ofori I. The Veil of Superstition – Africa's Burden of Darkness. 2014. [Internet] Available from: https://www.modernghana.com/news/538390/the-veil-of-superstition-africas-burden-of-dark.html.

Ohnishi K, Hayama Y, Asai A, Kosugi S. The process of whistleblowing in a Japanese psychiatric hospital. Nursing Ethics. 2008 Sep;15(5):631-42. doi: 10.1177/0969733008092871. PMID: 18687817.

Okuyama, A., Schwappach, D. and Sendlhofer, G. (2019) 'Speaking-up about Patient Safety in Perioperative Care: Differences between Academic and Nonacademic Hospitals in Austria and Switzerland.', Journal of investigative surgery : the official journal of the Academy of Surgical Research. United States ([Comment on: J Invest Surg. 2019 Jan 15;:1-9; PMID: 30644786 [https://www.ncbi.nlm.nih.gov/pubmed/30644786]]), pp. 1–2. doi: https://dx.doi.org/10.1080/08941939.2018.1554016.

Okuyama, A., Wagner, C. and Bijnen, B. (2014) 'Speaking-up for patient safety by hospital-based health care professionals: a literature review.', BMC health services research. England, 14, p. 61. doi: https://dx.doi.org/10.1186/1472-6963-14-61.

Oliver C, Jones E, Rayner A, Penner J, Jamieson A. (2017). Teaching social work students to speak up. Soc Work Educ. 36:702–14. https://doi.org/10.1080/02615479.2017.1305348

Omura, M. et al. (2017) 'The effectiveness of assertiveness communication training programs for healthcare professionals and students: A systematic review.', International journal of nursing studies. England, 76, pp. 120–128. doi: https://dx.doi.org/10.1016/j.ijnurstu.2017.09.001.

Omura M, Stone TE, Maguire J, Levett-Jones T (2018) 'Exploring Japanese nurses' perceptions of the relevance and use of assertive communication in healthcare: A qualitative study informed by the Theory of Planned Behaviour.', Nurse education today. Scotland, 67, pp. 100–107. doi: https://dx.doi.org/10.1016/j.nedt.2018.05.004.

Omura, M., Levett-Jones, T. and Stone, T. E. (2019) 'Evaluating the impact of an assertiveness communication training programme for Japanese nursing students: A quasi-experimental study.', Nursing open. United States, 6(2), pp. 463–472. doi: https://dx.doi.org/10.1002/nop2.228.

Omura, M., Stone, T. E. and Levett-Jones, T. (2018) 'Cultural factors influencing Japanese nurses' assertive communication. Part 1: Collectivism.', Nursing & health sciences. Australia, 20(3), pp. 283–288. doi: https://dx.doi.org/10.1111/nhs.12411.

Onakoya, O. A., & Moses, C. L. Effect of System Factors on Whistleblowing Attitude of Nigerian Banks Employees: A Conceptual Perspective. 3rd International Conference on African Development Issues 2016;(300-307). Ota: Covenant University Press.

O'Reilly, M., & Parker, N. (2013). Unsatisfactory saturation: A critical exploration of the notion of saturated sample sizes in qualitative research. Qualitative Research, 13, 190–197.

Padilla-Díaz, M. (2015) 'Phenomenology in Educational Qualitative Research: Philosophy as Science or Philosophical Science?', International Journal of Educational Excellence, 1(2), pp. 101–110. doi: 10.18562/ijee.2015.0009.

Pannick S, Archer S, Johnston MJ, Beveridge I, Long SJ, Athanasiou T, Sevdalis N. (2017). Translating concerns into action: a detailed qualitative evaluation of an interdisciplinary intervention on medical wards. BMJ Open. https://doi.org/10.1136/bmjopen-2016-014401

Paradiso, L., Sweeney, N. (2019). Just culture: It's more than policy. Nursing Management (Springhouse) 50(6): p 38-45. | DOI: 10.1097/01.NUMA.0000558482.07815.

Paré G., Trudel M.-C., Jaana M., Kitsiou S. (2015). Synthesizing information systems knowledge: A typology of literature reviews. Information & Management. 52(2):183–199

Park H, Blenkinsopp J, Oktem MK, Omurgonulsen U. Cultural orientation and attitudes toward different forms of whistleblowing: A comparison of South Korea, Turkey, and the U.K. J Bus Ethics. 2008;82(4):929–39.

Pasick RJ, D'Onofrio CN, Otero-Sabogal R. (1996). Similarities and differences across cultures: Questions to inform a third generation for health promotion research. Health Education Quarterly.23:S142–S161

Patton, M.Q. 1990: Qualitative evaluation and research methods, second edition. Sage.

Patton, M.Q. (1997) Utilisation – Focused Evaluation (3rd edition), Newbury Park, CA: Sage.

Paul M, Street C, Wheeler N, Singh SP. (2015). Transition to adult services for young people with mental health needs: a systematic review. Clinical Child Psychology Psychiatry.20(3):436–57

Pawson R. (2006). Evidence-based policy: a realist perspective. London: SAGE Publications.

Pearson A. (2004) Balancing the evidence: Incorporating the synthesis of qualitative data into systematic reviews. JBI Reports 2: 45-64

Pearson A., Wiechula R., Court A., Lockwood C. (2005). The JBI model of evidence-based healthcare. https://doi.org/10.1111/j.1479-6988.2005.00026.x

Peters MD, Godfrey CM, Khalil H, McInerney P, Parker D, Soares CB (2015) Guidance for conducting systematic scoping reviews. International Journal of Evidence-Based Healthcare 13(3), pp. 141-146. doi: 10.1097/Xeb.000

Pohjanoksa, J. et al. (2019) 'Wrongdoing and whistleblowing in health care', Journal of Advanced Nursing, 75(7), pp. 1504–1517. doi: 10.1111/jan.13979.

Pope C, Ziebland S, Mays N. Qualitative research in health care. Analysing qualitative data. BMJ. 2000 Jan 8;320(7227):114-6. doi: 10.1136/bmj.320.7227.114.PMID: 10625273; PMCID: PMC1117368.

Raemer, D. B. et al. (2016) 'Improving Anesthesiologists' Ability to Speak-up in the Operating Room: A Randomized Controlled Experiment of a Simulation-Based Intervention and a Qualitative Analysis of Hurdles and Enablers.', Academic medicine : journal of the Association of American Medical Colleges. United States, 91(4), pp. 530–539. doi: https://dx.doi.org/10.1097/ACM.0000000000001033.

Rainer, J. (2015) 'Speaking-up: factors and issues in nurses advocating for patients when patients are in jeopardy.', Journal of nursing care quality. United States, 30(1), pp. 53–62. doi: https://dx.doi.org/10.1097/NCQ.0000000000000081.

Rauwolf P, Jones A. Exploring the utility of internal whistleblowing in healthcare via agent-based models. BMJ Open. 2019;9(1).

Resnicow, K., Baranowski, T., Ahluwalia, J. S., & Braithwaite, R. L. (1999). Cultural Sensitivity in Public Health: Defined and Demystified. Ethnicity & Disease, 9(1), 10–21. http://www.jstor.org/stable/45410142

Riessman, C. K. (1993). Narrative analysis. Newbury Park, CA: SAGE Publishing, Inc.

Richard, A., Pfeiffer, Y. and Schwappach, D. D. L. (2017) 'Development and Psychometric Evaluation of the Speaking-up About Patient Safety Questionnaire.', Journal of patient safety. United States. doi: https://dx.doi.org/10.1097/PTS.0000000000000415.

Roberts M, Mogan C, Asare JB. An overview of Ghana's mental health system: Results from an assessment using the World Health Organization's Assessment Instrument for Mental Health Systems (WHO-AIMS). Int J Ment Health Syst. 2014;8(1):1–13.

Robey D, Keil M. Blowing the whistle on troubled software projects. Commun ACM. 2001; 44 (4):87–93.

Roh H, Park SJ, Kim T. Patient safety education to change medical students' attitudes and sense of responsibility. Med Teach [Internet]. 2015; 37(10):908–14. Available from: http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=med11&NEWS=N&AN=25336257

Roncarolo F., Boivin A., Denis JL., Hébert R. & Lehoux P (2017) What do we know about the needs and challenges of health systems? A scoping review of the international literature. BMC Health Services Research 17:636 DOI 10.1186/s12913-017-2585-5

Rooney P. (2005) Researching from the Inside, Does it Compromise Validity: a Discussion. Level 3, Vol. 3, Issue. 1, Art. 4

Sabogal, F., Otero-Sabogal, R., Pasick, R., Jenkins, C., & Perez-Stable, E. (1996). Printed health education materials for diverse communities: Suggestions learned from the field. Health Education Quarterly, 23 (Supplement), S123 –S141

Samuel Craig, C. and Douglas, S.P. (2006), "Beyond national culture: implications of cultural dynamics for consumer research", International Marketing Review, Vol. 23 No. 3, pp. 322-342. https://doi.org/10.1108/02651330610670479

Sandelowski, M. (2000) 'Focus on research methods: Whatever happened to qualitative description?', Research in Nursing and Health, 23(4), pp. 334–340. doi: 10.1002/1098-240X(200008)23:43.0.CO;2-G.

Saunders B, Sim J, Kingstone T, Baker S, Waterfield J, Bartlam B, Burroughs H, Jinks C. (2018). Saturation in qualitative research: exploring its conceptualization and operationalization. Qual Quant. 2018;52(4):1893-1907. doi: 10.1007/s11135-017-0574-8. Epub 2017 Sep 14. PMID: 29937585; PMCID: PMC5993836.

Savage C, Gaffney FA, Hussain-Alkhateeb L, Olsson Ackheim P, Henricson G, Antoniadou I, et al (2017). Safer paediatric surgical teams: a 5-year evaluation of crew resource management implementation and outcomes. Int J Qual Health Care. 29:853–60. https://doi.org/10.1093/intqhc/mzx113

Schlesinger EG, Devore W. (1995). Ethnic sensitive social work practice: the state of the art. J Sociol Soc Welfare.22(special issue): 29 - 58

Schwappach D, Richard A. Speak-up-related climate and its association with healthcare workers' speaking-up and withholding voice behaviours: a cross-sectional survey in Switzerland. BMJ Qual Saf [Internet]. 2018;27(10):827–35. Available from: http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=medl&NEWS=N&AN=29572300

Schwappach DLB, Gehring K. Frequency of and predictors for withholding patient safety concerns among oncology staff: a survey study. Eur J Cancer Care (Engl) [Internet].

2015;24(3):395–403. Available from: http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=med11&NEWS=N&AN=25287114

Schwappach DLB, Gehring K. (2014). 'Saying it without words': a qualitative study of oncology staff's experiences with speaking-up about safety concerns. BMJ Open. 4:e004740. doi: 10.1136/bmjopen-2013-004740

Schwappach, D. and Richard, A. (2018) 'Speak-up-related climate and its association with healthcare workers' speaking-up and withholding voice behaviours: A cross-sectional survey in Switzerland', BMJ Quality and Safety, 27(10), pp. 836–843. doi: 10.1136/bmjqs-2017- 007388.

Schwappach, D. et al. (2018) 'Speaking-up behaviours and safety climate in an Austrian university hospital.', International journal for quality in health care : journal of the International Society for Quality in Health Care. England, 30(9), pp. 701–707. doi: https://dx.doi.org/10.1093/intqhc/mzy089.

Schwappach, D. L. B. (2018) 'Speaking-up about hand hygiene failures: A vignette survey study among healthcare professionals.', American journal of infection control. United States, 46(8), pp. 870–875. doi: https://dx.doi.org/10.1016/j.ajic.2018.02.026.

Schwappach, D. L. B. and Gehring, K. (2015) 'Frequency of and predictors for withholding patient safety concerns among oncology staff: a survey study.', European journal of cancer care. England, 24(3), pp. 395–403. doi: https://dx.doi.org/10.1111/ecc.12255.

Schwappach, D. L. B. B. and Gehring, K. (2014) 'Silence that can be dangerous: a vignette study to assess healthcare professionals' likelihood of speaking-up about safety concerns.', PloS one. United States, 9(8), p. e104720. doi: https://dx.doi.org/10.1371/journal.pone.0104720.

Siemsen, E., Roth, A. V., Balasubramanian, S., & Anand, G. (2009). The influence of psychological safety and confidence in knowledge on employee knowledge sharing. Manufacturing & Service Operations Management, 11(3), 429–447.

Siewert, B. et al. (2018) 'Barriers to Safety Event Reporting in an Academic Radiology Department: Authority Gradients and Other Human Factors.', Radiology. United States, 288(3), pp. 693–698. doi: https://dx.doi.org/10.1148/radiol.2018171625.

Silva B. M., Rodrigues J. J., de la Torre Díez I., López-Coronado M., Saleem K. (2015). Mobile health: A review of current state in 2015. Journal of Biomedical Informatics.56:265–272.

Silverman, D. (2006). Interpreting Qualitative Data: Methods for Analysing Talk, Text and Interaction. Los Angeles, CA: Sage Publications.

Slawomirski L, Auraaen A, Klazinga N. The economics of patient safety - Strengthening a value-based approach to reducing patient harm at national level: Organisation for Economic Co-operation and Development OECD Health Working Papers; 2017.

Slawomirski L, Klazinga N. (2020). The economics of patient safety: from analysis to action. Paris: Organisation for Economic Co-operation and Development; 2020 (http://www.oecd.org/health/health-systems/Economics-of-Patient-Safety-October-2020.pdf, accessed 3 December 2023).

Sluss, D.M., & Ashforth, B.E. (2007). Relational Identity and Identification: Defining Ourselves Through Work Relationships. Academy of Management Review, 32, 9-32.

Smith, J. A., Flowers, P., & Larkin, M. (2009). Interpretative phenomenological analysis: Theory, method and research. London: Sage.

Smith, Vicki L. (1993) When prior knowledge and law collide. Law Hum Behaviour 17, 507–536. https://doi.org/10.1007/BF01045071

Stake R. E. (1995). The art of case study research. Thousand Oaks, CA: Sage.

Stanley M. (2015). Qualitative description: A very good place to start. In Nayar S., Stanley M. (Eds.), Qualitative research methodologies for occupational science and therapy (pp. 21–36). New York: Routledge.

Stanfield, J. H., II. (1994). Ethnic modelling in qualitative research. InN. K. Denzin & Y. S. Lincoln (Eds.), Handbook of qualitative inquiry (pp. 175-188). Newbury Park, CA: Sage.

Sur, M. D. et al. (2016) 'Young surgeons on speaking-up: when and how surgical trainees voice concerns about supervisors' clinical decisions.', American journal of surgery. United States, 211(2), pp. 437–444. doi: https://dx.doi.org/10.1016/j.amjsurg.2015.10.006.

Szymczak, J. E. (2016) 'Infections and interaction rituals in the organisation: clinician accounts of speaking-up or remaining silent in the face of threats to patient safety.', Sociology of health & illness. England, 38(2), pp. 325–339. doi: https://dx.doi.org/10.1111/1467-9566.12371.

Tangirala S, Rangaraj R. Exploring Nonlinearity in Employee Voice : The Effects of Personal Control and Organizational Identification Author (s): Subrahmaniam Tangirala and Rangaraj

Ramanujam Published by : Academy of Management Stable URL : https://www.jstor.org/stable/4039026. 2008;51(6):1189–203.

Tarrant, C. et al. (2017) 'A qualitative study of speaking out about patient safety concerns in intensive care units.', Social science & medicine (1982). England: Elsevier Ltd, 193, pp. 8–15. doi: https://dx.doi.org/10.1016/j.socscimed.2017.09.036.

Tetteh, I.K., Jones A., Kelly D., Courtier N., (2022). Speaking-up for patient safety: A scoping narrative review of international literature and lessons for radiography in Ghana and other resource-constrained settings. Radiography. https://doi:10.1016/j.radi.2022.06.018

The Ghana Health Services (GHS (1992). The Patient's Charter. Accra, Ghana.

The Society and College of Radiographers. Shortage of therapeutic radiographers will have "critical effect" if decisive action is not taken to recruit more [Internet]. 2018. Available from: https://www.sor.org/news/import/shortage-of-therapeutic-radiographers-will-have-cr

Tricco AC, Lillie E, Zarin W, et al (2018). PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. Ann Intern Med. 2018;169(7): 467-473. doi: 10.7326/M18-0850

Tummers, L., & Karsten, N. (2012). Reflecting on the Role of Literature in Qualitative Public Administration Research: Learning from Grounded Theory. Administration & Society, 44(1), 64-86. https://doi.org/10.1177/0095399711414121

UNESCO (2001). UNESCO Universal Declaration on Cultural Diversity. Paris: UNESCO. https://www.un.org/en/events/culturaldiversityday/pdf/127160m.pdf

Virginia Braun & Victoria Clarke (2006) Using thematic analysis in psychology, Qualitative Research in Psychology, 3:2, 77-101, DOI: 10.1191/1478088706qp063oa.

Walker, J. L. (2012). The use of saturation in qualitative research. Canadian Journal of Cardiovascular Nursing, 22(2), 37–46.

Wachter, R. M. (2013). Personal accountability in healthcare: Searching for the right balance. BMJ Quality & Safety, 22(2), 176–18. http://dx.doi.org/10.1136/bmjqs-2012-001227

Wallin, A. et al. (2019) 'Radiographers' experience of risks for patient safety incidents in the radiology department', Journal of Clinical Nursing, 28(7–8), pp. 1125–1134. doi: 10.1111/jocn.14681.

Weiss, R.S. (1994) Learning from Strangers: The Art and Methods of Qualitative Interview Studies. The Free Press, New York.

Weiss M, Kolbe M, Grote G, Spahn DR, Grande B (2017). Why didn't you say something? Effects of after-event reviews on voice behaviour and hierarchy beliefs in multi-professional action teams. European J Work Organ Psychology. (2017) 26:66–80. doi: 10.1080/1359432X.2016.1208652

Weller, J. M. and Long, J. A. (2019) 'Creating a climate for speaking-up.', British journal of anaesthesia. England ([Comment on: Br J Anaesth. 2019 Jun;122(6):767-775; PMID: 30916005 [https://www.ncbi.nlm.nih.gov/pubmed/30916005]]), 122(6), pp. 710–713. doi: https://dx.doi.org/10.1016/j.bja.2019.03.003.

Whitlock E. P., Lin J. S., Chou R., Shekelle P., Robinson K.A. (2008). Using existing systematic reviews in complex systematic reviews. Annals of Internal Medicine.148(10):776–782

WHO Regional office for Africa. Global Action Plan Signatory Agencies back Ghana's Health Financing Reforms 2019 [Internet]. Available from: https://www.who.int/news-room/feature-stories/detail/global-action-plan-signatory-agencies-back-ghana-s-health-financing-reforms. Date accessed: August 2, 2020.

WHO. Patient safety: global action on patient safety, 2019. Available: https://apps.who.int/iris/bitstream/handle/10665/327526/B144_29-en.pdf?sequence=1&isAllowed=y

WHO. World patient safety day; (2021). 2 WHO. Global patient safety action plan 2021–2030: towards eliminating avoidable harm e health care, 2021. Available: https:// www.who.int/publications/i/item/9789240032705

WHO Fact Sheets (2023). https://www.who.int/news-room/fact-sheets/detail/patient-safety Accessed 3rd December 2023.

Yin, R.K. (2009) Case Study Research. Design and Methods. Sage Publications, Thousand Oaks, 4th edition.

Yurtkoru, S. and Wozir, F. M. (2017) 'Organizational culture and intentions towards types of whistleblowing: the case of Turkey and Ethiopia', Press academia, 4(4), pp. 527–539. doi: 10.17261/pressacademia.2017.759

APPENDICES

APPENDIX 1 - Charting of literature review process

AUTHOR	TITLE	PAPER TYPE	YEAR	LOCATION	POPULATION	AIM	METHODS & ANALYSIS
Jones & Kelly	Deafening Silence? Time to Reconsider whether organisations are deaf or silent when things go wrong	Commentary	2014	England	NHS staff	To argue that solely focussing on whistleblowing or silence misrepresents actual events and often over-simplifies an inherently complex set of actions and interactions.	Literature Review

Landgren et al	Barriers of Paediatric Residents to Speaking Up about Patient Safety	Research	2016	America	Paediatric Residents	1. To examine the reasons reported by paediatric residents for not speaking up about safety events when they observed in practice. 2. To test a prior hypothesis of associations between categories of barriers to speaking up with perceptions of safety and teamwork culture.	Anonymous electronic survey measuring safety and teamwork culture along with an open-ended question **Thematic Analysis**	Quantitative (Cross-sectional survey)	This study concluded that paediatric residents reported individual barriers, personalsafety concerns, lack of efficacy, and contextual factors as reasons to not speak up about patient safety. They also correlated concerns about the safety of speaking up and the efficacy of speaking with teamwork and safety culture respectively.

Lyndon etal	Predictors of Likelihood of speaking up about safety concerns in labour and delivery	Research	2012	America	Registered nurses and obstetricians in two US Labour & Delivery units (maternity care)	To explore factors that may predict whether clinicians speak up in the face of safety concerns, using a new measure.	survey (scenario-based measure) cognitive interviews Analysis: Descriptive statistics	Quantitative (Cross-sectional survey)	The study found that nurses and physicians differed in their harm ratings, andrating was a predictor of speaking up. They asserted that this may partially explain persistent discrepancies between physicians and nurses in
									teamwork climate scores. They further stated that differing assessments of potential harms inherent in everyday practice may be a target for teamwork intervention in maternity care.

Hall et al	Speaking Up: Fostering Silence breaking through leadership	Research	2018	America	Nurses from a mid-size community	To explore how hospitals can better support nurses to speak upwhen they have a concern for the overall purpose of improving clinical outcomes and reducing medical errors.	Employee engagement survey and semi-structured interviews Phenomenological approach	A mixed method approach Thematic Analysis	This study asserted that nurses are more likely to speak up to leaders who behave professionally and respectfully. They also suggested that nurses are more likely to speak upwhen they feel their leaders are listening to them and their input is valued.
Hanson et al	'Speaking up for safety': A graded assertiveness intervention for first year nursing students in preparation	Research	2020	Australia	535 Nursing students at a regional university inSouth-east Queensland	To elicit student and staff perspectives on the quality, effectiveness and appropriateness of an assertiveness-based communication	An evaluation survey with seven qualitative questions and individual semi-structured interviews	A qualitative Thematic analysis	The results of the intervention indicated that teaching assertiveness skills and establishing a preparatory framework for 'speaking up for

	for clinical placement: Thematic analysis					activity prior to clinical placement			safety' early in a nursing students' tertiary education can have important psychosocial implications for their confidence, empowerment and success.
Antwi-Bosiako	Why People Refuse to Blow the Whistle in Ghana	Commentary	2018	Ghana	Ghanaian public sector employees	To understand why people do not blow the whistle against wrongdoers in the Ghanaian public sector even when they have admissible evidence	A Literature and Documentary Review	A qualitative study	The study recommended an enforcement of rules and regulations governing whistle blowing in Ghana and theneed for whistle-blowers to put the Whistle- blowers Act to test when their rights are trampled upon after they blow the whistle.

Gagnon	Whistleblowing: A concept analysis	Review	2019	Canada		To address the conceptual gap in whistleblowing and raise some critical questions about the future application of the concept in nursing,including potential opportunities and limitations.	A concept analysis Rodgers' concept analysis method	A qualitative study	The analysis identified a number of antecedents, attributes, and consequences of whistleblowing in nursing. It also revealed three areas needing more attention: the concept itself,

									organisational culture, and research into the complexities of whistleblowing

Ndebugri	Examining the Whistleblowing Act of Ghana and its effectiveness in combating corporate crime	Research	2018	Ghana	100 public institutions in the 10regions of Ghana	To deeply investigate the structural dynamics of corporate crimes in public institutions which are recognized and recorded in the criminal records of Ghana and the effectiveness of the Whistleblowing Act to curb the menace.	questionnaires	A qualitative case study approach	The study established that unethical conduct such as embezzlement, theft, fraud and illegal acquisition of public assets are rife in public institutions. The study also suggested that whistleblowing is likely the best tool in dealing with corporate crimes mentioned above with positive outcomes such as protection of informants, increase in reserves, transparency and accountability.

Schwappach et al	'Saying it without words': a qualitative study of oncology staff's experiences with speaking up about safety concerns	Research	2014	Switzerland	Oncology staff	To explore the experiences of oncology staff with communicating safety concerns and to examine situational factors and motivations surrounding the decision whether and how to speak up using semi structured interviews	semi structured interviews. An inductive thematic analysis framework	A qualitative approach	The results of this study indicated a culture to discuss any concerns relating to medication safety while other issues are more difficult to voice. Clinicians devote considerable efforts to evaluate the situation and sensitively decide whether and how to speak up.

Sur et al	Young surgeons on speaking up: when and how surgical trainees voice concerns about supervisors' clinical decisions.	Research	2016	America	surgeons	To assess the factors affecting surgical trainees' management of concerns about supervisors' plans	Semi-structured interviews	A qualitative approach	This study concluded that several factors affect surgical trainees' management of concerns about supervisors' plans. They further concluded that atailored curriculum addressing strategies to raise concerns appears warranted to optimize patient safety.

Schwappach & Richard	Speak up-related climate and its association with healthcare workers' speaking up and withholding voice behaviours:a cross-sectional survey in Switzerland	Research	2018	Switzerland	doctors and nurses	To determine frequencies of healthcare workers (HCWs) speak up-related behaviours and the association of speak up-related safety climate with speaking up and withholding voice.	Cross-sectional survey of doctors and nurses. Data were analysed using multilevel logistic regression models	A quantitative approach	This study indicates that a poor climate, in particular high levels of resignation among HCWs, is linked to frequent 'silence'of HCWs but not inversely associated with frequent speaking up. Interventions addressing safety-related voicing behaviours should discriminate between withholding voice and speaking up.

Schwappach & Gehring	Silence That Can Be Dangerous: A Vignette Study to Assess Healthcare Professionals' Likelihoodof Speaking up about Safety Concerns	Research	2014	Switzerland	nurses and doctors	To investigate the likelihood of speaking up about patient safety in oncology and to clarify the effect of clinical and situational context factors on the likelihood of voicing concerns.	Vignette Multiple regression analysis	A quantitative vignette approach	This study indicated that clinicians' willingness to speak up about patient safety is considerably affected by contextual factors. Physicians and nurses without managerial function report substantial discomfort with

									speaking up. Oncology departments should provide staff with clear guidance and trainings on when and how tovoice safety concerns.
Morrison & Milliken	Speaking Up, Remaining Silent: The Dynamics of Voice and Silence in Organizations	Commentary	2003	America	N/A	This issue is devoted to papers that, in one way or another, focus on the question of when and how people in organisational settings will choose voice and how and when they will choose silence.	N/A	N/A	Their results provide a complex picture of some of the variables that drive and inhibit employee voice. They also suggest that high and low self-monitors may attend to different information when deciding whether to speakup with ideas and concerns, and that they may use voice in fundamentally different ways.

Bolderston et al	Speaking Up: An International Comparison of the Willingness of Radiation Therapists to Report Errors in Clinical Practice	Research	2014	Canada	1500 Radiation therapists	To examine the error reporting culture or radiation therapists and dosimetrists in Canada and the United States	A survey Likert scale	A quantitative approach	Their results indicated poor communication, power differentials and fear or reprimand as obstacles to errorreporting among radiographers and radiation therapists.
Okuyama et al	Speaking up for patient safety by hospital-based health care professionals: a literature review.	Review	2014	Japan	healthcare professionals	This review focused on health care professionals' speaking-up behaviour for patient safety and aimed at (1) assessing the effectiveness of speaking up, (2) evaluating the effectiveness of speaking-up training, (3) identifying the factors influencing speaking-up behaviour, and (4) developing a model for speaking-up behaviour	A literature review	N/A	This study indicated that factors such as the perceived risk for patients, contextual factors, individual factors, perceived safety of speaking up, the perceived efficacy of speaking up, tactics and targets are contributing factors to speaking up behaviours of healthcare professionals.

Omura et al	Exploring Japanese nurses' perceptions of the relevance and use of assertive communication in healthcare: A qualitative study informed by the Theory of Planned Behaviour.	Research	2018	Japan	Japanese nurses	The aim of this study was to (a) explore nurses' perceptions of the relevance and use of assertive communication in Japanese healthcare environments; and (b) identify the factors that facilitate or impede assertive communication by Japanese nurses	semi-structured interviews	A belief elicitation qualitative approach	This study identified Japanese nurses' behavioural, normative, and control beliefs such as hierarchy, age- based seniority and team relationships that inhibit assertive communication.
Omura et al	Cultural factors influencing Japanese nurses' assertive communication. Part 1: Collectivism	Research	2018	Japan	registered nurses	The aim of the current study was to present the findings from a study that explore Japanese nurses' perceptions of how culture and values impact assertive communication in health care.	semi-structured interviews Directed content analysis	A qualitative approach	This study revealed the cultural influences such as harmony, implicit communication and groundwork on the assertiveness of nurses.

Attree	Factors influencing nurses' decisions to raise concerns about care quality	Research	2007	England	nurses	To explore factors that influence nurses' decisions to raise concerns about standards of practice.	Grounded theory approach semi-structured interviews	A qualitative approach	Findings of this study demonstrate fear of repercussions, retribution, labelling and blame for raising concerns, about which they predicted nothing would be

									done, were identified as disincentives to raising concerns.
Rainer	Speaking up: factors and issues in nurses advocating for patients when patients are in jeopardy	Commentary	2015	England	nurses	This article offers a re- view of various concepts and studies related to whether or not a nurse speaks up ina given situation and offers a new theory based on existing evidence.	A literature review	A qualitative approach	The paper demonstrates how generational, cultural and organisational factors affect speaking up behaviours of nurses.
Garon	Speaking up, being heard: Registered nurses' perceptions of workplace communicat ion	Research	2012	America	registered nurses	The aim of the present study was to explore nurses' perceptions of their own ability tospeak up and be heard in the workplace	focus group interviews Thematic content analysis	A qualitative approach	The study highlights the importance of nurse managers in creating the communication culture that will allow nurses to speak up and be heard.

Schwappach et al	Speaking Up about Patient Safety in Perioperative Care: Differences between Academic and Non-academic Hospitals in Austria and Switzerland.	Research	2019	Switzerland	nurses and doctors in perioperative care	the aim of this study was to compare speaking up-related climate and behaviours in academic and non-academic hospitals.	questionnaires (2 surveys)	Quantitative (Cross-sectional survey)	The study addressed differences in academic and non-academic hospitals in speaking up behaviours and demonstrated differences.

Omura et al	The effectiveness of assertiveness communication training programs for healthcare professionals and students: A systematic review.	Research	2017	Australia	review of literature	The objective of this review is to identify, appraise and synthesise the best available quantitative evidence in relation to the effectiveness of assertiveness communication training programs for healthcare professionals and students on levels of assertiveness, communication competence and impact on clinicians' behaviours and patient safety	a review of literature	N/A	They concluded that interventions to improve assertive communication were reported to be effective to some degree with all targeted groups except experienced anaesthesiologists.

Ng et al	Speaking out and speaking up in multicultural settings: A two-study examination of cultural intelligence and voice behaviour	Research	2019	Singapore		We further propose that cultural intelligence (CQ) mitigates this negative relationship and advance a mediated moderation model where the interactive effect of cultural distanceand CQ on voice is mediated by perceived voice instrumentality			They argued that while cultural diversity increases the value of employee voice to organizations,it could also dampen the display of voice.

Szymczak	Infections and interaction rituals in the organisation : clinician accounts of speaking up or remaining silent in the face of threats to patient safety.	Research	2016	America	clinicians	The study examines how clinicians talk about speaking up or not in the face of breaches in infection prevention technique.	interviews	Qualitative approach	Their study revealed three influences on the decision to speak up, shaped by background conditions in the organisation; mutual focus of attention, interactional path dependenceand the presenceof an audience, and hence suggesting that the decision to speak up in a clinical setting is dynamic, highly context-dependent, embedded in the interaction rituals that suffuse everyday work and constrained by organisational dynamics.

Weller et al	Improving the quality of administration of the Surgical Safety Checklist: a mixed methods study in New Zealand hospitals.	Research	2018	New Zealand	clinicians	Our specific aims were to: determine if OR staff can discriminate between good and poor quality of Checklist administration using a validated audit tool (WHOBARS); to determine reliability and accuracy of WHOBARS self-ratings; determine the influence of demographic variables on ratings and exploreOR staff attitudes to Checklist administration	interviews Thematic analysis	Mixed methods	The study showed that the WHOBARS tool could be useful for self-audit and quality improvement as OR staff can reliably discriminate between good and poor checklist administration. OR staff self- ratings were lenient comparedwith external observers suggesting the value of external audit for benchmarking.

Leonard, Graham & Bonacum	The human factor: the critical importance of effective teamwork and communication in providing safe care.	Commentary	2004	America	nurses	To discuss the tools and experiences in optimising successful implementation, and describe experiences in specific clinical areas	N/A	N/A	They describe specific clinical experience in the application of surgical briefings, properties of high reliability perinatal care, the value of critical event training and simulation, and benefits of a standardised communication process in the

									care of patients transferred from hospitals to skilled nursing facilities.

Law and Chan	The experience of learning to speak up:a narrative inquiry on newly graduated registered nurses.	Research	2015	China	newly graduated nurses	To explore the process of learning to speak up in practice among newly graduated registered nurses.	interviews	A qualitative narrative approach	Three threads identified: 1. Learning to speak up requires more than one-off training and safety tools, 2. Mentoring speaking up in the midst of educative and mis-educative experiences,3. Making public spaces safe for telling secret stories. Speaking up requires ongoing mentoring to see new possibilities for sustaining professional identities amid mis-educative experiences. Appreciative inquiry might be used to promote positive cultural changes to encourage newly graduated RNs to

									learn to speak up to ensure patient safety.
Milligan et al	Supporting nursing, midwifery and allied health professional students to raise concerns with the quality of care: A review of the research literature.		2017	England	review of literature	To review research on healthcare students raising concerns with regard to the quality of practice published from 2009 to the present	review of literature	A qualitative approach	They concluded that raising a concern with the quality of practice carries an emotional burden for the student as it maylead to sanctionssuch as bullying and harassment.

Fisher & Kiernan	Student nurses' lived experience of patient safety and raising concerns.	Research	2013	England	nursing students	This research study provides an insight into the factors that influence student nurses to speak up or remainsilent when witnessing sub- optimal care.,	interviews Hermeneutics: analysis	Interpretive Phenomenology (Qualitative)	Four key themes were identified: context of exposure, fear of punitive action, team culture and hierarchy. On the one hand, students recognised there was a professional obligation bestowed upon them to raise concerns if they witnessed sub-optimal practice, however, their willingness to do so was

									influenced by intrinsic and extrinsic factors. Students have to navigate their moral compass, taking cognisance of their own social identity and the identity of the organisations in which, they are placed.

Alingh, Carien W et al	Speaking up about patient safety concerns: the influence of safety managemen t approaches and climate on nurses' willingness to speak up.	Research	2019	The Netherlan ds	nurses	To explore the relationships between control-based and commitment-based safety management, climate for safety, psychological safety and nurses' willingness to speak up	survey	Quantitative (Cross-sectional survey)	Results provide initial support that nurses who perceive higher levels of commitment-based safety management feel safer to take interpersonal risks and are more willing to speak up about patient safety concerns. Furthermore, nurses' perceptions of control-based safety management are found to be positively related to a climate for safety, although no association

									was found with speaking up. Both control-based and commitment-based management approaches seem to be relevant for managing patient safety, but when it comes to encouraging speaking up, a commitment-based safety management approach seems to be most valuable.

Pattni et al	Challenging authority and speaking up in the operating room environment: a narrative synthesis	Research	2019	Canada			a narrative synthesis of literature	A qualitative approach	Themes emerging from expert beliefs, what reality tellsus and what we test are consistent. Hierarchy, organisational culture and education are the most frequently observed and tested themes. Simulation research has been successful in eliciting and confirming the

									role of specific barriers to speaking up. Barriers and enablers are largely modifiable withininstitutions however, education regarding the importance of speaking up will need to accompany these modifications for any significant changes to occur.

Edrees et al.	Examining influences on speakingup among critical care healthcare providers in the United Arab Emirates.	Research	2017	UAE	19 intensive care units	Assess perceived barriers to speaking up and toprovide recommendations for reducing barriers to reporting adverse events and near misses	survey thematic analysis open-ended questions	A quantitative approach	Barriers included perceptions of a culture of blame and issues with reporting procedures. Recommendatio ns to establish patient safety as an organizational priority included creating supportive environments to discuss errors, hiring staff to advocate for patient safety, and implementing policies to standardize

									clinical practices and streamline reporting procedures., Conclusions: Influences on reporting perceived by providers in the UAE were similar to those in the US and other countries. These findings highlight the roles of corporate leadership and regulators in developing non-punitive environments where reporting is a valuable and safe activity.

Anthea et al	A concept analysis of undergraduate nursing students speaking up for patient safety in the patient care environment.	Research	2016	Australia	nursing students	An analysis of the concept of nursing students speaking up for patient safety in the workplace.	The Walker and Avant concept analysis model	A qualitative concept analysis	Results indicate that nursing students speaking up behaviour is influenced by individual and contextual factors that differfrom those influencing more experienced colleagues. Motivators and barriers to voicing concerns

									include moral and ethical beliefs, willingness and confidence to speak up in the workplace. Students' subordinate and often vulnerable position creates additional tensions and challenges that impact their decisions and actions. This concept analysis provides a clear definition of 'speaking up' in relation to nursing students.The analysis will facilitate understanding and operationalization of the concept applied to learning and teaching, practice and research.

Lee et al	Undergraduate medical students' perceptions and intentions regarding patient safety during clinical clerkship.	Research	2018	Korea	medical students		face to face interviews	A cross-sectional (quantitative study)	Their study showed that many students had difficulty speaking up about medical errors. Error disclosure guidelines and educational efforts aimed at developing sophisticated communication skills are needed.

Etchegaray et al	Barriers to Speaking Up About Patient Safety Concerns.	Research	2017	America		We sought to examine the association between willingness of health-care professionals to speak up about patient safety concerns and their perceptions of two types of organizational culture (ie, safety and teamwork) and understand whether nursing professionals and other health-care professionals reported the same barriers to speaking up aboutpatient safety concerns.,	electronic survey	Mixed methods (Quantitative & Qualitative)	Results indicate that a little more than half (55%) of the participants mentioned leadership (fear of no change or retaliation) and personal (i.e., fear of negative feedback or being wrong) barriers concerning why they would not speak up about patient safety concerns. The remaining participants (45%) indicated they would always speak up. These findings

									about barriers were consistent across nurses and other health-care professionals. Health-care professionals emphasized leadership and personal barriers as reasons for not speaking up. We also demonstrated an association between not speaking up and lower safety and teamwork culture scores.

Martin et al	Making soft intelligence hard: a multi-site qualitative study of challenges relating to voice about safety concerns.	Research	2018	England	165 healthcare professionals	We aimed to examine the role of formal channelsin encouraging or inhibiting employee voice about concerns	semi-structured interviews	A qualitative study	They concluded that the legal and bureaucratic considerations that govern formal channels for the voicing of concerns may, perversely, inhibit staff from speaking up. Leaders responsible for quality and safety should consider complementing formal mechanisms with

									alternative, informal opportunities for listening to concerns
Martinezet al	Speaking up about traditional and professionalism-related patient safety threats: a national survey of interns and residents	Research	2017	America	1800 medical/surgical interns and residents	Compare interns' and residents' experiences, attitudes and factors associated with speaking up about traditional versus professionalism-related safety threats	questionnaires	Anonymous, cross-sectional survey	They concluded that interns and residents commonly observed unprofessional behaviour yet were less likely to speak up about it compared with traditional safety threats even when they perceived high potential patient harm. Measuring SUC-Safe, and particularly SUC-Prof, may fill an existing gap in safety culture assessment.

Schwappach	Speaking up about hand hygiene failures: A vignette survey study among healthcare professionals	Research	2015	Switzerland	HCPs in 5 Swiss hospitals	To investigate HCPs' likelihood to speak up	cross-sectional survey	A vignette survey (Quantitative)	They concluded that infection control interventions should empower HCPs to speak up about non-adherence with prevention practices by addressing authority

									gradients and risk perceptions and by focusing on resignation
Martinez et al	Speaking up' about patient safety concerns and unprofessio nal behaviour among residents: validation of two scales.	Research	2015	America	residents	To develop and test the psychometric properties of two new survey scales aiming to measure the extent to which the clinical environment supports speaking up about (a) patient safety concerns and (b) unprofessional behaviour.,	electronic survey	Quantitative (Cross-sectional survey)	They created and provided evidence for the reliability and validity of two measures (SUC-Safe and SUC- Prof scales) associated with self-reported speaking up behaviour among residents. These two scales may fill an existing gap in residency and safety culture assessments by measuring the openness of communication about safety and professionalism concerns, two important aspects of safety culture that are under-represented in existing metrics.

Jackson et al	Understanding whistleblowing: qualitative insights from nurse whistle-blowers.	Research	2010	Australia	11 nurse whistle-blowers	This paper is a report of a study conducted to explore the reasons behind thedecision to blow the whistle and provide insights into nurses' experiences of being whistle-blowers.,	in-depth semi-structured interviews	Qualitative narrative inquiry design.	They concluded that the whistleblowing nurses believed they were acting in accordance with a duty of care. There is a need for greater clarity about the role nurses have as patient advocates. Furthermore, there is need to develop clear guidelines that create opportunities for nurses to voice concerns and to ensure that healthcare systems respond in a timely and appropriate manner, and a need to foster a safe environment in which to raise issues of concern

Richard, Pfeiffer and Schwappach	Development and Psychometric Evaluation of the Speaking UpAbout Patient Safety	Research	2017	Switzerland	523 health workers from Swiss hospitals	The aim of this study was to develop a short questionnaire allowing HCOs to assess different aspects of speaking up	questionnaire descriptive statistics	Quantitative approach	They concluded that patient safety concerns, speaking up, and withholding voice were frequently reported. With this questionnaire,

	Questionnaire.					among healthcare staff			we present a tool to systematically assess and evaluate important aspects of speaking up in HCOs. This allows for identifying areas for improvement, and because it is a short survey, to monitor changes in speaking up- for example, before and after an improvement project.

Martinez et al	Measuring Moral Courage for Interns and Residents: Scale Development and Initial Psychometrics.	Research	2016	America	731 internal medicine and surgical interns	To develop a practical and psychometrically sound set of survey items that measures moral courage for physicians in the context of patient care.			The authors provided initial evidence for the reliability and validity of a measure of moral courage for physicians. The MCSP may help researchers and educators to tangibly measure physician moral courage as a concept, and track progress ona set of desired behaviours in response to curricular interventions

Pohjanoksa et al	Wrongdoing and whistleblowing in health care	Research	2019	Finland	226 healthcare professionals	To describe healthcare professionals' experiences of observed wrongdoing and potential whistleblowing acts regarding it. The main goal is to strengthen the whistleblowing process described based on the existing literature and to make it more visible for future research	electronic survey	A descriptive cross-sectional survey. (Quantitative)	Findings: The whistleblowing process in health care was strengthened, identifying the content of observed wrongdoings and whistleblowing acts regarding them. Three themes were identified: wrongdoing related to patients, healthcare professionals, and healthcare managers. Whistleblowing acts were performed internally, externally, or left undone. Three main paths: internal, external, and no whistleblowing, between an observation of wrongdoing and whistleblowing act were identified. Conclusion: The

									whistleblowing process should

									be further developed, and ethically effective programmes and interventions should be developed for increasing whistleblowing and preventing wrongdoing in health care

Dixon-Woods et al	Improving Employee Voice About Transgressive or Disruptive Behaviour: A Case Study.	Research	2019	England	67 individuals	aimed to understand barriers to voice and make improvements in identifying and responding to transgressive or disruptive behaviours.	confidential interviews	Qualitative case study approach	They concluded that the problems of giving voice are widely known across the organizational literature but are difficult to address. This case study offers an approach that includes diagnostic and intervention phases that may be helpful in remaking norms, facilitating employee voice, and improving organizational response. It highlights specific actions that are available for other

									organizations to adapt and test.
Lukewich et al	Undergraduate baccalaureat e nursing students' self-reported confidence in learning about patient safety in the classroom and clinical settings: an annual cross-sectional study (2010-2013).	Research	2013	Canada	university nursing students	The present study explores nursing students' self-reported confidence in learning about patient safety during their undergraduate baccalaureate nursing program.,	survey	Quantitative (survey) Cross-sectional study with a nested cohort component	Their findings suggest nursing students are confident in what they are learning about clinical aspects of patient safety, however, their confidence in learning about sociocultural aspects declines as they are increasingly exposed to the clinical environment. This suggests a need to address the impact of the practice environment on nursing students' confidence in what they are learning about patient safety

Ng et al	Speak-up culture in an intensive care unit in Hong Kong: a cross-sectional survey exploring the communicat ion openness perceptions of Chinese doctors and nurses.	Research	2017	China	80 ICU staff members	This study explored the communication openness perceptions of Chinese doctors and nurses and identified their perceptions of issues in ICU communication, their reasons for speaking up and the possible factors and strategies involved in promoting the practice of speaking up.	interviews /surveys	Mixed methods approach	They concluded that creating an atmosphere of safety and equality in which team members feel confident in expressing their personal views without fear of reprisal or embarrassment is necessary to encourage ICU staff members, regardless of their position, tospeak up. Because harmony and saving face is valued in Chinese culture, training nurses and doctors to speak up by focusing on human factors and values ratherthan simply addressing conflict management is desirable in this context.

Raemer et al	Improving Anaesthesiologists' Ability to Speak Up in the Operating Room: A Randomized Controlled Experiment of a Simulation-Based Intervention and a Qualitative Analysis of Hurdles and Enablers.	Research	2016	America	Practising non-trainee anaesthesiologists	The authors addressed three questions: (1) Would a realistic simulation-based educational intervention improve speaking-up behaviours of practicing non-trainee anaesthesiologists ? (2) What would those speaking-up behaviours be when the issue emanated from a surgeon, a circulating nurse, or an anaesthesiologist colleague? (3) What were the hurdles and enablers to speaking up in those situations	a simulation-based randomized controlled experiment	Randomized controlled experiment	The results showed no statistically significant differences between the intervention and control group subjects with respect to speaking-up actions were observed in any of the three events. The five most frequently mentioned hurdles to speaking up were uncertainty about the issue, stereotypes of others on the team, familiarity with the individual, respect for experience, and the repercussion expected. The five most frequently mentioned enablers were realizing the speaking-up problem, having a speaking-up rubric, certainty

									about the

									consequences of speaking up, familiarity with the individual, and having a second opinion or getting help. An educational intervention alone was ineffective in improving the speaking-up behaviours of practicing non-trainee anaesthesiologists. Other measures to change speaking-up behaviours could be implemented and might improve patient safety.

Omura et al	Evaluating the impact of an assertiveness communication training programme for Japanese nursing students: A quasi-experimental study.	Research	2019	Japan	150 third year Japanese nursing students	To examine the impact of an assertiveness communication training programme on Japanese nursing students' level of assertiveness and intention to speak up when concerned about patient safety.,	survey	A quasi-experimental approach with two parallel groups	The results demonstrated that the programme had a positive impact on levels of assertiveness, perceived behavioural control and attitudes towards assertive communication and suggested

									that these types of interventions have the potential to improve nursing students' assertive communication skills and ultimately patient safety. However, future studies should focus on patient safety as a motivator of behaviour change, as well as the impact of ongoing training and evaluation of transfer to practice.

Bickhoff	Rocking the boat - nursing students' stories of moral courage: A qualitative descriptive study	Research	2016	Australia	Nine nursing students and one nursing graduate from one semi-metropolitan university in Australia	This paper profiles a qualitative study that examined how undergraduate nursing students demonstrate moral courage when confronted with clinical situations that negatively impact the quality of patient care and/or patient experience and the factors that encouraged or inhibited their willingness to speak up when they identified poor practice.	interviews	a qualitative descriptive study.	FINDINGS: Four key themes emerged: (1) patient advocate identity, which had two sub-themes of knowing one's own moral code and previous life experiences; (2) consequences to the patient and to the participant; (3) the impact of keyindividuals; and (4) picking your battles. This study demonstrates the importance of undergraduate nursing students identifying as patient advocates, the multitude of consequences students face when questioning the practice of a registered nurse, and the influence supervising nurses and clinical facilitators have on a student's

									decisions to intervene to protect patient safety. Further research is required to examine the factors, both intrinsic and extrinsic, that influence nursing students' moral courage and their decisions to intervene when poor practice is witnessed.
Schwappach et al	Speaking up behaviours and safety climate in an Austrian university hospital.	Research	2018	Austria	2149 healthcare workers	To analyse speaking up behaviour and safety climate witha validated questionnaire for the first time in an Austrian university hospital.	questionnaires descriptive statistics	Quantitative (Cross-sectional survey)	They identified speaking up behaviours for the first time in an Austrian university hospital. Only moderately frequent concerns were in conflict with frequent speaking up behaviours. These results clearly show that a paradigm shift is needed to increase speaking up culture.

Yurtkoru & Wozir	Organizational culture and intentions towards types of whistleblowing: the case of Turkey and Ethiopia	Research	2017	Turkey	528 employees	Hence, this study explores whistleblowing and the contribution of organizational culture (OC) types on different modes of whistleblowing intentions in Ethiopia along with cross-cultural comparison of the theoretical model in Turkey.	questionnaires	Quantitative	Findings- Analyses revealed that hierarchical culture significantly and positively contributed to external, anonymous, and formal whistleblowing. Alternatively, clan culture had significant positive contribution to internal and informal whistleblowing, and negative contribution to external whistleblowing. However, there were significant variations in terms of nationality. Conclusion- The dominant values and beliefs embedded within the culture of an organization tend to predict the most likely preferred and accepted

									methods of

									whistleblowing in that particular organization

Siewert etal	Barriers to Safety Event Reporting in an Academic Radiology Department : Authority Gradients and Other Human Factors	Research	2018	USA	648 radiographers	To investigate barriers to reporting safety concerns in an academic radiology department and to evaluate the role of human factors, including authority gradients, as potential barriers to safety concern reporting.	questionnaires	Quantitative (cross-sectional survey)	human factors are important barriers to safety event reporting in an academic radiology department and con- tribute to nonreporting in 50% of respondents. The most commonly reported barriers to speaking up included a high reporting threshold, reluctance to challenging authority, fear of disrespect, and lack of listening. To pursue 100% reporting of safety events, efforts to address underreporting will need to include strategies directed toward elimination of those human factor barriers as well as flattening of authority gradients.

Ohnishi et al	The Process of Whistleblowing in a Japanese Psychiatric Hospital	Research	2008	Japan	2 nursing staff members	This study aims to unveil the process of whistleblowing	interviews Analysis: Grounded theory	A qualitative study	Findings demonstrated that the nurses did not often blow the whistle on an awareness or suspicion of wrongdoing. They continued to work, driven by appreciation, affection, and a sense of duty. Their decision to whistle blow was ultimately motivated by firm conviction.

Adebisi and Love	Effect of System Factors on Whistleblowing Attitude of Nigerian Banks Employees: A Conceptual Perspective	Commentary	2016	Nigeria	bank employees	To develop a conceptual framework on whistleblowing reporting attitude of bank employees in Nigeria	N/A	N/A	This conceptual framework examined the whistleblowing decision-making process, and thereby provides opportunities for organisations to identify the predictors of reporting intention with a view to implementing appropriate measures to strengthen the variables positively affecting whistleblowing

									intentions, while at the same time adopting appropriate measures to address the hindrances to whistleblowing practice.
King	The implications of differences in cultural attitudes and styles of communicat ion on peer reporting behaviour	Commentary	2000	America	employees in the business sector	To suggest that differences in cultural attitudes and styles of communication may affect reports of unethical behaviour by employees.	N/A	N/A	This article provides the first starting point in examining how cultural diversity may influence reports of wrongdoing among employees. Although the suggestions forwarded have not been empirically examined, the research presented does provide some insight into the effects of cultural attitudes and styles of communication on peer reporting.

Blenkinsopp et al.	Whistleblowing over patient safety and care quality:a review of the literature.	Review	2019	England	healthcare professionals	To review existing research on whistleblowing in healthcare in order to develop an evidence base for policy and research.	N/A	A narrative literature review	The authors identify valuable insights on the factors that influence healthcare whistleblowing, and how organizations respond.
Lockett	Defining Peer-to-Peer Accountability From the Nurse's Perspective	Research	2015	America	nurses	The aim of this study was to define and createa conceptual model for peer-to- peer accountability(P to PA)	A grounded theory study design interview	A qualitative approach	This study concluded that peer-to-peer accountability is the professional responsibility of every nurse and healthcare provider and is essential for safe patient care. The conceptual definition facilitates actualization of P to PA in practice.
Tangirala & Ramanuja m	Exploring Nonlinearity in Employee Voice: The Effects of Personal Control and Organizational Identificatio n	Research	2008	America	586 nurses	To investigate the relationship between personal control - employees' perceptions of autonomy and impact at work - and voice - employees' expression of challenging			When personal control was low, voice was lower for employees with stronger identification. When personal control was high, voice was higher for employees with stronger identification

Maxfield et al	The Silent Treatment: Why Safety Tools and Checklists Aren't Enough to Save Lives	Research	2011	America	nurses	To examine the calculated decisions by nurses to not speak up.	Two survey instruments were employed: a Story Collector and a Traditional Survey	Mixed methods	The data in this study reveals that caregivers, including nurse managers, are often unable to accomplish this level of candour. As a result, they either clam up or blow up. They fail to have an influence; and patients are harmed.

Francis	Freedom to speak up: an independent review into creating an open and honest reporting culture in the NHS	Review	2015	England	NHS staff	to provide advice and recommendations to ensure that NHS staff in England feel it is safe to raise concerns, confident that they will be listened to and the concerns will be acted upon.	N/A	N/A	Two recommendations were made in this review. 1. All organisations which provide NHS healthcare and regulators should implement the Principles and Actions set out in this report in line with the good practice described in this report 2. The Secretary of State for Health should review at least annually the progress made in the implementation

									of these Principles and Actions and the performance of the NHS in handling concerns and thetreatment of those who raise them, and report to Parliament
Ahern and McDonald	The beliefs of nurses who were involved in a whistleblowing event	Research	2002	Australia	nurses	The aim of this study was to explore the beliefs of nurses who wrestled with this ethical dilemma	survey	A quantitative descriptive survey design	The findings of this study indicate that nurses may respond to ethical dilemmasbased on different belief system

Morrow, Gustavson and Jones	Speaking Up Behaviours (Safety Voices) of Healthcare Workers: A Metasynthesis of Qualitative Research Studies	Review	2016		nurses	To develop an understanding of how nurses and other healthcare workers relate to safety voice behaviours and how this might influence clinical practice.	social constructivist approach with thematic analysis.	Qualitative interpretive meta-synthesis	Healthcare workers worldwide report multiple social and hierarchy related fears surrounding the utilization of safety voice behaviours. Hesitance to speak up is pervasive among nurses, as is low self-efficacy related to safety voice. The presence of caring leaders,

									peer support, and an organizational commitment to safe, open cultures, may improve safety voice utilization among nurses and other healthcare workers
Jackson et al	Understanding whistleblowing: qualitative insights from nurse whistle-blowers	Research	2010	Australia	18 Australian nurses with first-hand experience of whistle blowing. Varied levels of experience, training, and qualification	To reveal the experiences and meaning of confidentiality for Australian nurses in the context of whistle blowing	Face-to-face semi-structured interviews in private setting or by telephone	Qualitative Narrative	Four emergent themes: 1. Confidentiality as enforced silence, 2.Confidentiality as isolating and marginalizing, 3.Confidentiality as creating a rumour mill, 4.Confidentiality in the context of the public's right to know .Interpretation and application of confidentiality influences whistle blowing in healthcare services and can be a protective mechanism for healthcare institution.

APPENDIX 2 - Regional sample distribution

Study Site	**Geographical Location**	**Key Characteristics of Study Sites**	**No. o radiographer interviewed in teachin hospitals**
A	South	*Highest population of professionals as it is Ghana's capital city. *Houses the largest teaching hospital in Ghana which serves as clinical training centre for healthcare professionals including radiographers. *Has the highest concentration of public and private hospitals in Ghana. *All the policy makers in the healthcare sector are based in this city. *Has the highest concentration of public and private hospitals in Ghana.	4
B	Midlands	*Third largest region in Ghana and houses the second largest teaching hospital in Ghana. *The teaching hospital is the biggest referral centre for health conditions in the middle belt regions of Ghana while also serving as a training centre for healthcare professionals including radiographers across **the region.**	2
C	South	*Fair distribution of healthcare professionals including radiographers and houses teaching hospital. *The teaching hospital serves as the major referral centre for the region and a clinical training centre **for radiographers.**	1
D	Eastern	*Houses a teaching hospital is the biggest referral centre in the region and also serves as its training centre for healthcare professionals *Region generally not as developed as Accra and Kumasi and hence attracts fewer health professionals.	1
E	North	*Largest region by landmass but generally poorer and more deprived than the southern part of the country, and as such attracts fewer professionals including radiographers. *Houses a teaching hospital, which is the biggest referral centre in the northern part of Ghana.	4
		TOTAL NO. OF INTERVIEWEES: 24	12

APPENDIX 3A - Ethical Approval from School of Healthcare Sciences of Cardiff University

CARDIFF UNIVERSITY
PRIFYSGOL CAERDYDD

School of
Healthcare Sciences
Ysgol y Gwyddorau
Gofal Iechyd

Interim Head of School and Dean /Pennaeth yr Ysgol Dros Dro a Deon Professor David Whitaker

Cardiff University
Eastgate House
35-43 Newport Road
Cardiff
www.cardiff.ac.uk

Prifysgol Caerdydd
Ty Eastgate
35 – 43 Heol Casnewydd
Caerdydd
www.caerdydd.ac.uk

20 August 2020

Isabella Tetteh
Cardiff University
School of Healthcare Sciences

Dear Isabella

Research project title: SPEAKING UP FOR PATIENT SAFETY: EXPLORING THE EXPERIENCES OF THE GHANAIAN RADIOGRAPHER

SREC reference: REC738

The School Of Healthcare Sciences Research Ethics Committee Chair has reviewed the above application amendments.

Ethical Opinion

The Committee Chair gave:

> a favourable ethical opinion of the above application on the basis described in the application form, protocol and supporting documentation.

Additional approvals

This letter provides an ethical opinion only. You must not start your research project until all appropriate approvals are in place.

Amendments

Any substantial amendments to documents previously reviewed by the Committee must be submitted to the Committee via HCAREethics@cardiff.ac.uk for consideration and cannot be implemented until the Committee has confirmed it is satisfied with the proposed amendments. You are permitted to implement non-substantial amendments to the documents previously reviewed by the Committee but you must provide a copy of any updated documents to the Committee via HCAREethics@cardiff.ac.uk for its records.

APPENDIX 3B - Ethical Approval from GSR

GHANA SOCIETY OF RADIOGRAPHERS

• Member:
International Society of Radiographers and Radiologic Technologists (ISRRT)
Ghana Federation of Allied Health Professions (GFAHP)

• Bankers:
GCB Bank, Korle Bu Branch
Account No: 1131010043444

P. O. BOX KB 393 Korle Bu
Accra, Ghana.
Tel –233 24 476 8551
–233 24 275 6417
–233 24 481 9146

website:www.ghanasor.org
email: info.ghsor@gmail.com

Our Ref: GSR/RE/01/06-20 Your Ref: Date: 30th June, 2020.

To Whom It May Concern

APPROVAL TO INTERVIEW RADIOGRAPHERS IN GHANA IN A RESEARCH WORK

The Research and Ethics Committee of the Ghana Society of Radiographers on Monday June 29, 2020 granted approval to involve Radiographers in Ghana in a research work leading to the award of a Doctor of Philosophy Degree in Healthcare Studies at the Cardiff University.

The title of the study is: **'SPEAKING UP FOR PATIENT SAFETY: EXPLORING THE EXPERIENCES OF THE GHANAIAN RADIOGRAPHER.'**

Principal Investigator: Isabella Tetteh

The approval requires that you submit to the Society a final review report at the completion of the study. The Society observes or caused to be observed procedures and records of the study during and after implementation. Please note that any major modification of this study must be submitted to the Society for review and approval before its implementation.

You are also required to report any serious adverse event related to the study within seven (7) days verbally and fourteen (14) days in writing.

As part of the review process, it is the Society's duty to review the ethical aspects of any manuscript that may be produced from this study. You will therefore be required to furnish the Society with a copy of a manuscript meant for publication.

By copy of this letter the General Secretary is to furnish you with the needed list of registered members of the Society and you are advised to use this data just for the purpose of the research work.

The Ghana Society of Radiographers wishes you success in your endeavour.

[redacted]

APPENDIX 4A - Participant Information Sheet (Radiographers)

PARTICIPANT INFORMATION SHEET

SPEAKING UP FOR PATIENT SAFETY: EXPLORING THE EXPERIENCES OF GHANAIAN RADIOGRAPHERS

You are being invited to take part in a research project. Before you decide whether or not to take part, it is important for you to understand why the research is being undertaken and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish.

This research study is being carried out by myself Isabella Kordah Tetteh (Research student, School of Healthcare Sciences, Cardiff University), under the supervision of Aled Jones (Professor: Patient Safety & Healthcare Quality; Research Theme Lead OSDO (Co-Lead) School of Healthcare Sciences, Cardiff University) and Professor Daniel Kelly (Royal College of Nursing Chair of Nursing Research, School of Healthcare Sciences, Cardiff University). The results of the research will be written up as a Thesis and submitted as part of my examinations towards a Doctorate in Healthcare studies.

Thank you for reading this.

1. What is the purpose of this research project?

This study explores the speaking up experiences of Ghanaian radiographers. The researcher is interested whether Ghanaian radiographers understand the meaning of patient safety and 'speaking–up' and their willingness to speak – up about patient safety concerns. The researcher also wishes to establish the barriers and enablers affecting speaking up behaviours by radiographers and determine the experiences of radiographers with institutional culture and inter-professional relationship on patient safety. Identifying training needs of radiographers in speaking – up and informing policy and educational development are also objectives of the study.

The study isn't focussed on whether your own or another person's practice is "good" or "bad". The researcher will ensure that your name does not appear in any report or publications generated from the study.

2. Why have I been invited to take part?

You have been invited because you work in a teaching hospital or a government or private hospital located in Accra, Kumasi, Ho, Tamale or Cape-Coast. The research is interested in gathering views and experiences from a wide range of participants.

3. Do I have to take part?

No, your participation in this research project is entirely voluntary and it is up to you to decide whether or not to take part. If you decide to take part, the researcher will discuss the research project with you and ask you to sign a consent form. If you decide not to take part, you do not have to explain your reasons and your decision will not adversely affect you in any way.

You are free to withdraw your consent to participate in the research project at any time, without giving a reason, even after signing the consent form.

4. What will taking part involve?

The researcher would like you to participate in an individual interview (a face to face interview) discussing your knowledge, attitudes towards and experiences of speaking up with regards to patient safety concerns. The interview will take place at a location of your choice and is unlikely to take more than forty-five minutes to complete. With your consent, the interview will be audio recorded.

5. Will I be paid for taking part?

No. You will not benefit financially for participating in this study.

6. What are the possible benefits of taking part?

The researcher hopes to better understand speaking up experiences of Ghanaian radiographers with regards to patient safety concerns. The study will generate results that will help inform practice, education and future decisions about speaking – up more generally. Results will also provide evidence on how to best support radiographers and other health professionals workers who wish to speak-up about safety concerns, or those who have to respond to concerns when raised by colleagues. Ultimately, the research aims to improve patient safety by benefitting the well-being and dignity of patients and employees and the findings can also be transferred to similar settings in the rest of Ghana, West Africa and beyond.

7. What are the possible risks of taking part?

Due to the nature of this study there are no known risks of physical harm in taking part. However, the interview will be conducted at a secured and enclosed venue of your choice. Interview locations will be assessed for potential hazards or risks that might be present and actions will be taken to forestall them. In the occurrence of you experiencing emotional instability during interviews, the interview will be halted and a support system for debriefing troubled will be arranged prior to the start of the interview. Particularly if you feel distressed in the course of the interview, you will be debriefed by the researcher and urged to seek advice/help through existing counselling or staff support structures within your workplace/institution, already identified by the researcher prior to data collection. In cases where support structures are considered unsatisfactory, or inappropriate, additional support will be organised through relevant available institutions. Privacy will be ensured at all stages of data collection

8. Will my taking part in this research project be kept confidential?

All information collected from (or about) you during the research project will be kept confidential and any personal information you provide will be managed in accordance with data protection legislation.
Please see 'What will happen to my Personal Data?' (below) for further information.

All data collected will be anonymised and treated in confidence and stored in secure research facilities provided by Cardiff University. Non anonymised data will only be analysed by the researcher and neither your name, workplace or contact details will be linked to the data or shared with any persons or organisations external to the researcher. On completion of the study the sound file of your interview will be destroyed.

With your permission, anonymised data may be used for publication or research and may be shared with stakeholders such as the MOH, GHS and the study funder (Ghana Scholarships Secretariat). You will be reminded before the interview not to name specific individuals or organizations, but instead to talk about your own attitudes and perceptions. It should also be noted that, in the event of information provided during the interviews suggesting that either malpractice or harm to patients, the public or workplace colleagues has occurred, the researcher may be obliged to disclose these details to others (internally or externally) who may wish to take further action. At the end of the interview, the researcher will be available for a confidential conversation with you, should any issues discussed during data collection be of concern.

9. What will happen to my Personal Data?

Personal data, according to the General Data Protection Regulation (GDPR) means any information relating to an identifiable living person who can be directly or indirectly identified in particular by reference to an identifier. This may include information such as an individual's name, address, email address or date of birth.

Data files, transcriptions and field notes will be given identifier codes and the list of study participants and their corresponding identifier codes will be kept separately. The anonymised data files including transcripts and field-notes will be kept for a period of up to fifteen years after completion of the study for purposes of audit and reflection.

Cardiff University is the Data Controller and is committed to respecting and protecting your personal data in accordance with your expectations and Data Protection legislation. Further information about Data Protection, including:

- your rights
- the legal basis under which Cardiff University processes your personal data for research
- Cardiff University's Data Protection Policy
- how to contact the Cardiff University Data Protection Officer
- how to contact the Information Commissioner's Office

may be found at https://www.cardiff.ac.uk/public-information/policies-and-procedures/data-protection

If you have no access to the internet, printed copies of the above-mentioned documentation and privacy notices will be made available at your request.

The research team will anonymise all the personal data it has collected from, or about, you in connection with this research project, with the exception of your consent form. Your consent form will be retained for the duration of the research and may be accessed by members of the research team and, where necessary, by members of the University's governance and audit teams or by regulatory authorities. Anonymised information will be kept for a minimum of fifteen years but may be published in support of the research project and/or retained indefinitely, where it is likely to have continuing value for research purposes. If you withdraw from the study, the researcher will keep the information about you that has been already obtained. To safeguard your rights, the minimum personally identifiable information possible will be used.

It should be noted that it will not be possible to withdraw any anonymised data that has already been published or where identifiers are irreversibly removed during the course of a research project, from the point at which it has been anonymised.

10. What happens to the data at the end of the research project?

With your permission, anonymised data may be used for publication or research and may be shared with stakeholders such as the MOH, GHS and the study funder (Ghana Scholarships Secretariat). Copies of the study will also be kept in the Cardiff University library. Kindly be assured that any personal data will be removed before any form of sharing takes place.

11. What will happen to the results of the research project?

The researcher intends to publish the results of this research project in academic journals and present findings at conferences. Participants will not be identified in any report, publication or presentation. Verbatim quotes from participants may be used.

12. What if there is a problem?

If you wish to complain or have grounds for concerns about any aspect of the manner in which you have been approached or treated during the course of this research, please contact Isabella Tetteh who will do her best to address your concerns. If your complaint is not managed to your satisfaction, please contact Dr Kate Button, the chair of the School Research Ethics Committee or Professor David Whitaker, the Head of School, whitakerd@cardiff.ac.uk or 02920 874703.

13. Who is organising and funding this research project?

The research is organised by Miss Isabella Tetteh in Cardiff University and supervised by Professor Aled Jones and Professor Daniel Kelly. The research is currently funded by the Ghana Scholarships Secretariat.

14. Who has reviewed this research project?

This research project has been reviewed and given a favourable opinion by the Research Ethics Committee, Cardiff University, and the ethics committee of the Ghana Society of Radiographers.

15. Further information and contact details

Should you have any questions relating to this research project, you may contact us during normal working hours using the details below:

Miss Isabella Tetteh
[redacted]

Thank you for considering taking part in this research project. If you decide to participate, you will be given a copy of the Participant Information Sheet and a signed consent form to keep for your records.

APPENDIX 4B - Participant Information Sheet (Stakeholders)

PARTICIPANT INFORMATION SHEET

SPEAKING UP FOR PATIENT SAFETY: EXPLORING THE EXPERIENCES OF GHANAIAN RADIOGRAPHERS

You are being invited to take part in a research project. Before you decide whether or not to take part, it is important for you to understand why the research is being undertaken and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish.

This research study is being carried out by myself Isabella Kordah Tetteh (Research student, School of Healthcare Sciences, Cardiff University), under the supervision of Aled Jones (Professor: Patient Safety & Healthcare Quality; Research Theme Lead OSDO (Co-Lead) School of Healthcare Sciences, Cardiff University) and Professor Daniel Kelly (Royal College of Nursing Chair of Nursing Research, School of Healthcare Sciences, Cardiff University). The results of the research will be written up as a Thesis and submitted as part of my examinations towards a Doctorate in Healthcare studies.

Thank you for reading this.

1. **What is the purpose of this research project?**

This study explores the speaking up experiences of Ghanaian radiographers. The researcher is interested in enquiring whether structures or policy frameworks and procedures supporting speaking up or raising concerns are available to healthcare professionals currently practising in Ghana. If there are policies, the researcher wishes to better understand the implementation of such policies in the radiography practice in the GHS and MoH. She also wants to know your knowledge, attitudes towards and any experiences of speaking up with regards to safety concerns.

2. **Why have I been invited to take part?**

You have been invited to take part as someone who has a current or past role or interest of relevance in the healthcare sector or radiography practice in Ghana.

3. **Do I have to take part?**

No, your participation in this research project is entirely voluntary and it is up to you to decide whether or not to take part. If you decide to take part, the researcher will discuss the research project with you and ask you to sign a consent form. If you decide not to take part, you do not have to explain your reasons and your decision will not adversely affect you in any way.

You are free to withdraw your consent to participate in the research project at any time, without giving a reason, even after signing the consent form.

4. **What will taking part involve?**

The researcher would like to participate in an individual interview (a face to face interview) discussing your knowledge, attitudes towards and experiences of speaking up with regards to patient safety concerns. The interview will take place at a location of your choice and is unlikely to take more than forty-five minutes to complete. With your consent, the interview will be audio recorded.

5. **Will I be paid for taking part?**

No. You will not benefit financially for participating in this study.

6. **What are the possible benefits of taking part?**

The researcher hopes to better understand speaking up experiences of Ghanaian radiographers with regards to patient safety concerns. The study will generate results that will help inform practice, education and future decisions about speaking – up more generally. Results will also provide evidence on how to best support radiographers and other health professionals workers who wish to speak-up about safety concerns, or those who have to respond to concerns when raised by colleagues. Ultimately, the research aims to improve patient safety by benefitting the well-being and dignity of patients and employees and the findings can also be transferred to similar settings in the rest of Ghana, West Africa and beyond.

7. **What are the possible risks of taking part?**

Due to the nature of this study there are no known risks of physical harm in taking part. However, the interview will be conducted at a secured and enclosed venue of your choice. Interview locations will be assessed for potential hazards or risks that might be present and actions will be taken to forestall them. In the occurrence of you experiencing emotional instability during interviews, the interview will be halted and a support system for debriefing troubled will be arranged prior to the start of the interview. Particularly if you

feel distressed in the course of the interview, you will be debriefed by the researcher and urged to seek advice/help through existing counselling or staff support structures within your workplace/institution, already identified by the researcher prior to data collection. In cases where support structures are considered unsatisfactory, or inappropriate, additional support will be organised through relevant available institutions. Privacy will be ensured at all stages of data collection

8. Will my taking part in this research project be kept confidential?

All information collected from (or about) you during the research project will be kept confidential and any personal information you provide will be managed in accordance with data protection legislation.
Please see 'What will happen to my Personal Data?' (below) for further information.

All data collected will be anonymised and treated in confidence and stored in secure research facilities provided by Cardiff University. Non anonymised data will only be analysed by the researcher and neither your name, workplace or contact details will be linked to the data or shared with any persons or organisations external to the researcher. On completion of the study the sound file of your interview will be destroyed. With your permission, anonymised data may be used for publication or research and may be shared with stakeholders such as the MOH, GHS and the study funder (Ghana Scholarships Secretariat). You will be reminded before the interview not to name specific individuals or organizations, but instead to talk about your own attitudes and perceptions. It should also be noted that, in the event of information provided during the interviews suggesting that either malpractice or harm to patients, the public or workplace colleagues has occurred, the researcher may be obliged to disclose these details to others (internally or externally) who may wish to take further action. At the end of the interview, the researcher will be available for a confidential conversation with you, should any issues discussed during data collection be of concern.

9. What will happen to my Personal Data?

Personal data, according to the General Data Protection Regulation (GDPR) means any information relating to an identifiable living person who can be directly or indirectly identified in particular by reference to an identifier. This may include information such as an individual's name, address, email address or date of birth.

Data files, transcriptions and field notes will be given identifier codes and the list of study participants and their corresponding identifier codes will be kept separately. the anonymised data files including transcripts and field-notes will be kept for a period of up to fifteen years after completion of the study for purposes of audit and reflection.

Cardiff University is the Data Controller and is committed to respecting and protecting your personal data in accordance with your expectations and Data Protection legislation. Further information about Data Protection, including:

- your rights
- the legal basis under which Cardiff University processes your personal data for research
- Cardiff University's Data Protection Policy
- how to contact the Cardiff University Data Protection Officer
- how to contact the Information Commissioner's Office

may be found at https://www.cardiff.ac.uk/public-information/policies-and-procedures/data-protection

If you have no access to the internet, printed copies of the above-mentioned documentation and privacy notices will be made available at your request.

The research team will anonymise all the personal data it has collected from, or about, you in connection with this research project, with the exception of your consent form. Your consent form will be retained for the duration of the research and may be accessed by members of the research team and, where necessary, by members of the University's governance and audit teams or by regulatory authorities. Anonymised information will be kept for a minimum of fifteen years but may be published in support of the research project and/or retained indefinitely, where it is likely to have continuing value for research purposes. If you withdraw from the study, the researcher will keep the information about you that has been already obtained. To safeguard your rights, the minimum personally identifiable information possible will be used.

It should be noted that it will not be possible to withdraw any anonymised data that has already been published or where identifiers are irreversibly removed during the course of a research project, from the point at which it has been anonymised.

10. What happens to the data at the end of the research project?

With your permission, anonymised data may be used for publication or research and may be shared with stakeholders such as the MOH, GHS and the study funder (Ghana Scholarships Secretariat). Copies of the study will also be kept in the Cardiff University library. Kindly be assured that any personal data will be removed before any form of sharing takes place.

11. What will happen to the results of the research project?

The researcher intends to publish the results of this research project in academic journals and present findings at conferences. Participants will not be identified in any report, publication or presentation. Verbatim quotes from participants may be used.

12. What if there is a problem?

If you wish to complain or have grounds for concerns about any aspect of the manner in which you have been approached or treated during the course of this research, please contact Isabella Tetteh who will do her best to address your concerns. If your complaint is not managed to your satisfaction, please contact Dr Kate Button, the chair of the School Research Ethics Committee or Professor David Whitaker, the Head of School, whitakerd@cardiff.ac.uk or 02920 874703.

13. Who is organising and funding this research project?

The research is organised by Miss Isabella Tetteh in Cardiff University and supervised by Professor Aled Jones and Professor Daniel Kelly. The research is currently funded by the Ghana Scholarships Secretariat.

14. Who has reviewed this research project?

This research project has been reviewed and given a favourable opinion by the Research Ethics Committee, Cardiff University, and the ethics committee of the Ghana Society of Radiographers.

15. Further information and contact details

Should you have any questions relating to this research project, you may contact us during normal working hours using the details below:

Miss Isabella Tetteh

[redacted]

Thank you for considering taking part in this research project. If you decide to participate, you will be given a copy of the Participant Information Sheet and a signed consent form to keep for your records.

APPENDIX 5 - Informed consent

CONSENT FORM

Title of research project: SPEAKING UP FOR PATIENT SAFETY: EXPLORING THE EXPERIENCES OF THE GHANAIAN RADIOGRAPHER

SREC reference and committee: [Insert SREC reference and committee or other relevant reference numbers]

Name of Chief/Principal Investigator: ISABELLA KORDAH TETTEH

	Please initial box
I confirm that I have read the information sheet dated 23/06/20 version 1.0 for the above research project.	
I confirm that I have understood the information sheet dated 23/06/20 version 1. for the above research project and that I have had the opportunity to ask questions and that these have been answered satisfactorily.	
I understand that my participation is voluntary, and I am free to withdraw at any time without giving a reason and without any adverse consequences (e.g. to medical care or legal rights, if relevant). I understand that if I withdraw, information about me that has already been obtained may be kept by Cardiff University.	
I understand that data collected during the research project may be looked at by individuals from Cardiff University or from regulatory authorities, where it is relevant to my taking part in the research project. I give permission for these individuals to have access to my data.	
I consent to the processing of my personal information for the purposes explained to me. I understand that such information will be held in accordance with all applicable data protection legislation and in strict confidence, unless disclosure is required by law or professional obligation.	

I understand who will have access to personal information provided, how the data will be stored and what will happen to the data at the end of the research project.	
I understand that after the research project, anonymised data may be made publicly available via a data repository and may be used for purposes not related to this research project. I understand that it will not be possible to identify me from this data that is seen and used by other researchers, for ethically approved research projects, on the understanding that confidentiality will be maintained.	
I consent to being audio recorded for the purposes of the research project and I understand how it will be used in the research.	
I understand that anonymised excerpts and/or verbatim quotes from my interview may be used as part of the research publication.	
I understand how the findings and results of the research project will be written up and published.	
I agree to take part in this research project.	

Name of participant (print) Date Signature

Name of person taking consent (print) Date Signature

Role of person taking consent

(print)

THANK YOU FOR PARTICIPATING IN OUR RESEARCH

YOU WILL BE GIVEN A COPY OF THIS CONSENT FORM TO KEEP

APPENDIX 6 - (Radiographers Interview Guide)

Semi-structured Interview Guide

Prompts:

- The recorder should be switched on before the commencement of the interview
- Ensure the consent form is completed and signed.
- Remind the interviewee to refrain from identifying people's names and organisations during the conversation.

The interview will focus on the following topics:

- Participant's perception of speaking up/whistleblowing
- Patient safety/speaking up policies, guidelines, protocols and systems in place
- Participant's knowledge, perceptions, understanding and experience of governmental speaking up policies, guidance and systems.
- Barriers and facilitators of speaking up behaviours in radiography practice in Ghana.
- Suggestions for improving and promoting speaking up in healthcare in Ghana.

Opening Questions

1. Could you tell me a little about yourself professionally?

Prompts and probes: Can you tell me your age range or specific age? What is your gender? What is the length of time since you qualified as a radiographer? Can you tell me about your current role and rank/seniority?

2. Are you into full-time government practice or private or both?

Prompting Questions

1. **What do you understand by term 'speaking up' in general and within radiography practice?**

Prompts and probes: Have you heard about the terms raising concerns, whistleblowing and "voice"? Kindly be reminded that these terms can be relevant here and in other questions.

2. **What policies or protocols are in place in your department or hospital for speaking up or raising concerns or whistleblowing?**

3. **Have you ever had any experiences of 'speaking up' or whistleblowing formally or informally in your practice? Yes/No.**

Prompts and probes: If yes, could you tell me about it?

4. **Have you been in a managerial or senior position where you oversee students and other colleagues?** Yes/No. If yes, what has been your experiences of responding to colleagues who have spoken-up to you?

5. **Have you had any experiences speaking up about members of other professional groups such doctors, nurses or any others?** Yes/No. If yes, could you tell me about it?

6. **Are you aware of any 'speaking up' initiatives or programmes in your hospital?**

Prompts and probes: Please describe any systems and protocols that support raising concerns or 'speaking up' about patient safety issues in your workplace/s? As a radiographer, could you tell me about any speaking up training programmes your hospital provides for you?

7. **In your opinion, what are the some of the barriers or challenges associated with 'speaking up' or raising concerns within your hospital?**

8. **In your opinion, what are some of the enablers or facilitators of raising concerns or 'speaking up' within in your hospital?**

Prompts and probes: Do you think our society or perhaps the Ghanaian culture generally supports raising concerns or 'speaking up'? Do you think the societal and national culture plays a role in workplace behaviours around speaking up?

9. **What strategies do you reckon are best suited to improving and promoting raising concerns or 'speaking up' behaviours in your hospital?**

Prompts and probes: Can speaking up or raising concerns be promoted in the Ghanaian society? Please explain.

10. **In your opinion, do you think radiographers in Ghana have a voice?**

11. **In your opinion, how might a policy work if one was created to help radiographers in Ghana to raise concerns?**

Do you have any other comments about 'speaking up' and patient safety?

This brings us to end of this interview. Can I return to you a later date if I have any further queries?

Thank you for your time!

Your participation is highly appreciated!

APPENDIX 7A - (Stakeholder 1)

Stakeholder Semi-structured Interview Guide

Ghana Society of Radiographers (GSR)

Opening Questions

1. **Does the society have a policy or protocol for raising concerns or speaking up/whistleblowing in radiography practice in Ghana?**

Prompts and probes: If yes, could you tell me about it? How about a code of conduct or ethics for radiographers? If a radiographer has concerns about safety compromises or wrongdoing in his/her workplace, what is the procedure to follow in raising or addressing such concerns as expected by the society? Does the society have a policy or protocol for radiography practice? If yes, does this policy include guidelines for raising concerns or speaking up about safety compromises?

Prompting Questions

1. **Have any reports of whistleblowing/speaking up/raising concerns among radiographers ever been brought to the attention of the society since its establishment?**

Prompts and probes: If yes, could you tell me about it? What is your opinion about raising concerns or speaking up or whistleblowing in radiography practice in Ghana? Are radiographers in Ghana required to speak up about safety comprises in their practice?

2. **How does the society handle cases of whistleblowing or reports of wrongdoing among radiographers?**

Prompts and probes: Is there some sort of protection for radiographers who blow the whistle on malpractice or safety compromises? Is there best practice in terms of expectations regarding a response within a number of days?

3. **One of the safety concerns raised by some radiographers is the issue of quacks and unqualified people practising as radiographers in Ghana. Could you please to me how the society handles such issues?**

4. **In your opinion, do you think radiographers in Ghana have a voice?**

5. **Should a policy be created to support radiographers in Ghana to raise concerns or speak up about safety compromises?**

Prompts and probes: What is the role of society in ensuring that this happens? How can radiographers be supported to speak up about concerns?

6. **What advice would you give to a radiographer who wishes to speak-up about a safety concern in Ghana?**

7. **In recent times, the Covid-19 pandemic has had a great deal of impact on many healthcare societies. If this applies, can you elaborate on how the pandemic has affected the society?**

Do you have any other comments about 'speaking up' and patient safety?

This brings us to end of this interview. Can I return to you a later date if I have any further queries?

Will it be acceptable for me to present the results of my research to the society in a year or two?

Thank you for your time!

Your participation is highly appreciated!

APPENDIX 7B - (Stakeholder 2)

Stakeholder Semi-structured Interview Guide

Allied Health Professions Council (AHPC)

Opening Questions

1. **Does the council have a policy or protocol for raising concerns or speaking up/whistleblowing in allied health practice in Ghana?**

Prompts and probes: If there is, is there anything specific in place for radiographers? If yes, could you tell me about it? How about a code of conduct or ethics for radiographers? If a radiographer has concerns about safety compromises or wrongdoing in his/her workplace, what is the procedure to follow in raising or addressing such concerns as expected by the council? Does the council have a national policy or protocol for patient safety in allied health practice? If yes, does this policy include guidelines for raising concerns or speaking up about safety compromises?

Prompting Questions

1. **Have any reports of whistleblowing/speaking up/raising concerns among allied health professionals ever been brought to the attention of the council since its establishment?**

Prompts and probes: If yes, could you tell me about it? How about radiographers, has there been anything involving radiographers? If yes, could you tell me about it? What is your opinion about raising concerns or speaking up or whistleblowing in allied health practice in Ghana? Are allied health professionals including radiographers in Ghana required to speak up about safety comprises in their practice?

2. **How does the council handle cases of whistleblowing or reports of wrongdoing among allied health professionals?**

Prompts and probes: Is there some sort of protection for allied health professionals who blow the whistle on malpractice or safety compromises? Is there best practice in terms of expectations regarding a response within a number of days?

3. **One of the safety concerns raised by some radiographers is the issue of quacks and unqualified people practising as radiographers in Ghana. Could you please to me how the council handles such issues?**

4. **In your opinion, do you think allied health professionals in Ghana have a voice?**

Prompts and probes: How about radiographers?

5. **Should a policy be created to support allied health professionals in Ghana, including radiographers to raise concerns or speak up about safety compromises?**

Prompts and probes: What is the role of the council in ensuring that this happens? How can allied health professionals be supported to speak up about concerns? Can this be applied to radiographers?

6. **What advice would you give to a radiographer who wishes to speak-up about a safety concern in Ghana?**

7. **In recent times, the Covid-19 pandemic has had a great deal of impact on many governmental institutions. If this applies, can you elaborate on how the pandemic has affected the council?**

Do you have any other comments about 'speaking up' and patient safety?

This brings us to end of this interview. Can I return to you a later date if I have any further queries?

Will it be acceptable for me to present the results of my research to the ministry in a year or two? I'm I the right person to do that?

Thank you for your time!

Your participation is highly appreciated!

APPENDIX 7C - (Stakeholder 3)

Stakeholder Semi-structured Interview Guide

Ministry of Health (MOH)

Opening Questions

Does the ministry have a policy or protocol for raising concerns or speaking up/whistleblowing in healthcare in Ghana?

Prompts and probes: If there is, is there anything specific in place for radiographers? If yes, could you tell me about it? How about a code of conduct or ethics for radiographers? If a radiographer has concerns about safety compromises or wrongdoing in his/her workplace, what is the procedure to follow in raising or addressing such concerns as expected by the ministry? Does the ministry have a national policy or protocol for patient safety in allied health practice? If yes, does this policy include guidelines for raising concerns or speaking up about safety compromises?

Prompting Questions

1. **Have any reports of whistleblowing/speaking up/raising concerns among healthcare professionals ever been brought to the attention of the ministry since its establishment?**

Prompts and probes: If yes, could you tell me about it? How about radiographers, has there been anything involving radiographers? If yes, could you tell me about it? What is your opinion about raising concerns or speaking up or whistleblowing in healthcare practice in Ghana? Are healthcare professionals including radiographers in Ghana required to speak up about safety comprises in their practice?

2. **How does the ministry handle cases of whistleblowing or reports of wrongdoing among healthcare professionals?**

Prompts and probes: Is there some sort of protection for healthcare professionals who blow the whistle on malpractice or safety compromises? Is there best practice in terms of expectations regarding a response within a number of days?

3. **One of the safety concerns raised by some radiographers is the issue of quacks and unqualified people practising as radiographers in Ghana. Could you please to me how the ministry handles such issues?**

4. **In your opinion, do you think healthcare professionals in Ghana have a voice?**

Prompts and probes: How about radiographers?

5. **Should a policy be created to support healthcare professionals in Ghana, including radiographers to raise concerns or speak up about safety compromises?**

Prompts and probes: What is the role of ministry in ensuring that this happens? How can healthcare professionals be supported to speak up about concerns? Can this be applied to radiographers?

6. **What advice would you give to a radiographer who wishes to speak-up about a safety concern in Ghana?**

7. **In recent times, the Covid-19 pandemic has had a great deal of impact on many sectors of the government architecture. If this applies, can you elaborate on how the pandemic has affected your ministry?**

Do you have any other comments about 'speaking up' and patient safety?

This brings us to end of this interview. Can I return to you a later date if I have any further queries?

Will it be acceptable for me to present the results of my research to the ministry in a year or two? I'm I the right person to do that?

Thank you for your time!

Your participation is highly appreciated!

APPENDIX 8 - (Interview Transcript)

RAD 4

Interview was based in Accra, conducted in the evening when the radiographer had ended his shift. Interview started around 4pm and ended around 4: 47pm. The radiographer is the managing radiographer at a private facility in Accra. He had had an extremely busy day at work packed with management and departmental meetings.

I:

Good evening

R

Good evening

I:

Welcome to this interview, I'd like to remind you that this session is being recorded. And the interview is going to last for about 30 minutes. Kindly refrain from naming individuals and organizations throughout this interview. This interview is mainly going to be about your knowledge about speaking up, or whistleblowing your knowledge about patient safety or speaking of policies and protocols in your workplace. Your knowledge about governmental speaking of policies and protocols, your knowledge or experience with barriers and facilitators of speaking up behaviours in radiography practice in Ghana, and your suggestions for improving and promoting speaking up in healthcare in Ghana. Do you have any questions before we proceed?

R:

No questions

I:

Okay. So, to begin, could you tell me a little about yourself professionally, in terms of your age, your agenda, the length of time since you qualified as a radiographer, and your current role or rank?

R:

I'm a male radiographer, 46 years of age. I graduated I think in 1998 so I've been practising for about 22 years now and the managing radiographer at my centre now.

I:

Okay. So, are you into full time government practice or private or both?

R:

I'm into full-time private practice.

I:

Okay, so moving on to the main questions, what do you understand by the term speaking up in general, and then within radiography practice?

R:

Speaking up I think means to report things that you know needs to be known to the benefit of the whole public and in radiography practice, I believe it's got to do with patient safety and stuff like that.

I:

Have you ever heard about the terms raising concerns, whistleblowing and voice? Do you know what these terms mean?

R:

Yes, especially whistleblowing. Like I said initially, raising concerns is about talking about things that especially happen at your workplace that you think needs to be reported to the general public at large. So basically, that's it.

I:

Okay. Kindly be reminded that these terms are going to be relevant here and in the questions that follow.

R:

Okay

I:

So, what policies or protocols are in place in your department or hospital for speaking upon reason, concerns?

R:

In my department, we have the employee handbook but to be frank with you, I haven't seen any policy that pertains to raising concerns or speaking up. I guess it's shied away from and maybe we are not up to that level yet so it's not something we talk about.

I:

Okay. Have you had any experiences or whistleblowing formally or informally in your practice?

R:

Not really. I haven't. I have not had any such experiences. Like I said, it's not really something we talk about but as a practice I think that when there are concerns about public safety, we would move quickly to resolve it. But there's nothing like a policy document I have seen.

I:

So, what you are saying is throughout your practice, there has never been a situation where you've witnessed any form of practice or anything that you felt was compromising the safety of either patients or staff and felt the need to report or raise a concern or say something to the appropriate authority? Is that what you're saying?

R:

Yes, not in my experience.

I:

Okay, you said before that you act as head in your department. So, it means that you've been in a position where you oversee students and other colleagues, is that it?

R:

Yes

I:

Okay, so what has been your experiences with regards to responding to colleagues or students who have spoken up to you about the concern?

R:

We hardly get students but colleagues, yes. Like I told you initially, I'm the managing director in my facility so concerns do come a lot. Sometimes we meet about it to address it. Sometimes it's not related to work, maybe a colleague being "abusive" or unwarily saying stuff but not in the line of affecting public safety. I don't know if you understand what I'm saying.

I:

So, what you're saying is the other complaints that you've heard, are not necessarily related to compromising public safety? Is that what you are saying?

R:

Yes, that what I'm saying.

I:

Okay, so have you had any experiences speaking up about members of other professional groups? That is, people like doctors, nurses, radiologists, anyone else?

R:

Yes, I have had situations where I have had to speak up to the radiologist. I think in about 2 situations.

I:

Could you tell me a little about what the situation was?

R:

It was basically job related, something about communication and stuff. Like I said earlier, if my colleagues come to me with concerns, I have to try to address them. So it was basically about inter-personal relationships with other colleagues, and stuff like that but not necessarily pertaining to the profession.

I:

So, these concerns were addressed?

R:

Yes, they were

I:

Okay, so the question I have for you is since you, you seem to not have really had any experiences when it comes to raising concerns about safety issues. If you were to witness a situation where either a colleague maybe someone senior to you or someone below you did something really bad that's causing harm to a patient? What would you do?

R:

Immediately I would address it, I would talk to the colleague and find a way to let him/her know that what is happening is not correct and if it becomes necessary, I will escalate it to my superiors or management.

I:

So, in your department, you mentioned earlier that you have the employee handbook, but it doesn't include protocols for speaking up or raising concerns?

R:

Yes

I:

Okay, but is there a policy for patient safety in your department?

R:

Yes, there is. We actually have an SOP for patient safety.

I:

Okay. So, doesn't mean that your patient safety protocol does not include protocols for raising concerns or speaking up?

R:

No. It's basically about the procedures and the safety protocols and stuff like that. I don't know whether to say its inferred, but there's no black and white printout about whistleblowing and speaking up but of course, if there are concerns, we can address them, but I haven't seen a printed stuff. Maybe it's a culture thing with us or it's probably not a practice that has caught on yet but probably after this interview, we will need to implement one. But from the patient point of view, sometimes they speak up. There was this issue where a lady client refused for a male sonographer to do a breast ultrasound, so we had to get a female sonographer to come in and scan and since then, we've had a male and female sonographer who alternate between cases; so, the male does the ultrasounds for men and the female does for women to avoid such situations. So yes, we've had clients speak up about certain issues they are not comfortable with, but not necessarily as a safety measure. I don't know if you understand what I'm saying.

I:

Okay, I think I understand what you're saying. Are you aware of any speaking up initiatives of programs in your hospital? You've already said that there's no, like black and white protocol that sort of states what to do when there's a concern, but is there any system or something you can describe? What do people do when they have concerns about patient safety, and they want to speak up?

R:

That'll be raising those concerns to your unit head. For example, in my department, they would probably tell me, as I am the head. The nurses also have a head to takes such concerns. But like I have already said, we don't have it. But I'm pretty sure if it really does come up, we will be able to manage it, but it will be nice to have a written document that states the clear procedure on what to do when these things come up.

I:

Okay, so, as a radiographer, could you tell me about any speaking of training programs that your hospital has provided for you or provides?

R:

No, there hasn't been anything like that.

I:

Okay. So, in your personal opinion, what are some of the challenges that you think radiographers in your department have when it comes to raising concerns about safety issues? What are the things that prevented them from speaking up even if they wanted to?

R:

I am someone any person can easily walk to and I don't put barriers in their way. If you have any concerns, you can walk to me, we talk about it and we find a solution. So, for barriers, none. None whatsoever.

I:

So, you believe that people in your departments and not limited in any way to want to withhold their voice even when they want to speak up?

R:

No, I don't think so.

I:

Okay. So, are there things that you think enable them to speak up? As you said that you don't think they are barriers, are there things that you think, encourage them or support them to want to speak up or raise concerns?

R:

I think this will be based on the organizational culture. Like I told you, I am approachable, and the workplace is not a very big clinic. It's like a family so we don't restrict people from talking or speaking up. They come to me all the time, if they have an issue that they think is above them and I need to handle and I handle them well. But like I said, it will be really nice to have something on paper.

I:

Okay. So, to the best of your knowledge, you believe that your subordinates feel supported enough to speak up or raise concerns when they have any?

R:

Yes. And I forgot to tell you we have monthly meetings where we address things like these, depending on whether there are concerns or queries or problems. Everybody is free to talk, and these issues are addressed.

I:

Is there any way for a colleague to bring across a concern if they don't want their identity to be disclosed?

R:

Not really. As I mentioned earlier on, but face to face, for example, if you don't want your identity to be revealed and you speak to me, I obviously like I said, handle it with discretion, but if I can't then, I will escalate it and of course, if you want anonymity, I will keep it as that.

I:

So, what if the person has the problem with you?

R:

I guess what you are saying is a system where people can log in anonymously and write their concerns. Right?

I:

Exactly!

R:

We don't have it.

I:

Okay, so do you think society or perhaps the Ghanaian culture generally supports that attitude of speaking up or raising concerns?

R:

Not at all. Our culture doesn't support it. That's why I initially said that its inferred.

I:

Could you please explain a little why you feel that our culture doesn't?

R:

I think it's basically the lack of integrity in our systems. People are simply just not sincere. We have a Whistle-blower's Act and people are not confident that if they blow the whistle, their identity will be kept anonymous and whether anything at all will be done about it. But when it comes to radiography, it's my profession and its my safety and above all, it's the wellbeing of the client or the patient so for that, I will speak up and it's not how it is in the general public where people are even scared to go to the police to speak up. So, I think it's the lack of integrity in our system that is causing the larger populace not to speak up.

I:

So, do you think that this societal and perhaps national culture plays a role in workplace behaviours around speaking up?

R:

Well, the apple doesn't fall far from the tree, does it? So long as it's a national thing, it will go to the office. At our place, if you have concerns and you come to us, then obviously we will look at it and deal with it. But like I said, before this interview, I don't know why we don't have it on paper. But after this interview, I'm really going to push for it, hopefully by the next time we speak. It will be good for us to have a document policy to guide this practice.

I:

So, do you think our religious and spiritual beliefs, in things like superstition, witchcraft and spells affect the behaviour of people towards reporting wrongdoing when they see anything or when they witness things that go wrong?

R:

Most definitely! You know, we always leave things to God. It's a cultural thing. Its like you are being a snitch so nobody wants to be called a snitch and nobody wants to be blamed that you reported this and so I've lost my job, or I'll be punished. It's just a cultural thing I don't know whether to place it in religion or superstition but it's just there. We just leave everything to God. I think education should be the way forward. As for religion, I don't even want to talk about it.

I:

So, in your opinion, what strategies do you think are best suited to improving speaking of behaviours in your department, and your hospital in general?

R:

Well, in everything, I think the objective is for people to understand that it's not about witch- hunting, but rather the safety and wellbeing of all of us as caregivers and patients. There shouldn't be a problem. It's just about the education and a little bit of effort, that's all.

I:

In your opinion, do you think radiographers in Ghana have a voice?

R:

It's a very minute voice. Nobody actually even considered us until recently when he had these biomedical engineers and radiographers' issues. So, I think, gradually we are getting this, but we could do better. And of course, our numbers are not many, so you know, in in the scheme of things, if you compare us to the nurses and the doctors, they are many more. We are just an association of about just a little over 300. In Ghana, the healthcare system is primarily focussed on doctors, nurses, and pharmacists. The rest of us are not heard much so I guess we have to step up our game.

I:

If you were in a position to change two things about radiography practice in Ghana, what would these two things be?

R:

That's a tough one! One would be the academic course. I think, I would put a little bit more emphasis on the practical aspect, as in clinical work. Because I have realized that there's a lot more that needs to be done in that aspect. I've dealt with a couple of young graduates. And I realized that it's a big issue for them. The

second thing would be condition of service, maybe, renumeration and protection for radiographers. Because the job primary deals with radiation, and so having a well-documented condition of service will be a thing of concern to me. So roughly these two.

I:

So, what are some of the things you think a radiographer would consider before they raise a concern? Or not? What would be some of the factors that they would consider if they're found in a situation where they want to raise a concern?

R:

I guess the first question for a radiographer would be, “will I be heard?”, “will whoever I’m reporting to see what I see?”, “will I be witch-haunted”? Those are the 3 things that comes off immediately. Because like I said, for my department, the way I am with them is I address everything because if they come and tell you and they don’t get results or they don’t see any action, they won’t come the next time. So, I think getting results will be the first thing any radiographer would consider in raising a concern, followed by the rest.

I:

So, in your opinion, if there was going to be a policy work to help radiographers in Ghana to raise concerns, what do you think are some of the things that should be considered in putting together such a policy to ensure that it really works?

R:

I think anonymising the reporter’s identity is one thing and ensuring that nobody would be dismissed for blowing a whistle, so job security. I should not lose my job or be witch haunted because I reported wrongdoing or a concern.

I:

Okay, so do you have any other comments about speaking up or patient safety? Is there anything you'd have wished that I asked you today that I haven't already?

R:

Not really, except for the fact that this interview opened my eyes to that fact that we didn't have this on paper. We have it in the silent mode, but we don’t have it written and I think that this needs a lot of education if it is to work, because like we've already discussed our culture is not up there yet to accept some of these things so we will need a lot of education on these like why it’s important for people to speak up. It could even lead to you rendering better service if you take feedbacks like that. But somehow, when people give us feedback, we tend to be defensive, and not listen. It doesn't help. It’s just a matter of education. That’s all I can say.

I:

Okay, so this brings us to the end of this interview. Can I return to you on a later date if I have further queries?

R:

Sure!

I:

Okay, thank you for your time and your participation.

R:

You're most welcome.

OBSERVATIONS

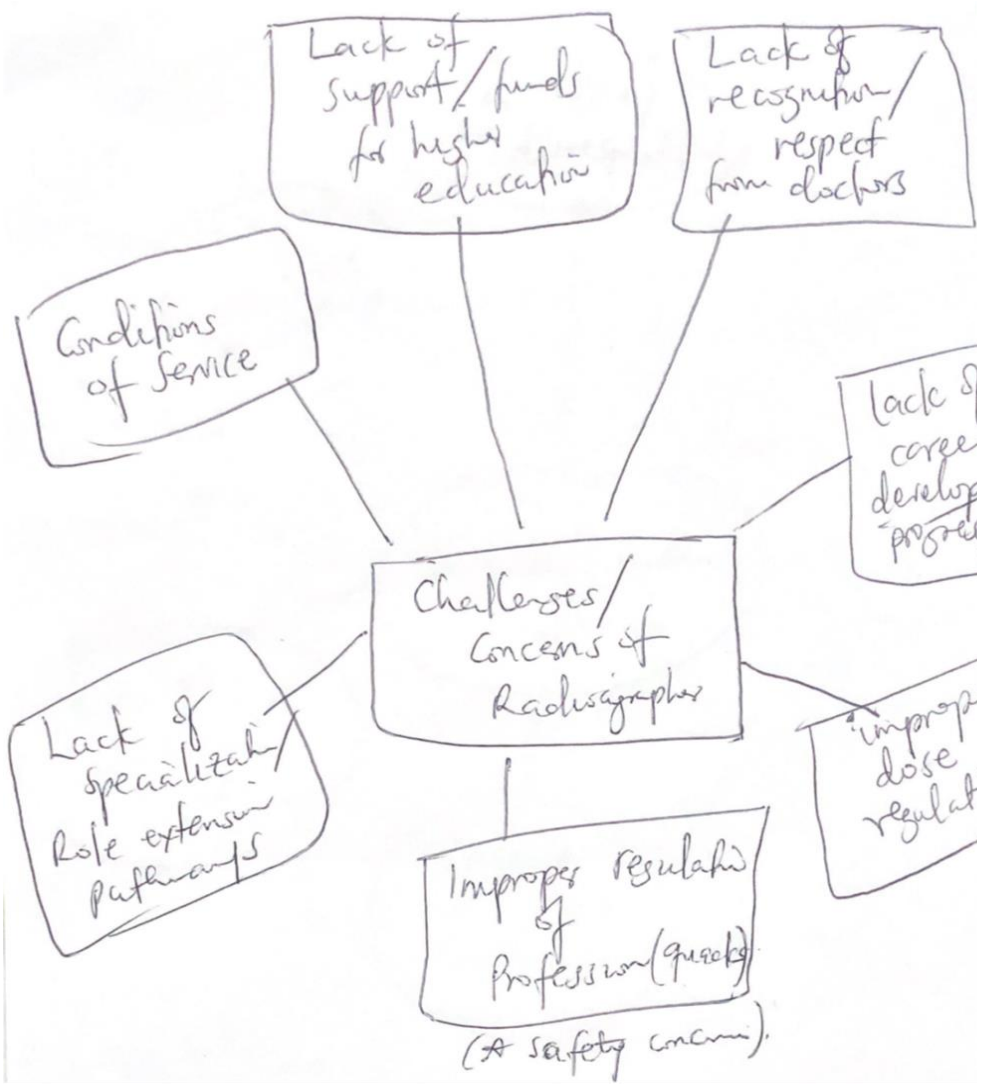
I enjoyed this interview. I felt the participant was knowledgeable on the topic and his answers seemed honest to me. He didn’t seem to have many speaking up experiences maybe because of his position as a manager.

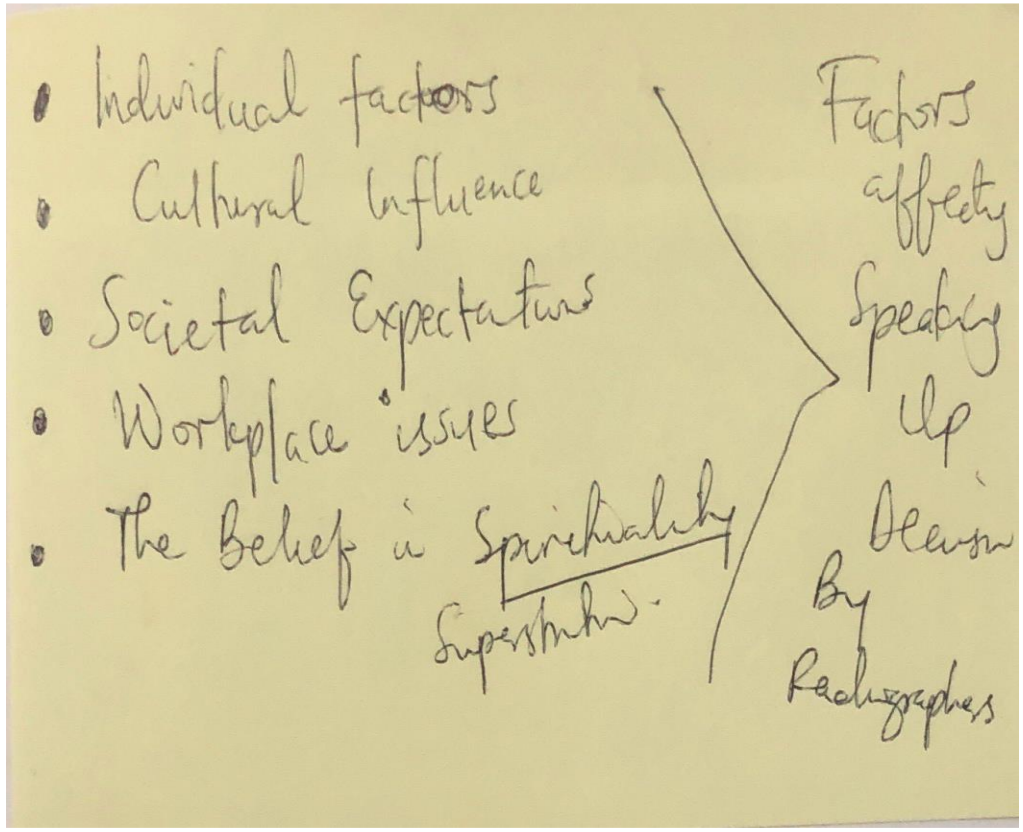
APPENDIX 9 - Initial list of Categories

Initial List of Categories from Thematic Analysis

1. Understanding of Speaking-up
2. Policies/protocols in place for raising concerns
3. Mode of raising concerns / Speaking-Up Interventions
4. The issue of Anonymity
5. Speaking-up Experiences
6. Lack of Training on Speaking Up
7. Barriers of raising concerns
8. Ghanaian culture and upbringing
9. Enablers of Speaking up
10. Systems for raising concerns
11. Issue of delayed reporting – (suggestion boxes use)
12. Promoting Speaking -up/raising concerns
13. Lack of recognition for radiographers in Ghana
14. Power Dynamics in Ghanaian Healthcare System
15. Policy creation feasibility / How a policy might work
16. Challenges in Radiographic Practice in Ghana
17. Management response/attitude to concerns raised
18. Inter-professional Speaking-up experiences
19. Disregard for concerns/Organisational Disregard/System Inactions
20. Efficacy of Speaking up
21. The African Belief system (Spiritual and Religious)
22. Victimisation and Bullying
23. Fear of marring relationships and punishment
24. The issue of quacks – A safety concern? / Radiography practice regulation issues
25. Raising concerns not yielding results
26. The “Fa ma Nyame” attitude of Ghanaians
27. Lack of Education on Speaking up
28. Workplace culture
29. The role of managers
30. Psychological safety

APPENDIX 10 - (Excerpts of data analysis)





APPENDIX 11 - (List of early themes and subthemes)

THEMES	SUB-THEMES
Divergence in understanding of speaking-up and patient safety	• **Knowledge about speaking-up and whistleblowing** Formal or informal knowledge Lack of formal knowledge • **Sources of informal knowledge** drawn from experiences drawn from hear-says drawn from culture
Barriers and Facilitators of Speaking-up or raising concerns	• **Workplace culture** (absence of protocol or guidelines, professional codes of conduct or ethics, authority gradient and power-abuse of Ghanaian doctors, perceived risk of detriment following speaking-up - victimisation/bullying) • **Individual factors** (moral courage, previous experiences, personal beliefs) • **National culture and societal norms** (The Ghanaian culture, upbringing and belief system) • **The Efficacy of speaking up** (not yielding results, system inaction). • **Workload and working conditions** (radiography role identification, job satisfaction, increased workload).
The influence of the African belief system and Ghanaian culture	• **The African belief system** (witchcraft, juju, black magic, voodoo, spells, curses) • **The Ghanaian child-upbringing** • **The Ghanaian societal expectations and national culture**
Strategies in response to barriers and facilitators	• **National modes/strategies** (Whistle-blowers' Act) • **Organisationally-mandated modes** Formal and informal (suggestion boxes, hospital organogram system, heads meetings/hurdles, weekly report writing) • **Departmental/local level modes &strategies** departmental meetings, reporting to HODs, drawing attention of authority/senior staff, WhatsApp platforms • **Individually-based approach to speaking-up** raising concerns/speaking to a colleague, speaking directly to the person involved
Speak-up Policy planning and Response strategies	• **National Intervention** (Speak-up policy for healthcare) • **Education and Training** (curriculum development for health education) • **Institutions/committees/agencies for Speak-Up issues** • **Local -level interventions** (Speak-up Guardian)

APPENDIX 12 - Published Scoping Review

Radiography 28 (2022) 919e925

Contents lists available at ScienceDirect

Radiography

Narrative Review

Speaking-up for patient safety: A scoping narrative review of international literature and lessons for radiography in Ghana andother resource-constrained settings

I.K. Tetteh*, A. Jones, D. Kelly, N. Courtier

School of Healthcare Sciences, College of Biomedical and Life Sciences, Cardiff University, 12th Floor Eastgate House, Newport Road, Cardiff, CF24 0XB, UK

a r t i c l e i n f o

Article history:
Received 20 January 2022
Received in revised form 8 June 2022
Accepted 24 June 2022
Available online 9 July 2022

Keywords:
Speaking -up
Patient safety
Radiogra phy
Scoping review
Resource-constrained settingsAfrica

a b s t r a c t

Objectives: Employees 'speaking-up', or raising concerns about unsafe practices, has gained traction across healthcare, however, the topic has not been widely discussed within radiography generally or within resource-constrained healthcare settings. A systematic scoping narrative review identified the experiences of radiographers in speaking-up about safety concerns, which was extended to healthcare professionals more broadly. The scope of the review was further extended to cover speaking-up in non-healthcare resource-constrained settings in Africa.

Key findings: Sixty-three studies were included in the review. The majority originated from westernised and/or higher resource health systems, with a dearth of literature from Africa and other resource-constrained settings. Several studies identified barriers and enablers confronting healthcare workers wishing to speak-up. While 'speaking-up' as a concept has gained international interest, most studies are, however, focussed on nursing and medical practice contexts, overlooking other healthcare professions, including radiography. The findings are synthesised into a series of key lessons for healthcare and radiography practitioners in Ghana and other resource-constrained settings.

Conclusion: The topic has been largely overlooked by policy makers, both within healthcare generally and specifically within radiography in Ghana. This is particularly concerning given the many complexities and risks inherent to radiography. A radiography and a healthcare workforce lacking in voice is poorly positioned to improve workers' safety and patient safety. More generally, promoting speaking up could enhance Ghana's ambitions to deliver a high-quality health care system and Universal Health Coverage (UHC) in the future.

Implications for practice: National and regional policy makers need to implement speaking-up processesand procedures reflecting the lessons of the literature review, such as ensuring no detriment as result ofspeaking-up and making staff feel that their concerns are not futile. Speaking-up processes should be implemented by individual organisations, alongside staff training and monitoring.

Introduction

Patient safety is concerned with avoiding unwarranted and avoidable harms resulting from actions taken, omitted, or decisions made during the healthcare delivery process.[1] There are numerous patient safety issues in imaging radiology,[2] where a large and diverse number of patients undergo a range of routine and un- planned examinations and interventions in working environments

* Corresponding author.
E-mail addresses: tettehik@cardiff.ac.uk (I.K. Tetteh), jonesa97@cardiff.ac.uk (A. Jones), kellydm@cardiff.ac.uk (D. Kelly), courtiern@cardiff.ac.uk (N. Courtier).

that require advanced levels of communication with service users and between healthcare systems.[3,4] Communication issues be- tween radiology staff, patients and other healthcare professionals was recently found to be a major risk to the delivery of safe and effective healthcare.[1]

"Speaking-up" can make a significant contribution to ensuring patient safety in various clinical settings.[5,6,7] Speaking-up is used interchangeably with related terms, such as raising concerns, or internal whistleblowing: for example, Mannion et al.[8] state that whistleblowing can be explained as the raising of concerns or speaking-up about unsafe, unethical or poor-quality care by em- ployees to people in roles that may be able to effect change. In this

https://doi.org/10.1016/j.radi.2022.06.018

paper, we refer to “speaking-up” or “raising concerns”, unless the term “whistleblowing” is specifically referred to in the documents reviewed.

Although the importance of speaking-up across healthcare has recently gained traction, empirical research about the topic is under-developed in healthcare.[9] Frameworks and interventions to support speaking-up have been developed in a number of health- care systems internationally, with varying degrees of effectiveness, although the quality of evaluative research undertaken has been problematic.[10] Few studies have been conducted in the context of radiography practice and the topic has not been researched in lower income countries such as Ghana or similar healthcare sys- tems experiencing severe resource-constraints, where high work- loads and significant understaffing present persistent challenges for the delivery of high-quality care.[11] Speaking-up policies that do exist in African countries have been targeted almost exclusively at financial corruption in the public sector, with little evidence of theireffectiveness.[12]

Radiography and the health system in Ghana

The national healthcare system in Ghana aims “*To improve access to quality, efficient and seamless health services that is gender and youth friendly and responsive to the needs of people of all ages in all parts of the country*”.[13,19] The Ministry of Health (MoH) is respon- sible for developing policies and managing healthcare delivery,which is delivered through the Ghana Health Service (GHS).[14,15] Over the past 90 years, the provision of Ghana's imaging services, although still woefully inadequate, have improved, with the commissioning of MRI and CT scanners, digital X-ray equipment and ultrasound machines in hospitals across the country. However, the radiography workforce has been continually under-devel- oped[16,17] with inadequate training facilities and poor conditions of service for practising radiographers.

Health professionals in Ghana are ethically and legally accountable to the patient.[18] The Patient Charter[19] mandates all health practitioners to protect the rights of the patient to safe,competent and quality care. Nevertheless, no specific guidelines exist to regulate practising radiographers speaking-up about pa- tient safety compromises in Ghana. Furthermore, there is currently no whistleblowing or “Speak-Up” guidance developed by the MoH or GHS. Neither the Allied Health Professions Council (AHPC), the regulatory body for radiographers in Ghana, nor the professional body, the Ghana Society of Radiographers (GSR) has guidelines or procedures for raising concerns on issues regarding patient safety.

There are anti-corruption laws in Ghana such as the Whistle- blowers Act (Act 720), passed by the Parliament of Ghana in October 2006. Actions reportable under the Act that are relevant within healthcare include economic crime, waste misappropria- tion, mismanagement of public resources and endangering the health or safety of an individual or a community.[20] Prior to the Act, Ghanaians who participated in whistleblowing often faced per- sonal and professional detriment, which in turn raised the in-securities and anxieties of potential whistle-blowers.[21] Therefore the Act specifies that whistleblowing reports are to be handled as highly confidential information.[20] However, since 2006 the bill has not generated any substantial observable results.[11] At the 4th Na- tional Dialogue on Whistleblowing in November 2019, organised bythe Ghana National Commission for Civic Education (NCCE) in collaboration with the EU, the Chairperson of the NCCE pleaded with Ghanaians to utilise protections stipulated in the Whistle-blowers Act to report fraudulent and corrupt activities. In-stitutions and individuals mandated to receive whistle-blower

reports were also reminded to protect the identity of whistle- blowers.[22]

In the absence of policy and research to guide radiographers in Ghana, the aim of this paper is to explore the extant international literature on speaking-up in healthcare in an attempt to draw relevant lessons for the radiography profession in general, with particular focus on Ghana and other resource-constrained settings.

Methods

The literature in this topic area embraces diverse theories and methods across numerous clinical contexts, rendering the litera- ture unsuitable for a "Cochrane-style" systematic review. Instead, anarrative scoping review was undertaken to report the full breadth and diversity of literature.[23] A narrative review addresses concerns that reliance on evidence generated solely from systematic reviews,which expressly filter out contextual influence and human factors, that are of key importance to understanding speaking-up, may give partial, or worse misleading, information on which to base de- cisions and improve practices.[24]

The initial review question was "What are the experiences of radiographers in speaking-up about safety concerns?" This was broadened to speaking-up among healthcare professionals once an initial evidence scope revealed a dearth of literature from radiog- raphy. The scope was further extended to include speaking-up in non-healthcare fields in Africa due to very limited literature from healthcare in Africa. Given the scarcity of research studies and consistent with the adoption of a narrative review approach, a decision was also made to include all research studies on speaking up, regardless of research quality.

A systematic search of the literature was undertaken via SCOPUS, Medline via Ovid, CINAHL and Web of Science databases. Additional literature were derived from government policy pa- pers, references from retrieved articles and the most relevant academic journals. The search was not restricted by time or ge- ography however, only documents published in English were considered.

Search terms used in combination were speak-up, speaking-up (and related terms whistleblowing, raising concerns, raise con- cerns, voice concerns, voicing concerns); patient safety; radiog- raphy, radiographer, radiology (and international variants medical imaging technologist, radiologic technologist). Initially titles and abstracts were reviewed by IT and overseen by AJ. The final number of accepted papers were identified and subjected to a full text re- view again by IT with AJ & DK overseeing the process.

Results

The 63 included citations illustrated in Fig. 1 consisted of 48 research papers, eight literature review papers and seven com- mentaries published between 1985 and 2020. Table 1 demonstrates that speaking-up has gained significant international interest.

The majority of papers originate from westernised and/or higher resource health systems, with only four papers from Africa, rein- forcing the view that studies investigating speaking-up are rare in non-western cultures and resource-constrained systems.[12,25]

All four papers from Africa focussed on whistleblowing in non-healthcare areas. Two papers from Ghana focussed on combatting corruption/illegality in public administrative sectors,[21,26] with no literature found exploring speaking-up in healthcare. Table 2 characterises the professional groups covered in the 48 included research papers.

Only two studies focussed on radiography settings. Both addressed questions regarding the perceived culture of incident reporting within the radiography workforce in Canada and the

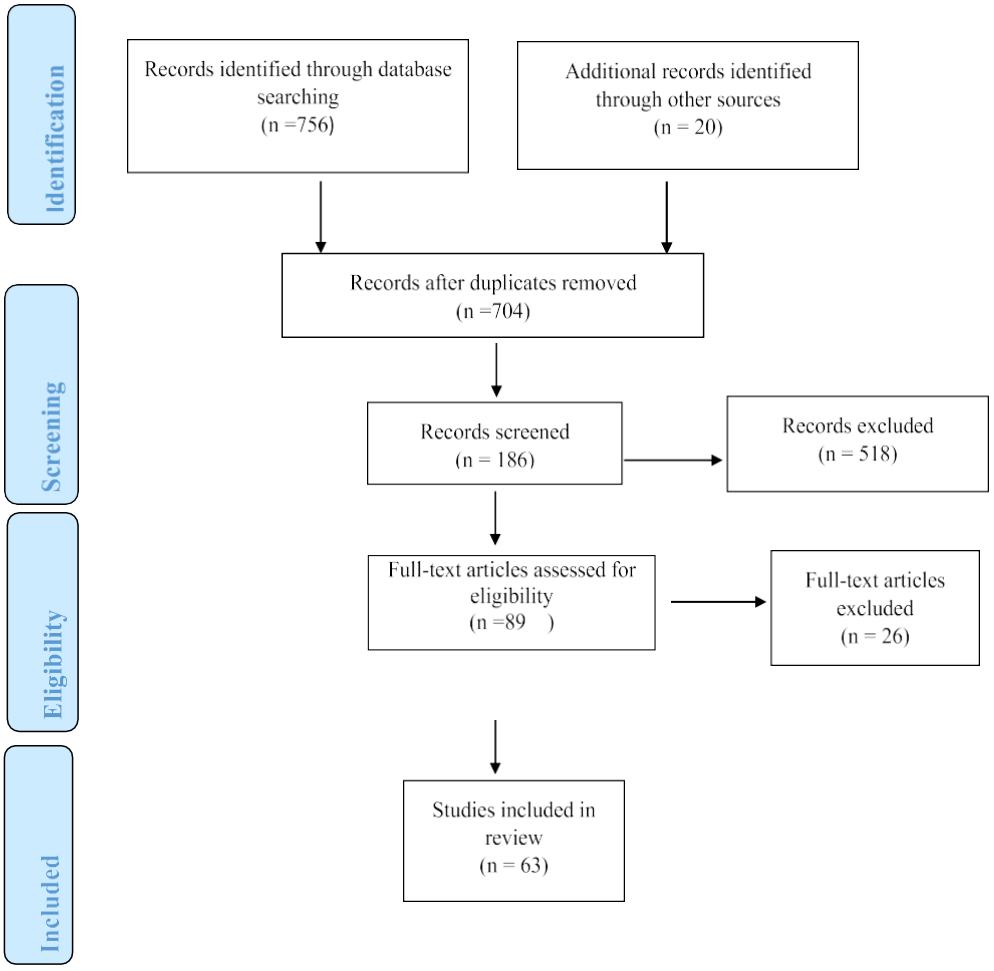


Figure 1. PRISMA flowchart summarising the results of the scoping review.

Table 1
Origin of included studies (n ¼ 63).

Origin of included studies (n ¼ 63)	Number	Percentage (%)
Africa	4	6
Asia	9	14
Europe	23	37
Oceania	6	10
North America	21	33

Table 2
Professional groups covered in included research papers (n ¼ 48).

Category	Number	Percentage (%)
Practising nursing & nursing students	19	40
Practising doctors, residents & medical students	10	21
Nurses and doctors only	7	15
Public sector administrative staff	2	4
Multiple healthcare professionals	8	17
Radiology staff (therapy and diagnostic)	2	4

USA, rather than acts of speaking-up about safety concerns.[27,28] Of these, one was a retrospective survey involving all radiology staff at an academic hospital,[28] the others comprised of surveys comparing error reporting among radiation therapists across Canada and the United States.[27] However, given the major gaps in the radiography literature internationally focussing on safety culture and speaking-up, the decision was made to include both studies in this review.

Several studies identified barriers and enablers confronting healthcare workers who might wish to speak-up, which were grouped into sub-themes (Table 3).

Workload and workforce conditions

In working environments where high demand for services exist, patient safety can be threatened[29,30] and consequently the need for speaking-up is heightened. Individuals who voice their concerns in a positive way are usually more satisfied with their jobs and workplace conditions, and tend to make more attempts to speak up.[5,31,32] Some papers indicated that healthcare professionals who perceive a heightened sense of responsibility to- wards their clients/patients are more likely to speak-up on their behalf and that speaking-up behaviours among healthcare pro- fessionals are influenced by the extent of identification with their positions as clinicians or professionals.[7] Furthermore, literature review demonstrates that healthcare professionals who voice their concerns usually do so because in doing so they believe they create a safer environment for patients and staff.[5]

Perceived efficacy of speaking up

Understandably, healthcare workers feel more encouraged to speak-up when they believe their concerns are going to be heard andaddressed by the organisation.[33,34] Findings of an investigation into why employees of Ghanaian public institutions refuse to blow the whistle on corruption and fraudulent activities, despite statutory

Table 3
Barriers & Facilitators Sub-Themes to Speaking-up in Healthcare.

Workload and workplace conditions	Demand outstripping staff availability and resources[29,30] (barrier)Job satisfaction and role identity[5,31,32] (facilitator)
Efficacy of speaking-up	Lack of managerial response to concerns & associated sense of futility[26,33,34] (barrier)
Workplace culture	Cross and intra-disciplinary hierarchies[10,40,41] (barriers)
Perceived/actual risk of detriment following speaking-up[7,28,35e39] (barriers)	
Professional codes of conduct promoting workplace culture of speaking-up[5,40,51] (facilitator)	
National culture and societal norms	Social norms relating to deference[9,53,55e58] (barriers)Fear of spiritual attacks[26] (barriers)
Multicultural/diverse workforce makes it more difficult for workers to interpret norms[53,54] (barriers)	

protection, revealed perceptions that concerns would be disregarded by the relevant authorities.[26] The likelihood of the act of speaking-up is, therefore, directly dependent on being heard and responded to.

Workplace culture & the perceived safety of speaking up

Workplace hierarchies were commonly identified as a significant barrier to speaking-up among healthcare workforces, as perceptions of hierarchy tend to inhibit speaking-up due to fear of personal detriment[7,28,35e39] Speaking-up behaviours of healthcare pro- fessionals could also be affected by cultures within specific profes- sional groups.[10] For example, while medical doctors tend to informally raise concerns within their group rather than recom- mended institutional reporting mechanisms, the nursing profession has been associated with a culture of conformity to guidelines and regulations.[40] While nurses who withheld voice on wrongdoing felt an equal sense of responsibility towards their patients, colleagues and employer; those who raised concerns did so believing that it was a privilege to do so in their role as patient advocates.[41]

International literature suggests that workplace cultural issues related to workers' fear of retribution and detriment following speaking-up are significant barriers to future speaking-up behaviours.[42,43,44,45,25] The retribution feared by workers' include a range of actions by colleagues, such as losing their job, being disciplined or being stripped of their professional license and legal liability to practice.[7,38,42,43,46e49] These findings are also consistent with the two studies conducted on radiography staff in the USA and Canada, which both reported fear of professional punishment as a barrier to speaking-up about safety compromises.[27,28]

The limited literature from Ghana similarly demonstrates that one of the reasons for withholding voice on fraudulent activities in public institutions is the fear of harm towards the whistle-blower (dismissal, suspension, transfer against a person's will, intimida-tion and harassment).[26] Evidence from Nigeria also suggests that fear of retaliation, fear of loss of job and social stigma are the main barriers to the practice among bank employees.[50] However, there is a lack of evidence from African healthcare systems on this matter. A number of studies suggest that the existence of professional codes of conduct and standard procedures are a positive predictor of speaking-up behaviours.[40,51] For example, the existence of workplace policies and managerial support have been demon-strated in international and African literature to facilitate speaking-up behaviours.[5,50] In NHS England, initiatives such as the National Speaking-Up and Whistleblowing Policy and the introduction of Freedom to Speak-Up Guardians has also had some positive impact in supporting and encouraging raising concerns in the workforce, although the impact has been variable across England.[52]

National and societal culture

Studies from the USA, South Korea, Japan, UK, and China strongly suggest that national cultures can be a significant barrier

to speaking-up. For example, in Japan and Korea the strong societal norms of deference make it rare for people to challenge each other publicly, and could make speaking-up problematic for health pro- fessionals, even when they witness patient safety compro- mises.[53,54] Given the 'multi-nationality' of the healthcare workforcein many countries, it is imperative to be aware that health pro- fessionals may, both individually and collectively, share diverse societal norms and beliefs about speaking-up.[9,53,55e58] Although a multicultural workforce provides potential organizational gains with respect to diversity, cultural differences can serve as a barrier to employee voice because it is more difficult to identify and interpret norms for the workforce voice.[59]

A unique finding in the literature reviewed here was the research from Ghana that identified a barrier to whistleblowing being 'fear of spiritual attacks',[26] or the use of supernatural powers to cause harm to a targeted individual. Spiritual attacks reflectdeeply held belief and fear of superstitions in Africa, including the belief in witchcraft; specifically, juju, suspicions, ghost, sorcery, ancestors, necromancy, gods and black magic.[60] These attacks may result in unexplained illnesses, among other misfortunes. A July 2013 Ghana News Agency story suggested that after a person blows the whistle, his/her identity could be revealed spiritually even if there is corporeal protection. The report outlined the depth of fear linked to spiritual attacks, describing one person's view that they

> preferred "*to accommodate corrupt officials in my community andhave my peace than to report them and go through hell on earth*". [26:p4]These beliefs have resulted in many citizens of the African continent experiencing trepidation about speaking-up (althoughnot isolated to this) by virtue of their belief system.[60] This high-lights that the concept of speaking-up cannot be properly investi-gated without taking into consideration workers' societal culture,norms and beliefs.[10] Cultural beliefs of a nation influences speakingup behaviours. However, the 'fear of spiritual attacks' is a novelconcept that is not discussed in the speak-up literature, which is largely westernised.

Discussion: lessons for radiography practice in Ghana, and beyond

The following lessons for practice are grounded in the preceding review of the literature and have not been evaluated in empirical research. One of the many challenges confronting radiographers who value workplace cultures where speaking-up is an accepted part of the job, is that healthcare staff who speak-up often suffer deterioration in their relationships with their peers, irrespective ofwhether the concerns reported are genuine and legitimate. Jones and Kelly[33] suggest that staff consistently voiced their concerns despite barriers to speaking-up but getting someone to listen and then act appropriately could be problematic. A common perception in the literature, therefore, was that speaking-up is a 'high risk, lowbenefit activity.'

We recognise that some radiographers work in organisations that have robust mechanisms to ensure staff speaking-up are

responded to in an appropriate manner. However, others may be operating in organisations displaying characteristics consistent with the 'Deaf Effect', a term originating in management litera- ture[61] to describe the reluctance of senior managers to hear and to act on challenging observations from lower down the organisational hierarchy. A key contribution from this review is, therefore, that a favourable workplace context, where radiographers are more likely to speak-up, is one where management are perceived to be willing to listen and act, the culture is seen as supportive and thereis relatively little fear of negative consequences.

A number of studies[40,51] suggest that a further factor in devel- oping a culture of speaking-up was the existence of professional codes of conduct and standards that promote it. The existence of several national and professional policies in, for example, the UK contrast sharply with the current realities in the Ghana health system. The UK Code of Professional Conduct for the Society of Radiographers clearly stipulates guidelines for raising concerns or speaking-up about safety issues.[62] Unfortunately, the Code of Conduct for the Ghana Society of Radiographers (GSR) has no such equivalent stipulations or guidelines.

Of particular relevance to patient safety is the problem of excessive workload, staffing shortages and the deleterious effects on workforce morale, all of which were identified as barriers to speaking-up. The global shortage of healthcare workforce is acutelyreflected within radiography, with the continual rise in demand for radiography services and workforce shortages with a lack of both radiographers and radiologists being well documented.[63] Whilstworkforce shortages are a global issue, they are felt acutely in Ghana and other resource-constrained countries. For example, there are currently 350 registered radiographers in Ghana serving a population of 31.07 million, a ratio of radiographers to the popu- lation of 1e88,771. This is in stark comparison to the UK, where a total of 33,789 radiographers serve a population of 66.8 million, at aratio of 1 to 1,980.[64]

Ghanaian radiographers clearly have a major task in addressing
rising pressures of healthcare demand in an increasingly complex field of practice where staff morale, patient safety and speaking-up require promotion and protection. Evidence suggests that Ghanaian radiographers are generally dissatisfied with their jobs due to challenges such as excessive workload, poor salaries, staff short- ages, role conflicts, poor physical working environment, non-utilisation of radiographers' skills and abilities and experiences of radiographers concerning workstation practices such as manual controlling of equipment.[65,66] An added issue in Ghana and other countries with low numbers of registered radiographers, is that the small numbers of radiographers working within a hospital, or clinic, may increase the risk of being identified following speaking- up, even if the concern is anonymised. In turn, being identified as someone who speaks up increases the perceived risk of retributionby colleagues.[27,28]

The development of a speaking-up or whistleblowing policy by
the Ministry of Health is imperative in promoting speaking-up behaviours among radiographers in Ghana and in effect the entire health workforce. The health system in Ghana also needs to increase efforts targeted at improving patient safety by drawing on the voice of radiographers and others health workers across the country. For example, a national policy and regulation programme which includes provisions, resources and guidelines for speaking up within regional and local healthcare system will provide a sense of direction and ultimately improve patient outcome and staff wellbeing. The Code of Ethics currently being revised by the Allied Health Professions Council (AHPC), the regulatory body for training and practice of allied health professions in Ghana, provides a valuable opportunity to raise awareness of the need for regulationsand guidelines to encourage a 'blame-free' working environment,

where healthcare professionals can confidently speak-up about safety concerns without fear of punishment or harassment.

The curriculum for training of radiographers, which currently presents nothing on speaking-up related topics should include speaking-up training and interventions, as this would help to instil the attitude of questioning the norms and practices in newly qualified radiographers before they are posted for practice. Addressing the gap in evidence and knowledge about speaking-up is also imperative, with more research urgently needed to investigate the realities and experiences of speaking-up behaviours by Ghanaian radiographers.

Conclusions

This paper demonstrates that while 'speaking-up' is a topic that has gained international interest. Hoewever, most studies are focussed on nursing and medical practice and mostly overlook other healthcare professions, including radiography. Most studies are also undertaken in higher income and westernised health systems, with the concept of speaking-up in healthcare in Africa and Ghana remaining unexplored. This is a significant gap, as the culture and practice of speaking-up currently explored in the literature may be different from the norms and cultural beliefs in African countries, such as Ghana. It cannot be assumed, therefore, that speaking-up experiences documented in the literature are transferable to the Ghanaian cultural context, or other low or me- dium income countries.

Speaking-up is also a topic that has been largely overlooked by

policy makers, both within healthcare generally and specifically within radiography in Ghana. Although the updating of the Code of Ethics suggests that change may be on the horizon, it is unclear whether the relevant policy and regulatory bodies are aware of the importance of speaking-up in ensuring patient safety, or aware of the serious issues realted to workload and workplace cultures which risk routinely undermining safety and safety-related be- haviours such as speaking up. It is not possible to achieve patient safety where there are no systems to address workers' concerns. Routine delivery of unsafe care associated with a healthcare workforce lacking in voice could severely undermine Ghana's am- bitions to deliver a high-quality health care system and Universal Health Coverage (UHC) in the future.[67]

Conflict of interest statement

None

Funding

This work is funded by the Ghana Scholarships Secretariat
The views expressed are those of the authors and not neces- sarily those of the Ghana Scholarships Secretariat or the School of Healthcare Sciences

Acknowledgements

The Ghana Scholarships Secretariat, Accra e Ghana

References

1. Wallin A, Gustafsson M, Anderzen Carlsson A, Lundén M. Radiographers' experience of risks for patient safety incidents in the radiology department. *J Clin Nurs* 2019;28(7e8):1125e34.
2. European Society of Radiology (ESR) communications@ myesr. org, European Federation of Radiographer Societies (EFRS) info@ efrs. eu. Patient safety in medical imaging: a joint paper of the European Society of Radiology (ESR) and

the European Federation of Radiographer Societies (EFRS). *Insights Imaging* 2019;10(1e7).

3. Craciun H. Risk management in radiology departments. *World J Radiol* 2015;7(6):134.

4. Kruse J, Lehto N, Riklund K, Tegner Y, Engström A. Scrutinized with inadequate control and support: interns' experiences communicating with and writing referrals to hospital radiology departments e A qualitative study. *Radiography* 2016;22(4):313e8.

5. Okuyama A, Wagner C, Bijnen B. Speaking up for patient safety by hospital-based health care professionals: a literature review [Internet] *BMC Health Serv Res* 2014;14:61. Available from: http://ovidsp.ovid.com/ovidweb.cgi? T JS&PAGE reference&D med10&NEWS N&AN 24507747.

6. Schwappach DLB, Gehring K. Frequency of and predictors for withholding patient safety concerns among oncology staff: a survey study. *Eur J Cancer Care (Engl) [Internet]* 2015;24(3):395e403. Available from: http://ovidsp.ovid.com/ ovidweb.cgi?T JS&PAGE reference&D med11&NEWS N&AN 25287114.

7. Lyndon A, Sexton JB, Simpson KR, Rosenstein A, Lee KA, Wachter RM. Predictors of likelihood of speaking up about safety concerns in labour and delivery [Internet] *BMJ Qual Saf* 2012;21(9):791e9. Available from: http://ovidsp.ovid. com/ovidweb.cgi? T JS&PAGE reference&D med8&NEWS N&AN 22927492.

8. Mannion R, Blenkinsopp J, Powell M, McHale J, Millar R, Snowden N, et al. Understanding the knowledge gaps in whistleblowing and speaking up in health care: narrative reviews of the research literature and formal inquiries, a legal analysis and stakeholder interviews [Internet] *Heal Serv Deliv Res* 2018;6(30):1e190. https://doi.org/10.3310/hsdr06300. Available from:.

9. Blenkinsopp J, Snowden N, Mannion R, Powell M, Davies H, Millar R, et al. Whistleblowing over patient safety and care quality: a review of the literature [Internet] *J Health Organ Manag* 2019;33(6):737e56. Available from: http://ovidsp.ovid.com/ovidweb.cgi? T JS&PAGE reference&D prem&NEWS N&AN 31625824.

10. Jones A, Blake J, Adams M, Kelly D, Mannion R, Maben J. Interventions pro-moting employee "speaking-up" within healthcare workplaces: a systematic narrative review of the international literature. *Health Policy* 2021;125(3): 375e84. https://doi.org/10.1016/j.healthpol.2020.12.016. Available from:.

11. Martin GP, Armstrong N. Speaking up in resource-constrained settings: how to secure safe surgical care in the moment and in the future? BMJ Qual Saf Published Online First: 15 March 2022. doi: 10.1136/bmjqs-2021-014624

12. Matthias Nnadi. *Whistleblower policy_ a panacea for financial corruption in Af-rica _ public finance focus*. https://www.publicfinancefocus.org/viewpoints/2020/05/whistleblower-policy-panacea-financial-corruption-africa.

13. Ministry of Health G. *Health sector medium term development plan*. Ministry of Health (MOH); 2014. p. 75. https://www.moh.gov.gh/wp-content/uploads/ 2016/02/2014-2017-Health-sector-medium-term-dev-plan.pdf.

14. Roberts M, Mogan C, Asare JB. An overview of Ghana's mental health system: results from an assessment using the world health organization's assessment instrument for mental health systems (WHO-aims). *Int J Ment Health Syst* 2014;8(1):1e13.

15. Ministry of Health. *The Ghana health sector annual programme of work 2004*. 2004;(January. https://www.moh.gov.gh/wp-content/uploads/2016/02/ Annual-Programme-of-Work-2004.pdf.

16. Antwi WK. *Child protection in Ghana: Exploring the perception and behaviour of radiographers*. Sheffield Hallam University (United Kingdom); 2016. http:// shura.shu.ac.uk/id/eprint/20712.

17. *History of Radiography In Ghana*. https://ghanasor.org/history-of-radiography- in-ghana/. [Accessed 1 August 2020].

18. Nsiah C, Siakwa M, Ninnoni JPK. Registered Nurses' description of patient advocacy in the clinical setting. *Nurs Open* 2019;6(3):1124e32.

19. The Ghana Health Services (GHS. *The patient's charter*. Ghana: Accra; 1992. https://ghanahealthservice.org/ghs-subcategory.php?cid 11&scid 46.

20. Coalition GA-C. *Whistleblowing in Ghana*. 2010. http://www.gaccgh.org/publications/A_Guide_to_Whistleblowing_in_Ghana.pdf.

21. Ndebugri H, Tweneboah Senzu E. Examining the whistle blowing "act" of Ghana and its effectiveness in combating corporate crime. *SSRN Electron J* 2018: 85602.

22. *NCCE deepens citizens' understanding of Whistle blowers' Act - graphic Online*.https://www.graphic.com.gh/news/politics/ghana-news-ncce-deepens- citizens-understanding-of-whistleblowers-act.html.

23. Greenhalgh T, Thorne S, Malterud K. Time to challenge the spurious hierarchyof systematic over narrative reviews? *Eur J Clin Invest* 2018;48(6):1e6.

24. Jones A, Hannigan B, Coffey M, Simpson A. Traditions of research in community mental health care planning and care coordination: a systematic meta- narrative review of the literature. *PLoS One* 2018;13(6):e0198427. https:// doi.org/10.1371/journal.pone.0198427.

25. Yurtkoru S, Wozir FM. Organizational culture and intentions towards types of whistleblowing: the case of Turkey and Ethiopia. *Pressacademia* 2017;4(4): 527e39.

26. Antwi-boasiako J. Why People Refuse to Blow the Whistle in Ghana. *Public PolAdm Res* 2018;8(4):1e7.

27. Bolderston A, Di Prospero LS, French J, Adams R. Speaking up: an international comparison of the willingness of radiation therapists to report errors in clinical practice [Internet] *J Med Imaging Radiat Sci* 2014;45(2):172. https://doi.org/ 10.1016/j.jmir.2014.03.039. Available from:.

28. Siewert B, Swedeen S, Brook OR, Eisenberg RL, Hochman M. Barriers to safetyevent reporting in an academic radiology department: authority gradients and

other human factors [Internet] *Radiology* 2018;288(3):693e8. Available from:http://ovidsp.ovid.com/ovidweb.cgi?
T JS&PAGE reference&D med13&NEWS N&AN 29762092.
29. Diamond T. *Making gray gold - making gray gold: narratives of nursing home care(women in culture and society series)*. 1992. https://press.uchicago.edu/ucp/books/book/chicago/M/bo3684346.html.
30. Halm M, Peterson M, Kandels M, Sabo J, Blalock M, Braden R, et al. Hospital nurse staffing and patient mortality, emotional exhaustion, and job dissatis- faction. *Clin Nurse Spec* 2005;19(5):241e51.
31. Tangirala S, Rangaraj R. *Exploring nonlinearity in employee voice: the effects of personal control and organizational identification author (s): subrahmaniam tangirala and rangaraj ramanujam*51. Academy of Management Stable; 2008.p. 1189e203 (6), https://www.jstor.org/stable/4039026.
32. Morrison EW, Milliken FJ. Speaking up, remaining silent: the dynamics of voice and silence in organizations. *J Manag Stud* 2003;40(6):1353e8.
33. Jones A, Kelly D. Deafening silence? Time to reconsider whether organisationsare silent or deaf when things go wrong [Internet] *BMJ Qual Saf* 2014;23(9):709e13. Available from: http://ovidsp.ovid.com/ovidweb.cgi?T JS&PAGE reference&D med10&NEWS N&AN 25015116.
34. Rauwolf P, Jones A. Exploring the utility of internal whistleblowing inhealthcare via agent-based models. *BMJ Open* 2019;9(1).
35. Richard A, Pfeiffer Y, Schwappach DDL. Development and psychometric evalua- tion of the speaking up about patient safety questionnaire. *J Patient Saf* 2021 Oct 1;17(7):e599e606. https://doi.org/10.1097/PTS.0000000000000415. PMID: 28858000.
36. Schwappach D, Richard A. Speak up-related climate and its association withhealthcare workers' speaking up and withholding voice behaviours: a cross-sectional survey in Switzerland [Internet] *BMJ Qual Saf* 2018;27(10):827e35. Available from: http://ovidsp.ovid.com/ovidweb.cgi?T JS&PAGE reference& D medl&NEWS N&AN 29572300.
37. Fisher M, Kiernan M. Student nurses' lived experience of patient safety and raising concerns [Internet] *Nurse Educ Today* 2019;vol. 77:1e5. Available from: http://ovidsp.ovid.com/ovidweb.cgi?
T JS&PAGE reference&D medl&NEWS N&AN 30877869.
38. Landgren R, Alawadi Z, Douma C, Thomas EJ, Etchegaray J. Barriers of pediatric residents to speaking up about patient safety [Internet] *Hosp Pediatr* 2016;6(12):738e43. Available from: http://ovidsp.ovid.com/ovidweb.cgi? T JS&PAGE reference&D med12&NEWS N&AN 27909093.
39. Omura M, Stone TE, Maguire J, Levett-Jones T. Exploring Japanese nurses' perceptions of the relevance and use of assertive communication in healthcare: a qualitative study informed by the Theory of Planned Behaviour [Internet] *Nurse Educ Today* 2018;67:100e7. Available from: http://ovidsp.ovid.com/ovidweb.cgi?T JS&PAGE reference&D med13&NEWS N&AN 29852398.
40. Kingston MJ, Evans SM, Smith BJ, Berry JG. Attitudes of doctors and nurses towards incident reporting: a qualitative analysis. *Med J Aust* 2004;181(1): 36e9.
41. Ahern K, McDonald S. The beliefs of nurses who were involved in a whistle- blowing event. *J Adv Nurs* 2002;38(3):303e9.
42. Attree M. Factors influencing nurses' decisions to raise concerns about care quality. *J Nurs Manag* 2007;15(4):392e402.
43. Etchegaray JM, Ottosen MJ, Dancsak T, Thomas EJ. Barriers to speaking up about patient safety concerns. *J Patient Saf* 2020 Dec;16(4):e230e4. https://doi.org/10.1097/PTS.0000000000000334. PMID: 29112033.
44. Hughes H. Freedom to speak up - the role of freedom to speak up guardiansand the National Guardian's Office in England [Internet] *Futur Healthc J* 2019;6(3):186e9. Available from: http://ovidsp.ovid.com/ovidweb.cgi? T JS&PAGE reference&D prem&NEWS N&AN 31660523.
45. Francis R. *Report of the mid staffordshire NHS foundation trust public inquiry*. 2013. https://www.gov.uk/government/publications/report-of-the-mid-staffordshire-nhs-foundation-trust-public-inquiry.
46. Schwappach DLB, Gehring K. 'Saying it without words': a qualitative study of oncology staff's experiences with speaking up about safety concerns. *BMJ Open* 2014;4:e004740. https://doi.org/10.1136/bmjopen-2013-004740.
47. Raemer DB, Kolbe M, Minehart RD, Rudolph JW, Pian-Smith MCM. Improving an- esthesiologists' ability to speak up in the operating room: a randomized controlledexperiment of a simulation-based intervention and a qualitative analysis of hurdlesand enablers [Internet] *Acad Med* 2016;91(4):530e9. Available from: http://ovidsp. ovid.com/ovidweb.cgi?T JS&PAGE reference&D med12&NEWS N&AN 26703413.
48. Hall N, Klein V, Betts K, DeRanieri J. Speaking up: fostering "silence breaking" through leadership [Internet] *Nurs Manage* 2018;49(6):51e3. Available from: http://ovidsp.ovid.com/ovidweb.cgi?
T JS&PAGE reference&D medl&NEWS N&AN 29846295.
49. Edrees HH, MIsail MNM, Kelly B, Goeschel CA, Berenholtz SM, Pronovost PJ,et al. Examining influences on speaking up among critical care healthcare providers in the United Arab Emirates [Internet] *Int J Qual Heal care J Int SocQual Heal Care* 2017;29(7):948e60. Available from: http://ovidsp.ovid.com/ ovidweb.cgi?T JS&PAGE reference&D med13&NEWS N&AN 29186417.
50. Onakoya OA, Moses CL. Effect of system factors on whistleblowing attitude of Nigerian banks employees: a conceptual perspective. In: *3rd International Conference on African Development Issues*. Ota: Covenant University Press; 2016. p. 300e7.
51. Jackson D, Peters K, Andrew S, Edenborough M, Halcomb E, Luck L, et al. Understanding whistleblowing: qualitative insights from nurse whistleblowers [Internet] *J Adv Nurs* 2010;66(10):2194e201. Available from: http://ovidsp.

ovid.com/ovidweb.cgi?
¼ T JS&PAGE reference&D med7&NEWS N&AN 20626488.
52. Martin GP, Chew S, Dixon-Woods M. Uncovering, creating or constructing problems? Enacting a new role to support staff who raise concerns about quality and safety in the English National Health Service. *Health* 2020;25(6): 757e74.
53. Omura M, Stone TE, Levett-Jones T. Cultural factors influencing Japanese nurses' assertive communication. Part 1: collectivism [Internet] *Nurs Health Sci* 2018;20(3):283e8. Available from: http://ovidsp.ovid.com/ovidweb.cgi?T JS&PAGE reference&D medl&NEWS N&AN 29405591.
54. Roh H, Park SJ, Kim T. Patient safety education to change medical students'attitudes and sense of responsibility [Internet] *Med Teach* 2015;37(10):908e14. Available from: http://ovidsp.ovid.com/ovidweb.cgi?T JS&PAGE reference&D med11&NEWS N&AN 25336257.
55. Granvill K. The implications of differences in cultural attitudes and styles ofcommunication on peer reporting behaviour [Internet] *Cross Cult Manag An IntJ* 2000 Jan 1;7(2):11e7. https://doi.org/10.1108/13527600010797066. Avail- able from:.
56. Park H, Blenkinsopp J, Oktem MK, Omurgonulsen U. Cultural orientation and attitudes toward different forms of whistleblowing: a comparison of South Korea, Turkey, and the U.K. *J Bus Ethics* 2008;82(4):929e39.
57. Ohnishi K, Hayama Y, Asai A, Kosugi S. The process of whistleblowing in a Japanese psychiatric hospital. *Nurs Ethics* 2008 Sep;15(5):631e42. https://doi.org/10.1177/0969733008092871.PMID:18687817.
58. Cheng X, Karim KE, Lin KJ. A cross-cultural comparison of whistleblowing perceptions. *Int J Manag Decis Making* 2015;14(1):15e31.
59. Ng KY, Van Dyne L, Ang S. Speaking out and speaking up in multicultural settings: a two-study examination of cultural intelligence and voice behavior [Internet] *Organ Behav Hum Decis Process* 2019;vol. 151(February). https://doi.org/10.1016/j.obhdp.2018.10.005. 150e9. Available from:.
60. Ofori I. *The veil of superstition* e *Africa's burden of darkness*. 2014 [Internet] Available from: https://www.modernghana.com/news/538390/the-veil-of- superstition-africas-burden-of-dark.html.
61. Robey D, Keil M. Blowing the whistle on troubled software projects. *Commun ACM* 2001;44(4):87e93.
62. *Code of professional conduct*. Society of Radiographers; 2013. Available from:https://www.sor.org/learning-advice/professional-body-guidance-and- publications/documents-and-publications/policy-guidance-document-library/ code-of-professional-conduct.
63. The Society and College of Radiographers. *Shortage of therapeutic radiographers will have "critical effect" if decisive action is not taken to recruit more* [Internet]. 2018. Available from: https://www.sor.org/news/import/shortage-of- therapeutic-radiographers-will-have-cr.
64. *Office for national statistics*. https://www.ons.gov.uk/date Accessed. [Accessed 1 August 2020].
65. Ashong GGNA, Rogers H, Botwe BO, Anim-Sampong S. Effects of occupational stress and coping mechanisms adopted by radiographers in Ghana [Internet] *Radiography* 2016;22(2):112e7. Available from: https://doi.org/10.1016/j.radi. 2015.09.002.
66. Adesi KK, William Antwi K, Pokua RK. A need assessment for prevention of work-related stress experienced by radiographers in Ghana. *Adv Tech Biol Med* 2015;3(1). https://doi.org/10.4172/2379-1764.1000124.
67. WHO Regional Office for Africa. *Global action plan signatory agencies back Ghana's health financing reforms*. 2019 [Internet]. Available from: https://www.who.int/news-room/feature-stories/detail/global-action-plan-signatory- agencies-back-ghana-s-health-financing-reforms. [Accessed 2 August 2020].