Nursing Children and Young People

evidence & practice / XXX

Why you should read this article:

- To learn about the barriers that children's nurses experience when undertaking health promotion to address overweight or obesity with children and young people and their families
- To recognise the importance of children's nurses having access to education and work-based training on structured interventions for childhood overweight or obesity
- To identify the role of communication skills training in supporting children's nurses to have sensitive and effective conversations about overweight or obesity with children and their families

Barriers to health promotion with overweight or obese children, young people and their families: a literature review

Rebecca Johns, Mandy Jane Brimble

Citation
Johns R, Brimble MJ (2022) Barriers to health promotion with overweight or obese children, young people and their families: a literature review. Nursing Children and Young People. doi: 10.7748/ncyp.2022.e1429

Peer review
This article has been subject to open peer review and checked for plagiarism using automated software

Correspondence
brimblemj@cf.ac.uk;

Conflict of interest
None declared

Accepted
25 October 2021

Published online
XXX

Key points

- **Addressing overweight and obesity with parents is challenging**
- **Lack of time, training and resources influence children's nurses' capacity and ability to effectively address overweight and obesity issues and promote healthy behaviours**
- **Parental motivation and negative responses can deter children's nurses from raising weight issues, but they have a professional and ethical responsibility to do so.**
- **Contemporary societal perceptions of overweight and obesity being 'normal' are a new challenge to health promotion activities**

Abstract

Childhood obesity is a worldwide public health issue requiring sustained health promotion efforts by multiple healthcare professionals. Children's nurses are the main providers of education, support and interventions for overweight and obesity. Despite sustained health promotion efforts, addressing overweight or obesity in children and young people is an ongoing challenge. This literature review aimed to identify the barriers that children's nurses experience when undertaking health promotion to address overweight or obesity with children and young people and their families. Three themes were identified: lack of time, training and resources; parental motivation and response; and the 'new normal'. Education and work-based training on structured interventions for addressing overweight or obesity are vital. Skills training in broaching challenging conversations with children, young people and their families sensitively and effectively is also important.

Author details

Rebecca Johns, child nursing student, School of Healthcare Sciences, Cardiff University, Cardiff, Wales; Dr Mandy Jane Brimble, senior lecturer, School of Healthcare Sciences, Cardiff University, Cardiff, Wales

Keywords

child health, clinical, fathers, health promotion, mothers, obesity, parents, public health

Introduction

Health promotion is a key concept of nursing practice. It has many definitions but essentially it involves interventions designed to foster public health (Raingruber 2014). Promotion of well-being and prevention of ill-health is a requirement of the Nursing and Midwifery Council (NMC) Code (NMC 2018). In addition, the Royal College of Nursing (RCN) (2021) encourages nurses to support people to adopt lifestyles that will develop their health, and that of their children, to avoid future health issues.

The World Health Organization (WHO) (2021) defines overweight and obesity as abnormal or excessive accumulation of fat that may impair health. The fundamental cause of overweight and obesity is an energy imbalance between calories consumed and calories expended (WHO 2021) Overweight and obese children are likely to remain so into adulthood and are at higher risk of developing Type 2 diabetes and early onset cardiovascular disease (Sahoo et al 2015). Body Mass Index (BMI) is the medium used to determine overweight and obesity in adults, i.e. overweight is a BMI greater than or equal to 25; and obesity is a BMI greater than or equal to 30 (WHO 2021). However, in children this varies with age and is determined by deviations from WHO growth chart medians (WHO 2021). Childhood obesity is a major public health issue and challenge in many countries worldwide (Wang and Lim 2012). In 2016, 18% of children and young people aged 5-19 were overweight or obese in comparison to 4% in 1975 (WHO 2021). Childhood obesity is largely avoidable, therefore, prevention is a priority (Wang and Lim 2012).

Children's nurses can contribute to health promotion activities with children, young people and their families by providing nutritional advice and offering strategies, such as weight management programmes (Rabbitt and Coyne 2012). However, children's nurses have experienced barriers when undertaking this vital role due to the sensitivity of the topic, for example challenges in communicating to parents that their child is overweight or obese (Bonde et al 2014). In addition, some parents may react negatively, expressing anger or disbelief, which affects family-centred care as the relationship between the parent and nurse may be damaged (Rabbitt and Coyne 2012). Despite this, it is important that children's nurses discuss this issue appropriately as it is the role of the nurse to act as an advocate for patients and their health (NMC 2018).

Aim

To identify the barriers that children's nurses experience when undertaking health promotion to address overweight or obesity with children, young people and their families. In this review, the term 'child' refers to individuals aged under 18 in line with the UNICEF (1989) definition.

Method

The search strategy is outlined in Tables 1-3, which show the search terms, databases searched and results retrieved. Given that childhood obesity is a worldwide epidemic (WHO 2021), research studies from across the globe were included.

Table 1. Search terms

Barrier	Health promotion	Childhood obesity	Nurse
Boundary	Wellness program	Overweight children	Registered nurse
Boundaries	Health campaign	Obese children	Nurse intervention
Limit	Health development	Adolescent obesity	
	Health promoting		
	Improving health		

Table 2. Results retrieved from database search of the Cumulative Index to Nursing and Allied Health Literature

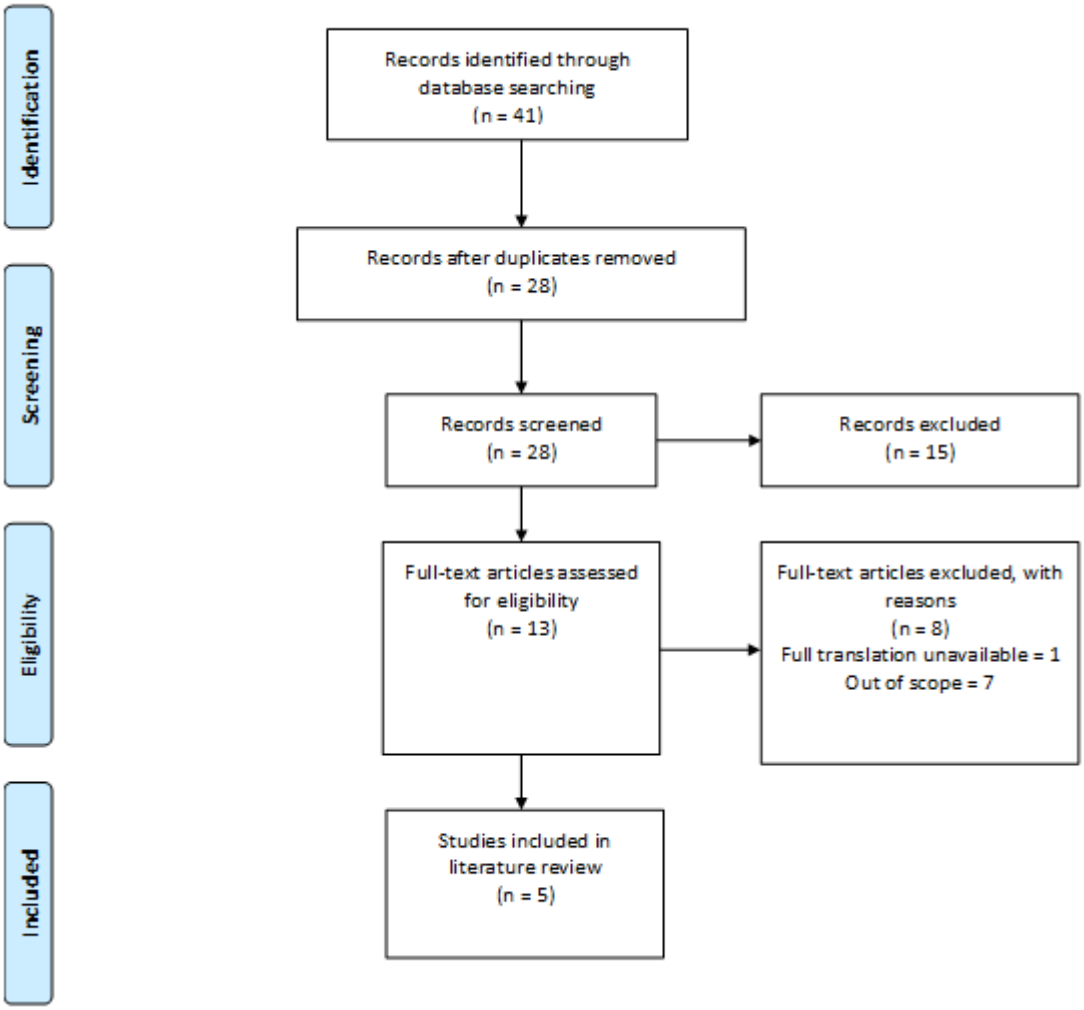
Search number	Search term	Results
1	Barrier OR boundary OR boundaries OR limit	159,005
2	Health promotion OR wellness program OR health campaign OR health development OR health promoting OR improving health	119,532
3	Childhood obesity OR overweight children OR obese children OR adolescent obesity	20,111
4	Nurse OR registered nurse OR nurse intervention	521,558
5	1 AND 2 AND 3 AND 4	23

Table 3. Results retrieved from database search of MEDLINE

Search number	Search term	Results
1	Barrier OR boundary OR boundaries OR limit	877,728
2	Health promotion OR wellness program OR health campaign OR health development OR health promoting OR improving health	240,542
3	Childhood obesity OR overweight children OR obese children OR adolescent obesity	30,470
4	Nurse OR registered nurse OR nurse intervention	356,277
5	1 AND 2 AND 3 AND 4	24

Once the year parameters of 2012-2021 were applied and results limited to empirical research articles written in English, 41 articles remained. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram (Moher et al 2009) (Figure 1) outlines how these 41 articles were filtered to arrive at the final selection of five articles.

Figure 1**. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram**



(Moher et al 2009)

The five articles included qualitative and mixed-methods studies (Gerards et al 2012, Regber et al 2013, Kelleher et al 2017, Tanda et al 2017, Cheng et al 2020). These articles were appraised using the Critical Appraisal Skills Programme (CASP) checklist appropriate to the study type (CASP 2021).

Findings

Three themes were identified:

- Lack of time, training and resources.
- Parental motivation and response.
- The 'new normal'.

Lack of time, training and resources

Time, training and resources are essential for effective health promotion (Nambiar et al 2017). Reduced patient-nurse contact, due to time pressures, can lead to issues being missed or lack of opportunity to discuss an identified health concern (Carayon and Gurses 2008). Lack of time due to staffing issues is as great an issue in primary care as it is in acute settings (RCN 2017).

In a qualitative study of youth healthcare (YHC) professionals (doctors (*n*=8), nurses (*n*=6) and management staff (*n*=2)) in the Netherlands, Gerards et al (2012) aimed to identify why they found it challenging to refer the parents of overweight children to an obesity prevention intervention. Sixteen participants were recruited on a volunteer basis, a 22% response rate. Data were collected via audiotaped, semi-structured interviews which lasted for 20 minutes. The transcribed data were coded independently by two reviewers, demonstrating inter-rater reliability (Bryman 2016). Gerards et al (2012) found that YHC professionals identified insufficient time, lack of training and a deficit in resources as barriers to promoting healthy weight. Although Gerards et al's (2012) findings are similar to others, they note that recruiting participants on a volunteer basis can introduce bias. This is because volunteers tend to be more educated and enthusiastic about the study focus (Salkind 2012), which may influence the findings. However, the low response rate of 22% is not acknowledged. Although it can be challenging to recruit participants, a low response rate means that findings are not representative of the wider population under study (Seleh and Bista 2017). Further, Gerards et al's sample comprised a similar number of doctors and nurses, so the findings may not be wholly transferable to nurses.

Kelleher et al's (2017) qualitative study explored the barriers and facilitators experienced by professionals to implementing a childhood weight management programme. The 29 participants, including nine public health nurses, were recruited using purposive sampling. This is a method of gathering manageable amounts of data, while still achieving an outcome representative of the population under study (Ames et al 2019). The response rate was 76% (29/38), which is significantly higher than Gerards et al's (2012) study and increases the generalisability of the findings. Although the researchers aimed to hold face-to-face interviews, time and scheduling challenges meant that only seven face-to-face interviews were held with the remaining 22 interviews conducted over the telephone. Drabble et al (2015) note that although many researchers use telephone interviews for qualitative research, it has generally been considered an inferior method in comparison to face-to-face interviews. Holloway and Galvin (2017) suggest that the reason for this is the lack of deeper interaction when talking by telephone, for example an absence of social cues. However, Oltmann (2016) suggests that neither face-to-face nor telephone interviews are superior, with the main consideration being to use the method most appropriate and useful for the project, based on which of the contextual components are most important and relevant. Indeed, Yin (2014) suggests that the telephone can facilitate relaxation and subsequently more open dialogue. Like Gerards et al (2012), Kelleher et al (2017) found that participants identified insufficient resources, a lack of time and training as barriers to implementing a childhood weight management programme.

In an Australian mixed-methods study, Cheng et al (2020) sought to investigate barriers experienced by child and family health nurses (CFHNs) when undertaking healthy weight promotion in two local health districts in Sydney. Data were collected via surveys and telephone interviews. All CFHNs from the two local health districts were invited, which resulted in 90 respondents completing surveys, a 58% response rate. Survey data were analysed using SPSS Statistics V22, which revealed that 60% of respondents cited lack of time, due to heavy workloads, and a dearth of educational resources as barriers to promoting healthy weight with infants, young children and their families. A limitation acknowledged by Cheng et al (2020) is that the survey questionnaire was not validated. The advantage of validated tools is that they have been tested to ensure that they are an accurate measure of what is being researched and produce reliable results (Lai 2013). Nevertheless, the survey used by Cheng et al (2020) was based on theoretical models and had been used previously with CFHNs in other jurisdictions.

Only 20 of the 90 respondents in Cheng et al's (2020) study took part in the telephone interviews, as the researchers deemed that data saturation had been achieved. Fusch and Ness (2015) state that data saturation is achieved when no new codes are generated. Although data saturation is a recognised principle in qualitative research, it is contentious because it is challenging to quantify (Bernard 2012). The 20 interviews conducted by Cheng et al (2020) could be deemed too few. However, the interviews yielded rich data. This confirmed the survey results of lack of time and educational resources as barriers to promoting healthy weight and providing parents with written information to underpin verbal advice.

In summary, the findings of Gerards et al (2012), Kelleher et al (2017) and Cheng et al (2020) demonstrate that lack of time, training and resources are barriers experienced by children's nurses when undertaking health promotion to address overweight or obesity with children, young people and their families.

Parental motivation and response

Parental support, motivation, health beliefs and behaviours are major influences on the overweight or obese child's ability to obtain a healthy weight (Gunnarsdottir et al 2011, Adamo and Brett 2014). It is unsurprising, therefore, that Gerards et al (2012), Regber et al (2013) and Tanda et al (2017) all found that negative parental responses and lack of motivation to engage with health promotion were barriers to efficacy when addressing childhood overweight or obesity.

Gerards et al (2012) identified that barriers to successful implementation of interventions were parental anger when the topic was raised and/or lack of motivation to engage in suggested activities. In the study by Gerards et al (2012), data analysis involved multiple coders which increases the richness of the data when compared with single coders (Church et al 2019).

Regber et al (2013) conducted a qualitative study involving 15 nurses. This constituted almost 80% of the target population (n=19), so the findings were representative. Among other aims, the study explored nurses' views on parental responses to their child's overweight or obesity. Data were collected via semi-structured interviews. Content analysis revealed that when the topic of weight management was raised with parents of overweight or obese children, many reacted negatively towards the nurse. This is similar to the findings of Gerards et al (2012) and is a barrier to health promotion. Regber et al (2013) found that nurses sometimes 'backed down' or avoided the discussion, so the topic was not fully addressed. However, many felt that showing parents their child's weight and height on a body mass index chart was a useful way to start the conversation and provide evidence of the need to address the issue. Further, simply raising the issue may result in the parent moving into the ~~pre-~~contemplation stage of Prochaska and DiClemente's (1983) behaviour change model, i.e. considering a change in behaviour in the next 6 months, and subsequent discussions could lead to progress through the other stages. Although this model was originally developed in relation to smoking cessation, it has been widely used for other aspects of health promotion, including childhood obesity (Park et al 2014). While Regber et al's (2013) findings appear credible, the original transcripts were in Swedish and translated to English with the aim of capturing the essence of meaning. This may have resulted in bias due to the influence of the translator's interpretation compared with a verbatim translation (Al-Amer et al 2015, Nasri et al 2021).

In 2017 Tanda et al conducted a mixed-methods study involving nurse practitioners in Ohio with four aims, including examining the barriers to implementing childhood obesity prevention. A survey was completed by 371 registered nurses but after the inclusion criteria were applied, the sample was reduced to 155, yielding a response rate of just 8% from the 2,000 included in the original mailing. Of the sample, 65% viewed parental resistance and denial, as well as a lack of parental motivation, as barriers to implementing childhood obesity prevention. In common with other studies, Tanda et al (2017) used self-reports in their data collection which poses a bias risk due to socially or professionally desirable responses (Rosenman et al 2011, Althubaiti 2016). However, anonymity can encourage honesty and this was a feature of Tanda et al's (2017) survey, which increases the reliability of the results (Rosenman et al 2011).

To summarise, lack of parental motivation and negative responses are barriers that children's nurses experience when undertaking health promotion to address childhood overweight and obesity. Although some of the studies can be criticised because of translation issues (Regber et al 2013) and self-reported data (Tanda et al 2017), the similarity in findings between these and Gerards et al's (2012) study suggests that parental motivation and negative responses are credible barriers to promotion of healthy weight.

The 'new normal'

The increase of overweight and obesity has led to a change in public perception resulting in societal acceptance of additional body weight, which is sometimes regarded as the 'new normal' (Coombes 2014, Twarog et al 2016). The literature review also indicated that this was the case and when parents did not view their child as overweight or obese, this presented a barrier to health promotion activities.

Regber et al (2013) used semi-structured interviews to explore 15 nurses' views of parental responses to their child being identified as overweight or obese. They found that some parents perceived their child to be of normal size, with some preferring their child to be of a larger frame. Although transcription and analysis were undertaken by one researcher, Regber et al (2013) identify that all authors discussed the transcripts and coding, redeeming some of the reliability lost by one-coder analysis (Nascimento and Steinbruch 2019). Similar findings resulted from Kelleher et al's (2017) study of barriers experienced by healthcare professionals implementing a childhood weight management programme. Interview data were analysed using framework analysis, which has many advantages including easier organisation of data and production of rich data analysis (Gale et al 2013). However, using a preconceived framework can prematurely exclude alternative ways of organising data (Gale et al 2013), which could have resulted in more reliable findings.

Kelleher et al (2017) identify this limitation but state that extra measures were taken to ensure the data were analysed as extensively as possible to eliminate bias.

The 29 participants in Kelleher et al's (2017) study perceived that one of the barriers to their health promotion efforts was that many parents were in denial about their child being overweight. The reason for this was because they were of similar appearance to many of their peers, leading to the misconception that this was normal.

Cheng et al (2020) also found that parents of overweight and obese children believed their child to be of a 'normal size', therefore creating a barrier to successfully implementing healthy weight interventions. Like Regber et al (2013), Cheng et al (2020) found that some families wanted their children to be of a large frame, because in some cultures it is an indication of wealth. The population of the two Sydney districts included in Cheng et al's (2020) study are acknowledged to be culturally diverse, hence their observation. In fact, Sydney is home to a significant number of Aboriginal and Torres Strait Islander peoples (Wade and Gladstone 2019). Despite the culturally diverse population, the scope of Cheng et al's (2020) study was relatively small, including only two districts in Sydney, which may affect generalisability (Ross and Zaidi 2019). Nevertheless, this is a recognised feature of qualitative studies (Carminati 2018).

In summary, childhood overweight or obesity is becoming increasingly normal in society. Therefore, this is a barrier to health promotion as many parents do not see their child's weight as a health issue. Although the studies may be criticised for one-coder analysis (Regber et al 2013), framework analysis (Kelleher et al 2017) and a limited scope (Cheng et al 2020), the literature indicates that the 'new normal' is a barrier.

Limitations

Limitations to the review are the inclusion of only qualitative or mixed-methods studies. Quantitative studies could have provided specific statistics indicating barriers. However, the qualitative and mixed-methods studies provided in-depth understanding of the experiences of children's nurses and the barriers they face when promoting healthy weight. As not all the studies were from the UK, the research may not apply to children's nurses in the UK. Childhood obesity is a worldwide issue, however, so it is important to explore research from across the globe, while being mindful of the influence different healthcare systems and cultures may have on findings.

Recommendations for education and practice

Children's nurses should be educated about the public health issue of childhood obesity, including the barriers to promoting a healthy weight with children, young people and their families. In addition to formal pre and post-registration education, in-depth work-based training on structured interventions for addressing overweight and obesity, for example the Health Exercise and Nutrition for the Really Young, have been found to be successful (Brown et al 2013). Skills training in challenging conversations is imperative for communicating the issue in a sensitive and effective manner (Omura et al 2017). This would enable children's nurses to be more knowledgeable and confident when approaching the topic of weight management and may also influence the response and engagement of children, young people and their families (Bouch 2017). Misleading parental beliefs about nutrition in the early stages of a child's life e.g. crying almost always indicates hunger, genetics rather than nutrition determine body weight and that it is not possible to overfeed an infant, can be successfully overcome by educational programmes (Greenway et al 2018). Furthermore, interactive multimedia interventions (computer-based educational multimedia programmes using images, animation and sound) can facilitate conversations between healthcare professionals and overweight children (Raaff et al 2014), thereby going some way to overcoming the barrier of parental dismissal or denial. However, parental consent would be required for children and young people to participate in these activities which may not be given.

Conclusion

The aim of this review was to identify the barriers that children's nurses experience when undertaking health promotion to address overweight or obesity with children and young people and their families. Three themes were identified. Lack of time, training and resources affected the promotion of a healthy lifestyle, an issue which is solvable but requires investment in adequate staffing and physical resources, such as written material to underpin verbal education. In addition, parental motivation and response was a barrier. Without the support or recognition from families, it is challenging for children and young people to make healthy lifestyle changes (Moore and Bailey 2013). Finally, the studies indicated that societal norms are changing, resulting in overweight or obese children

being seen as a normal weight. If parents do not recognise or accept that their child is overweight or obese, it is unlikely that they will engage with healthy weight promotion activities and therefore the efforts of children's nurses will be ineffective (Coombes 2014). However, avoiding or stepping back from these issues because of parental dismissal or anger would be contrary to the ethos of the United Nations Convention on the Rights of the Child (UNICEF 1989), the paramountcy principle, i.e. that the child's best interest and welfare is the first and paramount consideration? outlined in the Children Act 2004 and the NMC (2018) Code. To optimise interactions with parents who are dismissive or in denial, children's nurses need to be highly skilled in diplomacy, while clearly communicating the health need identified in their assessment.

References

Adamo KB, Brett KE (2014) Parental perceptions and childhood dietary quality. Maternal and Child Health Journal. 18, 4, 978-995. doi: 10.1007/s10995-013-1326-6

Al-Amer R, Ramjan L, Glew P et al (2015) Translation of interviews from a source language to a target language: examining issues in cross-cultural health care research. Journal of Clinical Nursing. 24, 9-10, 1151-1162. doi: 10.1111/jocn.12681

Altruistic A (2016) Information bias in health research: definition, pitfalls, and adjustment methods. Journal of Multidisciplinary Healthcare. 9, 211-217. doi: 10.2147/JMDH.S104807

Ames H, Glenton C, Lewin S (2019) Purposive sampling in a qualitative evidence synthesis: a worked example from a synthesis on parental perceptions of vaccination communication. BMC Medical Research Methodology. 19, 26. doi: 10.1186/s12874-019-0665-4

Bernard HR (2012) Social Research Methods: Qualitative and Quantitative Approaches. Second edition. SAGE Publications, Thousand Oaks CA.

Bonde AH, Bentsen P, Hindhede AL (2014) School nurses' experiences with motivational interviewing for preventing childhood obesity. Journal of School Nursing. 30, 6, 448-455. doi: 10.1177/1059840514521240

Bouch AB (2017) Tackling childhood obesity. Community Practitioner. 90, 7, 41-43.

Brown RE, Willis TA, Aspinall N et al (2013) Preventing child obesity: a long-term evaluation of the HENRY approach. Community Practitioner. 86, 7, 23-27.

Bryman A (2016) Social Research Methods. Fifth edition. Oxford University Press, Oxford.

Carayon P, Gurses AP (2008) Nursing workload and patient safety–a human factors engineering perspective. In Hughes RG (Ed) Patient Safety and Quality: An Evidence-Based Handbook for Nurses. Agency for Healthcare Research and Quality, Rockville MD [Q please include chapter page numbers?]. **736-749.**

Carminati L (2018) Generalizability in qualitative research: a tale of two traditions. Qualitative Health Research. 28, 13, 2094-2101. doi: 10.1177/1049732318788379

CASP (2021) CASP Checklists. https://casp-uk.net/casp-tools-checklists/ (Last accessed: 4 February 2022)

Cheng H, Eames-Brown R, Tutt A et al (2020) Promoting healthy weight for all young children: a mixed methods study of child and family health nurses' perceptions of barriers and how to overcome them. BMC Nursing. 19, 84. doi: 10.1186/s12912-020-00477-z

Church SP, Dunn M, Prokopy LS (2019) Benefits to qualitative data quality with multiple coders: two case studies in multi-coder data analysis. Journal of Rural Social Sciences. 34, 1, 2.

Coombes R (2014) Overweight children could become the 'new norm' for Europe, WHO says. British Medical Journal. 348, g1821. doi: 10.1136/bmj.g1821

Drabble L, Trocki KF, Salcedo B et al (2015) Conducting qualitative interviews by telephone: lessons learned from a study of alcohol use among sexual minority and heterosexual women. Qualitative Social Work. 15, 1, 118-133. doi: 10.1177/1473325015585613

Fusch PI, Ness LR (2015) Are we there yet? Data saturation in qualitative research. The Qualitative Report. 20, 9, 1408-1416. 6. doi: 10.46743/2160-3715/2015.2281

Gale NK, Heath G, Cameron E et al (2013) Using the framework method for the analysis of qualitative data in multi-disciplinary health research. BMC Medical Research Methodology. 13, 117. doi: 10.1186/1471-2288-13-117

Gerards SM, Dagnelie PC, Jansen MW et al (2012) Barriers to successful recruitment of parents of overweight children for an obesity prevention intervention: a qualitative study among youth health care professionals. BMC Family Practice. 13, 37. doi: 10.1186/1471-2296-13-37

Greenway J, Thompson L, Cornfield S (2018) Changing childhood obesity beliefs. Community Practitioner. 91, 6, 44-46.

Gunnarsdottir T, Njardvik U, Olafsdottir AS et al (2011) The role of parental motivation in family-based treatment for childhood obesity. Obesity. 19, 8, 1654-1662. doi: 10.1038/oby.2011.59

Holloway I, Galvin K (2017) Qualitative Research in Nursing and Healthcare. Fourth edition. Wiley Blackwell, Oxford.

Kelleher E, Harrington JM, Shiely F et al (2017) Barriers and facilitators to the implementation of a community-based, multidisciplinary, family-focused childhood weight management programme in Ireland: a qualitative study. BMJ Open. 7, 8, e016459. doi: 10.1136/bmjopen-2017-016459

Lai PS (2013) Validating instruments of measure: is it really necessary? Malaysian Family Physician. 8, 1, 2-4.

Moher D, Liberati A, Tetzlaffet J et al (2009) Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. PLOS Medicine. 6, 7, e1000097. doi: 10.1371/journal.pmed.1000097.

Moore KG, Bailey JH (2013) Parental perspectives of a childhood obesity intervention in Mississippi: a phenomenological study. The Qualitative Report. 18, 48, 1-22. doi: 10.46743/2160-3715/2013.1435

Nambiar B, Hargreaves DS, Morroni C et al (2017) Improving health-care quality in resource-poor settings. Bulletin of the World Health Organization. 95, 1, 76-78. doi: 10.2471/BLT.16.170803

Nascimento L da Silva, Steinbruch FK (2019) 'The interviews were transcribed', but how? Reflections on management research. RAUSP Management Journal. 54, 4, 413-429. doi: 10.1108/RAUSP-05-2019-0092

Nasri NM, Nasri N, Talib MA (2021) Cross-language qualitative research studies dilemmas: a research review. Qualitative Research Journal. 21, 1, 15-28. doi: 10.1108/QRJ-12-2019-0093

Nursing and Midwifery Council (2018) The Code: Professional Standards of Practice and Behaviour for Nurses, Midwives and Nursing Associates. NMC, London.

Oltmann S (2016) Qualitative interviews: a methodological discussion of the interviewer and respondent contexts. Forum: Qualitative Social Research. 17, 2. doi: 10.17169/fqs-17.2.2551

Omura M, Maguire J, Levett-Jones T et al (2017) The effectiveness of assertiveness communication training programs for healthcare professionals and students: a systematic review. International Journal of Nursing Studies. 76, 120-128. doi: 10.1016/j.ijnurstu.2017.09.001

Park MH, Falconer CL, Croker H et al (2014) Predictors of health-related behaviour change in parents of overweight children in England. Preventive Medicine. 62, 100, 20-24. doi: 10.1016/j.ypmed.2014.02.002

Prochaska JO, DiClemente CC (1983) Stages and processes of self-change of smoking: toward an integrative model of change. Journal of Consulting and Clinical Psychology. 51, 3, 390-395. doi: 10.1037//0022-006x.51.3.390

Raaff C, Glazebook C, Wharrad H (2014) A systematic review of interactive multimedia interventions to promote children's communication with health professionals: implications for communicating with overweight children. BMC Medical Informatics and Decision Making. 14, 8. doi: 10.1186/1472-6947-14-8

Rabbitt A, Coyne I (2012) Childhood obesity: nurses' role in addressing the epidemic. British Journal of Nursing. 21, 12, 731-735. doi: 10.12968/bjon.2012.21.12.731

Raingruber B (2014) Contemporary Health Promotion in Nursing Practice. Jones and Bartlett, Burlington MA.

Regber S, Mårild S, Johansson Hanse J (2013) Barriers to and facilitators of nurse-parent interaction intended to promote healthy weight gain and prevent childhood obesity at Swedish child health centers. BMC Nursing. 12, 1, 27. doi: 10.1186/1472-6955-12-27

Rosenman R, Tennekoon V, Hill LG (2011) Measuring bias in self-reported data. International Journal of Behavioural & Healthcare Research. 2, 4, 320-332. doi: 10.1504/IJBHR.2011.043414

Ross PT, Zaidi NL (2019) Limited by our limitations. Perspectives on Medical Education. 8, 4, 261-264. doi: 10.1007/s40037-019-00530-x

Royal College of Nursing (2017) Safe and Effective Staffing: Nursing Against the Odds. RCN, London.

Royal College of Nursing (2021) The Role of Nursing Staff in Public Health. rcn.org.uk/clinical-topics/public-health/the-role-of-nursing-staff-in-public-health (Last accessed: 3 February 2022.)

Sahoo K, Sahoo B, Choudhury AK et al (2015) Childhood obesity: causes and consequences. Journal of Family Medicine and Primary Care. 4, 2, 187-192.

Salkind NJ (2012) Encyclopedia of Research Design. SAGE Publications, Thousand Oaks CA.

Seleh A, Bista K (2017) Examining factors impacting online survey response rates in educational research: perceptions of graduate students. Journal of Multidisciplinary Evaluation. 13, 29, 63-74.

Tanda R, Beverly EA, Hughes K (2017) Factors associated with Ohio nurse practitioners' childhood obesity preventive practice patterns. Journal of the American Association of Nurse Practitioners. 29, 12, 763-772. doi: 10.1002/2327-6924.12522

Twarog JP, Politis MD, Woods EL et al (2016) Is obesity becoming the new normal? Age, gender and racial/ethnic differences in parental misperception of obesity as being 'about the right weight'. International Journal of Obesity. 40, 7, 1051-1055. doi: 10.1038/ijo.2016.40

UNICEF (1989) The United Nations Convention on the Rights of the Child. UNICEF, London.

Wade M, Gladstone N (2019) Rapid Growth for Indigenous Population of Sydney. https://www.smh.com.au/politics/nsw/rapid-growth-for-indigenous-population-of-sydney-20190531-p51t7i.html (Last accessed: 3 February 2022.)

Wang Y, Lim H (2012) The global childhood obesity epidemic and the association between socio-economic status and childhood obesity. International Review of Psychiatry. 24, 3, 176-188. doi: 10.3109/09540261.2012.688195

World Health Organization (2021) Obesity and Overweight. who.int/news-room/fact-sheets/detail/obesity-and-overweight (Last accessed: 3 February 2022.)

Yin RK (2014) Case Study Research: Design and Methods. Fifth edition. SAGE Publications, London.