CULTURE AND WELL-BEING: A COMPARATIVE STUDY

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SUMMARY

This thesis examines cultural variation in well-being and the development of the concept of wellbeing by adding new variables. The theoretical framework used was developed from the Demands-Resources-Individual Effects (DRIVE) model and the Wellbeing Process framework. The studies in the first phase of this research added three new variables to the Wellbeing Process Questionnaire (WPQ): resilience, work-life balance, and burnout. Work-life balance and two of the three components of burnout yielded satisfactory results and were deemed suitable for addition to the WPQ.

The majority of the research reported here investigated the influence of cultural differences on the well-being process. This initial research compared the well-being of Nigerian samples (occupational and student) with white British samples. These countries are very different and have contrasting values. The results from the present research showed that the established predictors of wellbeing had very similar effects in both samples. The general lack of differences between cultures was unexpected, considering the huge differences between the cultures. The link between cultural differences and well-being was then explored further by studying ethnic minorities in the UK.

Three major factors could potentially affect the wellbeing of ethnic minorities: perceived racial discrimination, ethnic identity, and acculturation strategies. However, the results showed that these factors did not influence the well-being of the ethnic minority workers and students. The final part of the research examined combined databases, including all three groups. Nationality did not predict well-being. However, the effects of the established predictors were observed for both positive and negative well-being.

Overall, the research reported in this thesis suggests that cultural differences have little influence on well-being. This may reflect the present methodology, and future research, preferably with longitudinal designs and other methods of recruitment, is now required in this area.

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Chapter 1: Introduction

Well-being is a concept that means different things in different contexts. It has become a "buzzword" for various concepts. This chapter discusses what well-being is and how it is conceptualized.

1.1. Defining and Conceptualizing Well-being

For the research summarized in this thesis, well-being is operationalized, based on the definition of Ryan & Deci (2001, p. 142) as "optimal psychological functioning and experience". This definition seems to suggest that well-being goes beyond just feeling happy but living up to one's potential. In this, they try to draw a clear distinction between two competing schools of thought: hedonism (well-being as pleasure, happiness, etc.) and eudaimonism (living up to one's true self, their potential). They, thus, suggest that well-being should be a combination of hedonism and eudaimonism.

However, Ryan and Deci seem to imply that well-being could only be positive. This would seem to be at variance with the popular belief, which equates well-being to the absence of negative physical and, particularly, mental health issues (Health Scotland 2007; Black, 2008). Thus, well-being should be conceptualized as having positive and negative aspects.

A mistake that is often made in the conceptualization of well-being is the assumption that the negative and positive aspects of well-being are opposite ends of a single dimension. The implication of this is the tendency to infer well-being from the presence or absence of either aspect. However, research (e.g. Cacioppo & Bernston, 1999; Ryan & Deci, 2001; Smith and Wadsworth, 2011) has consistently reported that the negative and positive aspects of well-being are not at different extremes of the same continuum. Therefore, since the positive and negative aspects of well-being are not diametrically opposed, it will be wrong to investigate well-being based on inferences made solely on the presence or absence of either aspect. Thus, it is suggested (e.g. by Cooper, 2009) that well-being should be conceptualized as comprising positive and negative aspects as integral parts of a whole, which should be studied as such.

1.2. Well-being at Work

Work is beneficial to the individual's physical and psychological well-being while being out of work has been associated with negative outcomes and tendencies (Waddell and Burton, 2006), and having one has been linked to higher subjective well-being (Jebb, Morrison, Tay and Diener, 2020). Why is it important to study well-being at work? As the average worker typically spends between a quarter and third of their day at work (Conrad, 1988, Harter, Schmidt and Keyes, 2003), it is logical to expect that whatever issues that affect them there will impact in one way or another the quality of their lives, or at least their perceptions of it (Warr,1999). For instance, Dana and Griffin (1999, p.358) explain that whatever experiences they have at work affects them while at work and tend to "spill over" into other aspects of their lives. This could be further exacerbated by the fact that people sometimes do not leave work and its issues at the physical workplace (Dana and Griffin, 1999). The preceding statement implies that some people tend to take their work home – either literally or figuratively, in terms of issues at work, e.g. problems with bosses, colleagues, machinery, etc. Furthermore, Dana and Griffin highlight the fact that there are growing concerns about workplace hazards and their influence on workers' well-being. This is in addition to the effect that workers' well-being has on organizational outcomes like profit. Thus, the rationale for studying well-being at work has been established.

1.3. Impact of Well-being on the Economy

The impact of well-being on the economy cannot be taken lightly. According to the Health and Safety Executive (HSE, 2018), the government agency concerned with occupational health and safety-related issues in the United Kingdom (UK), there were 0.6 million cases of work-related stress, depression, or

anxiety within the UK in the period 2017/2018. Furthermore, the report shows that new and long-standing cases of work-related stress, depression, or anxiety constituted 44% (the single highest portion) of work-related ill-health. Although it is claimed that the rate of work-related ill-health experienced a steady decline between 2001/2002 and 2011/2012 and has generally plateaued ever since (HSE,2018b), these figures give cause for concern. The same report showed that 57% of the working days lost to ill health were a result of stress, depression, and anxiety. Finally, the report revealed that 9.7 Billion pounds were the total amount (including costs to individuals, employers, and the Government) lost to work-related ill-health in the United Kingdom in 2016/2017 (HSE, 2018c). Again, these costs were reduced by 17% in 2004/2005 and remained virtually the same ever since (HSE, 2018c). Even at that, these costs are high and should generate cause for serious concern.

In a similar vein, the Office of National Statistics (ONS, 2019) reported an increase in the average household disposable income across the UK in 2018. As an increase in disposable income means potentially more money to engage in leisure and recreational activities, which are positively related to well-being (ONS, 2019, What works centre for wellbeing, 2018), higher well-being is expected. As expected, there was a reduction in the number of those who experienced high anxiety as of December 2018 in comparison to the previous year, although this reduction was not significant, and the number of cases stood at 10.3 million (ONS, 2019). Likewise, life satisfaction and happiness ratings taken in the same period remained the same as the previous year, with no significant changes since December 2016. In other words, higher material prosperity seemed to be associated with reduced anxiety relative to the previous year, even though the difference was not significant. It also had no influence on positive well-being – life satisfaction and happiness. This, again, should raise concerns and probably points to well-being issues as being very deep-seated in the human psyche.

In essence, the impact of well-being on the economy and vice-versa have been briefly discussed. Negative well-being leads to huge financial losses for all stakeholders. Conversely, increased economic power, has to a minimal extent, been associated with reduced anxiety but has no impact on life satisfaction and happiness.

1.4. Well-being and Cultural Differences

1.4.1. Defining Culture

Culture refers to the “patterns of thinking, feeling and acting” of a particular set of people (Hofstede, Hofstede, and Minkov, 2010, p. 5). It defines and describes every facet of their lives – from eating to greeting to work to relationships etc. Culture consists of four main components: symbols, heroes, rituals, and values. These components are unique to a set of people and therefore differentiate one culture and cultural society from another. According to Hofstede, Hofstede, and Minkov (2010), the initial three cultural components (symbols, heroes, and rituals) are external and visible to observers outside the culture. However, they posit that the fourth component, values lies at its very core and therefore may not be immediately visible to the onlooker. They further argue that values are the most important part of the culture.

Values represent the bulk of the culture iceberg that is beneath the surface. They provide explanations as to why things are the way they are and why things are done in a certain culture in society. Values have been defined as the “broad tendencies to prefer certain states of affairs over others” (Hofstede, Hofstede, and Minkov, 2010, p. 9) and are often operationalized by dichotomised pairs of alternatives. A society whose way of life is characterised by one of the pair would likely be very different from another society that lives by the alternative. The more these sorts of differences occur, the wider the cultural differences between cultures. Therefore, values serve as a potent way of comparing cultures and observing the similarities and differences between them. Some values have been associated with

well-being issues. For instance, high levels of uncertainty avoidance values have been linked to higher anxiety.

Measuring cultural differences in this manner makes it easier to paint a clear picture. It also helps to observe more clearly the well-being issues that may be a consequence of such differences. However, this approach is limited in that it is better suited to observe cultural differences among dominant cultures living in their original domicile or who have occupied their current residence for several generations. Measuring cultural differences in this way will not be sufficient for those who have moved away from their 'original' homes to another place where they are also in the minority. To this end, the section that follows describes cultural differences as it affects societies in this category.

1.4.2 Cultural Differences for Ethnic Minorities

The world is often referred to as a global village. One of the implications of this is that people are exposed to opportunities beyond their immediate geographical location and are willing to move to new locations no matter how far removed from their current location, usually their country of birth. Others must move away as a result of natural disasters or protracted armed conflicts (International Organization for Migration (IOM), 2017). This means that people are constantly migrating across the globe for various reasons: 'a better life', improved economic situation, better career prospects, education, relocating with spouse/family, escaping danger from natural disasters or protracted armed conflicts (IOM, 2017; Kingma, 2008). The number of migrants across the world as of 2015 was estimated at 244 million, constituting 3.3% of the world population (IOM, 2017 citing the United Nations Department for Economic and Social Affairs, 2015). Furthermore, about 72% of this number belong to the working-class age group (20-64). Similarly, the International Labour Organization (ILO, 2018) estimated the migrant working population worldwide as of 2017 at 164 million. This number accounted for 59.2% of the entire migrant population. This has implications for the workplace.

Migration increases the cultural diversity of the destination country and has implications both for the host and the incoming groups. This may lead to a variety of differences and responses from the two groups as a result of cultural and/or physical differences. This could lead to "outsider-insider" dynamics between the two groups, which may, in turn, lead to racially discriminatory actions from the host group or other migrant groups. These differences, especially cultural differences, may also encourage or "force" the incoming group to find ways of blending in, leading to acculturation.

As far back as 1935, Huxley and Haddon (cited in Smith, Wadsworth, Shaw, Stansfeld, Bhui & Dhillon., 2005) suggested replacing the term race with ethnicity to avoid negative connotations that come with the word 'race'. According to Phinney and Ong (2007), "ethnic identity derives from a sense of peoplehood within a group, a culture and a particular setting". Furthermore, they explain that a secure ethnic identity is a product of experience, time, actions, and choices the individual makes.

Szczepura et al. (2004) state that as opposed to the United States (US), there is very little research in the UK on the relationship between ethnicity and work-related ill-health. Smith et al. (2005) investigated the relationship between ethnicity and work-related stress. The study found that some ethnic groups were more susceptible to stress than others.

The current research focuses on three areas of cultural difference that could influence well-being among ethnic minorities: acculturation, racial discrimination, and ethnic identity.

1.4.2.1. Acculturation

Humans typically act in line with cultural norms and "expectations". People are likely to undergo a constant series of changes and continuity while adjusting to life in their new culture and clinging to aspects of their original culture (Berry,1997).

According to Redfield, Linton, and Herskovits (1936 cited in Berry,1997, p.7),

> *"acculturation comprehends those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact with subsequent changes in the original culture patterns of either or both groups."*

Acculturation tends to have a greater effect on the "incoming group" relative to the established group. Based on the desire to maintain one's original culture on the one hand and contact and participation with the host/ dominant culture on the other, Berry (1997) postulated four possible acculturation strategies: assimilation, separation, integration, and marginalization. He described assimilation as the adoption of the host culture at the expense of the original culture; separation is maintaining original culture and limiting interaction with the dominant culture; integration, maintaining one's original culture and at the same time engaging with the host/dominant culture; and finally, marginalization when neither the host nor original culture is adopted.

Acculturation can be at the group level or the individual level (also known as psychological acculturation) (Berry, 1997). It is important to distinguish between these two levels of acculturations to understand how the variables relate to each other at each of the levels. Also, individuals participate in group acculturation to varying degrees. Acculturation differs from inter-culturation in that inter-culturation is more concerned with the formation of new cultures (Berry,1997).

1.4.2.2. Racial Discrimination

Another aspect of the relationship between host cultures and migrant/ethnic minorities is racial discrimination which could, in turn, have health and other implications for the latter group. Racial discrimination can be defined as ''beliefs, attitudes, institutional arrangements, and acts that tend to denigrate individuals or groups because of phenotypic characteristics or ethnic group affiliation.'' (Clark, Anderson, Clark & Williams, 1999). It could be either attitudinal or behavioural (Clark et al., 1999; Sigelman and Welch, 1991). Racial discrimination at work, or at least the perception of it, could have negative implications.

A Guardian newspaper article published in December 2018 reported that 43% of the participants from ethnic minorities in the UK in a poll were "overlooked for promotion in a manner that felt unfair" in contrast to 18% of the White British participants who had similar experiences (Booth and Mohdin, 2018). While it can be argued that there are possibly other factors apart from race/ethnicity that could have been responsible for these negative experiences, several studies have reported similar findings. For instance, Seago and Spetz (2008), in a comparative study of white American nurses with colleagues from other ethnicities in the USA, reported that 40% of the ethnic minorities perceived barriers to their promotion in contrast to 18% of the white American sample. Again, there could be a plethora of reasons why many more nurses from the ethnic minorities perceived barriers to their promotion in comparison to their white American counterparts. However, they further report that 33% of the Asians and 53% of the Filipino nurses believed they were denied a promotion because of their race. Their findings further show that Asians and Filipinos were 15 percentage points less likely to apply for a promotion because they felt they would not get it because of their race. Being denied the opportunity to get promoted at work is likely to harbour or stimulate negative well-being. This is one of the reasons why its role should be investigated in the well-being process.

1.4.2.3. Ethnic Identity

Ethnic identity is a crucial aspect of one's social identity believed to be derived from the membership of a social group and the significance/importance attached to such membership by the individual

(Phinney, 1992; Tajfel, 1981). According to Phinney (1992), ethnic identity is composed of three sub-components: affirmation and belonging, ethnic identity achievement, and ethnic behaviours. "Ethnic behaviours" are defined as involvement in an ethnic group's social activities and participation in cultural practices, while affirmation and belonging have to do with "ethnic pride," i.e. being proud and happy about one's background and having a sense of attachment to one's ethnic group (Phinney, 1992). Lastly, according to Phinney (1992), ethnic identity achievement explains the evolution of ethnic identity development by investigating and exploring one's roots to have a "secure sense of oneself as a member of a minority group". Positive ethnic identity is often associated with positive well-being as it gives one the feeling of being rooted even while being physically away from the geographic centre of one's culture.

1.5. Measuring Well-being

As previously mentioned, it is preferable to use an integrated approach that operationalizes well-being holistically – with positive and negative well-being as integral aspects. This helps create a balanced view of an individual's well-being. To do this effectively, a framework that allows for this integration is necessary. An example of such a framework is the Demands-Resources Individual Effects (DRIVE) which is now discussed.

1.5.1. The DRIVE Model

The DRIVE model was initially designed as a stress model, which was a compromise between the over-simplicity of the interactional stress models and the over-complexity of the transactional stress models (Mark and Smith, 2008). The interactional models tend to view stress as a consequence of interacting with certain environmental factors. These models often focus on the structural components of the stress process, i.e. the factors that are likely to cause stressful situations in a particular environment (Mark and Smith, 2008). The assumption here is that once certain environmental factors are evident, stress is inevitable for the individual working there. These arguments have been criticized as being too simplistic as they do not take into account the individual in the "eye of the storm", and a situation is not stressful until the person perceives it to be (Mark and Smith, 2008; Perrewe and Zellars,1999). Examples of interactional models include the Job Characteristics Model (Hackman and Oldham,1980); the Demand Controls Support (DCS) Model (Karasek, 1979; Johnson and Hall, 1988). At the other extreme are the transactional models, which are almost diametrically opposed to the interactional models. Transactional stress models view the stress process as a negotiation between the individual and the stressors. They are more cognitive and process-oriented and therefore tend to focus on the individual's (subjective) perceptions of the environment and hence factor in the role of coping, personality, locus of control, hardiness, attributions, etc. (Mark and Smith,2008). However, these transactions are quite complex, especially with regards to appraisals and coping (Briner, Harris and Daniels, 2004), which makes it hard to use them for the measurement of stress in typical day-to-day situations.

The DRIVE model sits halfway between the interactional models, which do not account for the role of the individual, and the transactional models, which emphasize the role of the individual in perhaps too much detail making their use in practical measurement cumbersome. As a compromise between both extremes, the DRIVE model acknowledges the role of job characteristics and other environmental stressors while at the same time attempting to account for the role of individual differences and not delving too deeply into the psychological processes occurring behind the scenes. The DRIVE model included job characteristics from the DCS and ERI models and individual differences from the transactional models (Mark and Smith, 2008), while some studies included variables for the HSE Management Standards (Mackay, Cousins, Kelly, Lee, and McCaig, 2004). One key advancement of the DRIVE model over previous models is that it "puts a greater emphasis on individual characteristics and

personal resources" (Smith, 2015, p.416). The model operationalizes job and personal characteristics as resources (positive) and demands (negative) – i.e., job demands and resources and; personal demands and resources (Mark and Smith, 2008).

Another key feature of the DRIVE model is its flexibility. According to Mark and Smith (2008, p.135), it was designed not as "a predictive model but rather a theoretical framework into which any relevant variables can be introduced". The implication of this is that the DRIVE model allows for the addition and removal of variables based on the aspects of well-being to be measured. Based on this, the DRIVE model, which was initially used to measure occupational stress in the prediction of negative outcomes (anxiety and depression; e.g. in Mark & Smith, 2012 a & b), was subsequently adapted to measure the predictors of positive outcomes (Smith, 2019). Recent research with the DRIVE model (e.g. Williams & Smith, 2016, Williams, Pendlebury and Smith, 2016, Williams, Thomas and Smith, 2017, Smith and Smith, 2017) included predictors of positive well-being (happiness, positive affect, and job satisfaction). These adaptations and additions have effectively moved the DRIVE model from being a stress model, initially investigating the prediction of anxiety and depression, to an integrated model for the holistic measurement of well-being (positive and negative).

Yet another implication of the DRIVE model's flexibility is that specific variables can be included for niche research. For instance, as previously stated, Smith (2015) mentioned the HSE Management Standards were included in the DRIVE model for certain studies. In like manner, Vallone (2017) included work-life balance in the DRIVE model – specifically, the Work-Family Conflict (WFC) and the Family-Work Conflict (FWC) scales (Netameyer, Boles, and McMurrrian, 1996). Similarly, Capasso, Zurlo, and Smith (2016) included scales from the Multigroup Ethnic Identity Measure (MEIM) (Phinney,1992), measures of ethnic identity and acculturation (Berry, 1997) as well as a single item on racial discrimination from Smith et al. (2005) while studying well-being among migrant workers in Italy.

The DRIVE model can also be used for macro and microanalyses. This means that the model has been used to investigate well-being from a wide perspective, i.e. the prediction of negative and positive well-being outcomes, as well as with a narrow focus on the prediction of specific issues by well-being predictors. For instance, Williams and Smith (2018) investigated the relationship between personality, social support, coping on the one hand, and well-being outcomes in university undergraduates on the other, while Fan and Smith (2017b) studied the relationship between workload, performance, and fatigue in railway workers. The former is an example of macro analysis, and the latter, microanalysis.

Finally, the DRIVE model has been used to investigate well-being in a wide variety of occupational settings within different cultural boundaries. For example, Nelson (2017) investigated stress and well-being among Jamaican Police Officers, while Galvin (2016) studied stress and mental health among British student nurses and trainee clinical psychologists. Additionally, the model has also been used in educational settings. Williams, Pendlebury, Thomas, and Smith (2017) used the DRIVE model to study well-being issues specific to university undergraduates. These prove the versatility of the DRIVE model. This is particularly pertinent, especially as Alheneidi (2019) points out that well-being issues that affect students differ quite starkly from those that affect workers.

Being flexible and versatile, the DRIVE model can accommodate an almost infinite number of well-being variables. Flexibility and versatility are very important features, especially when considering well-being from a holistic perspective, as they will enable a picture of well-being that is closer to reality. However, this poses a practical problem. As the DRIVE model can allow for various variables to be added, and there is a vast number of potential well-being variables, bearing in mind that the "more the merrier" to measure well-being holistically and get a sense of the individual's well-being

that is realistic, the measuring instrument will be lengthy. This is impractical. It will mean that participants in such research will have to take out large portions of time to respond to the questionnaires. The potential implication is that workers would have taken a huge amount of time from their actual work to fill out lengthy questionnaires to gain an insight into their well-being - leading to loss of time and money (Williams and Smith, 2012) which is counterproductive. It particularly has some limitations where these questionnaires are to be delivered via telephone or online consultancy support system (Williams and Smith, 2012). The subsequent sub-sections discuss attempted solutions.

1.5.1.1. The Well-being Process Questionnaire (WPQ) and the Student Well-being Process Questionnaire (Student WPQ)

A potential problem with instruments measuring well-being from a holistic perspective, as previously discussed, is the length. This is because each well-being construct is typically measured by a battery of multiple items (Williams and Smith, 2012). This means that the more aspects of well-being being measured, the more questions need to be asked, resulting in long questionnaires and their resulting impracticability in use in everyday settings, which could lead to participant attrition (Williams, Thomas, and Smith, 2017).

A possible solution to this problem is the deployment of single-item measures for each well-being issue. The Well-Being Process Questionnaire (WPQ) was developed by Williams (2015) based on the DRIVE model. The WPQ consisted of single-item measures and was developed to combat the issue of having to fill out lengthy questionnaires, particularly in situations where time is of the essence (Williams and Smith, 2012).

Although the use of single-items may seem a practical alternative to long surveys, especially where multiple constructs are investigated, each with multiple-item scales, the academic community seems sceptical about their use (Wanous, Reichers, & Hudy, 1999, Wanous & Hudy,2001). One key reason for this scepticism is the perceived none or low reliability of single items (Wanous, Reichers, & Hudy, 1999; Wanous & Hudy, 2001). However, these beliefs have been challenged and found untrue in many cases (Wanous, Reichers, & Hudy, 1999; Wanous & Hudy, 2001). Additionally, the WPQ has been shown to produce similar results to multi-item questionnaires (Williams and Smith, 2012; Williams and Smith, 2016). The single items were derived by conducting correlational analysis between the single item and multiple-item scales for each construct and work characteristics, personality, and outcomes yielded correlations greater than 0.50 and thus were subsequently adopted while those for coping style fell below the threshold suggested by literature (Williams, Thomas, and Smith, 2017).

With the WPQ, job satisfaction, perceived stress, health outcomes as well as personality, life satisfaction, and so on could be measured using single items, with visual scales ranging from 1 to 10 (Smith, 2015). Furthermore, the WPQ made it possible to remove “overlapping constructs” (Smith, 2015, p.420) as “using single items enables one to use many more concepts but these often overlap, and one can determine which variables remain in the model after all have been entered into regression”.

As previously stated, the well-being contexts for workers and students, although similar in some respects, are quite different. It is useful to focus attention on those issues specific to students’ (particularly university undergraduates) well-being to understand these differences. For instance, the “Inventory of College Students’ Recent Life Experiences” (ICSRLE) (Kohn, Lafreniere, & Gurevich, 1990) was designed to measure the stress of university undergraduates. The ICSRLE investigated factors like time pressure, social mistreatment, romantic problems, challenges to development, etc. The DRIVE model, because of its flexibility, was used to develop a questionnaire that drew from the WPQ, factor-analysed items from the Inventory of College Students’ Recent Life Experiences (ICSRLE) student

stressors (Bdenhorn, Miyazki, Ng, and Zalaquett, 2007), items on social support from the Interpersonal Support Evaluation List (ISEL) short version (Cohen, Mermelstein, Kamarck, & Hoberman, 1986) and cognitive problems (Smith, Wadsworth, Moss and Simpson, 2004) as well as a single-item question on conscientiousness. The instrument developed was called the Student Well-being process Questionnaire (Student WPQ) and was developed by Williams, Pendlebury, Thomas, and Smith (2017).

The student WPQ is like the WPQ design in terms of its visual analogue scale (1-10) and has been used in various studies. For instance, Smith (2018) studied the relationship between cognitive fatigue, well-being, and academic attainment in university undergraduates and later (Smith, 2019) investigated the relationship between time pressure, workload, well-being, and academic attainment.

1.5.1.2. The Smith Well-Being Questionnaire (SWELL)

The Smith Well-Being Questionnaire (SWELL; Smith and Smith, 2017a) was developed from the WPQ (Fan and Smith, 2017). It is made up of 26 single-item questions from the WPQ and takes about 15 minutes to complete (Fan and Smith, 2017). Most of the questions were on a 10-point visual scale (like the WPQ), and the remainder were yes-no questions.

According to Smith and Smith (2017b), the SWELL was "designed to provide a detailed profile of the well-being of an organization". Furthermore, the SWELL allows an in-depth look at specific issues and, as a result, contains more outcome measures and job characteristics than the WPQ. An even shorter version known as the Short-SWELL, containing just ten questions, was used by Smith and Smith (2017c) to investigate well-being at work.

1.5.1.3. Why use Single Items?

Williams (2015) worked extensively on the use of single items when developing the WPQ. He outlined some reasons why single items could be preferred to multiple items. The first defence for using single items was the high attrition rate associated with the completion of lengthy questionnaires. Long scales representing whole constructs will be included in the instrument, thus making it very bulky and impractical to fill, especially during work time, as that will lead to a considerable loss of time and money. Single items provide a suitable alternative by representing constructs with single items rather than with a battery of items. Using single items will significantly save time and money and thus encourage participation.

Another reason that Williams cites for using single items is that they have been used previously in other studies. Some studies dating back to over 40 years ago (e.g., Luria, 1975) have used single items to investigate depression and mood and were quite successful. They have also been used in medicine to measure fatigue, quality of life, etc.

Furthermore, Williams conducted a review on the use of single items to measure well-being, the aim of which was to ascertain the extent to which the single items captured the well-being aspects they were measuring based on comparisons with established multiple item constructs. Williams' (2015) review, comparing the single and multiple items of well-being outcomes, revealed interesting findings. For anxiety and depression, he found generally good diagnostic validity for the single items, i.e., the single items were generally able to detect these conditions with reasonable accuracy – sensitivity (detecting diseased condition) and specificity (correctly detecting non-disease conditions). However, the correlation between the single and multiple items was often not convincing. For mood, the review reveals minimal evidence suggesting a similarity between the longer and single items. Quality of life well-being outcome provided mixed results, although high sample size (>1,200) and high single and multiple item correlations suggest the suitability of the single items. Stress also yielded mixed results, which may have been due to the similarity between the single and multiple items on the one hand and how the single-item measures were designed. The review also considered single items from

predictors, namely burnout and personality. Most of the constructs revealed good correlations between the single items and the corresponding established multiple-item scales for both variables. However, the generalisability of the findings from burnout raised scepticism as there was no fixed definition of burnout because each participant assigned their meaning to the construct. For personality, single extraversion items consistently showed high correlations with various established personality multiple items while agreeableness, emotional stability, and agreeableness were not as successful. These results could be because the extraversion construct is relatively easier to understand. Overall, Williams' findings suggest that the use of single items does not hamper the measurement of well-being. However, the performance of single items has to do with how they are constructed and understood by the participants.

Following his review on research with single items, Williams (2015) performed his research by designing single items and subsequently comparing them with multiple-item scales for the same variables and related variables. The single items were designed from variables with established links to both national and international definitions of well-being. How well the single items can carry out the required measurements has to do with respondents' understanding of the questions. The items were designed as "an initial statement or question and were followed by examples of what the item was referring to" (page 76) to improve understanding.

Work characteristics showed good concurrent and discriminant validity for most of the single items. However, two variables showed more substantial discriminant validity than concurrent validity, indicating a stronger relationship between these single items and multiple items of closely related multiple items. Similar results were reported for personality. However, the findings for coping and attributional styles were quite different in that the values for both concurrent and discriminant validity were low. In the case of coping, it could be a consequence of using a general categorisation into positive and negative coping, making it hard to choose suitable responses. Similar reasons were adduced for the lack of similarity between the attribution scales, with another possible reason being the incongruency between the single and multiple scales. The outcomes all showed concurrent validity of values greater than .60 except stress which showed concurrent validity of .34. the discriminant validity of the outcomes was relatively poor, but this is not out of place as this has also been observed in the multiple items of these well-being outcomes. The issue with the stress items may be that of incongruence between the scales. In this case, the single stress item focused on work-related stress, while the multiple-item scale was rather general in its approach.

The reliability of single items has been a bone of contention in the academic community (Wanous et al., 1997). The average reliability of the single items in Williams's (2015) study was .52 compared to .81 of the multiple items. However, not less than 14 of the single items showed reliability scores of .60 and above. Eight of these had reliability of over .70, with extraversion having the highest (.94) followed by supervisor relationship (.92).

Overall, Williams' research on single items in the development of the WPQ shows that single items can, to a considerable extent, be used to carry out well-being assessments. However, it shows that the performance of single items has to do with how they are constructed and understood by the participants.

1.5.2. Summary

In summary, the WPQ and the SWELL were both developed from the DRIVE model to measure as many variables as possible in the well-being process with a single instrument which takes little time to complete. They both potentially play a key role in the measurement of well-being holistically and can

include as many variables as possible – especially because of the 'malleability' of the DRIVE framework. This versatility makes the model well-suited to measure even more variables in the well-being process.

1.6. Thesis Aim

The overarching aim of the research presented in this thesis was to investigate the role of cultural differences (nationality, ethnicity) in the well-being process in worker and student samples. The samples were from diverse cultural backgrounds: White British living in the UK, Ethnic Minorities living in the UK, and Nigerians living in Nigeria. This aim was achieved through macro and micro analyses using the DRIVE model framework, the WPQ, and the SWELL. This research has seven objectives:

1. To conduct a review of the published literature on the WPQ and SWELL
2. To present a conceptual literature review on well-being
3. To add new variables to the WPQ
4. To conceptualise culture and cultural differences
5. To compare the well-being of Nigerian and White British samples
6. To evaluate the role of cultural differences in the well-being of Ethnic Minorities in the UK
7. To investigate the role of nationality/ethnicity in the well-being of combined occupational and student samples.

Presented below is some background information about the populations studied in this research.

1.6.1. United Kingdom

The United Kingdom (UK) is located on the North-western coast of continental Europe and comprises the Island of Great Britain (Scotland, England, and Wales) and the northern part of the Island of Ireland (Chaney et al., 2020). In other words, the UK consists of four countries, namely: Scotland, England, Wales, and Northern Ireland. Although the UK has a central political-administrative structure headquartered in London, each of the constituents except England has its own devolved administration with administrative power (Chaney et al., 2020; Thomas and Kellner, 2020). This suggests that the UK is a melting pot of various cultures, but for this research, the United Kingdom will be taken as a single entity. "The origins of the United Kingdom can be traced to the time of the Anglo-Saxon king Athelstan, who in the early 10th century CE secured the allegiance of neighbouring Celtic kingdoms" with Wales, Scotland, and Northern Ireland joining in later centuries (Chaney et al., 2020). The British Empire was made up of its colonies which were scattered all around the world. Even with the colonies gaining independence, the United Kingdom maintains relationships with them through the Commonwealth of Nations.

1.6.2. Nigeria

Nigeria consists of different cultural societies, but for this study, it will be treated as a single cultural entity. As Hofstede, Hofstede, and Minkov (2010) explain, most African countries, as they currently stand, are products of colonial division into discrete units to facilitate administration. Nigeria was formed by the amalgamation of its Northern and Southern Protectorates in 1914 and was subsequently named by the Colonial administrator, Lord Frederick Luggard, after its longest River, the Niger (Falola, Kirk-Greene, Udo and Ajayi, 2020). The River Niger runs from the Northern part of the country in the south-easterly direction before emptying itself into the Gulf of Guinea (Atlantic Ocean) through the Niger delta in the most southern part (Mabogunje, 2019). The geographical area used to be called the "Niger area", which morphed into Nigeria. Nigeria was a British colony that gained its independence on October 1, 1960. It comprises 250 distinct cultures, each with its language, customs, and practices (Falola, Kirk-Greene, Udo, and Ajayi, 2020). It is situated on the Western Coast of Africa,

with its geography as diverse as its people – ranging from arid to humid equatorial climates (Falola, Kirk-Greene, Udo, and Ajayi, 2020).

Nigeria runs a federation-type representative democracy with an elected president at the helm of affairs. There are three tiers of Government: Federal, State, and Local. Each of these three tiers has its executive, legislative and judicial arms which operate on the principles of checks and balances. The executive runs the country, state, or local area; the legislature makes the laws, and the judiciary interprets the law. Nigeria has 36 states, a Federal Capital Territory (FCT) in Abuja, and 774 local governments. Each state has an elected governor, while a minister is appointed by the President to run the FCT. Every local government has a chairman as the head of its executive. At the Federal level, the legislature is bicameral, comprising a senate and house of representatives, led by a president and speaker, respectively (Ajayi, 2021). The highest court in Nigeria is the supreme court and is headed by the Chief Justice of Nigeria. The FCT serves as the seat of the Federal Government.

1.6.3. Ethnic Minorities in the United Kingdom (Post WWII)

According to Jones (1996), three factors encouraged migration to the United Kingdom from its former colonies after the Second World War. The first was the UK's economic prosperity, which attracted foreigners with the prospects of a better life. The second factor was the partitioning of India which led to the influx of political and religious refugees. Thirdly and finally, the xenophobic treatment of South Asians in Uganda also led them to migrate to the UK. Immigration continued, and the wave of immigration in the 1990s became the major source of population growth (Pilkington, 2003). As of 1999, the Labour Force Survey put the British immigrant population at over 3.7 million (Pilkington, 2003).

The thesis aim was achieved by meeting the objectives encapsulated in the thesis structure on a chapter-by-chapter basis.

1.7. Thesis Structure

Chapter 1 introduces, explains, and discusses the key concepts in this thesis and attempts to lay a foundation for subsequent chapters.

Chapter 2 is a review of the published literature on research with the WPQ and SWELL. It summarizes the findings and highlights some gaps. (objective 1)

Chapter 3 presents a narrative, conceptual review on the relationships between work-life balance, burnout and resilience on the one hand and well-being on the other (objective 2)

Chapter 4 presents studies involving White British Occupational and Student samples. Both studies aimed to investigate if the established effects were retained in addition to testing if the new variables could be included in the WPQ. (objective 3)

Chapter 5 defines culture and cultural differences in terms of pairs of contrasting values as described by the World Values Surveys and the IBM studies. Cultural differences specific to ethnic minorities are also explained. (objective 4)

Chapter 6 investigates the well-being of Nigerian occupational and university student samples to confirm if the established effects were retained in both studies. The findings from both studies are compared with those from the White British studies to know if cultural differences cause any variation in well-being. (objective 5)

Chapter 7 investigates the role of cultural differences in the well-being of ethnic minorities (workers and students, respectively) and also explores the possibility of developing a cultural difference iteration of the WPQ. (objective 6)

Chapter 8 investigates the role of cultural differences (nationality/ethnicity) in merged occupational and student samples. (objective 7)

Chapter 9 makes recommendations, conclusions, and suggestions for future research in addition to outlining the thesis's contribution to knowledge.

1.8. Significance of Research

A popular saying states that *"what is sauce for the goose is sauce for the gander"*. This research aims to test if this is true for the well-being process. Is the well-being process an objective one, or is it influenced by cultural differences? Answering this question is pertinent because erroneous assumptions could lead to proffering "*one-size-fits-all*" solutions to well-being problems, which do not account for the differences in cultural contexts. For instance, Lim, Bogossian, and Ahern (2010) discuss the issues caused by using questionnaires prepared in and for Western populations in Asian populations. Hofstede, Hofstede, and Minkov (2010) raised similar concerns.

Therefore, the significance of this research lies in uncovering the role of cultural differences (nationality, ethnicity) in the well-being process.

1.9. Chapter Summary

In this chapter, well-being has been defined and conceptualized. Furthermore, well-being at work and its implications on the economy have been mentioned. The nexus between well-being and cultural differences, particularly acculturation, ethnic identity, and perceived racial discrimination, were discussed.

This chapter also discussed the measurement of well-being and the theoretical framework this research deployed – the DRIVE model – and the data collection instruments: the WPQ, Student WPQ, and the SWELL were briefly discussed.

This chapter concluded by stating the aim and structure of the thesis, with the thesis structure stating the objectives on a chapter-by-chapter basis. Finally, the significance of this research was discussed.

This section has laid a foundation for the research in this thesis, and the next chapter reviews the published literature on the WPQ.

Chapter 2: Review of the Well-being Process Questionnaire (WPQ) / Smith Well-being Questionnaire (SWELL)

2.1. Chapter Introduction

This chapter presents a review of the literature from research with the Well-being Process Questionnaire (WPQ) and the Smith Well-being Questionnaire (SWELL). The review aims to summarise the findings from all published research on the WPQ and SWELL.

2.2. Background

Well-being is a concept that is hard to define (Williams, 2015). This is due to its multi-dimensional nature, which is also why it means different things to different people. However, Williams (2015) divided well-being, based on recurring themes in research and policy, into three distinct but related aspects: positive, subjective, and negative. Of these three aspects, negative well-being is probably the most popular. It has to do with psychopathological issues like depression and anxiety. Negative well-being issues like stress, depression, and anxiety have been among the subjects of inquiry for the Labour Force Surveys by the ONS. It was also prominent in Black's (2008) review for the UK government. Positive psychology, on the other hand, defines well-being as "optimal psychological functioning and experience" (Ryan and Deci, 2001, p.142). Positive well-being was borne out of the school of thought that rather than being the absence of negative well-being (Ryan and Deci, 2001; Ryff and Singer,1996), well-being has to do with pleasure and living a fulfilled life (Ryan and Deci, 2001). Positive well-being is further divided into hedonic well-being and eudaimonic well-being. While the former has to do with happiness and pleasure, the latter is linked to living up to one's potentials. Previously, positive well-being only focused on hedonic well-being. However, based on philosophical findings, hedonic well-being is either incorrect or inadequate (Ryan and Deci, 2001; Ryff, 2013; Ryff and Singer, 1996), thus leading to the inclusion of the eudaimonic well-being suite. Eudaimonia has to do with being in line with one's true self (Ryan and Deci, 2001). In addition to the inadequacy of the hedonic well-being construct as the core aspect of positive well-being, there is also the argument that hedonic well-being lacks clearly-defined theoretical foundations (Ryan and Deci, 2001; Ryff, 2013), although some suggest that these foundations are rather implied than explicitly defined (Ryff, 2013). Ryff and Singer (1996, p. 16) sum it up thus:

> *Taken together, these many lines of philosophical and scientific inquiry converge in their depiction of the good and healthy life as one that involves processes of setting and pursuing goals, attempting to realize one's potential, experiencing deep connections to others, managing surrounding demands and opportunities, exercising self-direction, and possessing positive self-regard.*

The third aspect, subjective well-being, has been conceptualized as comprising happiness, positive affect, and negative affect (Diener, 1984). It is characterised by high levels of happiness, high positive affect, and low negative affect. According to Diener (1984, p. 542), "the literature on subjective well-being is concerned with how and why people experience their lives in positive ways, including both cognitive judgments and affective reasons". The subjective well-being construct appears to have been developed because of what was thought to be an unduly high focus on negative well-being (Diener, 1984).

The foregoing shows that these aspects of well-being, though quite similar in some respects, are very distinct from each other. These differences could pose a challenge if these aspects are to be measured with the same instrument. This becomes even more complicated when considering that well-being could be either positive or negative, cognitive or emotional. To be able to harness these various

aspects into a single measurement, a framework that takes these into cognisance is required. One such framework is the Demands-Resources Individual Effects (DRIVE) model, which is discussed in the section that follows.

2.2.1. DRIVE Model

The Demands-Resources Individual Effects (DRIVE) model was developed by Mark and Smith (2008) and was initially used to study occupational stress. In its early days (e.g., in Mark and Smith, 2012a, 2012b), it was used to investigate the predictors of depression and anxiety. According to Mark and Smith (2008), stress models tend to belong to one of two categories: interactional models and transactional models. Interactional models focus on the structural components of the stress equation, i.e., what stressors are likely to cause stressful situations in a particular environment. On the other hand, transactional models are more cognitive and process-oriented and tend to focus on the individual's perceptions of the environment and hence factor in the role of coping, personality, locus of control, hardiness, attributions, etc. Therefore, on the one hand, there are the interactional models that basically state that when some elements are present in the work environment, stress is inevitable, while on the other hand, there are the transactional models which take into account the individual in the work environment together with their personality attributes, etc. In a practical sense, the interactional models are simpler to use, particularly in the workplace. However, they neglect a key part of the stress equation. After all, Individual differences play a very key role in the stress process. They could serve as mediators or moderators in stressful situations. A situation cannot be deemed stressful until the individual judges it to be so. Thus, making the interactional models unsuitable and the transactional models more preferable. As previously mentioned, transactional models can approach stress measurement from a process-oriented perspective which puts the individual front and centre of the stress equation. While these will probably give a more robust and balanced measurement of stress, transactional models are cumbersome and quite hard to evaluate in practice. For instance, measuring the appraisal of a situation may be almost impossible. Thus, the two categories of stress models appear to be at extremes: the interactional being too simple and the transactional being too complex.

Based on the foregoing, the ideal stress model will use the job characteristics approach while acknowledging the roles of individual differences and, at the same time, not delving too much into the psychological processes involved. This is the gap that the DRIVE model sought out to fill. The initial DRIVE model "simultaneously compared a number of job characteristics and individual differences in the prediction of anxiety, depression, and job satisfaction in a working population" (Mark and Smith,2008). Job characteristic variables were drawn from the Effort Reward Imbalance (ERI) and Decision Control Support (DCS) models, while individual difference variables were taken from the transactional models. Job demands, social support, decision authority, and skill discretion were taken from the DCS model, while intrinsic effort and extrinsic effort were taken from the ERI model. The model also included 40 coping behaviours (Folkman and Lazarus,1980) which included "seeking advice, self-blame, wishful thinking, and escape/avoidance". Attributional/explanatory styles (Peterson, 1991), age, gender, and demographic variables were also included in the initial model (figure 2.1).

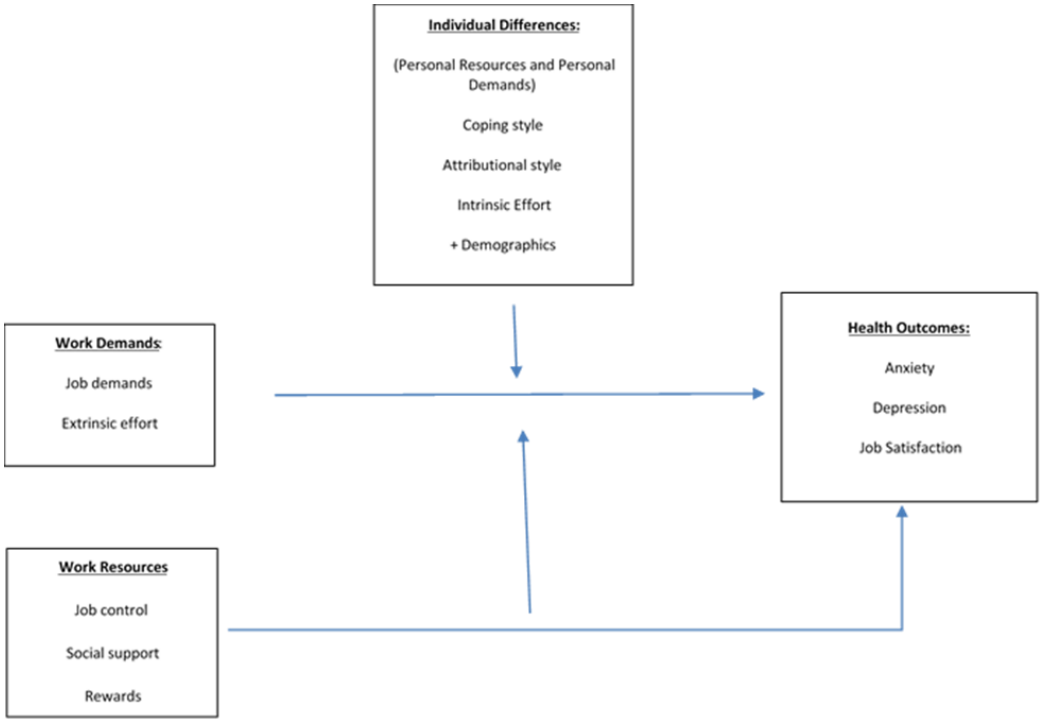

Figure 2.1: Simple DRIVE Model

In the model, job and personal characteristics were explained in terms of resources and demands - i.e. work demands and resources and individual demands and resources. This initial model hypothesized that work demands, work resources, and individual differences have main effects on health outcomes. Additionally, they predicted that work resources and individual resources have moderating effects on the relationships between work demands and outcomes. The main effect relationships were supported while there was little evidence for the moderating effects of individual differences and moderate support for the moderating effect of work resources on work demands. These effects were observed in studies of university staff and nurses (Mark and Smith, 2012a, 2012b) with the initial iteration of the DRIVE model. Mark and Smith (2012b) also reported that the interaction between decision latitude and job demands significantly predicted anxiety. They also reported that anxiety was predicted by the interaction between over-commitment and intrinsic reward.

Although the simple DRIVE model represented an advancement over the job characteristic models (DCS, DSS, and ERI) due to it being more detailed, it was also still too simplistic. Even though it acknowledged the role of individual differences in the stress process, this role was rather implied than explicit. This meant that the role of individual differences seemed buried somewhere in the process – the implication of which is that the DRIVE model will fall into the trap of "over-simplification". Falling into this trap would have rather been a step backwards rather than forward, in that it meant outcomes could only be predicted by work demands and resources and that the affective component had no bearing on this process. It meant that how the individual felt about the stressors in the environment was inconsequential.

An enhanced model (Figure 2.2) giving more prominence to the affective component of the individual differences was developed to correct this weakness. The principles behind the enhanced DRIVE model were very similar to that of the earlier model. However, the major difference between the two iterations was the inclusion of the "perceived job stress variable". This seemed apt because, as previously mentioned, a situation could not be termed stressful unless the individual experiencing it believed it to be so.

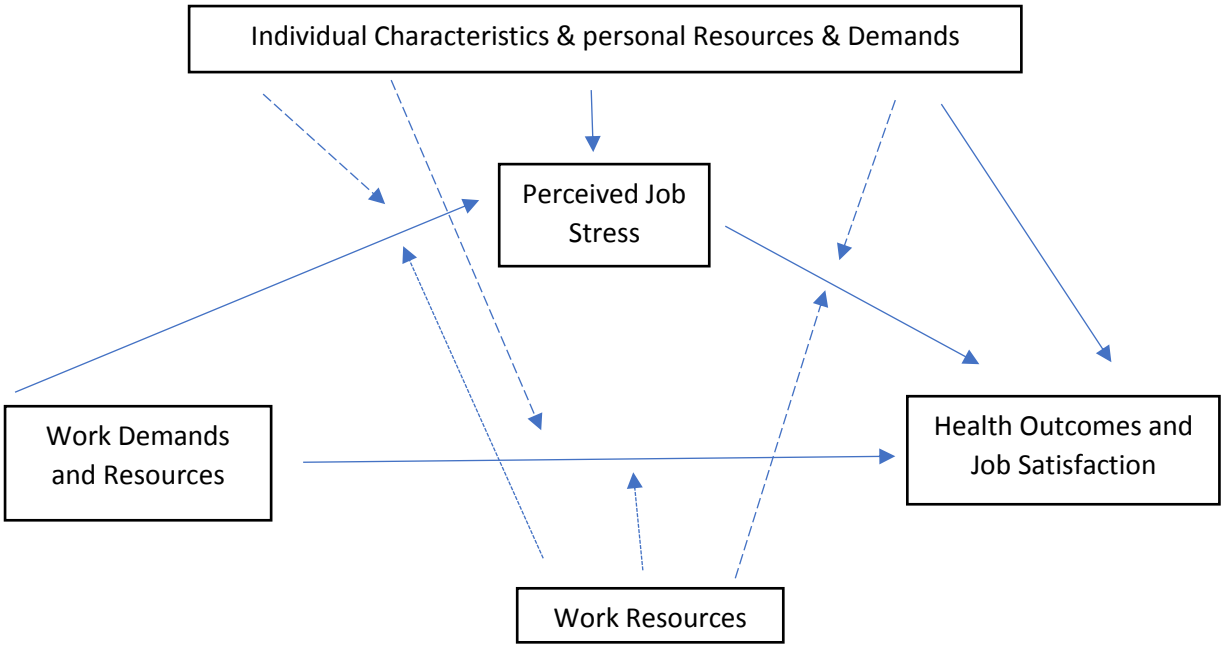

Figure 2.2.: Enhanced Drive Model

The DRIVE model was not initially meant to be "a predictive model but rather a theoretical framework into which any relevant variables can be introduced" (Mark and Smith, 2008, p. 134). For this reason, some studies (e.g., Capasso, Zurlo, and Smith, 2016, 2018; Nelson and Smith, 2016, etc.) incorporated HSE management standards, WLB measures, acculturation/ethnic variables. The DRIVE framework did not hypothesize the internal mental/psychological processes going on in the individual but emphasized how the variables connect with others – not how or why these relationships exist (Mark and Smith, 2008).

According to Mark and Smith (2008), the findings from the enhanced DRIVE model show that there was strong support for the main effects between work demands and resources and outcomes; work demands and resources and job stress; the level of perceived job stress and outcomes; and individual differences and outcomes. Perceived job stress was found to significantly mediate the relationships between "job demands/resources and outcomes". A more recent study (Williams and Smith, 2016, p.762) revealed the moderating effects of positive self attitude (positive personality) on the relationship between job control and positive affect. At low and medium levels of positive personality, low job control was related to low positive affect, but at higher levels of positive personality, "the difference between levels of control and positive affect is reduced". There is also ample evidence to support the mediatory role of perceived stress between predictors and outcomes. Nelson (2017) reported that perceived stress mediated the relationships between various job characteristics (negative work characteristics, victimisation, and positive work characteristics) and job satisfaction among Jamaican police. Similar findings were revealed from Galvin's (2016) studies on student nurses, where he found perceived stress to mediate the relationships between job resources and outcomes. He also reported that the relationships between job demands and outcomes were significantly mediated by perceived job stress. However, other research seems to suggest that additive effects of the predictors on outcomes show more consistent results. For instance, Smith and Wadsworth (2015), using the DRIVE model, measured stress by evaluating the synergistic effects of job and personal characteristics on positive and negative outcomes. More recent research (Alheneidi and Smith, 2020a; Williams, Pendlebury, Thomas and Smith, 2017; Smith (2018, in preparation a &b); Umurkulova, Sabirova, Slanbekova, Kabakova, and Kalymbetova, 2021; Williams and Smith, 2018b) have shown the combined effects of the predictors on positive, negative and overall well-being in worker and student

samples. To summarise, the combined effects of the predictors yield the clearest link between the predictors and outcomes of the DRIVE model, while interactions (mediations and moderations) are the least common effects observed.

Due to its flexibility, the DRIVE model has been expanded to investigate positive in addition to negative well-being (Smith, 2019). This expansion of the model from a stress model to a full well-being model was spearheaded by Williams (2015). Specifically, more recent research (e.g., Williams, Pendlebury and Smith, 2017; Williams and Smith, 2016; Williams, Thomas, and Smith, 2017; Smith and Smith, 2017) with the DRIVE model included the prediction of job satisfaction, positive affect, and happiness (positive well-being). Thus, the DRIVE model is well-suited to measure well-being in an integrated manner. Figure 2.3. shows the DRIVE model for integrated well-being. In this research, well-being is being conceptualized as a process consisting of positive and negative aspects, using the DRIVE model. The well-being process is thus broken down into three phases, with each phase comprising individual components. The first phase, the 'input' phase, comprises job characteristics, personal characteristics, and the individual's coping style; the output phase comprises positive outcomes and negative outcomes. The appraisal phase links these two stages together. Appraisals can also be treated as cognitive outcomes.

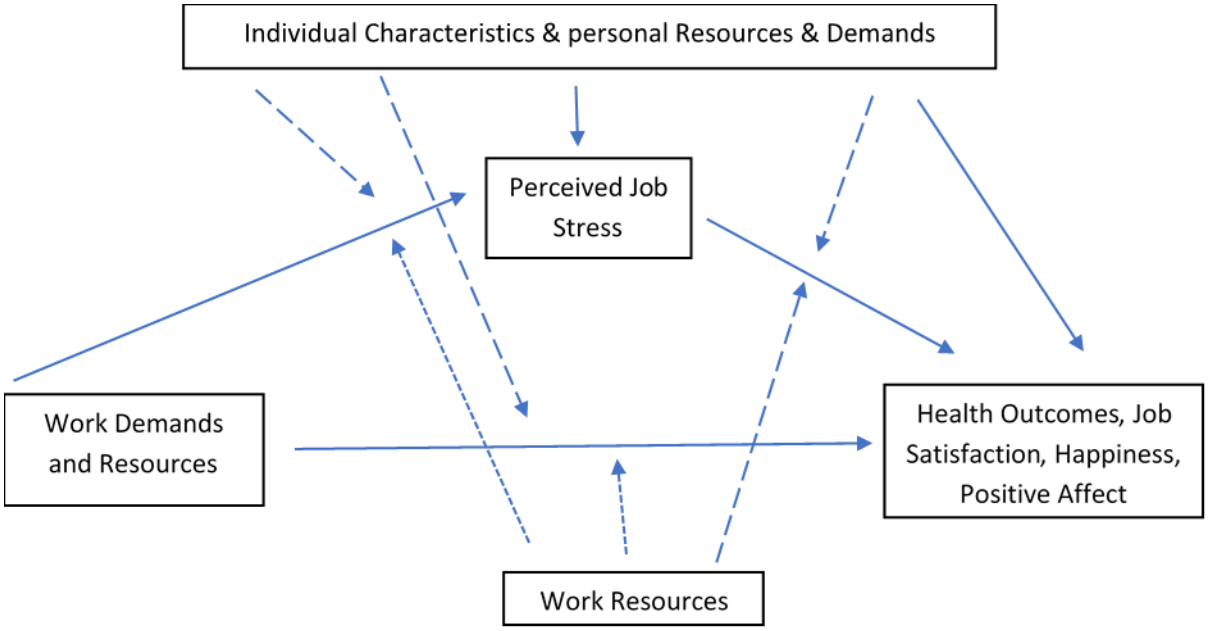

Figure 2.3. The DRIVE model for Integrated Well-being

One of the key strengths of the DRIVE model is its flexibility, which, as described earlier, has allowed the original iteration to be modified to enable it to measure well-being in a way that allows its key aspects to be integrated. However, as well-being is multidimensional, there are still many other variables that can influence or be influenced by it (Williams, Thomas, and Smith, 2017). As such, the study of well-being can be further enhanced by including these variables. For instance, resilience has been found to protect people against the effects of negative well-being (Ryff and Singer, 1996). The DRIVE model allows us to add the required variables. As previously stated, the DRIVE model was not designed to be "a predictive model but rather a theoretical framework into which any relevant variables can be introduced" (Mark and Smith, 2008, p. 134). Although the model is flexible enough to allow for the addition of as many variables as may be required, this has implications for the instruments that will be carrying out the measurement. It would be expected that there would be an almost endless list of potential variables that can influence or be influenced by well-being. On the one

hand, having more variables provides the potential for a more balanced and robust picture of well-being. On the other hand, it means that the measuring instrument will be cumbersome and bulky. How then can well-being be measured in a way that accommodates as many variables as possible while being less cumbersome? The next section discusses this in detail.

2.2.2. The WPQ

The Well-being Process Questionnaire (WPQ; Williams, 2015) was developed from the DRIVE model to solve the problem of bulky and cumbersome measuring instruments. As previously discussed, the DRIVE model's flexibility and design allow for the addition of new variables. This, in turn, allows for more robust and realistic measurement of well-being. However, adding new variables to the model presents new challenges, especially concerning the measuring instruments. This is because each variable usually comes with a battery of questions which elongates the questionnaire (Williams and Smith, 2012). A long questionnaire is likely to lead to participant attrition because of the huge time commitment required to complete them (Williams, Thomas, and Smith, 2017).

Therefore, the WPQ was designed as an alternative to lengthy questionnaires. Specifically, the WPQ used single items to replace multiple-item constructs. According to Williams, Thomas, and Smith (2017), 25 single items were used in place of 234 multiple items representing various scales. Although the use of single items appears to be a viable alternative to the use of multiple-item scales, their use has come up against criticism, particularly from the academic community (Wanous, Reichers, & Hudy, 1997; Wanous & Hudy,2001). The major bone of contention against the use of single items revolves around their reliability. Many academics believe single items have low reliability and thus deem them unsuitable for research purposes (Wanous, Reichers, & Hudy, 1999; Wanous & Hudy, 2001). However, these contentions have been largely debunked (Wanous, Reichers, & Hudy, 1997; Wanous & Hudy, 2001). The alpha reliability of the single items in the WPQ was deemed satisfactory. According to Williams, Thomas, and Smith (2017, p. 1931), "the average alpha reliability of the multi-item measures was 0.81, while the average estimated reliability (using the Wanous & Hudy, 2001, method) of the single-item measures was 0.64. This estimate for the single items is identical to that found by Wanous et al. (1997) for job satisfaction measures. Many of the single-item measures had comparable estimates with the alpha reliability of their multi-item counterpart (e.g., Demands 0.71 (single-item) 0.77 (multi-item) and supervisor relationship 0.92 (single-item) 0.94 (multi-item))." Research with single items has reported similar findings with the corresponding multi-item measures (Williams and Smith, 2012; Williams and Smith, 2016). Work characteristics, personality, and outcomes all showed good concurrent validity (i.e., correlations between single-item variables and their corresponding multi-item measures >.50), while coping variables did not show concurrent validity. Therefore, only the latter group of variables were retained in the WPQ as single items.

Continually adding variables to the DRIVE model, though beneficial to the provision of a more robust and realistic picture of well-being, also has the potential of leading to a situation of having redundant variables (Williams et al., 2017). However, the WPQ helped to detect and remove overlapping constructs (Smith, 2015).

The WPQ has two offshoots: the Smith Well-being questionnaire (SWELL; Smith and Smith, 2017a) and the student Well-being process Questionnaire (Student WPQ; Williams, Pendlebury, Thomas and Smith, 2017). The major difference between the WPQ and SWELL is that the SWELL was "designed to provide a detailed profile of the well-being of an organization" (Smith and Smith, 2017b). As such, it allows an in-depth look at specific issues and thus, contains more outcome measures and job characteristics than the WPQ. On its part, the student WPQ was designed to measure well-being specific to undergraduate students based on the factors mentioned by Kohn, Lafreniere, and Gurevich, 1990 in the "Inventory of College Students' Recent Life Experiences" (ICSRLE). The student SWELL was

used in a study of international students by Smith, Smith, and Jelley (2018). The student SWELL had a positive personality, healthy lifestyle, course demands, and academic support and control as independent variables. The outcome variables were negative well-being, positive well-being, absenteeism, and presenteeism.

The next section presents a review of the studies performed with these four instruments.

2.3. Review

This section presents a review of the studies that utilised the WPQ, SWELL, Student WPQ, and Student SWELL. The review aims to summarise the findings from these instruments to identify gaps in terms of new variables that could be added subsequently. It is divided into two sections. The first section reviews studies that were carried out with the Well-being Process Questionnaire (WPQ) or the Smith Well-being Questionnaire (SWELL). In the first section, published articles made up of both cross-sectional and longitudinal studies with samples comprising nurses, University staff, office workers, etc. While most of the studies reported research that was conducted within the United Kingdom with participants living in the UK, some others were conducted on samples living and working outside the UK. For example, Nelson and Smith (2016) studied Jamaican police officers while Ahmad, Firman, Smith, and Smith (2018a & b) Ahmad and Smith (2020a, 2020b) reported research on workers from the USA recruited via Mechanical Turk. Fonberg and Smith (2019) adopted a 'hybrid' approach by studying two samples: a UK-based university staff sample and another from Mechanical Turk. Most of the literature reviewed was from individual studies. However, some studies spanned more than one paper, e.g. Ahmad, Firman, Smith, and Smith (2018a&b); Ahmad and Smith (2020 a &b), which reported aspects of the same study.

The second aspect reviewed literature based on studies with the student versions of the WPQ and the SWELL. It reviewed findings from 20 pieces of published literature of research on undergraduate and postgraduate university students. Most of the research involved undergraduate students. As was the case in studies with the WPQ and SWELL, most of the studies with the student WPQ and SWELL involved students (both home and international) in UK universities. There were only two studies in this review that were conducted with samples outside the UK: Alheineidi and Smith (2020a), in which one of the samples studied were Kuwaiti university undergraduates, and Umurkulova, Sabirova, Slanbekova, Kabakova, and Kalymbetova (2021) who studied Russian-speaking Kazakhstani undergraduates. Furthermore, of the samples from the UK universities, most, if not all, of them were from different student cohorts at Cardiff University.

2.3.1. WPQ and SWELL

This section reviews the findings from the studies with the WPQ and SWELL.

Established Effects

"The Well-Being Process Questionnaire (WPQ) is a measuring instrument that uses short versions of established questionnaires to investigate factors which change well-being and well-being outcomes" (Williams and Smith 2018b). The established effects were often replicated when the established predictors of the DRIVE model/ WPQ were used to predict well-being outcomes. The predictors were broadly categorised into job characteristics, coping styles, and personality (Ahmad, Firman, Smith, and Smith 2018a). These broad categorisations of the established predictors were further subdivided. In many cases (e.g., Williams, Thomas and Smith, 2017; Ahmad, Firman, Smith and Smith 2018a, etc.), the job characteristics were divided into positive work characteristics (job resources: support, control, rewards, etc.) and negative work characteristics (job demands, efforts, over-commitment) variables while in some studies, a third job variable was featured: "Role/Change/Absence of bullying" (Williams, Pendlebury and Smith, 2017); work support (Nelson and Smith, 2016). These third job variables

appeared to be profession-specific, role/change/absence of bullying for nurses (Williams, Pendlebury and Smith, 2017), and work support (comprising bullying, colleague support, supervisor support, etc.) for Police officers (Nelson and Smith, 2016). These (third work-related) variables were derived following factor analyses for the respective studies. Work support significantly predicted depression among Jamaican Police Officers, while the role/change/absence of bullying showed no significant effect on the well-being of nurses. However, most studies used the negative work characteristics and positive work characteristics as the work-related established predictors while subsuming aspects of the third variable into them. For coping styles, there appeared to be a consensus in the WPQ studies for two variables: positive coping and negative coping (e.g., Ahmad, Firman, Smith and Smith 2018a; Nelson and Smith, 2016; Williams, Pendlebury and Smith, 2017, etc.). Throughout the development of the WPQ, personality has been represented by a varying number of factors: positive personality and openness/agreeableness and conscientiousness (Williams, Thomas, and Smith, 2017). Extraversion was also included as an additional personality factor in a study (Williams, Pendlebury and Smith, 2017). Another study (Williams and Smith, 2016) factor analysed personality into two factors, namely "Positive Self Attitude" and "Emotional Stability". However, more recent research (Ahmad, Firman, Smith, and Smith 2018a) favours positive personality as the only personality variable in the WPQ. With regards to the outcomes, most WPQ studies factored well-being outcomes into positive and negative (e.g., Williams, Thomas, and Smith, 2017). Thus, generally, the established predictors for the DRIVE model/ WPQ are positive work characteristics, negative work characteristics, positive coping, negative coping, and positive personality, which are then used to predict positive (comprising happiness, satisfaction, etc.) and negative well-being (comprising stress, anxiety, etc.) outcomes, respectively. These multivariate relationships are then called the established effects.

These established effects, in addition to being regularly replicated in studies with the WPQ, often follow a particular pattern. The general tendency is for the positive established predictors to predict positive well-being and negative well-being predictors to predict negative well-being. This tendency cuts across job characteristics, coping, and personality. 27.8% (5) of the literature revealed that negative work characteristics (on some occasions called job demands) significantly predicted negative outcomes either as an aggregated variable or one of its component variables. Similarly, positive personality predicted positive well-being in 38.9% (7) of the reviewed literature. Negative coping predicted negative outcomes in three of the studies accounting for 16.7% of the literature, with the same number reporting the significant effects of positive coping in the prediction of positive outcomes. Positive work characteristics also predicted positive outcomes in four (22.2%) of the papers. There were also significant effects reported among variables in opposing directions. For instance, a low level or absence of positive work characteristics was linked to higher negative well-being according to three (16.7%) of the cited literature. Low positive personality and low positive coping respectively predicted negative well-being on two occasions (11.1%). The number of these replications may appear to be relatively small, but it should be emphasized that several of the studies were reported in different publications. In other words, many of the papers reported different aspects of the same study (e.g., Ahmad, Firman, Smith and Smith, 2018a & b, Ahmad and Smith 2020a & b). Also, some of the papers focused only on the positive outcomes (e.g., Williams, Thomas, and Smith, 2017), while others (e.g., Nelson and Smith, 2016) reported the prediction of the negative outcomes. Thus, considering things from that perspective, the replication of the established effects of the DRIVE model/WPQ is well-documented. There is also extant proof of positive predictors predicting positive well-being and negative predictors predicting negative well-being. However, the participants in these studies have been predominantly White British, except for the research of Nelson and Smith (2016), Ahmad, Firman, and Smith (2018a and b), and Ahmad and Smith (2020a and b). Therefore, it could be suggested that these replications are culture-dependent.

Another important aspect to note about the established effects in addition to replication is that they tend to obliterate the effects of other variables. For instance, the effects of work behaviours and work-life balance, which were respectively significantly correlated to positive well-being, ceased to be so when the established predictors were included in multivariate analyses (Ahmad, Firman, Smith and Smith, 2018a). Similar effects were observed for noise, although it was not significantly correlated to some of the outcomes (Ahmad and Smith, 2020a; Smith and Smith, 2017a). These findings imply that the former effects can be accounted for by the effects from the established predictors. There have been exceptions, however. Work-life balance still predicted negative well-being even with the introduction of the established predictors (Ahmad, Firman, Smith and Smith 2018a). Noise, too, predicted negative well-being in multivariate analyses along with the established effects (Langer, Taylour, and Smith, 2020). Again, these findings imply that although the established predictors are robust enough to predict a wide range of outcomes relating to well-being issues, they are still inadequate. This has led to the addition of new variables to the DRIVE model/WPQ framework, which has been facilitated by its flexibility. So far, the established effects of the DRIVE model/WPQ framework have been defined, described, and buttressed with data from previous studies. A weakness that has been uncovered is that most of the respondents of these studies are White British, and this could cast aspersions on the validity and veracity of the established effects beyond cultural boundaries. It has also been discussed that although the established predictors and their outcomes are robust enough to detect a wide variety of well-being issues, they are still not sufficient because of the eclectic nature of well-being. The next aspect of this review will discuss the introduction of new variables into the WPQ.

New Variables

Well-being is a multi-dimensional concept which influences and is influenced by various factors. It is, therefore, an understatement that there is virtually an unending list of potential variables that can be included in the WPQ. However, it is unrealistic and impossible to add every possible variable (Smith et al., 2009 cited by Williams, Thomas, and Smith, 2017). To this end, variables were included in the WPQ that were not in its initial iterations. Among these variables are work-life balance (WLB), fatigue, etc.

One of the earliest studies of the WPQ (Williams, Pendlebury, and Smith, 2017) suggested the inclusion of WLB to replace redundant variables. It was subsequently included in the SWELL (Fan and Smith, 2018; Smith and Smith 2017a) as single items. These items were included in the WPQ (Ahmad, Firman, Smith, and Smith 2018a&b). Although Ahmad and colleagues included the multi-item scales for WLB (Netameyer, Boles and McMurrian, 1996), which measured both Work-Family Conflict (WFC) and Family-Work Conflict (FWC), there was no evidence of comparison between these items and the corresponding single items which is a huge weakness of these studies as it does not provide a basis for assessing similarity between them. WLB can either be WFC or FWC. However, the studies that included it did not specify which of the conflicts they were measuring and reporting. WLB was linked to negative well-being. For instance, it was significantly correlated to fatigue and negatively correlated with positive well-being (Fan and Smith, 2018). Furthermore, multivariate analyses showed a strong association between WLB and negative well-being even in the presence of the established predictors. Thus, it has been revealed that although no links were established between the WLB multiple item scales and their corresponding single items and that the specific WLB conflict being measured was not specified, it was linked to negative well-being even in the presence of the established predictors.

Noise is another variable that has been included in both the WPQ (Ahmad and Smith, 2020a) and the SWELL (Fan & Smith, 2018; Langer, Smith & Taylour, 2020; Smith & Smith, 2017a & b). The evidence explaining the link between noise and well-being appears somewhat mixed because although in all

cases it was linked to negative well-being, its relationship with the established predictors was different. On some occasions (e.g., Ahmad and Smith, 2020a; Smith and Smith, 2017a), the effects of noise on well-being were neutralised by the established effects, while in other studies (e.g., Langer, Smith &Taylour, 2020), its effect on well-being persisted even in the presence of the established effects. Yet another variable considered in the WPQ after the first versions were Psychological Contract Fulfilment (PCF). PCF is a reciprocal relationship between an employee and their organisation in which the employee performs their roles and responsibilities while expecting the fulfilment of certain obligations by the organisation in return (Ahmad and Smith, 2020a). Some of the components of PCF include trust, fairness, organisational commitment, organisational citizenship, etc. The established predictors, particularly the positive and negative work characteristics, predicted PCF at the individual variable and holistic PCF levels. These illustrate the strong links between well-being and the PCF construct. However, some components of PCF have also been shown to have strong links with other aspects of well-being not currently covered by the WPQ. Organisational Citizenship Behaviour (OCB), a component of PCF, was found to have positive relationships with psychological health and relatedness need satisfaction, respectively, which were also both negatively associated with burnout (Kumar et al., 2016 cited in Ahmad, Firman, Smith, and Smith 2018b). Since links were established between PCF and well-being and somewhat between PCF and burnout, it could be helpful, thus, to include burnout in future iterations of the WPQ since it sets out to measure well-being holistically with as many variables as possible. Burnout has not been included in the WPQ since its inception, although it was initially considered but did not meet the set criteria for subsequent inclusion (Williams, 2015). Again, it is important to consider burnout for inclusion in the WPQ as it has been found to affect people from a broad spectrum of professions rather than those in service professions (e.g., teaching, nursing, etc.) as initially thought (Maslach, Jackson, and Leiter, 1996). Noise has been included in the WPQ and is associated with higher negative well-being, and its effects on many occasions have been obliterated by the established effects. PCF (and its components) is another variable that has effects both on positive and negative well-being, with implications for burnout which has never been included in the WPQ but is an important variable that should be considered for addition to future versions.

Fatigue is another variable that has been included in the WPQ. The research (e.g., Fan and Smith, 2017&2018; Smith and Smith, 2017) shows that fatigue is related to the negative aspect of well-being. One study (Fan and Smith, 2017) differentiated fatigue into mental fatigue, emotional fatigue, and physical fatigue, which were all significantly correlated to each other. Further correlations were with negative work characteristics, poor sleep, noise, etc. As an outcome of negative well-being, it was predicted by a high workload, high noise, lifestyle, shiftwork, etc. (Fan and Smith, 2017). As some of these predictors may be difficult or impossible to eradicate, for instance, shiftwork, there might be the need to include additional variables that could inoculate the workers against fatigue even if these work characteristics are present. This is particularly pertinent, bearing in mind that personality negatively predicted fatigue, i.e., high levels of fatigue were associated with low personality. Furthermore, resilience has been distinguished from coping in that while coping is associated with how we deal with "normal" stressful occurrences, resilience deals with adverse situations (Glennie, 2010; Rice and Liu, 2016). Resilience could, therefore, be an important variable that could protect the workers from fatigue even in the presence of predisposing work factors. This is particularly important as resilience has been found to protect people against the effects of negative well-being and has been described as one of the “regulative processes” that could move well-being research to a proactive healthy worker perspective from a reactive “sick” worker perspective (Neveu, 2007, p. 22; Ryff and Singer, 1996).

This aspect of the review has attempted to summarise the findings from published research with the WPQ and SWELL. Evidence for the established effects, the effects observed between the established

predictors and outcomes, have been presented but have been criticised for concentrating predominantly on participants from the White British ethnic group. The implication of this is that the established effects may not hold for people outside this ethnicity. Variables that were subsequently included in these instruments following the initial iterations of the WPQ were also discussed. WLB, noise, fatigue, PCF were among the variables added to the WPQ/SWELL. This led to an exploration of the gaps that could be pointers for future research. For instance, although WLB single and multiple items have been used side-by-side, there is no evidence suggesting any comparison of both scales. Again, another weakness was that the WLB variable been studied was not specified. Other aspects of the research have also highlighted the potential of the burnout construct in future iterations. The same is also true for resilience which is believed to be a protective factor against negative well-being.

Table 2.1. below presents these findings in detail, while the next section of this review deals with student studies.

Table 2.1.

Summary of Literature for the Studies With the WPQ and SWELL

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
1. Williams & Smith (2016)	To investigate if single items could investigate well-being accounting for the roles of environment and personality while preserving the need for brevity in a practical setting	115 university staff	WPQ	Cross-Sectional	• Factor analyses of work characteristics and personality variables led to the formation of five variables: positive work characteristics, negative work characteristics, control, positive self attitude, and emotional stability. • Negative Work Characteristics predicted depression. • Positive work characteristics predicted job satisfaction; control predicted anxiety, positive affect, and job satisfaction. • A positive self attitude predicted depression, anxiety, positive affect, and job satisfaction. • Emotional Stability predicted anxiety and negative affect. • Positive Self Attitude moderated the relationship between control and positive affect. • Positive Self Attitude fully mediated the relationships between Emotional stability and depression and positive affect, respectively. • Positive Self Attitude partially mediated the relationship between

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
					Emotional stability and anxiety and negative affect, respectively
2. Williams, Pendlebury, & Smith (2017)	To investigate stress and well-being in nurses using the DRIVE model and WPQ	177 British Nurses	WPQ Short form	Cross-sectional	• Well-being outcomes were measured individually but could be classed as positive or negative, cognitive or emotional, and also as aspects of well-being. • Factor analysis for job characteristics yielded three factors: demands, resources, and roles/change/absence of bullying. • Factor analysis for personality yielded three variables: positive personality; openness, agreeableness, and conscientiousness; extraversion /emotional stability. • Coping yielded two viable factors: positive coping and negative coping. • Factor analyses yielded two well-being outcomes: positive outcomes and positive work appraisals. • Positive outcomes were predicted by a high positive personality score, high positive coping, and low negative coping scores. • Positive work appraisals were predicted by high resources and low job demands
3. Williams, Thomas, & Smith (2017)	To investigate stress and well-being in university	120 university staff	WPQ Short Form	Cross-sectional	• Job characteristics revealed two factors: demands and resources.

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
	staff using the DRIVE model and WPQ				• Positive personality also revealed two factors: positive personality and openness, agreeable, and conscientiousness. • Positive coping and negative coping were recognised as the two factors for coping. • The two factors for well-being outcomes were positive and negative well-being. • Positive outcomes were predicted by positive personality and positive coping. • Negative outcomes were predicted by job demands and negative coping
4. Williams & Smith (2018b)	To examine the diagnostic validity of the single item anxiety and depression variables in the WPQ	120 University Staff	WPQ	Cross-sectional	• Correlations between the short and long versions of the questions were similar for the different demographic groups. • A cut-off point at a score of 5 provided the best results for sensitivity and specificity in the depression and anxiety items. Sensitivity at this point was 71.4% and 86.3% for depression and anxiety, respectively, while specificity was 85.4% for depression and 72.6% for anxiety
5. Nelson & Smith (2016)	To examine the relationship between work characteristics, coping, and mental health in Jamaican	134 Jamaican police officers	WPQ	Cross-sectional	• PCA revealed three factors for work characteristics: negative work characteristics, positive work characteristics, and work support.

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
	police officers and to test whether work characteristics are indirectly associated with mental health outcomes through perceived job stress and job satisfaction.				Two coping factors emerged: emotion-focused coping and action-oriented coping) • All predictors, except for demographic variables, made a significant contribution to the outcomes. • Work factors made a significant overall and individual contribution to depression. • Although, as a whole, work factors contributed significantly to anxiety, this was largely accounted for by the significant influence of negative work characteristics. • Coping styles, on the whole, accounted for a significant increase in variance for both outcomes but only emotion-focused coping had a significant individual effect. • All the aforementioned variables explained 32 and 33% of the variance in depression and anxiety, respectively. • All three work factors indirectly influenced depression and anxiety through perceived stress. Positive work characteristics indirectly influenced depression through job satisfaction • negative work characteristics, and emotion-focused coping were

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
					associated with high levels of depression and anxiety. • Positive work characteristics and work support were inversely related to depression but not associated with anxiety. • All three work factors indirectly influenced mental health through perceived stress. Job satisfaction partially mediated the relationship between positive work characteristics and depression
6. Ahmad, Firman, Smith, & Smith (2018a)	To examine associations of short measures of PCF and well-being outcomes while statistically adjusting for other established predictors (job characteristics, coping styles, and personality)	166 workers in the USA recruited from Mechanical Turk	WPQ	Cross-sectional	• Psychological Contract Fulfilment (PCF) was significantly correlated with both positive and negative outcomes, and this was also found for work behaviours, job attitudes, and Work-Life Balance (WLB) • High levels of well-being were predicted by positive personality, positive coping, and positive work characteristics. Poor health was associated with lower positive well-being. PCF had no significant effect. • Work behaviour and WLB were no longer significant when the established predictors were included. • High job attitude showed a significant multivariate relationship with low well-being.

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
					• Neither PCF nor work attitudes significantly predicted negative well-being. Good WLB remained negatively associated with negative outcomes.
7. Ahmad, Firman, Smith, & Smith (2018b)	• To develop short measures of employee attitudes and behaviours and validate these by examining associations with longer-established measures. • To examine associations of these short measures with Psychological Contract Fulfilment and aspects of well-being.	166 workers in the USA recruited from Mechanical Turk	WPQ	Cross-sectional	• PCF was negatively correlated with demands and other negative job characteristics and was positively correlated with control, support and rewards. • PCF was negatively correlated with avoidance coping and was positively correlated with the Big 5 dimensions and the positive personality dimensions of self-esteem, self-efficacy, and optimism. • PCF was positively correlated with well-being both at work and in general life. In contrast, it was negatively correlated with low well-being scores both at work and in general life. • Job demands were positively associated with job insecurity and intention to quit. In contrast, they were negatively correlated with employment relations, courtesy, and sportsmanship. • Job control was positively correlated with affective commitment, employment relations, motivation, effort, altruism, courtesy,

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
					conscientiousness, sportsmanship, and civic virtue. However, control was negatively correlated with job insecurity and intention to quit. • Most negative job characteristics showed a similar profile to job demands, and most positive characteristics showed the same pattern of associations as control. The number of significant correlations varied slightly depending on the specific characteristic.
8. Ahmad & Smith (2020a)	To examine whether the perception of noise at work influenced PCF	166 workers in the USA recruited from Mechanical Turk	WPQ	Cross-sectional	• Positive job characteristics had an overall significant effect and also a significant effect for all the individual variables. The same was true for negative job characteristics. The overall effect of perceived noise exposure was no longer significant in this analysis (There were no significant effects of noise in the analysis of the individual variables)
9. Ahmad & Smith (2020b)	To examine associations between noise exposure and components of the psychological contract	166 workers in the USA recruited from Mechanical Turk	WPQ	Cross-sectional	• Positive job characteristics had an overall significant effect and also a significant effect for all the individual variables. The same was true for negative job characteristics. The overall effect of perceived noise exposure was no longer significant in this analysis.

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
					• There were no significant effects of noise in the analysis of the individual variables
10. Fonberg & Smith (2019)	To provide a brief overview of the shared heritage of psychological theories of wellbeing and assess the validity of their measurement with single items.	120 UK university staff and 119 participants were recruited through Mechanical Turk.	WPQ; SWLS	Cross-Sectional	• Correlations between the single and multi-item measures of life satisfaction were high, indicating congruent validity. • The positive relationships between both measures of life satisfaction and positive affect, happiness, optimism, self-efficacy, and self-esteem indicated convergent validity. • The negative relationships between both measures of life satisfaction and negative affect, anxiety, and depression suggested discriminant validity
11. Fan & Smith (2018)	to examine the relationship that job and personal characteristics have with fatigue, negative work-life balance, and positive well-being, both at work or outside work.	1067 train company staff	SWELL	Cross-Sectional	• High job demands showed a significant correlation with fatigue, negative work-life balance, and positive well-being outcomes. • Other negative job characteristics, such as shiftwork, exposure to noise, and exposure to fumes, were also significantly correlated with fatigue and negative work-life balance. • No significant correlation was found between shiftwork, work exposure to noise or fumes, and their well-being outside work.

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
					• A higher level of job control and support showed a significant negative correlation with a higher level of fatigue and poorer work-life balance and a positive correlation with positive well-being. • Positive personal characteristics, such as a positive personality and healthy lifestyle, showed a positive correlation with positive well-being outcomes and a small but significant negative correlation with fatigue and negative work-life balance. • Fatigue showed a significant correlation with negative work-life balance, with a high level of fatigue associated with poor work-life balance. • Fatigue showed a significant negative correlation with the positive well-being outcomes, both in general life and at work, including life satisfaction, job satisfaction, life happiness, and work happiness • Fatigue mediated the impacts of lifestyle and personality on work-life balance and positive well-being outcomes. • Fatigue fully mediated the impact of lifestyle on work-life balance. • The rest of the relationships between personal characteristics

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
					and positive well-being outcomes were partially mediated by fatigue. • Fatigue fully mediated the relationships between job demands and life happiness, life satisfaction, and job satisfaction, respectively. • Fatigue was also found to partially mediate the impact of job demands on work-life balance and job happiness. • The effects of job support and control on negative work-life balance and positive well-being were partially mediated by fatigue. • Fatigue partially mediated the impact of shift work on negative work-life balance. • Fatigue partially mediated the influences of noise and fumes on negative work-life balance. • The impacts of noise and fumes, respectively were fully mediated by fatigue on job happiness and job satisfaction. • The difference in the means for high/low social support on a positive outcome was bigger in the low fatigue group. • A positive predictor had a bigger effect on a negative outcome (negative work-life balance) in the

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
					low fatigue group compared to those with high fatigue. • The effect size of job support and control on all the five well-being outcomes and the effect of job demands on work-life balance was larger in the low fatigue group than in the high fatigue group. • In the low fatigue group, the effect size of job support and control on satisfaction and life happiness was medium. • The effect sizes of individual differences were larger in the low fatigue group than in the high fatigue group. For personality, the effect size was large on life happiness and life satisfaction. It was medium on job happiness and in job happiness in low fatigue group, which is still larger than in high fatigue group. • For healthy behaviours, the effect size on the well-being outcomes was also larger in the low fatigue group than in the high fatigue group
12. Fan & Smith (2017)	To investigate the impact of workload on performance	1067 train company staff	WPQ	Cross-sectional	• The workload was the strongest predictor of high levels of fatigue. • Other predictors include low social support, high noise and vibration, shiftwork, high-fatigue work, as well as personality and lifestyle.

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
13. Fan & Smith (2019)	To investigate the causes of different types of fatigue among rail staff	246 Train Staff	WPQ	Cross-Sectional	• Based on factor loading, the contribution of physical demands on three-dimensional work demands (3D-demands) was found to be much smaller than that of either mental or emotional demands • The three dimensions of fatigue were significantly correlated with each other. • Physical fatigue showed a significant positive correlation with shift length and the frequency of rest and breaks during work. • Mental fatigue showed a significant correlation with the start time of shift with higher levels of mental fatigue associated with earlier shift work start times (i.e., early morning shift work). • Mental fatigue, emotional fatigue, and efficiency were significantly correlated with the numbers of shifts taken before a rest day, • higher efficiency was found to be significantly associated with longer break length. • Job demands and negative work characteristics showed a significant positive correlation with 3D fatigue, while positive work and individual characteristics showed significant negative correlations with fatigue.

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
					• 3D fatigue was positively correlated with length of shift, overtime work, and timing of shift. • 3D fatigue showed a significant positive correlation with emotional and mental demands, with a higher level of fatigue associated with a higher level of emotional and mental demands. • Fatigue showed a negative correlation with effort. • Fatigue showed a significant correlation with the sleep factor, with a higher level of fatigue being associated with a poorer sleep experience. • Mental work, positive work, and individual characteristics, and job demands were the strongest predictors of 3D fatigue by beta weight, followed by overtime work. • Negative work characteristics, long length of shifts, and overtime work were found to be associated with physical fatigue at a significant level. • High mental workload and high job demands showed a trend toward significance in predicting physical fatigue. • Job demands, mental workload, and overtime work were found to

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
					influence mental fatigue significantly. • Emotional fatigue was significantly predicted by positive work and individual characteristics, job demands, length of the shift, overtime work, the timing of the shift, and mental workload.
14. Smith & Smith (2019)	To examine whether associations between the predictor variables of the WPQ and outcomes were influenced by impression management (scores on the lie scale)	115 University Staff	Cross-sectional	WPQ	• The lie scale positively predicted negative well-being, while the positive work characteristics negatively predicted negative well-being outcomes. • Positive personality and positive work characteristics but not the lie scale predicted positive well-being. • Well-being (positive minus negative) was significantly predicted by positive personality and positive work but not the lie scale.
15. Smith & Smith (2017)	To study the effects of noise on well-being	1099 rail workers	Cross-Sectional	SWELL	• The factor of noise was significantly correlated with the fatigue/stress at work factor and the absence/accidents factor. • Job demands and personality/ lifestyle/control-support were also correlated with fatigue/stress at work factor and the absence/ accidents factor. • The noise alone was significantly correlated with the fatigue/stress at

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
					work factor and the absence/ accidents factor. • High noise was associated with greater fatigue/stress at work and also with life stress/general anxiety. • There were no significant effects of noise for happiness, life satisfaction, absenteeism, accidents, or stress at work. Some of these variables had shown no significant effects of noise in the univariate analyses (e.g. happiness/job satisfaction), whereas others had (e.g. stress at work), but the multivariate analyses showed that the effect of noise could be accounted for by other job characteristics (in the case of stress at work by job demands). • Fatigue and work-life balance had been significantly associated with noise in the univariate analyses, and these effects remained significant in the multivariate analyses. • The effect on work-life balance was associated with other more general effects of noise on mental health (life stress and general anxiety/ depression). • Job satisfaction was lower in those who reported greater noise exposure.

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
					• Higher noise exposure was also associated with greater presenteeism and reporting of illness caused or made worse by work. • Noise exposure also showed a significant association with musculoskeletal disorders.
16. Smith & Smith (2017b)	To investigate workload, fatigue, and performance/ safety in a train company	1067 rail company staff	Cross-Sectional	SWELL	• Job demands were significantly correlated to fatigue and also negatively to work efficiency. • Fatigue was also correlated with reduced performance. • Lifestyle, control/support at work, noise, and shift work were also significantly correlated to fatigue. • High job demands, unhealthy lifestyle, shift work, low control/ support significantly predicted performance, and the effect of fatigue disappeared when these predictors were placed in multivariate analyses (regression)
17. Langer, Taylour, & Smith (2020)	To examine whether the perceptions of noise in open-plan offices were associated with positive and negative wellbeing	215 office workers	Cross-Sectional	SWELL; World Health Organisation (WHO) -5 well-being scale	• High noise exposure was significantly associated with high negative outcome scores. • High job demands, low control, and low positive personality scores were also associated with high negative outcome scores. • The noise had no significant effect on positive outcomes.

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
					• High positive outcome scores were associated with a healthy lifestyle, positive personality, high job control, and greater satisfaction with the working environment. • High WHO-5 wellbeing scores were not predicted by perceived noise exposure. Significant predictors were a healthy lifestyle, positive personality, high job control, high satisfaction with the working environment, and lower job demands
18. Langer, Smith & Taylour (2019)	To investigate the impact of a high-quality office redesign on the environmental satisfaction and psychological wellbeing of employees in an agile working, open-plan office at a manufacturing company in the United Kingdom	Baseline (23), T1(25), T2(23), Pre-post (Baseline and T1; 19), Longitudinal (12)	Longitudinal	SWELL, Environmental Satisfaction Scale	• A dependent t-test showed a significant decrease in wellbeing from baseline. • All the well-being items mean ratings decreased at T1, apart from fatigue at work. • At T1, participants reported significantly less control over their job and less support from their colleagues, and significantly more often feeling anxious or depressed because of work. • A one-way repeated measures ANOVA revealed that Environmental satisfaction showed a significant effect for time. Post hoc tests using the Bonferroni correction revealed that the increase in environmental satisfaction from baseline to T1 was

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
					significantly different, and the decrease from T2 to T3 was not. T3 was significantly higher than baseline. • Well-being declined over the three-time periods, but a Friedman test showed there was no significant effect of time.
19. Zaiedy Nor & Smith (2019)	To investigate the link between predictors of training effectiveness and well-being	T1=180; T2=95 1st year Psychology undergraduates	Longitudinal	Short-SWELL	• At T1, there was a significant positive correlation between positive coping and motivation to learn and a weak positive correlation with a positive personality. • There was a Negative relationship between negative coping and motivation to learn. • All three psychosocial characteristics at Time 1 significantly explained 20.3% of the variance in the motivation to learn, and it was only significantly predicted by positive coping. • Findings at T2 revealed that positive coping had a positive correlation with learning and was negatively correlated with cognitive dissonance. • At T2, there was a positive relationship between negative coping and cognitive dissonance, while positive personality had a weak negative correlation with cognitive dissonance.

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
					• At T2, positive work characteristics, OCB, and commitment had a significant positive correlation with learning and transfer intention. On the contrary, a significant negative relationship could be seen among positive work characteristics, OCB, and commitment to cognitive dissonance. • Four psychosocial characteristics recorded at Time 2 (positive and negative work characteristics, OCB, and commitment) significantly predicted learning. The significant predictors were positive work characteristics, OCB, and commitment. • Almost all the positive psychosocial characteristics (except positive coping) and motivation to learn, learning, and transfer intention, had a significant positive correlation with positive well-being. • Model II, in which four psychosocial characteristics and three attitudes to training that were recorded at Time 2 were added, explained significantly more variance. The model explained 21.4% of the variance in positive well-being and was significant. The significant predictors in Model II

Author(s)	Study Aim	Sample	Questionnaire	Study Design	Findings
					were positive personality and commitment. • Model II explained slightly more variance, but this increase was not significant. The model explained 4.8% of the variance in negative well-being and was not significant. The only significant predictor in Model II was positive personality.
20. Smith (in preparation (a))	Secondary Analysis of Williams, Pendlebury, and Smith (2017) using the combined effects approach	177 nurses	Cross-sectional	WPQ; ENSS	• The combined WPQ predictors predicted the combined well-being score • Hassles and Flourishing predicted well-being • ENSS variables did not predict well-being

2.3.2. Student WPQ and Student SWELL

This aspect of the review looks specifically at studies that used the student WPQ or SWELL to study well-being among university students to summarise the findings and identify gaps in knowledge.

Established Effects

Like the WPQ/SWELL, effects from the student version have often been replicated. The established predictors for these instruments are the student stressors (ICSRLE factors), social support (ISEL factors), positive personality (optimism, self-esteem, and self-efficacy), negative coping (wishful thinking, self-blame, and avoidance), conscientiousness, and positive coping (problem-solving and social support), with positive outcomes (happiness, life satisfaction, positive affect, and Warwick-Edinburgh short scale), negative outcomes (stress, depression, and anxiety) and cognitive problems as outcome variables (Williams, Pendlebury, Thomas and Smith, 2017). The presence of these effects bestows assurances of the normalcy of the sample (Smith, 2017). Not all the individual ICSRLE factors have a significant association with well-being, but they appear to play a role in the grand scheme of things because when the non-significant factors were removed, some of the established effects were no longer observed (Smith and Firman, 2020). Also, as was the case with the WPQ/SWELL, the general tendency was for positive well-being to be predicted by positive predictors and negative well-being to be predicted by negative predictors. The initial student WPQ study (Williams et al., 2017) reported that negative outcomes were predicted by high levels of student stressors, negative coping and conscientiousness, and low levels of social support and positive personality, while positive outcomes were predicted by high levels of social support, positive personality, positive coping and conscientiousness and low levels of negative coping and student stressors. Finally, cognitive problems were predicted by high student stressors (marginal) and negative coping and low positive personality. Similar findings were recorded in a study of Russian-speaking Kazakhstani University students (Umurkulova, Sabirova, Slanbekova, Kabakova, and Kalymbetova, 2021), except that negative outcomes were predicted by low conscientiousness rather than high conscientiousness found in Williams et al.'s study. The student WPQ used in the Umurkulova et al. study was slightly different from William et al.'s as some questions were either modified or removed altogether because of the cultural context. These findings have at least two implications. The first implication is that well-being processes between the student samples are very similar. The Second implication being that, that cultural differences seem to play an unimportant role in the process.

The established effects often remained when other variables were included in the student WPQ. For instance, the effects of aircraft noise on well-being were no longer significant once the established predictors were controlled (Smith, 2017). Also, variables relating to studying and internet use and internet addiction were not significant, while the established effects for both positive and negative well-being were retained (Alheneidi and Smith, 2020a & b; Smith and Izadyar, 2020). These findings suggest that the established effects account for a wide range of both positive and negative well-being for students. However, there are exceptions. For instance, noise sensitivity remained significant when the established factors were covaried (Smith, 2017). This finding shows that although the established predictors through their effects on the well-being outcomes can explain student well-being, there are still some gaps that could potentially be filled by the addition of new variables.

As opposed to occupational studies, the student studies appeared to be more diverse in terms of populations studied. This thus created a better opportunity to compare the effects of the established predictors on student well-being across cultures. For instance, comparing the findings from a study of a predominantly White British Student sample (Williams et al., 2017) and those from Kazakhstani students yielded very similar results. Another study (Alheneidi and Smith, 2020a & b) comparing the well-being of British and Kuwaiti students showed that there were no differences in well-being except

that high social support was found to be a significant predictor of negative well-being among Kuwaiti students. This runs contrary to the norm across student WPQ studies but can be explained by the fact that in the Kuwaiti culture, seeking social support, which implies seeking help from others, is deemed negative. Putting these together, especially taking into cognisance the sharp contrasts between the cultures, suggests that culture and cultural differences play very minimal roles in the well-being process. However, for firmer assertions to be made on the effects of cultural differences on well-being, more studies with more diverse samples need to be carried out. These comparisons mentioned above appear to be of homogenous samples domiciled in their home countries. It would be helpful, for instance, if ethnic minority samples were studied. Furthermore, the studies compared appear to be based in Europe and the Middle East. Including new regions like the Americas, Africa, etc., will greatly increase the diversity of these comparisons and will give more veracity or otherwise to the established effects across cultural boundaries.

In this aspect of the review, the established effects of the student WPQ have been described and discussed. Furthermore, comparisons across cultures have been made and appear to show that these effects cut across. However, to further demonstrate the extent of these effects culturally, more studies need to be made to include other populations of students. The established effects, in addition to cutting across cultural divides, appear to be able to explain various influences on student well-being. However, it is limited in its predictive power and could potentially benefit from the addition of new variables. The next section of this aspect of the review summarises the influence of other variables on the well-being process as captured in the published student SWELL/WPQ research.

Other Variables

The DRIVE model places high importance on the role of individual differences in the well-being process. Therefore, it is important to mention the roles that demographic and other individual difference variables play. For instance, gender appeared to play a role with female international students experiencing higher negative well-being than their male counterparts at the baseline (Alharbi and Smith, 2019). Another demographic factor that influenced well-being was the academic year. Better well-being seemed to be linked with academic level, with those in earlier years having better well-being (Alharbi and Smith, 2019). Personality and coping variables are already included in the established predictors, but there is potentially room for more variables. For instance, resilience has been previously discussed as a personal attribute that could allow people to go through adverse situations and protect them from negative outcomes. This might indeed be very helpful for students studying very demanding and intensive courses and/or who are going through hardship.

Apart from demographic and other personal variables, lifestyle choices also affect well-being. The effects of lifestyle choices like smoking and drinking alcohol have been studied with students' well-being. Smoking was found to be associated with low positive outcomes and high negative outcomes. It was also associated with low academic attainment (low-Grade Point Average, GPA), low work efficiency, and high stress (Smith, 2019b & 2019c). Alcohol consumption also had a similar relationship with well-being. Furthermore, both the quantity and frequency of consumption of alcohol were linked with more negative well-being (Smith, 2019c). Specifically, higher and more frequent alcohol consumption was associated with lower conscientiousness, lower work efficiency, and lower course stress. However, they were also linked to experiencing lower negative outcomes than those who consumed lower amounts and those who did so less frequently. Furthermore, alcohol consumers reported higher social support than non-consumers. It, therefore, suggests that alcohol consumption is a social activity that these students do in groups. It thus raises the question of whether these social commitments interfere with their university work and vice-versa. This is something that should be investigated in association with well-being. Consuming alcohol beyond the recommended safe limit was associated with lower positive wellbeing, lower work efficiency, lower GPA but lower course

stress. Thus, students' lifestyles have been shown to have definite influences not just on their well-being but on their academic grades and how well they carry out the required work. In a comparative study on the well-being of three student groups (psychiatric nursing students, clinical psychology students, and PhD students) by Galvin and Smith (2015), multivariate analyses revealed that lifestyle was among the significant predictors of psychological ill-health among the combined sample. These studies establish a link between lifestyle choices and well-being. Also, since these activities are often done in groups, it cracks open the puzzle of if and how these activities interfere with their university work. This is a topic that merits further investigation, especially on how it influences or is influenced by well-being.

Some of the student WPQ research has also included fatigue as a factor that influences well-being and academic attainment. One study (Alheneidi and Smith, 2020a) included scores from mental fatigue and physical fatigue in the negative well-being outcomes scores. Mental fatigue had previously been found to be the strongest predictor of negative well-being, an effect that was retained even in the presence of the established predictors (Smith, 2018). Furthermore, fatigue predicted a low GPA, even when the established effects were included in the analysis. However, it did not significantly predict work efficiency and academic stress. Fatigue has therefore been shown as a factor that influences both well-being and academic attainment among university students, although it does not seem to have any effect on their perceptions of work efficiency and academic stress. It thus highlights fatigue as a variable that plays a key role in the well-process of students.

One factor that is quite related to fatigue is sleep. Sleep is another issue that has implications for well-being. This is particularly true for university students who "burn the midnight oil" to reach their academic pursuits. The student WPQ was used to study the relationship between sleep, well-being, and academic attainment among university undergraduates. Sleep was divided into four main sub-variables: tiredness and concentration, daytime sleepiness, sleep quality, and sleep duration (Howells and Smith, 2019). Tiredness and concentration remained significant predictors of well-being when the established predictors were included in the regressions. To further explore this finding, the tiredness and concentration sub-variable was replaced by its constituent items to know specifically which one affected students' wellbeing. Feeling tired during the day and finding it hard during the day to concentrate during lectures were significant among the tiredness and concentration factor. Tiredness and concentration were also found to significantly predict academic attainment even with the established predictors present. These findings suggest that the tiredness and concentration sleep factor was a strong predictor of both well-being and academic attainment.

An individual's well-being can be influenced by their driving style, hazard perception, alertness, etc. One study (Bowen and Smith, 2019) investigated the relationship between driving behaviour (concentration, use of mobile while driving, etc.), driving skill (self-rated and rated by others), and driving hazards (driving in bad weather, driving at night, discussing with passengers while driving, etc.) on the one hand, and well-being on the other among students. They reported that driving behaviour predicted positive well-being, negative well-being, negative appraisals, and cognitive problems in the presence of the established predictors. Furthermore, driving skills also predicted positive well-being and positive appraisals. Overall, the study shows that driving behaviour influences well-being and cognitive problems. It also shows that when individuals rate their driving skills highly, they are likely to experience positive well-being.

This aspect of the review has reported and summarised the other variables apart from the established predictors in the student WPQ and SWELL with regard to the well-being outcomes. Demographic factors, lifestyle choices, fatigue, driving, and sleep. Fatigue and sleep are particularly important variables that were included in the student WPQ – buttressing the utility of adding more variables to

the WPQ. Some of the gaps have highlighted in this review include the possible addition of resilience as one of the personal variables as this may prove to be very helpful, particularly to students studying challenging courses. Also, based on some of the lifestyle choices of some of the student samples studied, especially alcohol consumption. As this is often done as a group activity, it is worth investigating if these activities interfere with their university activities and vice-versa.

So far, this aspect of the review has looked at the student WPQ/SWELL and summarized some of the major findings from the published research. The established effects have been studied, and like the WPQ/SWELL, the general tendency is for positive outcomes to be predicted by positive predictors and negative outcomes to be predicted by negative outcomes. Unlike the occupational studies with the WPQ/SWELL, the student studies comprised participants from various countries, providing an opportunity to compare the well-being process across cultures. The comparisons revealed that the well-being processes were very similar for the samples studied. However, one criticism is that these comparisons were made between homogeneous samples predominantly based in their (ancestral) home countries. That could be tackled by studying ethnic minority samples. Another criticism is that the current student WPQ/SWELL studies investigated student well-being in Europe and the Middle East. Future studies should consider recruiting students from the Americas, Africa, etc. The roles of the other variables in the student WPQ/SWELL studies were also explored and summarised. Some of the gaps revealed the potential of adding new variables like resilience and WFC and FWC variables for future student studies.

The pieces of literature reviewed are presented in Table 2.2. below. The entire review is summarised in the next section of this chapter, while the next chapter explores the relationship between the proposed variables and well-being.

Table 2.2. presents and summarizes the findings from the student WPQ/SWELL studies.

Table 2.2.

Summary of Literature of Published Research on the Student WPQ and Student SWELL

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
1. Smith (2017)	to investigate associations between perceived prior (during primary and secondary school) and current noise exposure from several sources (e.g., traffic noise, noise from neighbours) and well-being and academic attainment.	327 University undergraduates	Student WPQ	Cross-sectional	• MANOVA analysis showed a significant effect of noise sensitivity. Univariate analyses showed that this was due to high noise sensitivity going with more negative well-being. • High perceived noise in school was associated with lower 'A level' scores but no effects on the other variables. Further analyses showed that this was due to secondary school noise. This effect remained significant when conscientiousness was covaried, which suggests that it did not reflect an effect of noise on motivation. • The MANOVA revealed a significant effect of noise and noise sensitivity (but no significant interaction between them). The noise sensitivity effect was due to more negative well-being in the high noise sensitivity group. Univariate analyses showed significant effects of noise on both well-being and GPA scores.

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					• Noise from neighbours and aircraft noise had significant effects. The effect of aircraft noise remained significant when both noise from neighbours and aircraft noise were included in the same analyses but disappeared when the established predictors were co-varied. However, the association between noise sensitivity and well-being remained significant when the established predictors were covaried, which suggests that other psychosocial factors cannot account for it**.** • Perceived exposure to aircraft noise as a child was associated with lower GPA scores. However, this effect was no longer significant when conscientiousness was covaried, which suggests that it may reflect lower motivation and engagement in the high aircraft noise group
2. Smith & Firman (2020)	to investigate the extent to which individual items predicted wellbeing outcomes	1481 University undergraduates	Student WPQ	Cross-sectional	• All variables except societal stressors, problems with friends, belonging support and having people to discuss problems with showed significant effects with any of the outcomes. • Avoidance coping, developmental challenges, time pressure, and

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					optimism predicted all the positive and negative outcomes. • Self-esteem and self-efficacy predicted all the positive outcomes but none of the negative outcomes. • Wishful thinking, self-blame, and social stressors predicted all the negative outcomes but none of the positive outcomes. • Academic challenges, romantic problems, and social support predicted one or two outcomes in total. • Composite variables were then created, excluding the variables which had no significant overall effects in the MANOVA. Regressions predicting positive outcome scores showed that all the predictors were significant except for negative coping, while those for the total negative wellbeing scores revealed that all of the predictors were significant except for social support.
3. Smith & Firman (2019)	To examine associations between the different components of the wellbeing process and subjective (perceived efficiency, course stress,	1296 undergraduate psychology students	Student WPQ	Cross-Sectional	• The overall effect of conscientiousness was significant. The high conscientiousness groups had higher GPA scores, reported greater efficiency but also reported higher course stress and workload.

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
	and workload) and objective academic outcomes (GPA).				• The only variable not associated with any of the academic outcomes was positive personality (self-esteem, self-efficacy, and optimism) • Higher positive wellbeing was associated with greater efficiency. • Higher social support was also associated with greater efficiency. • Greater negative wellbeing was associated with more course stress and a perception of a higher workload. • Greater exposure to stressors was associated with lower GPA scores and more course stress. • More frequent use of negative coping was associated with lower efficiency and greater course stress. • Perception of course stress and workload increased from year 1 to year 2.
4. Williams, Pendlebury, Thomas & Smith (2017)	to confirm the multi-faceted approach to well-being in students using student-related demands based on single-item versions of the ICSRLE factors, resources based on single-item versions of the ISEL social support	478 Psychology Undergraduates	Student WPQ	Cross-sectional	• Positive well-being was predicted by a strong positive personality, high social support and low stressor, and low negative coping score. • Negative outcomes were predicted by a high stressor, coping, and conscientiousness score, and low

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
	factors, and the previously used coping, personality, and outcome measures.				positive personality and low social support scores. • Cognitive problems were predicted by a high stressor and negative coping score, and low positive personality scores. • MANOVA revealed that the combined score had a significant effect on all outcomes, with scores changing in the predicted direction across the four quartiles
5. Galvin, Richards, & Smith (2020)	To investigate how changes in the levels of preparedness and experiences of death and dying influence nursing students' mental health.	Nursing Students: 358, T1; 347, T2	Student Short WPQ (SS-WPQ); Nurse Stress Scale (NSS)	Longitudinal	• There were no significant differences between at both time points with regards to inadequate preparation, death and dying, and mental health scores were all non-significant. • Participants who reported increased inadequate preparation and increased death and dying between T1 and T2 were at an increased risk of mental health problems at T2 • Statistically significant direct effects of increased mental health risk were observed for academic dissatisfaction, friendship problems, and inadequate preparation.
6. Galvin & Smith (2015)	To compare the well-being of trainee clinical	515 participants: 168 Clinical	WPQ	Cross-sectional	• Trainee clinical psychologists reported significantly more

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
	psychologists, psychiatric nursing students, and PhD students	Psychologists, 94 Psychiatric nursing students, and 253 PhD students			resources than psychiatric nursing students and PhD students. • Trainee clinical psychologists reported more job demands than the other groups and more seeking social support coping than PhD students. • Trainee clinical psychologists reported higher perceived stress than psychiatric nursing students and PhD students. • Trainee clinical psychologists reported significantly more psychological ill-health than PhD students. • Psychiatric nursing students reported more emotion-based coping than the two other groups. • Psychiatric nurses engaged in a less healthy lifestyle than both the other groups. • Psychiatric nursing students reported significantly higher scores on both the negative personality traits and the relationship-focused personality traits components than PhD students. • Regressions with the combined sample revealed that job demands, emotion-based coping, alcohol consumption, healthy lifestyle,

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					negative personality trait, relationship-focused personality, negative childhood experiences, and core self-evaluation all significantly predicted psychological ill-health. • Job demands and core self-evaluation were the strongest predictors of psychological ill-health among the combined sample. • The significant predictors of perceived stress among the general sample were job demands, negative personality traits, negative childhood experiences, and core self-evaluation • Resources, job demands, alcohol consumption, relationship-focused personality, childhood responsibilities and core self-evaluations were all significant predictors of job satisfaction. • For Clinical Psychologists, negative personality traits, relationship-focused personality, negative childhood experiences, and core self-evaluations significantly predicted psychological ill-health. • In the same group, perceived stress was significantly predicted by job demands and core self-evaluations.

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					Incidentally, job demands and core self-evaluations were also the top predictors of psychological ill-health among clinical psychology students. • Resources, job demands, and relationship-focused personality were the predictors of job satisfaction in this group • Among the Psychiatric Nursing students, psychological ill health was predicted by job demands, resources, emotion-based coping, alcohol consumption, negative childhood experiences, and core self-evaluations • Perceived stress in the same group was predicted by job demands, resources, alcohol consumption, and negative childhood experiences. • Job satisfaction was predicted by resources, job demands, and negative childhood experiences. • The PhD students' psychological ill health was predicted by job demands, resources, emotion-based coping, healthy lifestyle, conscientious attitude, and core self-evaluations. • Core self-evaluations and emotion-based coping were the strongest

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					predictors of psychological ill-health among PhD students • Job demands and core self-evaluations were the most important predictors for perceived stress. • For job satisfaction, the most important predictors were resources and core self-evaluations. • Resources, childhood responsibilities, and core self-evaluations all significantly predicted job satisfaction among the PhD students. • Perceived stress and job satisfaction respectively mediated the relationship between demands and psychological ill-health.
7. Smith (2018)	To examine associations between mental fatigue and wellbeing/academic attainment	313 Psychology undergraduates	Student WPQ	Cross-sectional	• A single outcome score was calculated by adding scores reflecting negative wellbeing (e.g., stress, anxiety, depression, etc.) and subtracting positive wellbeing scores (e.g., life satisfaction, happiness, etc.) (i.e., the combined effects score) • This analysis showed that the established predictors of wellbeing (stressors, social support, and positive personality) had the usual significant effect.

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					• Mental fatigue was also associated with greater negative wellbeing and was the strongest predictor. • There was a significant effect of fatigue even when the established predictors were controlled. • The established predictors of academic attainment (stress; conscientiousness) had a significant effect. • Mental fatigue was associated with lower GPA scores and remained significant even when the established predictors were controlled. • Positive personality (high self-efficacy, self-esteem, and optimism) and conscientiousness were associated with perceptions of greater efficiency of doing academic work. Mental fatigue had no significant effect. • Mental fatigue did not affect academic stress, which was predicted by stressors and conscientiousness. • No significant prediction of workload.

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
8. Smith (2019b)	To examine whether smoking and different aspects of alcohol consumption were associated with wellbeing and attainment outcomes when the established predictor variables were statistically controlled.	895 university undergraduates (study 1); 352 university undergraduates (study 2); 277 university students (study 3);	Student WPQ	Cross-sectional	**Study 1** • There were significant effects with smokers being less conscientious, having lower attainment and work efficiency scores but higher exposure to stressors, negative coping, and negative outcome scores. • Those in the high alcohol units' category were less conscientious and report lower work efficiency and course stress and lower negative outcomes than those in the low alcohol group. • Those in the more frequent alcohol consumption group showed similar effects to the analysis based on units. • Alcohol consumers also reported more social support. • Non-consumers reported less course stress, greater work efficiency but more negative outcomes. • Those who consumed more than the recommended maximum reported lower work efficiency and had a lower GPA. In contrast, they also reported lower course stress**.** • The effect of smoking was significant in all analyses and

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					reflected the lower GPA scores obtained by smokers. • There were no significant effects of alcohol in the low/high units or frequency analyses. • There were also no significant interactions between smoking and alcohol consumption. • Non-consumers (of alcohol) reported significantly higher negative outcome scores but had greater work efficiency. • Those who consumed more than the recommended safe limit reported lower positive wellbeing, lower work efficiency, and lower course stress. • Non-consumers reported more negative well-being but greater work efficiency. • Those who consumed more alcohol than the recommended limit reported lower positive wellbeing and lower work efficiency but less course stress. **Study 2** • Regular binge drinkers reported lower work efficiency than the less frequent binge drinkers, who in turn reported lower work efficiency

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					than those who never engaged in binge drinking. **Study 3** • Those who regularly had a hangover were less efficient than those who sometimes had a hangover who were less efficient than those who never had a hangover.
9. Smith (2019c)	to examine whether smoking was associated with wellbeing and attainment outcomes when the established predictor variables were statistically controlled	923 university students	Student WPQ	Cross-sectional	• there were significant effects with smokers being less conscientious, having lower positive outcome scores, lower attainment scores but higher stress, negative coping, and negative outcome scores. • The only significant effects of smoking were for GPA and work efficiency
10. Smith & Izadyar (2020)	to identify the relationships between a combination of internet use behaviours and wellbeing and academic attainment	313 Cardiff University psychology students	Student WPQ	Cross-sectional	• Hours of internet/media use were significantly correlated with negative well-being (r=0.13) and lower GPA scores (r =-0.14) • There was also a significant correlation between negative coping and hours of internet/media use. • Hours studying significantly correlated with GPA scores and conscientiousness.

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					• Internet interference with studying was the strongest predictor. It was negatively correlated with GPA and positive outcomes) and positively correlated with negative wellbeing. It was also positively correlated with established predictors of negative wellbeing and negatively correlated with predictors of positive wellbeing. • The established predictors of conscientiousness and exposure to stressors had significant effects. • Hours spent on the internet/media also had significant effects. • A positive personality also predicted a higher GPA. • In the negative wellbeing regression, the established predictors had their usual significant effects (student stressors, positive personality, and negative coping). None of the internet/studying variables was significant. • In the positive wellbeing regression, the established predictors had their usual significant effects (student stressors and positive personality). None of the internet/studying variables was significant

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
11. Alheineidi & Smith (2020a)	To study the effect of problematic internet use among students on well-being and to study if cultural differences play a role.	110 Kuwaiti University undergraduates;179 UK university undergraduates.	Student WPQ, Internet Addiction Test (IAT), and Perceived Information Overload Scale (IOS)	Cross-Sectional	• The total wellbeing score was calculated as total negative outcomes (depression+ anxiety+ life stress+ physical fatigue+ mental fatigue + negative affect) minus total positive outcomes (positive affect + life satisfaction) (combined effect), with a high score of reflecting a more negative state. • Internet addiction scores were significantly correlated with negative wellbeing, information overload, and negative coping**.** • (Kuwaiti) The results of the regression showed that high internet addiction scores were associated with more negative outcomes. • Negative outcomes were predicted by the usual variables: high number of stressors, high negative coping scores, low positive personality scores, and poor sleep quality and physical health. • High social support scores were associated with high negative outcomes, and this may reflect the use of the term social support in Kuwait, where it refers to having help from others.

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					• A comparison of the correlations was conducted to investigate whether there were any significant differences between the two samples (Kuwait and UK) in the associations between internet addiction and wellbeing. This was confirmed by regression analyses.
12. Alheineidi & Smith (2020b)	To identify the relationships between internet addiction, wellbeing, and academic attainment	179 UK university undergraduates.	Student WPQ; IAT; IOS	Cross-sectional	• Negative wellbeing was the sum of the scores of depression, negative affect, and anxiety. • The negative appraisal was the sum of the scores of life stress, physical fatigue, and mental fatigue. • Positive wellbeing was the sum of scores of positive effects, and positive appraisal was represented by the life satisfaction score. • The total internet addiction score (IA) was significantly correlated with negative wellbeing (sum of outcomes and appraisals) and positive wellbeing. • The correlations between IA and academic attainment scores were negative but not statistically significant. • IA was correlated with the information overload media and information overload non-media scores.

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					• IA was also significantly associated with wellbeing predictors (negative coping, social support, positive personality). • The significant predictors for positive outcomes were social support and positive personality. When the established predictors were included in the regression, the effect of internet addiction disappeared. • In the negative wellbeing regression, the established predictors had their usual significant effects. Internet addiction was no longer significant when the established predictors were included. • IA scores were split to produce groups of controlled internet users and problematic internet users. There were no participants with IA scores suggesting internet addiction. The two groups compared in the MANOVA were those with controlled use and those with problematic internet use. The dependent variables in the MANOVA were examination score, coursework score, negative well-being, and positive wellbeing.

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					Internet addiction did not have a significant effect, whereas stressors, social support, and positive personality did.
13. Alheineidi & Smith (2020c)	To examine the effects of information overload on the well-being and academic attainment of university students To compare information overload due to noise with information overload from other sources	179 UK university undergraduates.	Student WPQ; IAT; IOS	Cross-sectional	• The three information overload scores were significantly correlated. • IO due to noise was negatively correlated with positive wellbeing and positively correlated with negative wellbeing. • IO due to environmental factors was negatively correlated with positive wellbeing and positively correlated with negative wellbeing. • IO due to media was not significantly correlated with positive wellbeing but was correlated significantly with negative wellbeing. • The three IO measures were also positively correlated with exposure to stressors and negative coping. • There were no significant correlations between the IO measures and the academic attainment scores. • There were no significant predictors of the attainment scores. • Negative outcomes were predicted by positive personality, exposure to stressors, and negative coping but

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					not by any of the information overload scores. • Positive outcomes were predicted by positive personality and social support but not by any of the IO measures.
14. Williams & Smith (2018)	To examine the test-retest reliability of the Student WPQ scales in a short longitudinal study (10 weeks).	87 undergraduate and postgraduate students	Student WPQ	Longitudinal	• An overall well-being score was calculated by subtracting the sum of the negative items from the sum of the positive ones (combined well-being score) • Positive personality, demands, social support, negative coping, and social support all showed some stability over time. This was especially true for the positive personality score and the social support score, although even variables that one might expect to reflect the current state (e.g., demands and well-being) showed quite high test-retest correlations. • At time 1, well-being was predicted by positive personality and demands, whereas at time two, well-being was predicted by the aforementioned variables and social support. • A positive personality was the strongest predictor of positive well-being.

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					• Changes in positive personality also predicted positive well-being.
15. Smith, Smith & Jelley (2018)	To investigate the well-being and quality of life of international students	402 international students	Student SWELL	Cross-sectional	• Regression analyses show that the quality of university life was greater in older participants, males, white/Caucasian students, and those in the first year of study. • All established predictors had a significant effect, with a high quality of life being associated with a healthy lifestyle, positive personality, low course demands, and high control/support. Also, those with more positive studying away strategies reported greater quality of university life, and this was significant even when demographics and established predictors were adjusted for. • Positive well-being was predicted by a healthy lifestyle, positive personality, high demands, high control (the established predictors), and high quality of university life. • Negative well-being was predicted by low levels of the same variables that predicted positive well-being (the exception being course demands, where high demands were associated with greater negative outcomes).

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					• Being older, female, and white were also associated with greater negative well-being. • Low rates of illness due to studying and low presenteeism were associated with being younger, being male, being Asian, not being in the first year, having a positive personality, and high quality of university life.
16. Bowen & Smith (2019)	to examine well-being and driving behaviour in a student population	224 undergraduate psychology students	Student WPQ	Cross-sectional	• Negative well-being was predicted by high stressors, conscientiousness and negative coping scores, and low positive personality and social support scores. • Positive well-being was predicted by low stressors, high positive personality and social support, and low conscientiousness scores. • Negative appraisals (e.g. perceived stress) were predicted by high negative coping, stressors, and conscientiousness and; low positive personality and social support scores. • Positive appraisals (e.g. life satisfaction) were predicted by low stressors and high positive personality and social support scores.

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					• Cognitive problems were predicted by high stressors and negative coping scores, and low positive personality and conscientiousness scores. • For positive well-being, the Hierarchical Multiple Regression (HMR) revealed that at Step 1, the established predictors contributed significantly to the regression model. The addition of driving behaviour at Step 2 also yielded a significant regression model. Together, the three IVs accounted for 57% of the variance in positive well-being, indicating that when established predictors are held constant, driving behaviour also predicts positive well-being outcomes. • For negative well-being, the established predictors contributed significantly to the model. The addition of driving behaviour at Step 2 also returned a significant regression. The five IVs contributed to 62% of the variance in negative well-being, indicating that driving behaviour is predictive of negative outcomes.

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					• For negative appraisals, the HMR yielded a significant contribution of the established predictors at Step 1, and at step 2, the inclusion of driving behaviour also returned a significant regression model. • For positive appraisals, there was a significant contribution to the model at Step 1, as well as at Step 2, indicating that lower driving behaviour scores are predictive of positive outcomes. • Finally, for cognitive problems, there was a significant regression model at Step 1, as well as at Step 2, although driving behaviour did not contribute significantly to the model. • A Pearson product-moment correlation coefficient was computed to assess the relationship between well-being outcomes and driving hazards. No statistically significant relationship was found between the variables. • For both positive outcomes and appraisal, the HMR yielded a significant contribution of the established predictors at Step 1 and step 2. The inclusion of driving skills also returned a significant

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					regression model for both outcomes.
17. Howells & Smith (2019)	To assess levels of subjective well-being in a student population	345 university undergraduates	Student WPQ	Cross-sectional	• Overall well-being was shown to be highly correlated with the established predictors. • Well-being was not significantly associated with overall academic attainment in students, nor was it correlated with exam or coursework marks. • Three sleep factors (tiredness and concentration, sleep quality, and daytime sleepiness) were significantly correlated with overall well-being outcomes. • When controlling for total stressors, negative coping, social support, and positive personality, only 'tiredness and concentration' remained significant. • All four questions significantly correlated with well-being. However, when considering the established predictors of well-being, only 'feeling tired during the day ' and 'finding it hard to concentrate' significantly predicted well-being. • Specifically, subjective depression was correlated with tiredness and

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					concentration, sleep quality, and daytime sleepiness. • Subjective anxiety was correlated with tiredness and concentration, and sleep quality. • Academic attainment was shown to be correlated with each of the established predictors. Conscientiousness was the strongest predictor. • 'tiredness and concentration' was significantly correlated with academic attainment • the 'tiredness and concentration' factor did significantly predict overall academic attainment when controlling for the established factors.
18. Smith (2019)	To examine associations between workload, time pressure, hours at the university, and the general positive and negative wellbeing	1299 undergraduate students	Student WPQ	Cross-sectional	• Workload and time pressure were significantly correlated. • Hours in university did not correlate with time pressure and workload perception. • Time pressure was significantly correlated with all the outcomes except the GPA score. • Hours in university was only correlated with course stress. • The workload was correlated with all the variables except GPA and positive wellbeing.

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					• The MANOVA revealed significant overall effects of workload and time pressure but not hours in university. • There were no significant interactions between the independent variables. • The workload had significant effects on all the independent variables, whereas time pressure only had effects on course stress and negative wellbeing (life stress, anxiety, and depression. • Those who reported a high workload had higher work efficiency scores, a higher GPA, more positive wellbeing but also greater course stress and negative wellbeing. • Those with high time pressure scores reported greater course stress and higher negative wellbeing scores.
19. Umurkulova, Sabirova, Slanbekova, Kabakova, & Kalymbetova (2021)		408 Kazakhstani University students	Student WPQ (Russian version)	Cross-sectional	• high personal resources, high levels of social support, low stress, and low negative coping were positively correlated with positive well-being • High stress, negative coping, low personal resources, and a low level of social support were correlated to negative well-being.

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					• There were significant correlations between variables from the student WPQ and Ryff's well-being variables and with the ways of coping, respectively. • Positive well-being was predicted by high psychological capital, positive coping, and low levels of student stress. • Negative well-being was predicted by low psychological capital, high levels of student stressors, low social support, low positive coping, and low conscientiousness. • Cognitive problems are predicted by negative coping, low positive personality, and low conscientiousness
20. Alharbi & Smith (2019)	to examine the entire "studying-away" model and all the strategies in each phase throughout the academic year	104 international students	Longitudinal	SWELL	• Time did not have a statistically significant effect on either positive wellbeing or negative wellbeing during the academic year. • When general wellbeing was measured over the last six months, only positive wellbeing differed significantly among the three phases and no statistically significant difference for negative well-being. • Gender was the only significant predictor of negative well-being at

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					T1, with females reporting more negative well-being. • Positive well-being was predicted by year at university, with first-year students reporting higher positive well-being at T1. • Positive personality significantly predicted positive well-being at T1. • Significant predictors of negative wellbeing at T1 were less positive personality, discussion of expectations for being away, and acknowledgement of the reality of separation. • Positive well-being was predicted by lower course demand in the first model but not the second model. Instead, Quality of University Life (QUL) and unwinding and relaxation after academic work were significant predictors of positive well-being at T2. • Satisfaction with academic achievement, fewer financial difficulties, and lower levels of changing activities before returning home were significant predictors of positive well-being. • Negative wellbeing was predicted by lower satisfaction with academic achievement, higher levels of

Author(s)	Study Aim(s)	Sample	Questionnaire	Study Design	Findings
					financial difficulties, and higher levels of changing activities before returning home. The overall model was significant and explained 16% of the variance in negative wellbeing at T3.

2.3.3. Conclusion

This chapter has reviewed the literature of the WPQ and SWELL, tracing their origins from the DRIVE model. It has shown the DRIVE model to be a flexible model which allows for the addition of variables as occasion demands and has now been expanded to measure both positive and negative well-being. The literature has shown that irrespective of the setting (work or university), culture, and other differences between the samples, the established effects were retained. The general pattern was for positive well-being to be predicted by positive variables and negative well-being to be predicted by negative variables. These effects were retained even when other variables were included in the analyses and, in many cases, obliterated other effects - demonstrating their versatility and robustness in the measurement of well-being. In a few cases, the effects of the new variable persisted even when the established predictors were controlled. This shows that the instruments can be further strengthened by the addition of new variables. Exploring the literature revealed gaps that could lead to future research enquiry. For instance, it was noted that participants in WPQ studies were predominantly of White British ethnicity, therefore limiting the generalisability of the established effects of worker samples. Even for the student studies that were more diverse than the occupational studies, there needed to be more coverage to test the generalisability or otherwise of the established effects. Other gaps revealed the need for the addition of new variables. The need for the addition of resilience as a strengthening and protective factor was highlighted for both the occupational and student studies. Likewise, the strong links between PCF and well-being and PCF and burnout revealed the potential for including burnout into the WPQ. The case for the addition of burnout is further strengthened by the fact that it was initially considered for addition into the WPQ before it was subsequently excluded. This led to subsequent addition to the WPQ. The case for the WLB slightly differs from those of resilience and burnout in that it already exists in WPQ, but the literature does not show evidence of comparing the established multiple items with the single items. This constitutes a major weakness. Another issue with WLB constructs featured in the WPQ/SWELL is the tendency to study as a single construct and not as two conflicts which would provide a clearer picture. Therefore, burnout, resilience, and WLB would be considered as the variables for potential addition to the WPQ, and that would be the focus of the next chapter.

Chapter 3: Narrative Review Linking the 'New Variables' with Well-being

3.1. Chapter Introduction

The previous chapter reviewed the published literature on studies that used the WPQ/SWELL and the student WPQ/student SWELL to measure well-being. The review provided evidence to support the established effects. It also uncovered some gaps revealing the need for further expansion of the WPQ. Potential additions include WLB, burnout, and resilience. This chapter aims to present a conceptual narrative review of the literature on work-life balance, burnout, and resilience and their links to well-being. It also explores the role of cultural differences in the associations between these new variables and well-being. The chapter comprises three main sections. The first section introduces the three variables by defining and describing each of them. The next section explores the links between these variables and well-being as captured in the research literature. Finally, the third section explores the link between these variables and cultural contexts to understand the role of cultural differences in their expression.

3.2. The New Variables

In the previous chapter, work-life balance, resilience, and burnout were identified as potential additions to the WPQ. While the two latter variables have never been included in the WPQ, WLB has been included in both, but there is no evidence of comparison of its established multiple item scales and the single item. Furthermore, previous WPQ treated it as one variable rather than splitting it into its components. This section discusses work-life balance, burnout, and resilience preparatory to their addition to the WPQ.

3.2.1. Work-Life Balance

For many adults, work and family are probably the most important aspects of their lives (Netameyer, Boles and McMurrian, 1996; Michel, Kotrba, Mitchelson, Clark and Baltes, 2011), with often contrasting roles and conflicting demands (Greenhaus and Beutell, 1985, Netameyer, Boles and McMurrian, 1996). These demands are referred to as role conflicts, which have been defined as "the simultaneous occurrence of two (or more) sets of pressures such that compliance with one would make more difficult compliance with the other" (Kahn, Wolfe, Quinn, Snoek, and Rosenthal, 1964, p. 19). These conflicts are best understood through the lens of role theory and have to do with the duties, responsibilities, and expectations attached to the roles (Kahn et al., 1964). Although non-work roles are sometimes defined beyond family roles to include leisure and hobbies (e.g., Wantanbe and Yamauchi, 2016), our primary focus here is on the work and family interface.

The family domain could be beneficial to the work domain and vice-versa (Higgins, Duxbury, and Irving, 1992). Furthermore, the work-life balance could be described as gaining more benefits and experiencing fewer conflicts in the interface (Frone, 2003). This review and the research that follows, however, will focus on the conflicts arising from the interface of both domains. Greenhaus and Beutell (1985, p. 82) point out that these conflicts arise as a result of "two strong opposing role pressures". The problem "occurs when an individual has to perform multiple roles: worker, spouse, and in many cases parent. Each of these roles imposes demands requiring time, energy, and commitment" (Higgins, Duxbury, and Irving, 1992, p. 59). Conflicts in one domain are consequences of role-related issues in the other (Frone, 2003). For instance, when an individual experiences conflict in their family role, it is a consequence of issues from or related to their work role and vice-versa. To this end, conflicts between work and family roles are divided into work-family conflict (WFC) and family-work conflict (FWC), based on their sources and consequences. (These conflicts have also been referred to in the

literature, e.g., Byron,2005 as Work Interference with Family, WIF, and Family Interference with Work, FIW, respectively). Greenhaus and Beutell (1985, p.77), thus, defined WFC (and FWC) as

> *a form of inter-role conflict in which the role pressures from work and family domains are mutually incompatible in some respect. That is, participation in the work (family) role is made difficult by participation in the family (work) role*

Kahn et al. (1964) described an inter-role conflict as a situation where the pressures of fulfilling a role are antagonistic to the fulfilment of other roles by the same person in another organisation or group. Although WFC and FWC often show strong relationships with each other (Netameyer et al., 1996, Byron, 2005, Michel, Kotbra, Mitchelson, Clark, and Baltes, 2011), they are conceptually different (Netameyer et al. 1996). From the well-being perspective, WLB can either be a predictor or an outcome (see Ahmad, Firman, Smith, and Smith, 2018a; Fan and Smith, 2018). It has also been known to serve as a mediator.

The incidences of WFC and FWC have been influenced or exacerbated by several factors. Probably the most-cited factor is the increasing number of families where both parents are in paid employment (Frone, 2003, Higgins, Duxbury, and Irving, 1992, Greenhaus and Beutell, 1985, Netameyer, Boles and McMurran, 1996, Warr, 1999). This is as opposed to situations in the past where the workforce consisted almost entirely of men (Warr, 1999). Recent ONS estimates show that 72.1% of working-age women (ages 16 to 64) were in paid employment (ONS, 2019b). Other factors include higher divorce rates, often leading to an increase in the number of single-parent families, as well as families with childcare and/or eldercare responsibility (Frone, 2003, Netemeyer, Boles, and McMurran, 1996). Increased eldercare is often cited as a consequence of higher life expectancy resulting from medical breakthroughs, which now make it possible to live healthier and longer. These and other factors lead to conflicts that could be expressed in terms of time, strain, and behaviour.

Both WFC and FWC could be experienced as time-based, strain-based, and behaviour-based conflicts (Greenhaus and Beutell, 1985). Time-based conflicts are a consequence of roles competing for an individual's time. These conflicts could be in the form of not being able to perform the responsibilities of a role because of time pressures from the other or being pre-occupied with a role while trying to physically perform duties of the other (Greenhaus and Beutell, 1985). The behavioural-based conflict has to do with starkly differing role behaviours based on the expectations and responsibilities of each role. An example of this would be situations where one's job role requires a high amount of secrecy as opposed to family relationships which require openness. Strain-based conflict describes a situation where strain from one role makes it hard(er) to perform responsibilities of another. This form of conflict is arguably more directly linked to well-being as it has to do with fatigue, depression, etc. It is pertinent to note these types of conflicts, although they are typically subsumed into an aggregate WFC or FWC score. An aggregate WFC or FWC score will present a snapshot of the presence and/or the degree to which these conflicts are experienced. Although this serves the purposes of this research in that it reveals the potential replacement of the whole construct (WFC or FWC) with a single question, it leaves the dilemma of how to distinguish one form of conflict from the other. For instance, an individual could be experiencing much higher levels of strain-based conflicts in comparison to behavioural and time-based conflicts. A single-item question would only get a response to a 'blanket' question on if (and to what extent) the individual experiences WFC or FWC. This would seem like a fundamental flaw in using single items. However, if we look at single-item questions (and questionnaires) as diagnostic tools that help us pinpoint where and what the well-being issues are from a plethora of potential well-being issues, multiple-item constructs can then be used to explore the critical issues in deeper detail (Williams, 2015). (Similar arguments have been made in the comparison of single and multiple items for anxiety and depression see Williams and Smith, 2018b).

Single items have been found to yield high sensitivity (high number of correct diagnoses) and high specificity (diagnosing correctly non-problem cases) (Watkins et al., 2007). In that wise, single and multiple item scales of the same construct should not be seen as working at cross purposes but rather complementing each other. Furthermore, the use of single/short items has been encouraged where various variables of approximately equal importance are concurrently measured to gain insight on a wide range of issues rather than a limited range (Cronbach, 1990).

Although WFC and FWC have often shown moderate to strong relationships with each other, they are conceptually distinct inter-role conflicts (Grzywacz and Marks, 2000, Netameyer et al., 1996). Some (e.g., Higgins, Duxbury, and Irvin, 1992), however, suggest them to be consequences of intra-role conflicts within the domains. Higgins et al.'s findings seem debatable as work-family interface conflicts may not necessarily be automatically caused by intra-role conflicts. Nevertheless, it could be a pointer to some underlying reasons for these conflicts, at least in some situations. However, there seems to be little debate that most of these inter-role conflicts emanate from the work role. WFC has repeatedly been found to occur more often and in a stronger magnitude than FWC (Frone, 2003, Higgins et al. 1992, Netameyer et al., 1996). It could be a result of the more rigid rules surrounding work roles and duties and the consequences of breaking them relative to those of the family (Higgins et al., 1992).

3.2.2. Burnout

Burnout is "a syndrome characterised by emotional exhaustion, depersonalisation, and reduced personal accomplishment" (Maslach and Schaufeli, 2017, p. 6). It is a gradual loss of key components of worker engagement and their subsequent replacement with components of burnout (Maslach and Leiter, 1997). Specifically, energy becomes exhaustion; involvement becomes cynicism and efficacy, ineffectiveness. It was initially thought to be a negative job outcome prevalent among people who offer one-on-one service to others, like in healthcare or educational settings (Maslach and Jackson, 1981). However, the study of burnout has been expanded to other occupations outside human services (Maslach, Jackson, and Leiter, 1996), even though the validity of some of the burnout components to non-human-service professions has been questioned (Maslach and Schaufeli, 2017). Burnout has further been explained as a situation resulting from the depletion of emotional resources while carrying out one's job roles to the extent that the worker becomes emotionally bankrupt and therefore unable to make meaningful emotional connections with their 'clients'. Maslach and Jackson (1981, p. 99) noted feelings of "emotional exhaustion" and cynicism towards clients. They also noted a third dimension of the burnout syndrome, in which the worker feels "unhappy about themselves and dissatisfied with their accomplishments on the job". Although there are contentions against Maslach and Jackson's characterisation, it is still the most widely accepted characterisation of burnout (Lee and Ashforth, 1990). Some researchers (e.g.Cordes and Dougherty, 1993) opine that burnout is a form of job stress. However, Maslach and Schaufeli (2017) distinguish between burnout and job stress, explaining that burnout is a chronic form of work stress.

Based on these emotional states, Maslach and Jackson (1981) divided burnout into three components: emotional exhaustion, depersonalisation, and personal accomplishment. The first two components are negative, and the last is positive. They developed the Maslach Burnout Inventory (MBI) based on these constructs.

Emotional Exhaustion: A situation whereby the workers' "emotional resources are depleted", and they, therefore, cannot make emotional connections with their clients, patients, or co-workers (Maslach and Jackson, 1981). It is "a form of strain" which is commonly symptomised by being terrified of returning to work (Lee and Ashforth, 1996, p.123; Cordes and Dougherty, 1993).

Depersonalisation: A situation where the worker becomes cynical, developing negative attitudes towards other people. This leads to a "callous", "dehumanised perception" of their clients, thus leading them to relate to or treat them as impersonal objects (Maslach and Jackson, 1981). Simply put, it is a sort of coping mechanism – a defensive barrier between the worker and their clients or co-workers shielding them from emotional interactions (Lee and Ashforth, 1996).

Personal Accomplishment: This is the workers' self-evaluation of their work, especially as it concerns meeting their clients' needs (Maslach and Jackson, 1981). It is a form of "self-evaluation", which is an indirect consequence of emotional exhaustion (Lee and Ashforth, 1996, p. 123). It is characterised as experiencing feelings of stagnancy, retrogression, or struggling to keep a sinking boat afloat (Cordes and Dougherty, 1993). In contrast to depersonalisation and emotional exhaustion, where increases were deemed negative, the increased personal accomplishment was "positive".

Some of the past research appears to suggest that all three sub-components of burnout are related to each other (Golembiewski, 1989; Leiter, 1993). For instance, Lee and Ashforth (1996) discovered strong correlations between emotional exhaustion and depersonalisation, while both depersonalisation and emotional exhaustion moderately but negatively correlated with personal accomplishment.

3.2.3. Resilience

Resilience is one of the "regulative processes" that could move well-being research to a proactive healthy worker perspective from a reactive "sick" worker perspective (Neveu, 2007, p. 22). It is a group of personal characteristics that allow an individual to "thrive in the face of adversity" (Connor and Davidson, 2003, p. 78). Resilience is the ability of an individual to bounce back after a negative or traumatic situation, occurrence, or event. Resilience has been linked with "adversity", "suffering and emerging difficulties", and stress" and can be used interchangeably with the word "stress-resistant" Its origins can be traced to the psychology of coping and the physiology of stress (Tusaie and Dyer, 2004). A resilient person is socially competent, a problem solver, autonomous, has a sense of purpose and future (Bernard, 1993). Considered the opposite of vulnerability (Waugh and Koster, 2015), resilience is different from recovery. Whereas the latter has to do with a restoration of normal functioning following disruption after a tragic or traumatic event, resilience refers to the retention of a fairly stable level of functioning before, during, and after a tragic or traumatic event (Bonnano, 2004). In other words, recovery describes a situation where there was a momentary halt in normal functioning followed by a subsequent restoration of function, while resilience describes an almost unchanged level of functioning in the face of and despite tragic, traumatic, or unfavourable events. Resilience is also distinct from coping. Although both are similar and related, they are fundamentally different (Rice and Liu, 2016). Glennie (2010, p. 169) puts it this way: "although coping and resilience are related constructs, they are distinct in that coping refers to a wide set of skills and purposeful responses to stress, whereas resilience refers to positive adaptation in response to serious adversity." In other words, coping is associated with how we deal with "normal" stressful occurrences while resilience deals with adverse situations. "resilience has profound implications for promoting competence and human capital" (Masten 2001, p. 235). Examples of adverse situations at work include organisational change, e.g., restructuring (Shin, Taylor, and Seo, 2012) and management instability (McDonald, Jackson, Wikes, and Vickers, 2012). These adverse conditions could also include incidences of workplace bullying (McDonald, Jackson, Wikes, and Vickers 2012) and could also be profession-specific. For instance, Acker (1993 cited in Mealer, Shelton, Berg, Rothbaum and Moss, 2007 p. 693) listed adverse situations faced by Critical Care Nurses to include: "addressing specific needs at the end of life, performing cardiopulmonary resuscitation, postmortem care, and prolonging life by artificial support to critically ill patients".

This section defined and explained work-life balance, burnout, and resilience. The next section reviews the association between the variables and well-being.

3.3. Linking the Selected New Variables to Well-being

This section reviews the literature linking the variables discussed in the previous section with well-being variables already in the DRIVE model/WPQ.

3.3.1. Work-Life Balance

When considering the link between work-life balance (WLB) and well-being, it could be thought of in various ways. WLB can be a cause or consequence of well-being issues. It could also be an intervening variable – either as a mediator or moderator between well-being and other variables. However, in this review and the research that follows in the next chapter, WLB will be studied as an antecedent or consequence of well-being.

There is a plethora of research on the causes and results of WLB concerning both domains (i.e., work and family; Eby, Casper, Lockwood, Bordeaux, and Brinley, 2005). The literature shows a general trend for WFC and FWC to have positive relationships with negative aspects of well-being, as should be expected. The predictors of WFC were often negative work-related variables, while those for FWC were family-related (Byron, 2005; Nohe, Meier, Sonntag, and Michel, 2015). Negative work characteristics, like high job demands, low control, time demand, job stress, and high pressure, were all positively related to WFC (Byron, 2005; Carslon and Perrewe, 1999; Carvalho, Chambel, Neto and Lopes, 2018; Grzywacz and Marks, 2000). Meanwhile, family-related variables – e.g., family (Grzywacz and Marks, 2000), childcare, housework, marital status, and family stress (Byron,2005) - were related to FWC. The literature thus shows that WFC was typically caused by issues at work and FWC by issues at home. However, there was evidence of cross-over effects. For instance, working less than 20 hours was linked to lower FWC rather than less WFC (Grzywacz and Marks, 2000). Similarly, Carlson and Perrewe (1999) reported that work time-demand had a relationship with both WFC and FWC.

Workplace social support from colleagues, supervisors, etc., was also linked to WFC. The relationship was typically inverse, with high social support being associated with lower WFC and vice-versa (Cavarlho, Chambel, Neto and Lopes, 2018; Byron 2005). Grzywacz and Marks (2000) added an interesting dimension to this relationship by revealing that lower social support had a stronger relationship with WFC in women than in men. They further showed that having social support was not enough; rather, the quality of support determined the degree of WFC experienced. Their study showed that compared to women who had moderate social support, those who had high social support experienced lower WFC. Social support also had a similar relationship with FWC (Grzywacz and Marks, 2000). Social support is only a component of the positive work characteristics which also includes control. None of the reviewed literature explores the relationship between job control and either WFC or FWC. This is a gap that will be explored later in this thesis by including a positive work characteristic score along with the other established predictors in multivariate analysis for the prediction of WFC and FWC, respectively.

One of the main issues that caused or, at least, increased the incidence of work-life balance concerns is the rise of dual-career families where both parents in the household now earn a living by working outside the home. This would possibly have implications, especially with regards to the "traditional duties" of women in the home, like childcare, house chores, etc. For this reason, it might be pertinent to examine, from literature, the role of gender in the equation of WLB and well-being. The evidence linking gender with WLB and well-being appears mixed. While some researchers (Nohe, Meier,

Sonntag, and Michel, 2015; Grzywacz and Marks, 2000 and Grandey, Cordeiro, and Crouter, 2005) claim that gender does not have a significant relationship with either WFC or FWC, other literature tells another story. For instance, Demerouti, Bakker, and Schaufeli (2005) reported that men experienced higher levels of WFC compared to women, and this was confirmed by the men's partners. This mirrored the findings from Byron (2005), who found that men experienced higher WFC while women experienced higher FWC, although the differences across gender for both conflicts were almost negligible. These findings were contradicted, however, by those of Burke, Koyuncu, Wolpin, Yirik, Koyuncu, and Gulseren (2017), who found that female doctors in Turkey experienced significantly higher WFC than their male colleagues. This finding may be a consequence of unique professional and/or cultural issues.

In addition to gender, relationship status also influenced the experience of WFC and FWC. Byron (2005) reported that being married and a male was linked to experiencing both conflicts, even more than married females. Females' marital status had almost no significance with either conflict. However, the same study (Byron, 2005), a meta-analysis, found that in samples with parents in the majority, being a mother appeared to be strongly linked to WFC and FWC than being a father. Furthermore, in samples with fewer parents, men were more likely than women to experience both conflicts. Lastly, she reported that single parents encounter higher levels of both conflicts than married parents. The role of gender differences becomes even more interesting when considering that although men and women experienced similar marital and parental circumstances, women who experienced WFC were more likely to experience FWC, whereas, for men, the relationship between both conflicts was less intertwined (Grandey et al., 2005). Grandey et al.'s findings also emphasise the fact that WFC and FWC should be individually and explicitly evaluated because, although they are related, they are not the same and should not be subsumed into a single variable – a weakness found in some of the reviewed literature (e.g. Akintayo, 2010).

Age also played a role in this relationship, as Grzywacz and Marks (2000) reported that younger men experienced higher WFC and FWC than older men. The same study also reported that younger women experienced higher FWC than older women. This is probably the case because younger men and women generally tend to have younger children who require more care and attention compared to the children of older men and women. These findings and those preceding them show that demographic factors like age and gender play important roles in the prediction of WFC and FWC. However, in addition to these factors, individual differences, like mood and personality, also seem to be very important.

Negative mood significantly correlated with WFC and FWC (Grandley et al., 2005). Higher levels of neuroticism were associated with WFC and FWC, while extraversion was linked to lower WFC and FWC (Grzywacz and Mark, 2000). Positive coping was found to mitigate the impact of both conflicts (Byron,2005). Piecing these findings together seems to suggest that individual differences follow the general pattern of positive individual differences being associated with lower WFC and FWC, while more negative individual differences were linked to higher WFC and FWC.

So far, this review has discussed WFC and FWC as consequences of well-being predictors. This aspect will focus on WLB (WFC and FWC) as precursors of well-being outcomes. Grzywacz and Marks (2000) revealed significant relationships between life satisfaction and each of the conflicts. WFC showed significant positive correlations with exhaustion, fatigue, psychological distress, depression, anxiety, social dysfunction, and somatic complaints (Carvalho et al., 2018; Nohe et al., 2015). Nohe et al. (2015) described various forms of strain: exhaustion, fatigue, psychological distress, depression, irritation, anxiety, parental stress, and physical symptoms. They found both WFC and FWC to be positively significantly correlated to all the forms of strain. Additionally, WFC was found to predict strain and

mental health (depression, anxiety, social dysfunction, and somatic complaints; Carvalho et al., 2018; Nohe et al., 2015). Furthermore, Neto, Carvalho, Chambel, Manuel, Pereira, Miguel & de Fátima Reis's (2016) longitudinal research uncovered what seemed to be a cyclic relationship between WFC and negative well-being – with WFC predicting negative well-being, which in turn predicted WFC. A similar cyclic relationship was observed by Nohe et al. (2015) between both WFC and FWC, respectively, and strain.

Thus, drawing from the literature, WLB (i.e., WFC and FWC) appears to have a positive relationship with "negative well-being" and a negative relationship with "positive well-being". Therefore, it is hypothesised that WLB will predict and be predicted by negative well-being variables.

3.3.2. Burnout

Research on burnout tends to focus more on variables related to work, although personality variables were investigated (Maslach and Schaufeli, 2017). Negative coping strategies and job dissatisfaction were more strongly linked to emotional exhaustion and depersonalisation, while variables relating to personal efficacy (positive personality, positive coping) had stronger links with personal accomplishments (Lee and Ashforth, 1996; Rice and Liu, 2016). Lee and Ashforth's (1996) meta-analyses on the correlates of burnout revealed that emotional exhaustion had positive correlations (with coefficients equal to or greater than .50) with negative work characteristics like workload, role conflict, role stress, stressful events, and work pressure. Similarly, depersonalisation showed similar correlations that were lesser in magnitude (≥ .34) with these negative work characteristics. Conversely and unsurprisingly, personal accomplishment showed weak negative correlations (≤.22) with these characteristics. Social support, a positive work characteristic, was found to negatively correlate with emotional exhaustion and depersonalisation while showing a positive correlation with personal accomplishment. Specifically, Lee and Ashforth (1996) reported correlations of -.26 with emotional exhaustion, -.16 with depersonalisation, and .16 with personal accomplishment, respectively, with social support. These results were replicated by Neveu (2007), which found significant positive correlations at $p<0.01$ between co-worker support and emotional exhaustion, depersonalisation, and reduced personal accomplishment. Lack of participation in terms of decision-making significantly and positively correlated with each of the three burnout components (Neveu, 2007). Schaufeli and Bakker (2004) reported negative relationships between job resources and burnout (depersonalisation and emotional exhaustion). This study also revealed that turnover intentions were positively related to burnout (depersonalisation and emotional exhaustion).

Under-utilised skills were significantly correlated with all three components of burnout (Neveu, 2007). Leiter (1991) referred to organisation support as skill utilisation. He (Leiter, 1990, 1991a) reported similar findings to Neveu's, as he found skill utilisation to be negatively related to reduced personal accomplishment, emotional exhaustion, and depersonalisation. Lack of professional worth, which is associated with self-esteem, was found to significantly correlate to the components of burnout (Neveu, 2007). All significant correlations reported by Neveu were at the $p<0.001$ significance level. In a similar vein, self-appraisal of performance was significantly positively correlated with personal accomplishment but significantly negatively correlated with emotional exhaustion and depersonalisation. It, therefore, seems to follow that the negative work characteristics were related to both emotional exhaustion and depersonalisation, while positive work characteristics were linked to personal accomplishment (Lee and Ashforth, 1990).

Job context in terms of the actual job role and whether the role involved a higher level of interpersonal interaction and/or was client-facing also influenced experiencing burnout. Typically, roles with higher interpersonal interaction and/or were client-facing tended to report higher levels of emotional

exhaustion and depersonalisation (Cordes and Dougherty, 1993). Intention to leave a job was significantly related to all components of burnout, but actual turnover was significantly related to emotional exhaustion (Jackson and Maslach, 1982). Firth and Britton (1989) found that depersonalisation was moderately related to turnover in nurses. No significant relationships were observed between turnover and the other components of burnout. Furthermore, absenteeism was also significantly associated with high levels of emotional exhaustion, although only in situations of long absence. Neveu (2007) also reported significant correlations between absenteeism and depersonalisation and emotional exhaustion, respectively. It appears that being in a lower occupational cadre was linked to significantly higher emotional exhaustion and depersonalisation while simultaneously experiencing higher personal accomplishment (Ozyurt, Hayran, and Sur, 2006). Shift working was also significantly related to emotional exhaustion and depersonalisation, while having administrative responsibility was related to significantly less emotional exhaustion (Ozyurt, Hayran, and Sur, 2006). Job tenure was also significantly related to feelings of burnout as Doctors who had worked between 0 and 9 years experienced significantly higher levels of emotional exhaustion and depersonalisation than their colleagues who had worked longer (Ozyurt, Hayran, and Sur, 2006).

The evidence linking gender with burnout appears mixed. Burke et al. 2017 found that gender had no significant impact on feelings of burnout. However, Ozyurt, Hayran, and Sur (2006) reported that the mean depersonalisation score for males was higher than their female colleagues. The same study found gender was not significant for either emotional exhaustion or personal accomplishment, thus partially agreeing with the previously cited piece of literature. In addition to gender, other demographic factors appeared to relate to burnout. For instance, being younger seemed to be a risk factor as Ozyurt, Hayran, and Sur (2006) found that doctors who were 29 years old and younger experienced significantly higher levels of emotional exhaustion and depersonalisation. Similarly, Ozyurt and colleagues' study revealed that those who were single experienced significantly higher emotional exhaustion than their married or widowed/divorced colleagues.

Both psychological and physiological strain, respectively, were positively and significantly correlated with emotional exhaustion and depersonalisation (Lee and Ashforth, 1990). The same study showed that both forms of strain had significant negative correlations with personal accomplishment. Similarly, depression was significantly correlated with both emotional exhaustion and depersonalisation but negatively and non-significantly to reduced personal accomplishment (Neveu, 2007). Likewise, Jackson and Maslach (1982) found that police officers who experienced high levels of burnout also experienced anxiety. Job satisfaction had significant positive correlations with emotional exhaustion and depersonalisation, while it had a significant negative correlation with personal efficacy (Ozyurt, Hayran, and Sur, 2006).

Overall, these findings seem to confirm that emotional exhaustion and depersonalisation are negative, while personal accomplishment is the positive aspect of burnout. More importantly, the literature shows, in almost a similar fashion to WLB, that while depersonalisation and emotional exhaustion are related to negative well-being, personal accomplishment is related to positive well-being.

3.3.3. Resilience

Evidence from the literature suggests that resilience is linked to positive well-being. Resilience is related to positive affect (Shin, Taylor, and Seo, 2012). Positive correlations between resilience and positive mood have also been established (Tugade and Fredrickson, 2004). These findings were replicated in a longitudinal study (Karairmak and Figley, 2017), which found resilience to be positively correlated with positive affect and negatively correlated with negative affect among university undergraduates. After controlling for demographics and industry-specific variables, Youssef and

Luthans (2007) found resilience to be significantly positively related to job satisfaction and work happiness in the two studies they reported. Furthermore, they provided even stronger evidence when in stepwise regressions, resilience was a significant predictor of both job satisfaction and work happiness in one of their studies. The link between resilience and happiness was also reported by Tugade and Fredrickson (2004), who found significant positive correlations in University undergraduates.

Fredrickson, Tugade, Waugh, and Larkin (2003) provide deeper insight into the relationship between resilience and well-being variables. Their study correlated resilience with "precrisis" and "post-crisis" variables. In both sets of analyses, resilience was found to be significantly correlated with life satisfaction and optimism. Additionally, for the post-crisis measures, resilience was negatively but significantly correlated to depression and negative emotions but positively correlated with positive emotions. Similarly, high resilience was significantly linked to lower post-traumatic stress, lower anxiety, lower depression, as well as lower burnout (Mealer, Jones, Newman, McFann, Rothbaum and Moss, 2012). Furthermore, it was linked with increased life satisfaction.

In a longitudinal study of Australian university undergraduates, Loh, Shutte, and Thorsteinssone (2014) found high resilience and high positive affect each to be significantly related to depression at both time points. Furthermore, multivariate analyses showed resilience, positive affect, and negative affect to significantly predict depression at each time and the difference between the extent of depression experienced at both times – with resilience and positive affect both showing negative relationships with depression at both times. Resilience training in police officers led to lower levels of stress, depression, and negative emotions in comparison to a control group (McCraty and Atkinson, 2012). Similarly, a resilience intervention by Burton, Packenham, and Brown (2010) was associated with reduced stress, reduced depression, and increased positive emotions, although the reduction in depression was not significant. The last two pieces of literature concur with Ryff and Singer's (1996) assertion of resilience being a protective factor against the effects of negative well-being. Summing up, resilience is linked to lower stress, depression, and anxiety. It is also linked with increased positive emotions.

From the foregoing review on resilience, a pattern appears to emerge, suggesting that resilience is positively related to positive well-being and negatively related to negative well-being. Therefore, it is hypothesised that resilience will predict positive well-being.

This aspect of the review has studied the relationships between well-being and each of the “new variables”. It has presented the general direction of relationships between these variables and components of well-being.

3.4. Do Cultural Differences influence the "New Variables"?

The overarching aim of this thesis is to investigate if cultural differences play a role in the well-being process. This section briefly explores the literature to investigate if the new variables discussed in 3.3. above are influenced by cultural differences.

In a cross-national comparison of nurses in the Netherlands and Italy by Pisanti, der Doef, Maes, Lazzari, and Bertini (2011), the Italian nurses reported higher levels of emotional exhaustion and depersonalisation. Surprisingly, they also reported higher personal accomplishments than Dutch nurses. Usually, an increase in exhaustion and depersonalisation is related to a decrease in personal accomplishment. While Pisanti et al. (2011) attribute the differences in levels of emotional exhaustion and depersonalisation to differences in healthcare contexts of both countries, their earlier research on Italian secondary school teachers (Pisanti, Gagliardi, Rizzani and Bertini, 2003) suggests that the

finding of increased rather than decreased personal accomplishment is independent of job context and situation but influenced by cultural differences on motivation and performance. Thus, Pisanti et al.'s (2011) findings seem to suggest that both job context and cultural differences exert influence on if and to what extent a particular population experiences burnout. Another cross-national comparative study of nurses from the Netherlands and Poland by Schaufeli and Janczur (1994) showed that the Polish nurses experienced significantly higher levels of burnout on all three dimensions. Their findings further reveal that although there is a sharp contrast in the working situation of nurses in both countries, the underlying psychological processes for both sets of nurses are the same. The implication of Schaufeli and Janczur's (1994) research is that while the experience of burnout follows the same path in different populations, peculiar job contexts have a great impact on the extent to which burnout is experienced. Putting these together suggests that burnout is primarily influenced by the work context, although cultural differences could also be important.

There appears to be evidence suggesting that work-life balance is not influenced by cultural differences. For instance, Aryee, Luk, Leung, and Lo (1999), in their study of Hong Kong Chinese dual-career parents, reported findings similar to those found in westernised samples. Specifically, their findings suggest a higher tendency for WFC than FWC. These findings concur with those from research on westernised samples (e.g., Frone, 2003, Higgins et al. 1992, Netameyer et al., 1996) and are rather unexpected because, as opposed to individualistic societies in the west, the Chinese Hong Kong society tends to be collectivist with a high premium being placed on the family. Therefore, it will have been expected for FWC to be stronger than WFC among Hong Kong dual-earner families. As previously mentioned, Higgins et al. (1992) pointed out that the higher incidence of WFC than FWC could be a consequence of the stricter rules governing work when compared to family roles. Because of these strict rules, more conflicts are likely to emanate from the work role impinging of the family roles and responsibilities. Results from Aryee et al.'s (1999) study suggest that this tendency transcends cultural differences and is likely to be universal.

It appears that cultural differences affect the level of resilience displayed by certain populations. Using the Connor–Davidson Resilience Scale-2 (CD-RISC2) to measure the resilience of Korean firefighters and emergency workers, Jeong et al. (2015) reported lower resilience scores than similar studies in the US general population by Vaishnavi, Conner, and Davidson (2007). Further comparisons of both studies show that the resilience levels in the Korean sample were very similar to US family medicine outpatients. The disparities resulting from these comparisons seem rather unexpected, bearing in mind that firefighters and emergency workers, by nature of their jobs, are expected to have higher resilience than other people. While this may well be the case, it is impossible to know. However, one possible explanation for these differences could be in terms of cultural differences. Other comparative studies (e.g., Lee, Jones, Mineyama, and Zhang, 2002) have highlighted the tendency of Koreans to give more conservative responses to questionnaires measuring positive variables relative to their American counterparts. This could well be the case in Jeong et al.'s study.

3.5. Chapter Summary and Conclusion

This chapter has reviewed literature defining and explaining work-life balance, burnout, and resilience. Secondly, it has presented the literature linking them with well-being. This has been followed by studying the role cultural differences might play in the association of these variables with well-being. The next chapter presents the addition of these variables to the WPQ in the study of worker and student samples, respectively.

Chapter 4: White British Studies

4.1. Chapter Introduction

The current chapter aims to test for the replication of the established effects of the WPQ and Student WPQ, respectively. For the occupational sample, using the WPQ, the established effects were the prediction of negative and positive well-being by positive work characteristics, negative work characteristics, positive coping, negative coping, and positive personality. For the students, the established effects were the prediction of negative and positive well-being by social support, conscientiousness, student stressors, positive personality, and negative coping. The second aim of this chapter is the expansion of the WPQ and student WPQ by the addition of new variables which have previously been shown to influence or be influenced by well-being: work-life balance, burnout, and resilience.

4.2. Occupational Sample

Previous studies have deployed the DRIVE model in the study of well-being in white occupational samples. For instance, Williams, Thomas, and Smith (2017) investigated well-being in white British nurses and university staff. This study differs, however, with the inclusion of work-life balance, burnout, and resilience.

4.2.1. Sample Description

Ethical approval for this study was granted by the Cardiff University School of Psychology Ethics Committee. Participants were informed that participation was voluntary and that they were free not to answer any question they were uncomfortable with or to leave the study altogether at any point. There were 105 participants in this study recruited from the Qualtrics online volunteer panel who were paid for their participation. This study and others that follow aim for medium effect size (correlations of 02-0.3), which will require a sample of 100. The current sample meets this requirement as the sample size slightly exceeds the benchmark above. They were all White British adults in paid employment, with ages ranging from 18 to 66 years (mean age 39.8 years, SD=12) living across the United Kingdom (UK). 51.4% of the sample was male. 51.4% of them were married, while 21% were cohabiting/living with their partners. 54.3% of the sample had 1 or 2 children, and 18.1% had other family members whom they were taking care of apart from their children. The number of these other family members ranged between 1 and 21.

This was a cross-sectional occupational sample with participants from a wide range of occupations ranging from agriculture to healthcare etc. Their years of service range from 1 to 46 years (mean=18.1), while years at current position ranged from 0-25 years (mean=6.7 years). 98.1% worked full-time (i.e. 30 or more hours per week). 96.2% were on permanent contracts, while 2.9% were on fixed-term contracts. Only 27.6% of them worked shifts. The majority of the respondents (39%) described themselves as employees (i.e., having no management or supervisory duties), while 1% were self-employed with less than 25 employees and another 1% were self-employed with no employees. 25.7% had AS SCE higher matriculation, and 24.8% had a bachelor's degree.

Table 4.1.

White British Occupational Sample Description

Demographic Characteristic	Number
Age	18-66 Mean= 39.8
Gender	Male 54 (51.4%) Female 51 (48.6%)
Marital/Relationship Status	Single 23 (21.9%) Married 54 (51.4%) Cohabiting/Living with Partner 22 (21%) Widowed 1 (1%) Divorced 5 (4.8%)
Having Children	Yes 70 (66.7%) No 35 (23.3%)
Caring for other family members other than children	Yes 19 (18.1%) No 86 (81.9%)
Full-Time Work vs Part-Time Work	Full Time 103 (98.1%) Part-Time 2 (1.9%)
Type of Contract	Permanent 101 (96.2%) Fixed 3 (2.9%) Missing 1 (1.0%)
Current Position at Work	Self-Employed (25+ employees) 16 (15.2%) Self-Employed (less than 25 employees) 1 (1%) Self-Employed (no employees) 1 (1%) Manager (25+ employees) 26 (24.8%) Manager (less than 25 employees) 13 (12.4%) Supervisor 7 (6.7%) Employee 41 (39%)
Highest Educational Qualification	GCSE/O' Level 21 (20%) AS Levels/SCE Higher Matriculation 27 (25.7%) City and Guilds/National Diploma 12 (11.4%) BA/BSc 26 (24.8%) Higher Degree/Professional Qualification 19 (18.1%)
Shift Working	Yes 29 (27.6%) No 75 (71.4%) Missing 1 (1%)

Demographic Characteristic	Number
Number of years at work	1 - 46 years Mean= 18.1 years
Number of years at Current Position	0-25 Mean= 6.7 years

4.2.2. Materials (Instruments)

4.2.2.1. The WPQ and the SWELL

These instruments have been described in detail in section 1.5. However, to summarise and recapitulate, both instruments were developed from the DRIVE model and made use of single items to measure well-being. The use of single items meant that many variables could be simultaneously investigated. The main difference between the WPQ and the SWELL is that the latter has more outcome measures and workplace characteristics than the former as it was "designed to provide a detailed profile of the well-being of an organisation" (Smith and Smith 2017b). In this study, both instruments were combined. The predictor and outcome variables are presented in Table 4.2.

Table 4.2.

WPQ/SWELL Items

Variable	Question and Scoring
Work Characteristics	I feel that I do not have the time I need to get my work done (for example, I am under constant time pressure, interrupted in my work, or overwhelmed by responsibility or work demands) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly. How efficiently do you carry out your work? 1 2 3 4 5 6 7 8 9 10 Not at all efficient Very Efficiently. I am satisfied with my relationships at work (for example, I get the respect I deserve from colleagues, I am treated fairly, I receive support when I need it) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly I feel that I have been rewarded for my efforts (for example, the respect, role, and job prospects I receive are suitable for my efforts and achievements)

Variable	Question and Scoring
	1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly I feel that my work is too demanding (for example, I have to work very fast, I have to work very hard, I have conflicting demands) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly I feel that I get adequate control over my work (for example, I have a choice in what I do or how I do things, I am able to learn new things, I am able to be creative) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly I feel that I am supported by my colleagues (for example, there is a good atmosphere at work, I get along with my colleagues, my colleagues understand me) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly I feel that I have been subjected to bullying in the workplace in the past 12 months (for example, unjustified criticism, verbal/non-verbal threats, violence, humiliation or exclusion)? 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly I feel that I am not consulted about changes at work (for example, there is no opportunity to question managers about change, I am unclear about how a change will work out in practice) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly I feel that I don't understand my role clearly (For example, I am not clear of what is expected of me and what tasks I need to perform) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly How physically tired do you get at work? 1 2 3 4 5 6 7 8 9 10

Variable	Question and Scoring
Physical and Mental Fatigue; Presenteeism	Not all Extremely tired How mentally tired do you get at work? 1 2 3 4 5 6 7 8 9 10 Not all Extremely tired Have you had an illness (either physical or mental) caused or made worse by work? Yes or No Do you ever come to work when you are feeling ill or knowing you can't do you your job as well as you would like? Yes or No
Affect	Thinking about myself and how I normally feel, in general, I mostly experience positive feelings (For example, I feel alert, inspired, determined, attentive) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly Thinking about myself and how I normally feel, in general, I mostly experience negative feelings (For example, I feel upset, hostile, ashamed, nervous) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
Positive Personality	In general, I feel optimistic about the future (For example, I usually expect the best, I expect more good things to happen to me than bad, It's easy for me to relax) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly I am confident in my ability to solve problems that I might face in life (For example, I can usually handle whatever comes my way, If I try hard enough, I can overcome difficult problems, I can stick to my aims and accomplish my goals) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly

Variable	Question and Scoring
	Overall, I feel that I have positive self-esteem (For example, On the whole, I am satisfied with myself, I am able to do things as well as most other people, I feel that I am a person of worth) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
Coping Style	When I find myself in stressful situations, I take a problem-focused approach (e.g. I take one step at a time, I change things about the situation or myself to deal with the issue, I don't let my feelings interfere too much). 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
	When I find myself in stressful situations, I look for social support (e.g. I talk to someone to get more information, I ask someone for advice, I talk to someone about how I'm feeling). 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
	When I find myself in stressful situations, I blame myself (e.g. I criticise or lecture myself, I realise I brought the problem on myself). 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
	When I find myself in stressful situations, I wish for things to improve (e.g. I hope a miracle will happen, wish I could change things about myself or circumstances, I daydream about a better situation). 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
	When I find myself in stressful situations, I try to avoid the problem (e.g. I keep things to myself, I go on as if nothing has happened, I try to make myself feel better by eating / drinking/smoking). 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
Big 5 Personality Traits	I prefer to keep to myself (For example, I don't talk much to other people, I feel withdrawn, I prefer not to draw attention to myself) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly

Variable	Question and Scoring
	I feel that I have an agreeable nature (For example, I feel sympathy toward people in need, I like being kind to people, I'm co-operative) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
	I feel that I am a conscientious person (For example, I am always prepared, I make plans and stick to them, I pay attention to details) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
	I feel that I can get on well with others (For example, I'm usually relaxed around others, I tend not to get jealous, I accept people as they are) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
	I feel that I am open to new ideas (For example, I enjoy philosophical discussion, I like to be imaginative, I like to be creative) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
Anxiety and Depression	On a scale of one to ten, how depressed would you say you are in general? (e.g., feeling 'down', no longer looking forward to things or enjoying things that you used to) 1 2 3 4 5 6 7 8 9 10 Not at all Depressed Very Depressed
	On a scale of one to ten, how anxious would you say you are in general? (e.g. feeling tense or 'wound up', unable to relax, feelings of worry or panic) 1 2 3 4 5 6 7 8 9 10 Not at all anxious Extremely Anxious
Life and Work Stress	Overall, how stressful is your life outside of work? 1 2 3 4 5 6 7 8 9 10 Not at all stressful Very Stressful
	Overall, how stressful do you find your job?

Variable	Question and Scoring
	1 2 3 4 5 6 7 8 9 10 Not at all stressful Very Stressful
Life and Job Satisfaction	Overall, how satisfied are you with your current job? 1 2 3 4 5 6 7 8 9 10 Very Dissatisfied Very Satisfied
	Overall, I feel that I am satisfied with my life (For example, In most ways, my life is close to my ideal, so far, I have gotten the important things I want in life) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly

4.2.2.2. Maslach Burnout Inventory

The Maslach Burnout Inventory (MBI; Maslach and Jackson, 1981) was developed to measure burnout based on three emotional states: high emotional exhaustion, high levels of depersonalisation, and low personal accomplishment. The MBI was initially developed for workers in the healthcare sector but was subsequently modified and expanded for use by other professions (Maslach, Jackson, and Leiter, 1996). The MBI is made up of 22 questions that cut across the three components (Maslach, Jackson, and Leiter, 1996). Each component variable of burnout is subsequently discussed, focusing on how they were characterised in the current study. The original MBI instrument measured both the frequency and intensity of the occurrence of burnout. However, the concurrent use of both measurements is redundant, leading to the advocation for the use of either rather than both (Lee and Ashforth, 1996; Maslach, Jackson and Leiter, 1996). In line with this, this study only measured frequency. The MBI was chosen to measure burnout because although its operationalisation and characterisation of burnout have been contested in some quarters, it is the most widely accepted (Lee and Ashforth, 1990).

Table 4.3.

Maslach Burnout Inventory

Variable	Scoring 0 (Never)	1	2	3	4	5	6 (Everyday)
EMOTIONAL EXHAUSTION							
I feel emotionally drained from my work							
I feel used up at the end of the workday							
I feel fatigued when I get up in the morning and have to face another day on the job							
Working with people all day is really a strain for me							
I feel burned out from my work							
I feel frustrated by my job							
I feel I'm working too hard on my job							
Working with people directly puts too much stress on me							
I feel like at the end of my rope							
DEPERSONALISATION							
I feel I treat some of my clients/customers/co-workers as if they were impersonal 'objects.'							
I've become more callous towards people since I took this job							
I worry that this job is hardening me emotionally							
I don't really care what happens to some clients/customers/co-workers							
I feel clients/customers/co-workers blame me for their problems							
PERSONAL ACCOMPLISHMENT							
I can easily understand how my clients/customers/co-workers feel about things							
I deal very effectively with the problems of my clients/customers,/co-workers							
I feel I'm positively influencing other people's lives through my work							
I feel very energetic							
I can create a relaxed atmosphere with my clients/customers,/co-workers							
I feel exhilarated (joyful, happy, thrilled, excited) after working closely with my clients/customers/co-workers							
I have accomplished worthwhile things in this job							
In my work, I deal with emotional problems very calmly							

4.2.2.3. Single Item for Each Burnout Component

As the aim of this study was to add new variables, including burnout, to the WPQ, single items were developed for each component in the WPQ format - i.e., a statement that attempts to encapsulate the essence of the construct (with explanatory statements in parenthesis). Also, in keeping with the WPQ format, the questions were scored from 1 to 10 (1=Low, 10=High). The single-item questions developed for each burnout construct based on Maslach and Jackson's (1981) conceptualisations are presented in Table 4.4.

Table 4.4.

Single Burnout Items

Variable	Single Item and Scoring
Emotional Exhaustion Single Item	I feel burned out from my work (I feel emotionally drained from my work; I feel used up at the end of the workday; I feel fatigued when I get up in the morning and I have to face another day on the job; working with people is really a strain from me; I feel frustrated at my job; I feel I'm working too hard on my job; Working with people directly puts too much stress on me; I feel like I'm at the end of my rope) 1 2 3 4 5 6 7 8 9 10 Not at all Totally Burned out
Depersonalisation Single Item	I feel I treat some of my clients/customers/co-workers as if they were impersonal 'objects' (I worry that this job is hardening me emotionally; I've become callous toward people since I took this job; I don't really care what happens to my clients/customers/co-workers; I feel my clients/customers/co-workers blame me for some of their problems) 1 2 3 4 5 6 7 8 9 10 Not at all All the Time
Personal Accomplishment Single Item	I have accomplished worthwhile things in this job (I feel I'm positively influencing lives; I can easily understand what my clients/customers/co-workers feel about things; I deal effectively with my clients/customers/co-workers' problems; I feel happy after working closely with my clients/customers/co-workers; In my work, I deal with emotional problems calmly.) 1 2 3 4 5 6 7 8 9 10 Not at all Absolutely

4.2.2.4. WFC and FWC Scales (Netemeyer, Boles and McMurrian, 1996)

Based largely on the work of Greenhaus and Betuell (1985), Netemeyer, Bole, and McMurrian (1996) developed separate multiple-item scales to measure WFC and FWC, respectively. These scales were chosen because they have been used in previous studies with the DRIVE model (Vallone, 2017) and even with the WPQ (Ahmad, Firman, Smith, and Smith, 2018b).

Table 4.5.

WFC and FWC Multiple Item Scales (Netemeyer et al, 1996)

Variable	Question and Scoring
WFC	The demands of my work interfere with my home and family life 1234567 Strongly Agree Strongly Disagree
	The amount of time my job takes up makes it difficult to fulfil family responsibilities 1234567 Strongly Agree Strongly Disagree
	Things I want to do at home do not get done because of the demands my job puts on me 1234567 Strongly Agree Strongly Disagree
	My job produces strain that makes it difficult to fulfil family duties 1234567 Strongly Agree Strongly Disagree
	Due to work-related duties, I have to make changes to my plans for family activities 1234567 Strongly Agree Strongly Disagree
FWC	The demands of my family or spouse/ partner interfere with work-related activities 1234567 Strongly Agree Strongly Disagree
	I have to put off doing things at work because of demands on my time at home 1234567 Strongly Agree Strongly Disagree
	Things I have to do at work don't get done because of the demands of my family or spouse/partner 1234567 Strongly Agree Strongly Disagree
	My home life interferes with my responsibilities at work, such as getting to work on time, accomplishing daily tasks, and working overtime 1234567 Strongly Agree Strongly Disagree

Variable	Question and Scoring
	Family-related strain interferes with my ability to perform job-related duties 1234567 Strongly Agree Strongly Disagree

It is pertinent to state that the WFC and FWC multiple items were negatively scored. Therefore, the scores were in the opposite direction, i.e., a low score means high WFC (or FWC) and vice-versa.

4.2.2.5. Single Items for WFC and WFC

This study aimed to add new variables to the WPQ. Although single items on WFC and FWC have been included in some iterations of the WPQ and SWELL, they were not compared with the corresponding multiple-item scales. Each of the single items attempted to capture the very essence of each conflict according to the WPQ format. Likewise, the questions had a visual scale of 1-10 (1=low, 10=high).

Table 4.6.

WLB Single Items

Variable	Item and Scoring
WFC Single Item	Do you find that your job interferes with your life outside work? 1 2 3 4 5 6 7 8 9 10 Not at all Definitely Yes
FWC Single Item	Do you find that your life outside of work interferes with your job? 1 2 3 4 5 6 7 8 9 10 Not at all Definitely Yes

4.2.2.6. CD-RISC (Connor and Davidson, 2003)

CD-RISC, the Conor-Davidson Resilience Scale, was developed by Connor and Davidson (2003). It is useful in ascertaining levels of resilience in a variety of populations (Tusaie and Dyer, 2004). The scale comprised 25 items which were five-point Likert-type questions (0=Not true at all, 4=True nearly all the time), with scores from individual questions added up to make up a total resilience score. The CD-RISC was chosen as the scale to measure resilience because its developers subsequently developed a shorter scale, the CD-RISC2 (see 4.2.2.7 below), from the previous scale while outlining the procedure for measuring concurrent validity between both scales was evaluated (Vaishnavi, Connor, and Davidson, 2007). As the aim of this study was to compare longer and shorter scales of the same construct to measure concurrent validity to determine the suitability of the shorter scale for measurement in place of the longer scale to allow for the measurement of as many variables related to well-being as possible with the WPQ, the CD-RISC and CD-RISC2 provided a relatively easier way to perform comparisons for the resilience scales.

Table 4.7.

CD-RISC

Item Number	Item and Scoring
1.	I am able to adapt to change 01234 Not True at all True nearly all of the time
2.	I have close and secure relationships 01234 Not True at all True nearly all of the time
3.	I believe sometimes God or fate could help 01234 Not True at all True nearly all of the time
4.	I can deal with whatever comes 01234 Not True at all True nearly all of the time
5.	Past success gives confidence for a new challenge 01234 Not True at all True nearly all of the time
6.	I see the humorous side of things 01234 Not True at all True nearly all of the time
7.	Coping with stress strengthens 01234 Not True at all True nearly all of the time
8.	I tend to bounce back after illness or hardship 01234 Not True at all True nearly all of the time
9.	Things happen for a reason 01234 Not True at all True nearly all of the time
10.	I put in my best effort no matter what

Item Number	Item and Scoring
	01234
	Not True at all True nearly all of the time
11.	I can achieve my goals
	01234
	Not True at all True nearly all of the time
	When things look hopeless, I don't give up
12.	01234
	Not True at all True nearly all of the time
13.	I know where to turn for help
	01234
	Not True at all True nearly all of the time
14.	Under pressure, I focus and think clearly
	01234
	Not True at all True nearly all of the time
15.	I prefer to take the lead in problem-solving
	01234
	Not True at all True nearly all of the time
16.	I am not easily discouraged by failure
	01234
	Not True at all True nearly all of the time
17.	I think of myself as a strong person
	01234
	Not True at all True nearly all of the time
18.	I make unpopular or difficult decisions
	01234
	Not True at all True nearly all of the time
19.	I can handle unpleasant feelings
	01234
	Not True at all True nearly all of the time
20.	I have to act on a hunch
	01234
	Not True at all True nearly all of the time

Item Number	Item and Scoring
21.	I have a strong sense of purpose 01234 Not True at all True nearly all of the time
22.	I am in control of my life 01234 Not True at all True nearly all of the time
23.	I like challenges 01234 Not True at all True nearly all of the time
24.	I work to attain my goals 01234 Not True at all True nearly all of the time
25.	I take pride in my achievements (25) 01234 Not True at all True nearly all of the time

4.2.2.7. CD-RIISC 2 (Vaishnavi, Connor, and Davidson, 2007)

The CD-RISC2 (Vaishnavi, Connor, and Davidson, 2007) was developed as an abridged version of the CD-RISC. It comprised only two items from the CD-RISC believed by its authors to capture the essence of the resilience construct (Vaishnavi, Connor, and Davidson, 2007). The questions are presented in Table 4.8. The CD-RISC 2 was selected as the short scale for resilience because it was developed by the authors of the CD-RISC based on comparisons between the two scales. Therefore, in the current study, it was thought of as a good basis for comparison with the possibility of suitability for addition in the WPQ.

Table 4.8.

CD-RISC 2

	Item and Scoring
CD-RISC 2	I am able to adapt to change 01234 Not True at all True nearly all of the time I tend to bounce back after illness or hardship 01234 Not True at all True nearly all of the time

4.2.2.8. Demographic Variables

The questionnaire also collected demographic information from the respondents, which included age, gender, marital status. Participants were also asked if they had children and how many children they had. They were also asked if they had any other family members they took care of (e.g. elderly or sick parents/relatives), how many such relatives there were, and how often they had to care for them. These questions were pertinent. For instance, marital status, as marital dissatisfaction was one of the outcomes of WFC and FWC (Greenhaus and Beutell, 1985, Netemeyer, Boles, and McMurrian,1996). The questions on having children (and number), as well as care duties for sick and elderly relatives and the frequency of care, were meant again to tap into correlates with WFC and FWC, especially as evidence suggests an increase in dual-parent career families and those with care duties for elderly family members (Higgins and Duxbury, 1992, Netemeyer, Boles and McMurrian, 1996).

Specific questions about the respondents' work were also asked. Questions were asked about their occupation, how long they had been working (i.e. the total number of years working, including previous jobs). They were also asked about the length of time spent at their current job. Additional questions were asked about their current job title (referring to their actual job role and description) and whether they worked full-time or part-time (full-time work = 30 hours or more of work per week). Other questions covered the type of contract (permanent, temporary/casual, or fixed) and current position at work. Also, their highest educational qualification and whether they worked shifts, and finally, the length of commute to work (time in hours). The question on the length of their commute was asked to investigate if the length of commute had any impact on the workers' well-being. Additionally, there are claims that travelling to and from work adds about 10% to the time spent working) (Elfering, Igic, Kritzer, and Semmer, 2020; Szalai, 1972). It thus, therefore, seems important to study it.

4.2.3. Analyses

All analyses were conducted using versions 23 and 25 of the Statistical Package for Social Sciences (SPSS) software.

4.2.3.1. Correlation of Longer and Shorter Versions of New Variables

Correlation analyses were carried out between the longer and shorter versions of the new variables. According to Hofstede, Hofstede, and Minkov (2010, p. 32), correlation "expresses the strength of the relationship" between two variables. The sums for the longer versions of burnout and WLB were correlated against the corresponding single item. The rationale behind these correlations was to ascertain the level of similarity between the established longer items and their corresponding single item. This is known as concurrent validity.

However, the procedure followed for the resilience scales was different. As both instruments were developed by the same researchers, the procedure described in Vashnaivi, Connor, and Davidson (2007) for the validation of CD-RISC2 from the original CD-RISC was followed. According to Vashnaivi, Connor, and Davidson (2007), scores for each scale were summed up and correlated with each other. This was the first step of the validation process. The next step described by the authors was to correlate the CD-RISC2 with each of the remaining questions not included in the CD-RISC2 but present in the original iteration.

4.2.3.2. Multiple Regression for Established Effects

Simple linear regressions were performed to test if the established effects of the DRIVE model were replicated. The previously described predictor variables for the WPQ/SWELL were the independent variables, while the outcome variables were the well-being outcomes.

4.2.3.3. Stepwise Regressions

Stepwise regressions were subsequently performed. According to Yeh and Inose (2010), one key advantage of deploying stepwise regressions is that it is very helpful in fitting prediction models where there are several potential predictors. Additionally, it is parsimonious. The use of stepwise regressions has been criticised, for example, by Akinwande, Dikko, and Gulumbe (2015) because they remove variables that do not meet pre-determined criteria from the model and therefore could lead to getting a different result from a 'forced' regression where the non-significant variables are not removed. However, in the current analyses, there is not likely to be too much difference in terms of significance levels, as differences are likely to occur when they are on the very threshold of significance.

In the current study, stepwise regressions were used to test for predictors of outcomes from among the demographics, established predictors, and new variables. The variables were entered into separate blocks: demographics in the first block established predictors in the second, and new variables in the last. Negative and positive outcomes were the dependent variables.

For the new variables, as mentioned previously, the work-life balance could either be a predictor or an outcome. Therefore, both WFC and FWC (single and multiple items) played the role of predictor and outcome in different analyses. Resilience was a predictor variable, while the three outcomes of burnout served as individual outcomes.

As the objective of this study was to compare single/shorter items with multiple/longer items, the analyses were conducted in pairs – each pair consisting of a set of analyses for the single/shorter items and the other for the multiple items. Where a single item was the outcome, the new variable predictors were also short/single item. Simply put, single items were predicted by shorter/single items, and longer items were predicted by longer/multiple items.

4.2.4. Results

Missing values were replaced by the mean response of each question using the replace missing value function on SPSS.

4.2.4.1. Correlation Analyses

This phase of the analysis involved conducting correlation analyses between the shorter and longer versions of the new variables. The essence of this comparison was to test for the similarity between scales (concurrent validity). The larger and more significant the correlations are, the more similar the scales are likely to be. This could imply that the single items could yield potentially reliable findings and could thus be included in future iterations of the WPQ.

Burnout

Correlations were performed between the single items of each component of burnout and the sum of scores of the multiple corresponding items. The results presented in Table 4.9 show significant correlations between every single item and its corresponding multiple item scores.

Table 4.9.

Correlations Between Single and Multiple Items of Burnout in the White British Occupational Sample

Component	Correlation coefficient	*p*
Emotional Exhaustion	.67	<.001
Depersonalisation	.62	<.001
Personal Accomplishment	.58	<.001

Work-Life Balance

Similar analyses were performed between single items of WFC and FWC and the sum of the multiple corresponding items. Table 4.10. reveals significant correlations between the single and multiple items of both constructs.

Table 4.10

Correlations Between the Single and Multiple Items of WFC and FWC in the White British Occupational Sample

Component	Correlation coefficient	p
WFC	.74	<.001
FWC	.72	<.001

Resilience

Following the first step of Vashnaivi et al.'s procedure, the sum of scores from both scales yielded significant correlations ($r=.65$, $p<.001$). The next stage of the analysis performed by Vashnaivi et al. was the correlation analysis between the sum of scores from the CD-RISC2 and each of the remaining 23 items on the original CD-RISC. Table 4.11. reveals that all but 1 item (item 3) had significant correlations with the CD-RISC2 scale.

Table 4.11.

Correlations Between CD-RISC2 and the Other 23 items of the CD-RISC in the White British Occupational Sample

CD-RISC item No	r	p
2	.52	<.001
3	.11	.263
4	.41	<.001
5	.38	<.001
6	.42	<.001
7	.52	<.001
9	.28	<.05
10	.50	<.001
11	.49	<.001
12	.51	<.001
13	.42	<.001
14	.37	<.001
15	.47	<.001
16	.51	<.001
17	.57	<.001
18	.22	<.05
19	.39	<.001
20	.28	<.05
21	.52	<.001
22	.56	<.001
23	.42	<.001
24	.47	<.001
25	.46	<.001

4.2.4.2. Established Effects

These results describe the prediction of the negative and positive well-being outcomes by the established predictors.

Negative Outcomes

The established predictors were put in a regression analysis to investigate their prediction of negative outcomes. Table 4.12. shows that negative work characteristics, positive personality, and negative coping all significantly predicted negative outcomes ($p<0.001$). These findings are in line with previous research on the DRIVE model, where negative predictors generally predict negative outcomes.

Table 4.12.

Established Effects in White British Workers (Negative Outcomes)

Model	Unstandardised Coefficients		Standard Coefficients	t	Sig.
	B	Std. Error	Beta		
(constant)	11.60	3.60		3.22	**.002**
Negative Work Characteristics	.52	.07	.49	7.04	**.000**
Positive Work Characteristics	.24	.17	.10	7.04	**.000**
Positive Personality	-.78	.20	-.26	-3.81	**.000**
Positive Coping	.49	.27	.17	1.81	.073
Negative Coping	.90	.15	.40	5.87	**.000**

Positive Outcomes

Similar regression analysis was carried out for the prediction of positive outcomes by the established predictors. As Table 4.13. reveals, Positive work characteristics and positive personality significantly predicted positive outcomes ($p<0.001$).

Table 4.13.

Established Effects in White British Workers (Positive Outcomes)

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig
	B	Std. Error	Beta		
(constant)	2.36	2.18		1.08	.282
Negative Work Characteristics	-.05	.05	-.09	-1.20	.234
Positive work characteristics	.93	.10	.58	9.00	**.000**
Positive Personality	.67	.12	.38	5.43	**.000**
Positive Coping	.04	.16	.02	.23	.817
Negative Coping	.03	.10	.02	.35	.730

From the findings presented in Tables 4.12. and 4.13. above, it could be seen that the established effects were replicated in this study – showing a general pattern of positive predictors predicting positive outcomes and negative predictors predicting negative outcomes.

The next step in the analyses was to include the new variables in regression to investigate their predictive effects on positive and negative outcomes.

4.2.4.3. Stepwise Regressions

The results of the stepwise regressions based on the procedure outlined in 4.2.3.3 are here presented and grouped according to the dependent variable of the analyses. Only the last models of the respective analyses are reported.

Negative Outcomes

This pair of stepwise regressions reported similar results. Negative coping, negative work characteristics, positive personality, and WFC (single and multiple items, respectively) all predicted

negative outcomes in both cases. Age was a non-significant predictor of negative outcomes in either case.

As the core objective of this study is the comparison of single and multiple items of the new variables to replace the latter with the former, the stepwise regressions for negative outcomes seem to provide vital information in that regard. Tables 4.14. and 4.15. reveal that both the single and multiple items of WFC significantly predicted negative well-being outcomes. This, in addition to the significant correlations between both measures, could be proof of similarity between them. Although the analyses with the multiple-item scale had a higher overall Beta coefficient and significance level, it seems to suggest that both items are quite similar.

Table 4.14.

Stepwise Regression Predicting Negative Outcomes (for shorter versions of the new variables) in White British Workers

Model	**Unstandardised Coefficients**		**Standardised Coefficients**		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	15.58	4.80		3.24	**.002**
Negative Coping	.90	.16	.39	5.78	**.000**
Age	-.07	.07	-.06	-1.1	.261
Negative Work Characteristics	.43	.08	.40	5.08	**.000**
Positive Personality	-.36	.14	-.13	-2.62	**.010**
WFC Single item	.91	.32	.18	2.85	**.005**

Table 4.15.

Stepwise Regression Predicting Negative Outcomes (for Longer versions of the new variables) in White British Workers

Model	Unstandardised Coefficients		Standardised Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	22.80	5.57		4.10	**.000**
Negative Coping	.92	.16	.40	5.87	**.000**
Age	-.06	.06	-.05	-.96	.338
Negative Work Characteristics	.46	.08	.43	5.63	**.000**
Positive Personality	-.33	.15	-.11	-2.28	**.025**
WFC Multiple Items	-.24	.10	-.14	-2.34	**.021**

Positive Outcomes

Positive work characteristics and positive personality both predicted positive well-being outcomes in both regressions. However, FWC multiple items predicted positive outcomes, while its corresponding single item did not. The tables for both analyses are presented below (Tables 4.16 and 4.17), respectively.

Table 4.16.

Stepwise Regression Predicting Positive Outcomes (for Shorter Item Scales of the New Variables) in White British Workers

Model	Unstandardised Coefficients		Standardised Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	1.68	1.92		.88	.382
Positive Work Characteristics	.92	.10	.57	8.97	**.000**
Positive Personality	.68	.11	.39	6.12	**.000**

Table 4.17.

Stepwise Regression Predicting Positive Outcomes (for Longer item scales of the New Variables) in White British Workers

Model	Unstandardised Coefficients		Standardised Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	-.53	2.10		-.25	.801
Positive Work Characteristics	.91	.10	.567	9.11	**.000**
Positive Personality	.67	.11	.383	6.15	**.000**
FWC Multiple Items	.12	.05	.110	2.35	**.021**

Work-Life Balance Variables as Outcomes

WFC

Both single and multiple items were significantly predicted by negative work characteristics. As this concurs with the findings in the review, it could be a further indication of the similarity of both WFC constructs. The tables are presented below.

Table 4.18.

Stepwise Regression Predicting WFC Single Item

Model	Unstandardised Coefficients		Standardised Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	2.03	1.99		1.02	.311
Shift Working	-.31	.50	-.05	-.61	.540
Working Full time or Part time	2.47	1.53	.12	1.62	.109
Marital/Relationship Status	-.45	.22	-.15	-2.00	**.048**
Having Children	-1.13	.45	-.19	-2.54	**.013**
Negative Work Characteristics	.12	.02	.59	7.00	**.000**

Table 4.19.

Stepwise Regression Predicting WFC Multiple Item

Model	Unstandardised Coefficients		Standardised Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	24.74	4.20		5.89	**.000**
Age	-.02	.06	-.03	-.35	.725
Negative Work Characteristics	-.37	.06	-.61	-6.70	**.000**
Positive Work Characteristics	.40	.12	.26	3.21	**.002**

FWC

Negative work characteristics and negative coping predicted both the single and multiple items of FWC. This has two implications. First, in line with the rationale of this study, the constructs seem similar, and thus the single items could replace the multiple items in the WPQ. The second implication of this finding is that FWC is associated with negative aspects of well-being, which very much aligns with the literature.

Another noteworthy finding in the light of the study objective is that while the shorter resilience scale (CD-RISC2) predicted the FWC single item, the longer resilience scale (CD-RISC) did not predict FWC multiple-item scale. This finding could be a consequence of one of two issues: a spurious significance of the short item or incongruence between the CD-RISC and CD-RISC2. The latter is probably more likely, bearing in mind the lack of correlation between the scales, as explained in 4.2.4.1.

Table 4.20.

Stepwise Regression Predicting FWC Single Item in White British Workers

Model	Unstandardised Coefficients		Standardised Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(constant)	4.80	1.76		2.72	**.008**
Current Work Position	-.23	.10	-.17	-2.38	**.019**
Age	-.01	.02	-.05	-.62	.540
Having Children	-1.05	.41	-.18	-2.57	**.012**
Negative Work Characteristics	.10	.02	.44	4.37	**.000**
Negative Coping	.09	.05	.20	2.05	**.043**
Resilience Shorter version	-.25	.12	-.15	-2.10	**.039**

Table 4.21.

Stepwise Regression Predicting FWC Multiple Items in White British Workers

Model	Unstandardised Coefficients		Standard Coefficients		
	B	Std. Error	Beta	t	Sig.
(constant)	23.82	4.92		4.84	**.000**
Age	.07	.06	.10	1.19	.236
Current Work Position	.58	.33	.15	1.77	.079
Negative Work Characteristics	-.19	.07	-.32	-2.88	**.005**
Negative Coping	-.41	.14	-.31	-2.91	**.004**
Positive Work Characteristics	.30	.12	.20	2.49	**.014**

Burnout Components as Outcomes

Emotional Exhaustion

WFC single and multiple items predicted the single and multiple items of emotional exhaustion, respectively. This result, interpreted through the lens of the objectives of this study, suggests that each pair of constructs measure approximately the same thing. Simply put, the single and multiple items of emotional exhaustion map on the same thing, and the same goes for the pair of items for WFC.

Negative coping also significantly predicted emotional exhaustion in both cases. This agrees with the literature showing emotional exhaustion to be linked with negative well-being variables. The tables are presented below.

Table 4.21.

Stepwise Regression Predicting Emotional Exhaustion Single Item in White British Workers

Model	Unstandardised Coefficients		Standardised Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(constant)	.10	.54		.18	.858
Negative Coping	.09	.04	.20	2.24	**.028**
Negative Work Characteristics	.05	.02	.27	2.6	**.011**
WFC Single Item	.42	.08	.43	5.10	**.000**

Table 4.22.

Stepwise Regression Predicting Emotional Exhaustion Multiple Items in White British Workers

Model	Unstandardised Coefficients		Standardised Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(constant)	44.47	8.90		5.00	**.000**
Negative Coping	.50	.25	.21	1.98	**.050**
Shift Working	-3.03	2.71	-.09	-1.12	.266
Positive Work Characteristics	-.57	.22	-.20	-2.56	**.012**
Negative Work Characteristics	.25	.14	.22	1.82	.072
WFC Multiple Items	-.57	.17	-.31	-3.30	**.001**

Depersonalisation

Negative work characteristics and shift working were predictors common to both iterations of depersonalisation measures. However, negative work characteristics was a significant predictor on both occasions, and shift work was not significant on either occasion.

It is interesting to note that while WFC predicted the single item of emotional exhaustion, its corresponding multiple-item scale did not predict the emotional exhaustion multiple-item scale. However, FWC multiple item scale predicted emotional exhaustion. The findings are presented in Table 4.23 and Table 4.24, respectively**.**

Table 4.23.

Stepwise Regression Predicting Depersonalisation Single Item in White British Workers

Model	Unstandardised Coefficients		Standardised Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(constant)	.87	1.36		.64	.522
Negative Coping	.08	.04	.20	2.02	**.046**
Gender	-1.16	.38	-.23	-3.10	**.003**
Shift Working	-.36	.45	-.06	-.82	.417
Negative Work Characteristics	.07	.02	.34	2.92	**.004**
Positive Personality	.10	.04	.20	2.70	**.008**
WFC Single Item	.19	.09	.21	2.25	**.027**

Table 4.24.

Stepwise Regression Predicting Depersonalisation Multiple Items in White British Workers

Model	Unstandardised Coefficients		Standard Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(constant)	14.73	4.93		2.99	**.004**
Shift Working	-1.57	1.59	-.08	-.99	.324
Negative Work Characteristics	.30	.06	.46	4.71	**.000**
FWC Multiple Items	-.25	.10	-.24	-2.51	**.014**

Personal Accomplishment

The resilience longer version was a significant predictor of personal accomplishment, while its corresponding shorter version was not. Current work position and positive work characteristics were predictors of both the single and multiple items of personal accomplishment. Although neither of these variables significantly predicted both. These findings are presented in Table 4.25. and Table 4.26, respectively.

Table 4.25.

Stepwise Regression Predicting Personal Accomplishment Single Item in White British Workers

Model	Unstandardised Coefficients		Standardised Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(constant)	-.24	1.02		-.24	.810
Age	.02	.01	.11	1.50	.138
Current Position at Work	-.07	.08	-.06	-.79	.434
Positive Work Characteristics	.18	.04	.46	4.46	**.000**
Positive Personality	.11	.04	.25	2.58	**.011**

Table 4.26.

Stepwise Regression Predicting Personal Accomplishment Multiple Items in White British Workers

Model	Unstandardised Coefficients		Standardised Coefficients		
	B	Std. Error	Beta	t	Sig.
(constant)	8.40	4.91		1.71	.091
Positive Coping	.14	.23	.05	.59	.557
Negative Coping	-.16	.12	-.11	-1.39	.169
Current Position at work	-.54	.32	-.12	-1.67	.098
Positive Work Characteristics	.26	.15	.15	1.76	.081
Resilience Long Items	.32	.05	.60	6.94	**.000**

4.2.5. Discussion and Summary of Findings from the Occupational Sample Study

The findings from this study show that the established effects were replicated. They showed the general tendency for negative well-being to be predicted by negative predictors and positive well-being to be predicted by positive predictors. Specifically, negative well-being was predicted by negative work characteristics, positive work characteristics, positive personality, negative coping, and positive outcomes. Positive outcomes were predicted by positive work characteristics and a positive personality. Thus, positive work characteristics and positive personality appeared to be pivotal to both negative and positive well-being in the White British Occupational Sample.

The correlation analyses between the longer and shorter items of the new variables yielded mixed results. While the longer and shorter items of work-life balance (WFC and FWC) and burnout (emotional exhaustion, depersonalisation, and personal accomplishment) showed satisfactory concurrent validity, the scales for resilience did not.

In the stepwise analyses, WLB variables were used as both predictors and outcomes, respectively. In both cases, the single and multiple scales of WFC and FWC showed strong relationships with the negative aspect of well-being. Furthermore, negative work characteristics predicted both the long and short items of the WFC and FWC. This shows that issues at work affect not only WFC as argued by most of the literature (e.g. Byron, 2005; Nohe, Meier, Sonntag, and Michel, 2015) but FWC as well. These findings are more in line with those of Carlson and Perrewe (1999), showing that high time demand, one of the components of negative work characteristics in our study, leads to both WFC and FWC. It means that if an employee perceives their job to have negative characteristics, like high demands, it will likely not only lead to issues with work interfering with family life but family life interfering with work life. Also, single and multiple items for emotional exhaustion and depersonalisation served as outcomes and were respectively predicted by negative well-being variables. This also corroborates findings from Ashforth (1996)'s metanalyses which revealed significant correlations between various negative work characteristics like high workload, work pressure, role conflicts, etc. on the one hand and emotional exhaustion and depersonalisation on the other. However, the personal accomplishment variables did not yield any significant predictions. Finally, the were no congruent predictions for the shorter and longer items of resilience.

4.3. Student Sample

Previous studies (e.g., Williams, Pendlebury, Thomas, and Smith, 2017) have investigated well-being in samples made up predominantly of White British university undergraduates using the DRIVE model and Student WPQ. In this study, however, new variables (work-life balance, burnout, and resilience) were included.

4.3.1. Sample Description

This study was granted ethical approval by the Cardiff University School of Psychology Ethics Committee. The sample comprised second and third-year Cardiff University Psychology Undergraduates who were given course credits for participating in the study. Of the 155 students that participated, only 145 were eligible to participate based on the inclusion/exclusion criteria. To be included in the study, participants had to be students from the White British Ethnic group. This sample size was suitable for the observation of medium effects as it was above the required sample size of 100. Those who did not meet this requirement were awarded the credits for participation but were excluded from subsequent analyses.

84.7% (122) of the eligible respondents were female, while 1 of the respondents did not indicate their gender. The respondents were between the ages of 18 and 23, with a mean age of 19.19 (SD, 0.97).

Table 4.27.

White British Students' Sample Description

Demographic Characteristic	Number
Age	18-23 Mean = 19.19 (SD=0.97)
Gender	Male 22 (15.2%) Female 122 (84.1%) Missing 1 (0.7%)
Country of Origin	Wales 36 (24.8%) England 108 (74.5%) Scotland 1 (0.7%)

4.3.2. Materials (Instruments)

4.3.2.1. Student WPQ (Williams, Pendlebury, Thomas and Smith, 2017)

The Student WPQ has been described in detail in section 1.5. of this thesis. However, the questions for each predictor and outcome are presented in Table 4.28. below

Table 4.28

Student WPQ Items

Variable	Item and Scoring
Course Stress	How stressful do you find your course on a scale of 1-10 (1 meaning "not at all stressful" and ten meaning "the most stressful it could possibly be")? 1 2 3 4 5 6 7 8 9 10
Work Efficiency	How efficiently do you do your university work (1=not at all efficiently, 10 = extremely efficiently)? 1 2 3 4 5 6 7 8 9 10
General Health	Over the past 12 months, how would you say your health, in general, has been? (1 = extremely poor, 10 = extremely good) 1 2 3 4 5 6 7 8 9 10
ICSRLE Factors	1 2 3 4 5 6 7 8 9 10 Not at all part of my life Very Much Part of my Life Challenges to your development (e.g. important decisions about your education and future career, dissatisfaction with your written or mathematical ability, struggling to meet your own or others' academic standards).

Variable	Item and Scoring
	Time pressures (e.g. too many things to do at once, interruptions of your schoolwork, a lot of responsibilities).
	Academic dissatisfaction (e.g. disliking your studies, finding courses uninteresting, dissatisfaction with school).
	Romantic Problems (e.g. decisions about intimate relationships, conflicts with boyfriend's/girlfriend's family, conflicts with boyfriend/girlfriend).
	Societal Annoyances (e.g. getting ripped off or cheated in the purchase of services, social conflicts over smoking, disliking fellow students).
	Social Mistreatment (e.g. social rejection, loneliness, being taken advantage of).
	Friendship problems (e.g. conflicts with friends, being let down or disappointed by friends, having your trust betrayed by friends).
ISEL Factors	1 2 3 4 5 6 7 8 9 10 Strongly disagree Strongly Agree
	There is a person or people in my life who would provide tangible support for me when I need it (e.g. money for tuition or books, use of their car, furniture for a new apartment)
	There is a person or people in my life who would provide me with a sense of belonging (for example, I could find someone to go to a movie with me, I often get invited to do things with other people, I regularly hang out with friends).
	There is a person or people in my life with whom I would feel perfectly comfortable discussing any problems I might have (for example, difficulties with my social life, getting along with my parents, sexual problems).
Depression	On a scale of one to ten, how depressed would you say you are in general? (E.g. feeling 'down', no longer looking forward to things or enjoying things that you used to) 1 2 3 4 5 6 7 8 9 10 Not at all depressed Extremely Depressed

Variable	Item and Scoring
Anxiety	On a scale of one to ten, how anxious would you say you are in general? (e.g. feeling tense or 'wound up', unable to relax, feelings of worry or panic) 1 2 3 4 5 6 7 8 9 10 Not at all anxious Extremely Anxious
Life Stress	Overall, how stressful is your life? 1 2 3 4 5 6 7 8 9 10 Not at all stressful Extremely Stressful
Happiness	Generally, how happy are you? 1 2 3 4 5 6 7 8 9 10 Not at all happy Extremely happy
Positive Personality	In general, I feel optimistic about the future (For example, I usually expect the best, I expect more good things to happen to me than bad, It's easy for me to relax) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
	I am confident in my ability to solve problems that I might face in life (For example, I can usually handle whatever comes my way, If I try hard enough, I can overcome difficult problems, I can stick to my aims and accomplish my goals) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
	Overall, I feel that I have positive self-esteem (For example, On the whole, I am satisfied with myself, I am able to do things as well as most other people, I feel that I am a person of worth) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
Negative Coping	When I find myself in stressful situations, I blame myself (e.g. I criticise or lecture myself, I realise I brought the problem on myself). 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly

Variable	Item and Scoring
	When I find myself in stressful situations, I wish for things to improve (e.g. I hope a miracle will happen, wish I could change things about myself or circumstances, I daydream about a better situation). 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
	When I find myself in stressful situations, I try to avoid the problem (e.g. I keep things to myself, I go on as if nothing has happened, I try to make myself feel better by eating / drinking/smoking). 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
Personality Traits	I consider myself to be outgoing (for example, Talkative, comfortable with myself, confident in social situations) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
	I prefer to keep to myself (for example, I don't talk much to other people, I feel withdrawn, I prefer not to draw attention to myself) **REVERSE SCORED** 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
	Overall, I feel that I am satisfied with my life (for example, In most ways, my life is close to my ideal, so far, I have gotten the important things I want in life) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
	Overall, I feel that I am satisfied with my life (for example, In most ways, my life is close to my ideal, so far, I have gotten the important things I want in life) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
	Overall, I feel that I have low self-esteem (for example, At times, I feel that I am no good at all, at times I feel useless, I am inclined to feel that I am a failure) **REVERSE SCORED** 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly

Variable	Item and Scoring

I feel that I have an agreeable nature (for example, I feel sympathy toward people in need, I like being kind to people, I'm cooperative)

1 2 3 4 5 6 7 8 9 10

Disagree strongly Agree Strongly

I feel that I have a disagreeable nature (for example, I can be rude, harsh, unsympathetic) **REVERSE SCORED**

1 2 3 4 5 6 7 8 9 10

Disagree strongly Agree Strongly

I feel that I can get on well with others (for example, I'm usually relaxed around others, I tend not to get jealous, I accept people as they are)

1 2 3 4 5 6 7 8 9 10

Disagree strongly Agree Strongly

I don't really get on well with people (for example, I tend to get jealous of others, I tend to get touchy, I often get moody). **REVERSE SCORED**

1 2 3 4 5 6 7 8 9 10

Disagree strongly Agree Strongly

I feel that I am open to new ideas (for example, I enjoy philosophical discussion, I like to be imaginative, I like to be creative)

1 2 3 4 5 6 7 8 9 10

Disagree strongly Agree Strongly

I am not interested in new ideas (for example, I tend to avoid philosophical discussions, I don't like to be creative, I don't try to come up with new perspectives on things) **REVERSE SCORED**

1 2 3 4 5 6 7 8 9 10

Disagree strongly Agree Strongly

Thinking about myself and how I normally feel, in general, I mostly experience negative feelings (for example, I feel upset, hostile, ashamed, nervous)

1 2 3 4 5 6 7 8 9 10

Disagree strongly Agree Strongly

Variable	Item and Scoring
Conscientiousness	I feel that I am a conscientious person (for example, I am always prepared, I make plans and stick to them, I pay attention to details) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
	I feel that I am laid-back about things (for example, I do just enough to get by, I tend to not complete what I've started, I find it difficult to get down to work) **REVERSE SCORED** 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
Social Support	I feel that I have the social support I need (for example, there is someone who will listen to me when I need to talk, there is someone who will give me good advice, there is someone who shows me love and affection) 1 2 3 4 5 6 7 8 9 10 Disagree strongly Agree Strongly
Fatigue	Overall, how often do you feel physically fatigued? 1 2 3 4 5 6 7 8 9 10 Not at all Very Often
	Overall, how often do you feel mentally fatigued? 1 2 3 4 5 6 7 8 9 10 Not at all Very Often
Factors Affecting Academic Attainment	Apart from the issues mentioned earlier, do you think there are other factors/issues impairing your academic performance? Yes or No
	If yes, list them

Conscientiousness, positive personality, negative coping, social support, and student stressors are jointly known as the ***'established predictors'*** of the student WPQ. These are so-called because they have consistently been found to predict positive and negative well-being outcomes. These predictive effects are called the ***'established effects'.***

4.3.2.2. CD-RISC2 (Vaishnavi, Connor, and Davidson, 2007)

This has been described in 4.2.2.7.

4.3.2.3. Single Items on Work-Life Balance

These are quite similar to the single items for WFC and FWC as described in section 4.2.2.5. However, the questions were slightly modified to account for the student's university life as it relates to other aspects of their lives, e.g. part-time work, relationships, etc. The questions are presented below

Table 4.29

Work-Life Balance Items for Students

Variable	Single Item and Scoring
FWC	Do you find that your life outside school work and academic activities interferes with your university work and academic activities? 1 2 3 4 5 6 7 8 9 10 Not at all Definitely Yes
WFC	Do you find that your university work and other academic activities interfere with other aspects of your life (e.g. part-time work, family relationships, romantic relationships, socialising with friends etc.)? 1 2 3 4 5 6 7 8 9 10 Not at all Definitely Yes

4.3.2.4 Single Items for Burnout

These have been described in 4.2.2.3.

4.3.3. Analyses

4.3.3.1. Multiple Regression

Multiple linear regressions were deployed to investigate if the established effects of the DRIVE model (specific to university undergraduates) were replicated in the current sample. The predictor variables were conscientiousness, positive personality, negative coping, social support, and student stressors. Negative well-being and positive well-being outcomes were the outcome variables.

4.3.3.2 Stepwise Regressions

After the linear regressions, stepwise regressions were done. As previously explained, stepwise regressions were performed to ascertain potential prediction models possible from the pool of predictor variables: demographics established predictors and new variables. The advantages, weaknesses, and justification for the use of stepwise regressions have already been discussed in 4.2.3.3.

The order of placement of the independent variables in the stepwise regressions was as described in 4.2.3.3.

In terms of the role of individual variables either as predictors or outcomes, the same procedures and arrangements were followed as were outlined in 4.2.3.3. The key difference between this study and

the previous one was that there was no comparison of the single (or shorter) with multiple (or longer) items. The new variables in this study were either single or shorter items.

4.3.4. Results

4.3.4.1 Established Effects

These analyses were carried out to confirm if reported effects in the prediction of negative and positive well-being outcomes in prior studies with the student WPQ were retained in the current study.

Negative Outcomes

The established predictors for students were put in a regression to test for their prediction of negative outcomes. Findings from Table 4.30. show that conscientiousness, positive personality, and negative coping significantly predicted ($p<0.001$) negative outcomes, although positive personality showed a negative relationship.

Table 4.30.

Established Effects for White British Students (Negative Outcomes)

Model	Unstandardised Coefficients		Standardised Coefficients	t	sig
	B	Std. Error	Beta		
(constant)	40.622	5.747		7.07	**.000**
Conscientiousness	.130	.158	.038	.82	.412
Positive Personality	-.67	.07	-.53	-9.43	**.000**
Negative Coping	.51	.12	.23	4.37	**.000**
Social Support	.01	.09	.01	.11	.912
Student Stressors	.32	.06	.28	5.27	**.000**

Positive Outcomes

The analyses were conducted like those of the negative outcomes previously explained. Table 4.31. reveals that positive personality ($p<0.001$), student stressors ($p<0.001$), and conscientiousness

(p=.005) significantly predicted negative outcomes, although student stressors exhibited a negative relationship.

Table 4.31.

Established Effects for White British Students (Positive Outcomes)

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig
	B	Std. Error	Beta		
(constant)	.99	2.67		.37	.709
Conscientiousness	.21	.07	.16	2.88	**.005**
Positive Personality	.27	.03	.55	8.23	**.000**
Negative Coping	-.01	.05	-.01	-.16	.873
Social Support	.22	.04	.30	5.25	**.000**
Student Stressors	-0.34	.03	-.07	-1.20	.234

4.3.4.2. Stepwise Regressions

This section presents the results of the stepwise regressions for the student sample. The last models of the analyses are presented.

Negative Outcomes

Table 4.32. shows that positive personality, student stressors, negative coping, WFC, and resilience all significantly predicted negative outcomes.

Table 4.32.

Stepwise Regression Predicting Negative Outcomes in White British Students

Model	Unstandardised Coefficients		Standard Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(constant)	39.25	5.30		7.40	**.000**
Gender	1.45	1.25	.05	1.17	.246
Positive Personality	-.54	.074	-.43	-7.27	**.000**
Student Stressors	.29	.06	.25	5.09	**.000**
Negative Coping	.44	.11	.20	4.01	**.000**
WFC	.75	.23	.15	3.24	**.001**
Resilience	-.78	.35	-.11	-2.20	**.030**

Positive Outcomes

Positive personality, social support, and conscientiousness were found to be significant predictors of positive outcomes. Findings are presented in Table 4.33.

Table 4.33.

Stepwise Regression Predicting Positive Outcomes in White British Students

Model	Unstandardised Coefficients		Standard Coefficient		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(constant)	-1.45	1.47		-.99	.326
Positive Personality	.29	.03	.57	10.56	**.000**
Total Social Support	.22	.04	.30	5.38	**.000**
Conscientiousness	.25	.07	.19	3.41	**.001**

Work-Balance as Outcomes

WFC

All the predictors in the model were significant predictors. Table 4.34 shows that positive personality and student stressors significantly predicted WFC.

Table 4.34.

Stepwise Regression Predicting WFC in White British Students

Model	Unstandardised Coefficients		Standard Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig**
(constant)	6.68	1.26		5.30	**.000**
Positive Personality	-.08	.02	-.30	-3.52	**.001**
Student Stressors	.05	.02	.22	2.52	**.013**

FWC

Gender, student stressors, conscientiousness, and negative coping were significant predictors of FWC. Details of the analysis are presented below.

Table 4.35.

Stepwise Regression Predicting FWC in White British Students

Model	Unstandardised Coefficients		Standard Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig**
(constant)	1.67	1.06		1.58	.117
Gender	.92	.42	.16	2.20	**.030**
Student Stressors	.08	.02	.36	4.69	**.000**
Conscientiousness	-.12	.05	-.20	-2.69	**.008**
Negative Coping	.08	.03	.19	2.44	**.016**

Burnout Components as Outcomes

Emotional Exhaustion

Table 4.36 shows that positive personality, FWC, and resilience significantly predicted Emotional Exhaustion.

Table 4.36.

Stepwise Regression Predicting Emotional Exhaustion in White British Students

Model	Unstandardised Coefficients		Standard Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(constant)	6.17	1.630		3.79	**.000**
Gender	.14	.396	.02	.35	.725
Positive Personality	-.08	.023	-.29	-3.44	**.001**
Student Stressors	.03	.018	.12	1.66	.098
Negative Coping	.06	.035	.13	1.76	.081
FWC	.31	.080	.27	3.83	**.000**
Resilience	-.24	.112	-.15	-2.18	**.031**

Depersonalisation

Social support had a negative relationship with depersonalisation but significantly predicted it, while WFC also significantly predicted depersonalisation. Table 4.37. presents the findings in detail.

Table 4.37.

Stepwise Regression Predicting Depersonalization in White British Students

Model	Unstandardised Coefficients		Standard Coefficients		
	B	Std. Error	Beta	t	sig
(constant)	4.73	1.10		4.32	**.000**
Social Support	-.11	.02	-.35	-4.59	**.000**
Student Stressors	.02	.02	.12	1.46	.146
WFC	.22	.07	.26	3.30	**.001**

Personal Accomplishment

Positive personality, social support, and conscientiousness were significant predictors of personal accomplishment. The details are presented in Table 4.38.

Table 4.38.

Stepwise Regression Predicting Personal Accomplishment in White British Students

Model	Unstandardised Coefficients		Standardised Coefficients		
	B	Std. Error	Beta	t	Sig
(constant)	.10	.84		.11	.911
Positive Personality	.09	.02	.41	5.72	**.000**
Total Social Support	.10	.02	.30	4.19	**.000**

4.3.5. Summary and Discussion of Findings from Student Study

The established effects of the student WPQ were replicated. Positive personality, negative coping, and student stressors predicted negative well-being, while positive well-being for the White British students was predicted by conscientiousness, positive personality, and social support. Like the occupational sample, positive outcomes tended to be predicted by positive predictors and negative outcomes by negative predictors. Positive personality was a common predictor of both well-being outcomes.

From the analyses involving the new variables, WFC predicted negative well-being and depersonalisation and was predicted by positive personality and student stressors. FWC predicted emotional exhaustion and was predicted by gender, student stressors, conscientiousness, and negative coping. Again, both WFC and FWC showed strong relationships with the negative aspects of well-being. Resilience was also found to negatively predict negative outcomes and emotional exhaustion. Emotional exhaustion was also predicted by a positive personality. The personal accomplishment was predicted by positive personality, social support, and conscientiousness. Emotional exhaustion and depersonalisation were generally predicted by negative outcomes, while personal accomplishment was predicted by positive predictors.

The addition of the new variables to the student WPQ adds more vibrancy and versatility to the measurement of well-being. While the work-life balance variables can serve as either predictors, in terms of negative work characteristics or stand-alone predictors, or outcomes subsumed under negative outcomes or stand-alone outcomes, the emotional exhaustion and depersonalisation components can serve as well-being outcomes. For reasons of parsimony, it is suggested that these variables be subsumed into existing ones. However, factor analyses should be performed to ascertain if this will be plausible.

4.4. Discussion of findings

The first aim of both studies was to confirm if the established effects for each of the samples were replicated. As shown above, the established effects were retained for both samples, with a general tendency for positive well-being to be predicted by positive predictors and negative well-being outcomes by negative predictors, as should be expected.

Both studies aimed to add new variables to the WPQ and student WPQ, respectively. This was done by comparing their respective single and multiple items. Similarity implies that the shorter and longer items were measuring approximately the same thing, and hence the shorter items can be included in the WPQ for future studies. These additions will, in turn, allow for a more robust measurement of well-being.

These comparisons were performed in phases. Initial correlations were carried out between the single and multiple items to ascertain the concurrent validity. As a correlation coefficient of 1 indicates perfect similarity between the constructs, the closer the coefficient is to 1, theoretically indicating the extent of similarity between shorter items and their multiple corresponding items. Following the correlations, stepwise regressions were performed in pairs – one for the shorter items, the other for the longer items. The underlying assumption for these analyses was that if the shorter and longer items are similar, they should predict or be predicted by the same variables.

The burnout and WLB items showed significant correlations ($p<.001$) between .58 and .74 between their single and multiple items. Based on Evans's (1996) classification, these correlations fall between moderate and strong correlations. This could be an initial indication of similarity. Furthermore, many

of the stepwise regressions showed that the new variables either predicted or were predicted by the same variables. For instance, both single and multiple items of WFC were predicted by negative work characteristics. The same pair were among the significant predictors of negative outcomes. Similarly, FWC single and multiple items were commonly predicted by negative coping and negative work characteristics. The same was largely the case for emotional exhaustion and depersonalisation.

In addition to the similar pattern of prediction between the longer and shorter versions of the new variables, the patterns were in concord with the literature, which mostly showed that WFC, FWC, emotional exhaustion, and depersonalisation were related to the negative aspects of well-being. This was the case for both single and multiple items. The students' study also showed the same general pattern of WLB variables relating to negative well-being. For instance, WFC was found to predict negative outcomes among the undergraduate sample. However, in the occupational sample, negative work characteristics predicted FWC, which was contrary to the suggestion that FWC is a product of issues on the home front (see Byron, 2005; Nohe et al., 2015). This is an effect of high time demands (a negative work characteristic), as Carlson and Perrewe (1999) reveal.

The addition of these new variables makes the WPQ more versatile and better equipped to provide a robust measurement of well-being. With the addition of these new variables, it will be easier to account for the role of the interface between work and family to be better explored, especially as it had to do with the well-being process. It is now also possible to see how work characteristics and other aspects of well-being interact with emotional exhaustion and depersonalisation. Future research using the WPQ can investigate moderation and mediation relationships.

However, some of the new variables did not seem suitable for subsequent addition into the WPQ. Resilience was also considered in addition to the WPQ. Following the procedures outlined by the original scale, developers showed that the longer and shorter scales were not similar. This incongruence between both scales appeared to be further proven by the fact that there was no pair of predictions where the shorter and longer scales significantly predicted outcomes. This suggests its unsuitability for the addition of the CD-RISC2 to the WPQ. The personal accomplishment component of burnout, although showing moderate correlations (.68, $p<.001$) between the single and multiple items, also seemed unsuitable for subsequent addition to the WPQ. As outcome variables, the single and multiple items scales had common predictors, but neither of these significantly predicted personal accomplishments. Therefore, neither resilience nor personal accomplishment was deemed fitting for future iterations of the WPQ.

It should be stated, however, that although these studies aimed to add suitable single/shorter items to the WPQ, it does not discredit the use of multiple items. The findings from the current study reveal that the overall Beta Coefficient for analyses with multiple/longer items was consistently larger than their corresponding single/shorter items. This could be interpreted as multiple items being preferable to single items. Indeed, Wanous and Hudy (2001) concede that multiple-item scales yield better reliability than single-item scales. However, as the aim of the WPQ is to measure as many well-being constructs as possible in a time-saving manner, the use of single items is apt. The current studies show the similarity between the single and multiple items of burnout and WLB. Additionally, the constructs show moderate to strong discriminant validity. This is in line with Wanous and colleagues' (Wanous, Reichers and Hudy, 1997; Wanous and Hudy, 2001) findings that single items yield satisfactory reliability. Thus, it is asserted that while multiple items may be better, single items are good enough, particularly in cases where very many variables are being measured. It is suggested that single items can be used as diagnostics tools while multiple items can be used to dive deeper into serious issues highlighted by the single items. Similar arguments have been made for single and multiple items for anxiety and depression by Williams and Smith (2018b).

One key limitation of the present studies is the homogeneity of the samples studied. The occupational and student samples were from the White British Cultural background, and this could lead to questions about the veracity of the findings as cultural differences and contexts were not considered. Although the established effects with the DRIVE/WPQ were largely replicated in this study, cultural values vary between countries. It is, therefore, imperative to investigate culture, cultural differences, and their possible effects on well-being. The next chapter will, therefore, investigate these.

4.6. Chapter Conclusion

This chapter described studies that scrutinised new variables for possible addition to the WPQ. Work-Family Conflict (WFC) and Family-Work Conflict (FWC) single-item constructs were found suitable, as were the emotional exhaustion and depersonalisation single items from burnout. Resilience and personal accomplishment did not meet the criteria and were hence not recommended for addition to future iterations of the WPQ.

As the current study samples were white British, well-being research needs to be performed outside these cultural confines to find out if the culture has anything to do with well-being. Therefore, the next chapter explores the relationship between culture and well-being.

Chapter 5: Culture and Cultural Differences

5.1. Chapter Introduction

This chapter defines culture and cultural differences. It explains cultural differences in terms of contrasting cultural values. It also explained cultural differences that may be unique to migrant and ethnic minority populations: perceived racial discrimination, ethnic identity, and acculturation strategies. The science of psychology at its very core has been developed around European-American values and hence by default, has been faulted for being "culture-bound" and "culture-blind" (Hofstede, Hofstede, and Minkov, 2010; Lonner and Malpass, 1994, p. 2). Culture-bound in the sense that as modern psychology has its roots in the 'westernised' mindset, much of its research and literature has concentrated on that part of the world at the expense of other parts. The implication of this is that input from other cultures outside the Euro-American sphere is minimal (Lonner and Malpass, 1994). The culture-blindness here means the tendency of the psychology discipline to neglect issues that are absent from Euro-American life but present in other cultures (Lonner and Malpass, 1994). Because of these, sweeping and hence wrong assumptions are made. These issues also extend to measuring instruments used in psychological studies. For instance, Lim, Bogossian, and Ahern (2010) raised issues occurring as a result of using questionnaires originally designed for Western populations for Asian populations. Lonner and Malpass (1994, p. 2) therefore assert that "the study of psychology…is incomplete without giving serious consideration to the ecological, cultural, and ethnic factors that contribute to human variability". A serious cross-cultural comparison should begin with an attempt to define or explain culture. Therefore, the next section attempts an explanation of the concept of culture.

5.2. Culture

Culture could take on a variety of meanings. However, according to Hofstede, Hofstede, and Minkov (2010, p. 5), culture encompasses the "patterns of thinking, feeling and acting", which also include greeting, eating, showing or not showing feelings, keeping a certain distance from others, etc. Hofstede and colleagues further explain that culture is shared, at least partially, between people living in the same social environment, and it distinguishes one group of people from other groups and perpetuates generations.

There are key features of culture that cover all its key aspects: symbols, heroes, rituals, and values, with symbols lying at the surface and values embedded at its very core (Hofstede, Hofstede, and Minkov, 2010). The three initial features are external, as they can be observed by "outsiders" and are hence jointly described as practices (Hofstede, Hofstede, and Minkov, 2010). Values are the core and the most important part of the culture iceberg that lies beneath the surface. What then are values?

5.2.1. Values

Values answer the 'why' questions of culture. Hofstede, Hofstede, and Minkov (2010, p. 9) define values as the "broad tendencies to prefer certain states of affairs over others". In essence, our values are internal compasses that guide our choices between dichotomised alternatives, e.g. evil vs good, forbidden vs permitted, paradoxical vs logical, irrational vs rational, etc. These dichotomised pairs of values divide the world across cultural boundaries. Living by either value in the value pair affects the way of life of a particular society and differentiates it from another society living according to its opposing alternative. This thus leads to cultural differences across societies. As the Inglehart-Welzel cultural map (figure 5.1.) shows, societies with similar sets of values are generally in geographic proximity to each other because of their similar cultural origins (Inglehart, Basanez, and Moreno, 1998).

As a society's set of values are the key distinguishing factors between it and other societies, it, therefore, follows that the best way to investigate cultural differences is by comparing the value sets of the societies in question. These have been done by collating data from cross-cultural studies spanning various countries/cultural societies and building databases from these data sets. These studies have been carried out over extended periods and therefore have the advantage of going beyond the surface into what Lonner and Malpass (1994, p. 10) refer to as the "deep culture". Examples of these include the Global Leadership and Organizational Behavior Effectiveness (GLOBE) studies (House and colleagues), Eurobarometer, IBM Studies (Hofstede and colleagues), the World Values Surveys (Inglehart and colleagues). While the Eurobarometer is restricted only to the European continent, the others span all the continents. As such, the Eurobarometer does not meet the requirements for the current study.

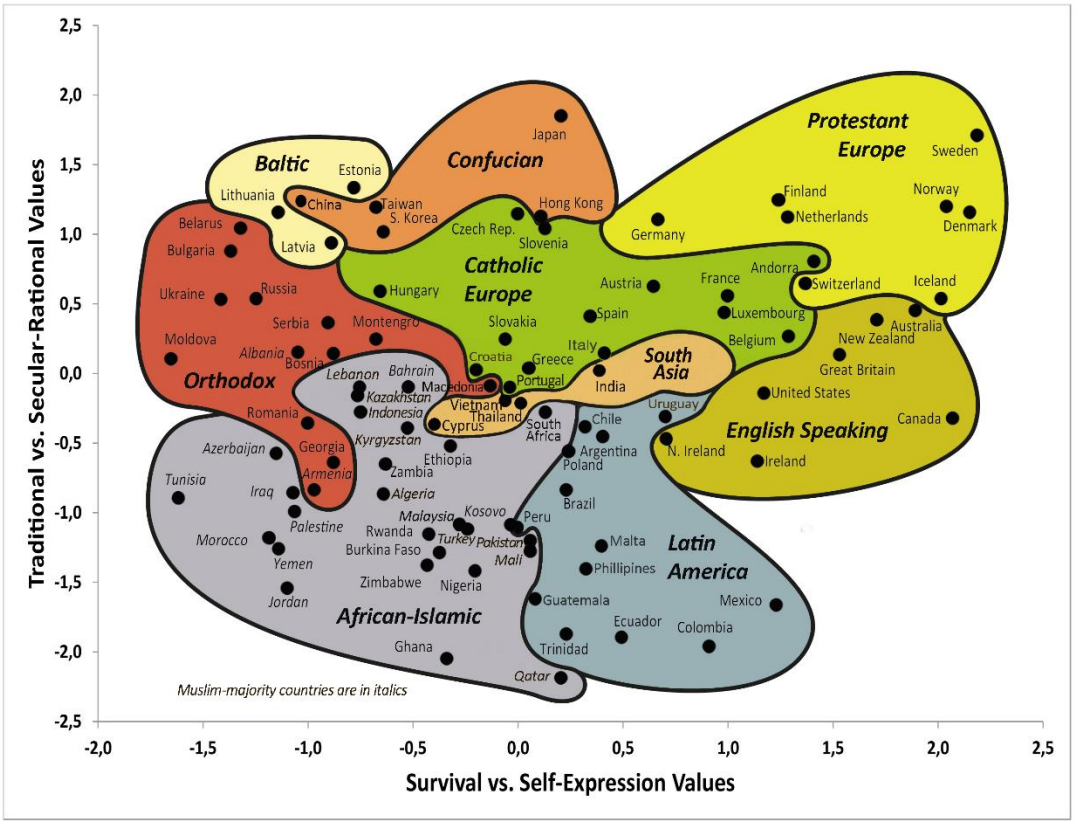

Figure 5.4.: Inglehart-Welzel Cultural Map of the World (source: http://www.worldvaluessurvey.org/WVSContents.jsp)

5.3. Cultural Differences

The cultural differences to be studied in the current research are from the WVS (Inglehart and colleagues) and the IBM studies (Hofstede and colleagues). The dichotomised value sets from the WVS are the Traditional vs Secular-Rational values and Survival vs Self-Expression values (as seen in Fig 5.1.). Those from the IBM studies are Power Distance, individualism vs collectivism, masculinity vs femininity, Uncertainty Avoidance, Long-term orientation vs short-term orientation, and indulgence vs restraint (Hofstede, Hofstede, and Minkov). In some cases, these values may appear similar but are quite different.

Traditional vs Secular-Rational Values

Traditional values have to do with respect for and adherence to traditional/religious relationships (World Value Survey (WVS) 2020; Inglehart, Basanez, and Moreno, 1998). This set of values affirm the importance of the family, frowns against divorce, euthanasia, and abortion. On the opposite side are the secular-rational values, which accept or at least tolerate the values that adherents to traditional values reject and vice-versa (WVS,2020; Inglehart, Basanez, and Moreno, 1998). These differences thus suggest almost polar-opposite cultural differences between societies on either side.

Survival vs Self-Expression Values

"Survival values emphasise economic and physical security. It is linked with a relatively ethnocentric outlook and low levels of trust and tolerance" (WVS 2020, page 2). Survival values have been linked to agrarian, pre-industrial societies (Inglehart, Basanez, and Moreno, 1998). However, industrialisation has led to wealth and modernisation, which now means that priorities shifted from more 'basic' values focused on survival to those focused on the thriving of gender and ethnic minorities, the environment, etc. (Inglehart, Basanez and Moreno, 1998; WVS,2020). In other words, survival values are related to poorer countries, while well-being values are products of modernisation and post-modernisation and are therefore more relevant to richer countries.

Power Distance

According to Hofstede et al. (2010), power distance in the IBM studies is related to Traditional vs Secular-rational values in the WVS. Power Distance "is the extent to which the less powerful members of institutions and organisations within a country expect and accept that power is distributed unequally" (Hofstede, Hofstede, and Minkov,2010, p. 61). Countries with large power distance seem to prefer leaders who are paternalistic or autocratic, while those with lower power distance prefer leaders who consult with their subordinates. In countries with lower levels of power distance, inequality is disliked and prevented as much as possible but is seen as necessary for the preservation of order and is therefore predicated on rational, practical reasons like expertise and experience. Therefore, lower power distance is linked to the secular-rational end of the traditional vs secular-rational sets of values. On the other hand, in large power distance situations, leadership is based on the authority and is more or less automatic and autocratic, and is based on traditional rites. Thus, here, leaders are seen as benefactors and fathers.

Individualism vs Collectivism

Individualism describes societies where the mantra appears to be '*every man for himself.'* In individualistic societies, there tend to be weak, superficial relationships between people as the aim in these societies is to fend for oneself and one's immediate family members (Hofstede, Hofstede, and Minkov, 2010). The motto for collectivist society seems to be *'all for one and one for all.*' The ties between individuals extend beyond the nuclear family to the extended family and even probably beyond familial ties. The cohesive bonds in collectivist societies are very strong. Loyalty is demanded from every member of the group in exchange for protection and other 'membership perks' (Hofstede, Hofstede, and Minkov, 2010). Thus, to summarise, the focus of individualistic societies is individual interests, while that of collectivist societies are those of the group.

Masculinity vs Femininity

Masculine societies are characterised by competitiveness, assertiveness, and achievement, while feminine societies' hallmarks are good relationships and high quality of life. "Masculine cultures strive for a performance society; feminine countries for a welfare society" (Hofstede, Hofstede, and Minkov, 2010, p. 171). These authors further explain that femininity should not be mistaken for feminism as "feminism is an ideology, either organised or not, that wants to change the role of women in the

society" (p. 156). From the foregoing, it can be seen that the outlook of both types of societies will be opposite. While masculine societies will be focused on success and achievement, feminine societies will aim for the general welfare of their members.

Uncertainty Avoidance

Uncertainty avoidance has to do with the level of ambiguity a society can tolerate. Hofstede, Hofstede, and Minkov (2010, p. 191) explain it as "the extent to which the members of a culture feel threatened by ambiguous or unknown situations. This feeling is, among other manifestations, expressed through nervous stress and a need for predictability: a need for written and unwritten rules." High uncertainty avoidance leaves little room for assumption and has been linked to higher levels of anxiety and depression as well as higher levels of unhappiness (Hofstede, Hofstede, and Minkov,2010). Thus, one would expect a high uncertainty-avoiding culture to have little or no tolerance for ambiguity in comparison to societies with lower uncertainty avoidance.

Long-term Orientation vs Short-term Orientation

According to Hofstede, Hofstede, and Minkov (2010), societies with long-term orientation fixate on the future by encouraging thrift, savings, investment, etc. whereas societies with short-term orientation are more focussed on the past and the present and are therefore more committed to the preservation of rigid rules and traditions. Minkov et al. (2018) denote this set of values as one key cultural difference that distinguishes various societies around the world. Societies with a long-term orientation appear to be more pragmatic and flexible in their approach to life as they adopt the *'ends-justify-the-means* solutions to problems. In these societies, virtue and truth are based on and are adaptable to the current context. This is as opposed to short-term orientated societies where virtue is derived from truth, which is absolute, not contextual (Hofstede, Hofstede, and Minkov,2010). As such, one will expect long-term orientated societies to be more adaptive and forward-looking and short-term oriented societies to be keener on preserving traditions and "saving face".

Indulgence vs Restraint

Hofstede, Hofstede, and Minkov (2010, p.281) explain that indulgence stands for a tendency to allow relatively free gratification of basic and natural human desires related to enjoying life and having fun. Its opposite pole, restraint, reflects a conviction that such gratification needs to be curbed and regulated by strict social norms". They further state that "gratification of desires on the indulgence side refers to enjoying life and having fun, not in gratifying human desires in general". Therefore, this cultural difference has to do with the salience societies place on enjoying leisure.

These value pairs provide a basis for comparing cultures and highlighting their differences. However, looking at cultural differences from this perspective paints an incomplete picture. Comparing cultures in this way primarily accounts for people who reside in the original geographic location and/or are in the majority. It does not account for the cultural differences that may apply to members of these societies who have migrated voluntarily or involuntarily to locations where other cultural societies are in the majority. Therefore, the section that follows explores some additional cultural differences that may affect people who now reside in a society where other cultural groups dominate.

5.4. Cultural Differences among Migrants and Ethnic Minorities

The world has become a global village. One of the implications of this is that people are exposed to opportunities beyond their immediate geographical location and are willing to move to new locations far removed from their current location, usually their country of birth. Others move away because of natural disasters or protracted armed conflicts (International Organization for Migration (IOM), 2017). This means that people are constantly migrating across the globe for various reasons: 'a better life', improved economic situation, better career prospects, education, relocating with spouse/family,

escaping danger from natural disasters or war (IOM, 2017; Kingma, 2008). The number of migrants across the world as of 2015 was estimated at 244 million, constituting 3.3% of the world's population (IOM, 2017 citing the United Nations Department for Economic and Social Affairs, 2015). About 72% of this number belong to the working-class age group (20-64). Similarly, the International Labour Organization (ILO, 2018) estimated the migrant working population worldwide as of 2017 at 164 million. This number accounted for 59.2% of the entire migrant population across the world.

Culturally, this poses some issues as the migrants carry on with their culture or at least aspects of it to their new location - thus increasing its cultural diversity. For the migrants, it may lead to situations of culture shock or, as Berry (1997) preferred to call it, acculturative stress, based on the contrasts between their own home culture and that of their new place. Equally, for the hosts, it may present situations where interacting with a new culture could lead to confusion or hostility towards the new entrants. This is often exacerbated by the new entrants being in the minority and their hosts in the majority. For the newcomers, interacting with the new society (i.e. its culture and people) as well as theirs will have implications linked to perceived racial discrimination, their quest and search for ethnic identity, and the adoption of acculturation strategies. These three concepts may be the deciding factors of if and/or how people from ethnic minorities thrive or survive in their new environment. It could also have implications for future generations and might have been passed down from previous ones.

5.4.1. Race vs Ethnicity

According to Pilkington (2003, p. 2), race has to do with "distinguishing people on the basis of physical markers, such as skin pigmentation, hair texture, and facial features, placing them into distinct categories". He goes further to describe race as a social construct developed to create an artificial divide between humans, thus creating superior and inferior groups. These divisions have negative connotations, and that was why Huxley and Haddon (1935 cited in Smith, Wadsworth, Shaw, Stansfeld, Bhui, and Dhillon 2005) suggested that 'ethnicity' be used instead of 'race' in the study of human diversity. Besides, as Zuckerman (1990) argues, there are many more biological and genetic differences within the so-called racial groups than between them. This solidifies the argument for studying human diversity along the lines of ethnicity rather than race which some (e.g. Pilkington) believe to be non-existent in the first instance.

Pilkington (2003, p. 2) describes ethnicity as "distinguishing people on the basis of cultural markers, such as language, religion and shared customs, and identifying key social groups". Although Pilkington also describes ethnicity as a social construct, it seems more useful to classify people based on issues relating to their cultures rather than physical characteristics, which Zuckerman (1990) describes as dubious.

5.4.2. Perceived Racial Discrimination

The Cambridge online dictionary (2020) defines discrimination as "treating a person or particular group of people differently, especially in a worse way from the way in which you treat other people, because of their skin colour, sex, sexuality, etc." Racial discrimination, therefore, means treating people differently because of their skin colour, other biological markers, and ethnicity. Clark, Anderson, Clark & Williams (1999) define racial discrimination as "beliefs, attitudes, institutional arrangements, and acts that tend to denigrate individuals or groups because of phenotypic characteristics or ethnic group affiliation." They add that it could be either attitudinal or behavioural. Racial discrimination could either be overt or covert and hence may or may not be very obvious to observe or measure. Indeed, as Pilkington (2003, p. 44) states: "discrimination is often covert, and it is therefore difficult for individuals to know whether they are being discriminated against". Therefore,

perceived racial discrimination is preferred over racial discrimination in this research for reasons of relatively easier measurement.

Racial discrimination in British society has a very long history. Jones (1996) reveals that research from the 1960s, 1970s and 1980s show that racial discrimination persists in British society. He further asserts that much of the discrimination remains even after laws (e.g. Race Relations Act 1968) had been made to stem the tide. The Race Relations Act (1968) was replaced by the Race Relations Act (1976) to combat more covert forms of racism (institutional racism) in addition to more obvious forms that the former law set out to correct. Institutional forms of racial discrimination, according to Jones (1996, p. 2), are "those policies and practices which are to the detriment of racial minorities although race is not an explicit criterion leading to inferior treatment". This (institutional racism) could be the reason behind the findings in Booth and Mohdin's report in a Guardian newspaper article published in December 2018, which showed that 43% of the participants from ethnic minorities in the UK in a poll were "overlooked for promotion in a manner that felt unfair" in contrast to 18% of the White British participants who had similar experiences. If this newspaper report is anything to go by, it then suggests that even new laws like the Race Relations Act (1976) with subsequent amendments in 2000 and 2004 and even more recent laws like the Equality Act (2010) have not fully achieved the purposes for which they were made if at all, because racial discrimination, or at least the perception of it, is not yet a thing of the past.

Racial discrimination is one factor that can hamper the employment chances of people from ethnic minorities (Pilkington, 2003). It could also hinder their prospects for career progression. For instance, ethnic minority nurses in the United States of America believed they were more likely to be denied promotion than their white colleagues (Seago and Spetz, 2008). Similar and rather disturbing findings relating to perceived racial discrimination against Black African migrant NHS nurses in northeast England showed that they were being passed over for promotion and professional development opportunities, as well as not being considered for concessions in duty shift allocations (Likupe and Archibong, 2013). One respondent recalled an occasion when the "off-duty book was hidden so African nurses could not make requests" (p. 238). Furthermore, they believed they were more severely treated than their colleagues when facing disciplinary action and were labelled as aggressive when they tried to assert themselves. Additionally, they felt discriminated against by their bosses, White British colleagues, and migrant (non-black) nurses. The discrimination came in the form of stereotypes about black Africans, leading to their competencies being questioned and being gaslighted (i.e., being manipulated into doubting their own skills and competencies), therefore losing self-confidence in their ability to do their jobs. The nurses also experienced discriminatory attitudes from patients and their families and found such difficult to report because they believed their complaints would not be listened to, could be hard to prove, or could lead to future victimisation. They also believed they were less favourably treated than their colleagues from India and the Philippines. This confirms that the experiences of all ethnic minorities are not the same (Jones, 1996; Madood et al., 1997; Nazroo, 1997 a & b). The studies cited above provide ample evidence of perceived racial discrimination and the forms it could take in the workplace.

5.4.3. Ethnic Identity

Ethnicity is used to describe people who share a common language, culture, and nation or tribe (Betancourt and Lopez,1993). "Ethnos" refers to people of a particular tribe or nation. "ethnikos" means national (Betanourt and Lopez,1993). "Ethnicity refers to the ethnic quality or affiliation of a group, which is normally characterised in terms of culture" (Betancourt and Lopez, 1993). According to Berthoud, Modood, and Smith (1997), "an ethnic group would be defined as a community whose

heritage offers important characteristics in common between its members and which makes them distinct from other communities".

Phinney (1992) defines ethnic identity as an integral part of an individual's identity. It has to do with how much premium is placed on being a member of an ethnic group and the emotional satisfaction derived from such membership. The essence of the concept of ethnicity is that each ethnic group differs from every other group. Each ethnic group is unique. This uniqueness notwithstanding, there are aspects of ethnic identity that are common to every group (Phinney, 1992). This is particularly important in situations, such as the studies presented in this thesis, where ethnic minorities as studied as a single group rather than individual units. Phinney postulates Ethnic Identity as comprising four components: self-identification and ethnicity, ethnic behaviours and practices, affirmation and belonging, and ethnic identity achievement. Self- identification as a component of ethnic identity has to do with subjective, as opposed to objective ethnicity. It has more to do with the ethnic group an individual prefers to identify with than with pre-defined ethnic categorisations. This would be particularly useful in situations of mixed ethnic heritage where a person may prefer to choose either of their parents' ethnicities. Phinney measured it with an open-ended question that would have been compared to open-ended questions on the parents' ethnicities. However, in this thesis, self-identification was excluded. The ethnic behaviours and practices component was operationalised by Phinney as the level of interaction with members of one's ethnic group and "participation in cultural traditions" (p. 159). She opined that high interaction with others from one's ethnic extraction and participating in cultural practices were key components of identifying with one's ethnic group. The third aspect of ethnic identity was affirmation and belonging, which has to do with "ethnic pride, feeling good about one's background, being happy with one's group membership as well as feelings of belonging and attachment to the group" (p. 159). The final component of ethnic identity, according to Phinney, was ethnic identity achievement, which she states "is not a static phenomenon" (p. 160) and ranges on a continuum from "ethnic identity diffusion" to "ethnic identity achievement" (p. 161). Specifically, she explains it as taking time to investigate one's ethnic origins and traditions. For those on the diffusion end, confusion about their ethnic origins is likely to be their experience, while those on the identity achievement end are likely to have the feeling of having and knowing their ethnic roots.

5.4.4. Acculturation Strategies

Acculturation determines if or how an individual adapts to their new environment. When an individual or a group migrates from their homeland to a new place, they must fashion out a way to interact with the dominant culture while at the same time upholding theirs. Some would argue that even the hosts will also have to make cultural adaptations and modifications to adjust to the new entrants. However, in reality, the bulk of these adjustments have to be made by the new entrants, and that is where acculturation comes into the picture.

According to Redfield, Linton, and Herskovits (cited in Berry, 1997, p. 7), "acculturation comprehends those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact with subsequent changes in the original culture patterns of either or both groups". These changes, most often than not, occur in the guest's culture. According to Berry (1997), the type of changes that occur depend majorly on the host society's attitude to those from other cultures and the differences between the host culture and that of the newcomers. In societies where the migrants are expected or forced to assimilate, the acculturative process is likely to be different from a society that encourages multiculturalism. Berry (1997) suggests three possible outcomes for the individual in the acculturative process. The first is "behavioural shifts", in which the psychological changes to be made are just basically to unlearn old cultural habits and reprogram the mind by learning new ones, although there might be cultural conflicts that may be quite pronounced.

The second possible outcome of acculturation is "acculturative stress," which occurs when the changes described for behavioural shifts above are achievable, but significant cultural conflicts must be overcome. Finally, the third outcome, according to Berry, is psychopathology or mental illness, which occurs because the individual cannot cope with the cultural changes required because the ensuing cultural conflict comes at a price too hefty to pay.

Berry (1997) listed four possible acculturation strategies migrants could adopt. These strategies had to do with how they handled interaction with the dominant culture as well as their original culture. The first strategy was assimilation, in which the individual decides to adopt the host culture while jettisoning their original culture. The next was integration, where the individual decides to adopt the host culture (or at least aspects of it) while holding on to their original culture (or at least aspects of it). The third option was segregation/separation, where the individual holds on to their original culture and has nothing to do with the host/dominant culture. The fourth acculturation strategy, according to Berry, is the marginalisation strategy, where neither of the cultures is chosen by the individuals. In Berry's opinion, whichever strategy was chosen was a product of the dominant society's attitude to the new people and how and why the migration happened in the first place. Where the larger society was generally welcoming and open to becoming multicultural, the result will be integration or assimilation, and when it is not, separation or marginalisation will occur. Berry's most preferred option was the integration option.

5.5. Conclusion

In this chapter, culture has been defined and conceptualised as comprising four major components: symbols, heroes, rituals, and values. Values are the most hidden and yet the most important aspects of culture. They also form the basis of cultural comparisons. Therefore, value pairs consisting of contrasting values based on the World Values Surveys and the IBM studies were presented and discussed. However, studying cultural differences in this manner is not very effective if the members of a particular society migrate to a location dominated by another cultural group, especially if there are very pronounced differences between the culture of the hosts and the visitors. To this end, cultural differences that affect migrants and ethnic minorities were also presented and discussed: perceived racial discrimination, ethnic identity, and acculturation strategies.

As the overarching aim of the research detailed in this thesis is to investigate if cultural differences influence well-being, the next two chapters report the influences of cultural differences on the well-being process. In chapter 6, the roles of cultural differences on the comparative well-being of Nigerian and White British samples are presented. The basis of the cultural differences is the values discussed above in 5.4. In chapter 7, the role of perceived racial discrimination, ethnic identity, and acculturation strategies are investigated in the well-being processes of ethnic minority workers and students.

Chapter 6: Nigerian Studies

6.1. Chapter Introduction

The objective of the research described in this chapter was to investigate the influence of cultural differences on well-being. The aim was to confirm if the established effects of the WPQ (i.e., the prediction of negative and positive well-being by positive work characteristics, negative work characteristics, positive coping, negative coping, and positive personality) and the student WPQ (the prediction of negative and positive well-being by social support, conscientiousness, student stressors, positive personality, and negative coping) were replicated in the Nigerian occupational and student samples, respectively before subsequently comparing the findings with those from the White British studies to determine the effects of cultural differences on the well-being of these samples. The chapter begins by comparing the cultural values of Nigeria and the United Kingdom using data from the World Values Survey (WVS) and the IBM studies by Hofstede and colleagues to highlight the cultural differences between both societies.

6.2. Linking Culture and Cultural Differences to Well-being

Due to many variations in cultural differences, "cross-national comparisons are the most parsimonious ways" to investigate these differences (Fonberg, 2017, p. 15), although it might not be the most ideal (Triandis, 2000). Furthermore, Diener and Suh (1999) put forward three more reasons in support of cross-national comparisons of well-being. Their first argument is that well-being remains fairly stable in society – an argument corroborated by Hofstede, Hofstede, and Minkov (2010). Secondly, feelings of well-being are generally homogenous among the populations of a particular society. The third argument is that people living in the same society are affected by similar influences on their well-being.

6.2.1. Cultural Differences between Nigeria and the UK

Traditional vs Secular-Rational Values

The 6th wave of the WVS, which took place between 2010 and 2014, reveals that Nigeria is in the Traditional values' divide of the dichotomy while the United Kingdom is on the opposite end of the spectrum (WVS,2020). The implication of these is that whereas Nigeria upholds values that underscore the importance of traditional authority, especially as represented by religion and family, the United Kingdom holds values that are more or less directly opposite to those held in Nigeria - I.e., for instance, they do not hold the authority of religion or family as important. Fig 6.1. presents these findings graphically. In essence, most Nigerians favour a society governed by traditional authority while most British prefer a society ruled by "rational-legal norms" that have little or nothing to do with religion but more with common sense and a legal framework (Inglehart, Basnez and Moreno, 1998, p.14)

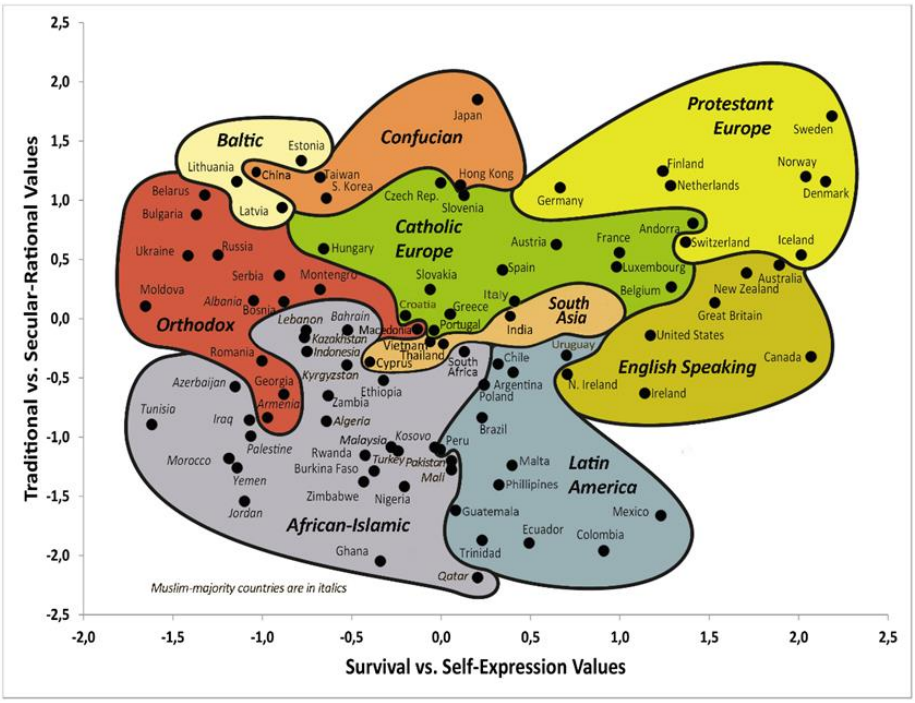

Figure 6.1.: Inglehart-Welzel Cultural Map of the World (source: http://www.worldvaluessurvey.org/WVSContents.jsp)

Survival vs Self Expression Values

The Inglehart-Welzel Cultural map of the world (Figure 6.1.) based on the findings of the WVS wave six also shows that Nigeria is a survivalist culture while the United Kingdom is a society that thrives on self-expression (WVS,2020). This seems logical as survival values are more prominent in poorer economies where many people are more focussed on keeping their heads above water, while self-expression values are evident in societies that have gone beyond just surviving to thrive, and as such, have well-developed welfare systems and can thus turn their focus to issues on the environment, sexuality, gender equality, etc. (WVS,2020; Inglehart, Basnez and Moreno, 1998). The UK's Gross Domestic Product (GDP) in 2018 was 2.855 trillion United States Dollars, while that of Nigeria for the same year was 397 billion United States Dollars (World Bank, 2020). These GDP values appear to concur with the value classification for both countries.

Power Distance

Power Distance is measured by the Power Distance Index (PDI). The United Kingdom had a PDI score of 35, while West Africa (of which Nigeria is a prominent part) had a score of 77 (Hofstede, Hofstede, and Minkov, 2010). As a higher PDI score shows a higher power distance, these results show that power distance in Nigeria is higher than in the United Kingdom. In other words, Nigeria appears to accept or, at least, tolerate inequality and disparity in power distribution in a way that seems unimaginable in British society.

Individualism vs Collectivism

Hosftede, Hofstede, and Minkov (2010) measured individualism and collectivism with the individualism index, and a higher index score meant a higher level of individualist traits in the society. Hofstede and colleagues' findings reveal that the United Kingdom ranked the third position, with an

index score of 89, while Nigeria (West Africa) ranked 58th-63rd with an index score of 20. These results show that the United Kingdom society exhibited much higher traits of individualism than the Nigerian society – indicating that the United Kingdom is an individualist society while Nigeria is a more collectivist society.

Masculinity vs Femininity

The Masculinity Index (MAS) measures the degree of masculinity or femininity in society. A high MAS score signified a masculine society, while a lower score implied a society that displayed more feminine characteristics than masculine ones. Hofstede, Hofstede, and Minkov's (2010) findings show that while the United Kingdom is a more masculine society, Nigeria (West Africa) is more feminine. Their MAS scores were 66 and 46, respectively.

Uncertainty Avoidance

The Uncertainty Avoidance Index (UAI) score for Nigeria was 54, while for the UK, it was 35 (Hofstede, Hofstede, and Minkov, 2010). According to Hofstede and colleagues' operationalisation, a higher UAI score indicates a society that is run by rigid rules and is almost biased against ambiguous situations. As such, these results show that Nigeria is much more intolerant of ambiguity than the UK. Therefore, Nigerian society tends to have rules that must be followed for every situation, while British society is relatively more flexible.

Long-Term Orientation vs Short-Term Orientation

This was not directly measured by Hofstede and Colleagues in the IBM studies. They derived the data for this dimension from Michael Bond's Chinese Values Surveys and the WVS (1995-2004) – the LTO-CVS and LTO-WVS, respectively. The measurement for this dimension in both studies was such that a higher score meant a higher longer-term orientation. Interestingly, both sets of findings yielded similar results. The findings show that although both countries were low in the tables, indicating a short-term orientation, Nigeria was much lower than the UK in both studies. The LTO-WVS scores for the United Kingdom and Nigeria were 51 and 13, respectively, while the scores for the LTO-CVS were 25 and 16, respectively (Hofstede, Hofstede, and Minkov, 2010). Thus, they referred to the UK as a short-term-oriented society and Nigeria as a very short-term-oriented society. These findings implied that the UK society was more focused on the short-term and immediate gratification, but Nigeria was much more so.

Indulgence vs Restraint

Nigeria had an Indulgence Versus Restraint (IVR) index score of 84, while that of the UK was 69 (Hofstede, Hofstede, and Minkov, 2010). These findings suggest that Nigerian society has a higher tendency to want to have fun and enjoy life than the British.

Although some of these seven pairs of values seem to be related or dependent on one another, they are quite distinct. More importantly, comparing both societies using these values has shown how different they are. Values are the beating heart and very soul of culture (Hofstede, Hofstede, and Minkov,2010). These comparisons have thus shown how culturally distinct the Nigerian and British societies are. Cultural differences influence well-being. For instance, lower indulgence and higher restraint are associated with lower subjective well-being (Hofstede, Hofstede, and Minkov, 2010). The next section attempts to link the value differences and consequent cultural differences to well-being outcomes.

6.2.2. Linking Cultural Differences to Well-being Outcomes

In preceding chapters, well-being has been conceptualised as comprising negative and positive aspects. This is because, as the evidence suggests, both aspects are not opposite, and the presence of one aspect does not automatically signify the absence of the other and vice-versa. As such, any approach to studying well-being should take cognisance of and integrate both aspects. Crucial to the experience of well-being is emotions. Emotions can either be positive or negative. Cultural differences have roles to play here as well in the sense that while some cultures believe that both sets of emotions are mutually exclusive other cultures believe both can be experienced simultaneously. Schimmack, Oishi, and Diener (2002) revealed that while individualist cultures seem to favour the mutual exclusivity of positive and negative emotions, collectivist cultures seem to tend towards having both emotions concurrently.

Going further, we look at the relationships between cultural differences and both sets of emotions from another angle. Jebb, Morrison, Tay, and Diener (2020) conducted analyses spanning 166 countries, with over 1.7 million participants from the Gallup studies. They aimed to compare subjective well-being trends across the world. Although one weakness of the study was that comparisons were made across regions rather than country-by-country comparisons, it still revealed interesting findings. For instance, they found a negligible reduction (i.e. with effects size of less than -0.5) in positive affect, using age 20 as baseline and 80+ as cut off point in Anglo countries (e.g. UK, United States, New Zealand, etc.) and found a significant reduction (effect sizes of between -1.00 to -1.99) across participants' lifetime in Sub-Saharan Africa (comprising countries like Nigeria, Ghana, Zimbabwe, etc.). The study also reported a decrease in negative affect (effect size of less than -0.5) in Anglo countries across the lifespan and an increase in sub-Saharan African countries (effect size of 0.50-0.99). Similarly, Jebb and colleagues showed that while there was a negligible decrease (effect size of less than 0.50) in Sub-Saharan African respondents' life satisfaction, those in Anglo countries experienced a negligible increase (effect size of less than 0.50). Although care must be taken in the interpretation of these results as they are regional and not at the country level, they could still paint a picture relevant to the current study. In a nutshell, Jebb and colleagues' findings show that in Anglo countries, life satisfaction and positive affect increase during the individual's lifetime, while the reverse is the case for those in Sub-Saharan Africa. While these findings may be misleading in the sense that the dataset comprised cross-sectional as opposed to longitudinal data in addition to the fact that the comparisons were made at the regional level, these results can still be considered, as countries in each of these regions have very similar values. For instance, Anglo countries will most likely have small power distance and be individualist, while Sub-Saharan African countries tend to have large power distance and be collectivist. Looking at these findings from this perspective now brings the relationships between cultural differences and well-being into focus. It thus suggests that individualist countries with small power distances will tend to enjoy life increasingly as they grow older, while those from collectivist cultures with large power distances will enjoy life less as they grow older. These differences in the experience of subjective well-being (SWB) could be a consequence of how Subjective Well-being is measured in individualist and collectivist societies. Individualists tend to measure SWB based on their emotions, and collectivists do so based on norms and social criteria (Suh, 2000). While Suh's study majorly compared the United States of America, arguably the most individualist culture, and East Asia, probably the most collectivist culture, these explanations probably throw more light on these findings.

Another reason for this disparity in subjective well-being (from Jebb's study) could be economic. Veenhoven (2000) analysed and compared data from various countries in the early 1990s, which suggested that happiness, particularly in poorer countries, was linked to economic freedom. Though the author concedes that the measurement of freedom may not have been perfect nevertheless, it

seems logical that economic freedom would be linked to happiness. Economic freedom, which is tantamount to an increase in wealth, will seem an aspirational goal and prerequisite to happiness in poorer countries. As such, one will expect wealthier countries to be happier. This, however, has been contested.

For instance, the IVR index scores for Nigeria and the United Kingdom (previously discussed) were 84 and 69, respectively. These scores indicate Nigeria as a more indulgent society than the United Kingdom. Hofstede, Hofstede, and Minkov (2010, p. 281) operationalised indulgence as "a tendency to allow relatively free gratification of basic and natural human desires related to enjoying life and having fun. Its opposite pole, restraint, reflects a conviction that such gratification needs to be curbed and regulated by strict social norms. They further explain that "gratification of desires on the indulgence side refers to enjoying life and having fun, not to gratifying human desires in general". Although, relative to other countries like those in East Asia, even the UK is an indulgent society. However, Nigeria ranks higher than the UK, and this seems to defy logic, especially based on the previous discussion. This is particularly baffling when considering that the UK is considered a wealthy country and Nigeria a poorer one. According to World Bank (2020), the UK had a Gross Domestic Product (GDP) of 2.855 trillion United States Dollars in 2018, and Nigeria's GDP for the same year was 397 billion United States Dollars. Even more interesting is the fact that Hofstede and colleagues linked higher indulgence to higher subjective well-being. Hofstede's logic suggests that Nigerians should experience higher levels of subjective well-being and this contradicts the literature previously discussed.

Next, we explore the link between Uncertainty Avoidance and well-being. Hofstede, Hofstede, and Minkov (2010) defined uncertainty avoidance as the rejection of ambiguous situations. As such, uncertainty-avoiding societies have rules and norms guiding virtually every facet of human endeavour. For new or uncommon situations where no rules exist or where they are not clear enough, there is bound to be ambiguity. According to Hofstede and colleagues, in high uncertainty avoiding cultures, such situations lead to increased anxiety. In other words, when there is a situation for which no rules exist or where the rules are not clear enough in a high uncertainty avoiding culture, members are likely to suffer higher levels of anxiety relative to other cultures that are not so rigid. Following this logic, therefore, one will expect these Nigerian samples to experience higher levels of anxiety than the White British.

This section has shown some ways cultural differences can affect well-being. The following sections present studies with Nigerian samples (workers and students, respectively), after which the findings would be compared with those from the White British samples.

6.3. Occupational Sample

6.3.1. Sample Description

This study comprised 102 adults living and working in Nigeria. They were aged between 20 and 63 years, with a mean age of 38.34 (SD, 10.57). Females made up 52% of the sample. 63.7% of the sample were married, while 2.9% were cohabiting/living with their partners, and 2% were widows while all others were single. 63.7% had children. 65.7% had relatives that they cared for apart from their children.

The respondents were from different occupations ranging from Healthcare to Information Technology, Customer service, education, etc. The time they had spent working was between one month and 37 years (mean, 10.56 years), while the number of years at current position ranged from one month to 28 years (mean, 4.75 years). 97.1% worked full-time (i.e. 30 hours or more per week). 89.2% were on permanent contracts, 5.9% were on temporary/casual contracts, and 4.9% were on

fixed contracts. Although 2% (2) of the respondents did not report their current position at work, 51% were employees without any supervisory or managerial responsibilities.

At least 47.1% of the respondents had post-graduate academic qualifications. Table 6.1. presents a demographic description of the sample.

Table 6.1.

Demographic Description of Nigerian Occupational Sample

Demographic Characteristic	Number
Age	20-63 Mean= 38.34 (SD=10.57)
Gender	Male 49 (48%) Female 53 (52%)
Relationship Status	Single 32 (31.4%) Married 65 (63.7%) Cohabiting/Living with Partner 3 (2.9%) Widowed 2 (2%)
Having Children	Yes 65 (63.7%) No 37 (36.3%)
Caring for other family members other than children	Yes 67 (65.7%) No 31 (30.4%) Missing 4 (3.9%)
Full-Time Work vs Part Time Work	Full Time 99 (97.9%) Part-Time 3 (2.1%)
Type of contract	Permanent 91 (89.2%) Temporary/Casual 6 (5.9%) Fixed 5 (4.9%)
Current Position at Work	Self-Employed (25+ employees) 2 (2%) Self-Employed (less than 25 employees) 4 (3.9%) Self-Employed (no employees) 3 (2.9%) Manager (25+ employees) 13 (12.7%) Manager (less than 25 employees) 11 (10.8%) Supervisor 15 (14.7%) Employee 52 (51%) Missing 2 (2%)
Highest Educational Qualification	Other 13 (12.7%) OND 2 (2%) HND/BA/BSC 39 (38.2%) Post Graduate 48 (47.1%)

Demographic Characteristic	Number
Number of years at work	One month – 37 years Mean = 10.56 years
Number of years at Current Position	One month – 28 years Mean = 4.75 years

The Nigerian occupational sample was similar to the White British sample in several ways. However, some key differences are here highlighted. Previously, Nigeria had been presented as a society that holds fast to traditional values compared to British society. This is evident in the current sample by the fact that while 21% of the White British sample signified that they were living with their partners, only 2.9% of the Nigerian sample were in that category. This is because the Nigerian society holds marriage in very high esteem and frowns upon unmarried partners living together hence the very low number of people in that situation in comparison to the White British sample. Another difference between the samples, which was a consequence of cultural differences, was the percentage of the sample that had to care for family members other than children. 65.7% of the Nigerian sample had such responsibilities as opposed to only 18.1% of the White British sample. This should not come as a surprise since Nigeria is a collectivist society, and the UK is an individualist one.

Other differences between the samples were related to work. For both samples, the majority (Nigeria, 51%; White British, 39%) were employees without supervisory or managerial responsibilities. However, nearly a quarter (24.8%) of the White British sample had managerial oversight for more than 25 staff compared to 12.7% of the Nigerian sample who had similar roles. Also, while the average number of years at work for the Nigerian sample was 10.56 years, it was 18.1 years for the White British sample. Finally, the Nigerian sample was more highly educated than the White British sample, 38.2% having a bachelor's degree compared to 24.8% of the white British. Also, at least 47.1% of the Nigerians indicated having a post-graduate academic qualification.

6.3.2. Material (Instruments)

The instruments used for this study have been previously described in section ***4.3.2***. The major difference here is that the resilience scales were not included in the current study because they were incongruent (see ***4.3.4.2.*** for details). However, the scales used in this study will be briefly summarised.

6.3.2.1. The WPQ and SWELL

Both instruments were developed from the DRIVE model and are quite similar, the major difference being the SWELL was more geared towards occupational settings (Smith and Smith, 2017b). The predictors (***established predictors***) and outcomes of these instruments have been explained in detail in ***4.3.2***. Findings in studies using the WPQ and SWELL have often been similar – i.e. they have been mostly replicated and are thus known as the ***established effects***.

6.3.2.2. The Maslach Burnout Inventory (MBI)

This scale developed by Maslach and Jackson (1981) was used to measure each of the components of burnout. See ***4.3.2.2.*** for more details.

6.3.2.3. Single Items for Each Burnout Component

As described in ***4.3.2.3.*** these were developed by attempting to capture the essence of each construct in a single question rated 1-10 (1=low, 10=high)

6.3.2.4. WFC and FWC Scales (Netemeyer, Boles and McMurrian, 1996)

These scales were developed by Netemeyer, Boles, and McMurrian (1996) and consist of 2 separate scales that measured each conflict (see ***4.3.2.4.***)

6.3.2.5. Single Items for WFC and FWC

These single items were developed to measure the conflicts between work and family in both directions – i.e. work-to-family and family-to-work. ***4.3.2.5*** presents details.

6.3.3. Analyses

6.3.3.1. Established Effects

Simple linear regressions were performed to determine whether the established effects of the DRIVE model/WPQ were retained in the Nigerian sample. The procedure has been previously described in ***4.3.3.1.***

6.3.4. Results

6.3.4.1. Established Effects

Negative Outcomes

The findings show that the established effects in the prediction of negative outcomes were retained. Table 6.2. shows that negative work characteristics, negative coping, positive work characteristics, and positive personality all significantly predicted negative outcomes.

Table 6.2.

Established Effects for Nigerian Workers (Negative Outcomes)

	Unstandardised Coefficients		Standard Coefficient		
Model	**B.**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	44.95	6.91		6.51	**.000**
Negative Work Characteristics	.65	.12	.48	5.68	**.000**
Positive Work Characteristics	-.44	.18	-.21	-2.51	**.014**
Positive Personality	-.69	.31	.20	-2.25	**.027**
Positive Coping	-.15	.29	-.04	-.51	.610
Negative Coping	.32	.15	.17	2.13	**.035**

Positive Outcomes

The established effects were also replicated to some extent in the prediction of positive outcomes. The results are presented in Table 6.3. show that positive work characteristics were the only significant predictor of positive well-being outcomes in the Nigerian occupational sample.

Table 6.3.

Established Effects for Nigerian Workers (Positive Outcomes)

	Unstandardised Coefficients		Standard Coefficient		
Model	**B.**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	8.95	4.27		2.10	**.036**
Negative Work Characteristics	. -13	.07	-.15	-1.87	.065
Positive Work Characteristics	.83	.11	.60	7.57	**.000**
Positive Personality	.33	.20	.15	1.70	.092
Positive Coping	.25	.18	.11	1.40	.164
Negative Coping	.07	.09	.06	.75	.453

The findings above provide evidence that the established effects were mostly replicated in the Nigerian occupational sample and were relatively similar to those from the White British workers in ***4.3.4.1.***

6.3.4.2. Stepwise Regressions

Negative Outcomes

The results from the pair of stepwise regressions predicting negative outcomes were similar. Negative work characteristics, positive personality, FWC single item, and having children all significantly predicted negative outcomes (see Table 6.4. for details). The same predictors were found to significantly predict negative outcomes in the presence of multiple-item scales, except having children - details are presented in Table 6.5. Both single and multiple items of stepwise regressions of FWC predicted negative outcomes. This is as opposed to the findings in the White British occupational sample where the single and multiple items of WFC predicted negative outcomes (see ***4.2.4.3.***)

Table 6.4.

Stepwise Regression Predicting Negative Outcomes (for Work-Life Balance Single Items) in Nigerian Workers

	Unstandardised Coefficients		Standard Coefficient		
Model	**B**	**Std. Error**	**Beta**	**t**	**sig.**
(Constant)	27.45	7.25		3.78	**.000**
Having Children	5.37	1.80	.21	2.98	**.004**
Negative Work Characteristics	.71	.09	.52	7.55	**.000**
Positive Personality	-.86	.23	-.25	-3.77	**.000**
FWC Single Item	1.33	.27	.34	4.84	**.000**

Table 6.5.

Stepwise Regression Predicting Negative Outcomes (for Work-Life Balance Multiple Items) in Nigerian Workers

	Unstandardised Coefficients		Standard Coefficient		
Model	**B**	**Std. Error**	**Beta**	**t**	**sig.**
(Constant)	45.43	8.48		5.36	**.000**
Having Children	3.55	1.91	.14	1.86	.066
Negative Work Characteristics	.79	.10	.58	7.93	**.000**
Positive Personality	-.85	.25	-.25	-3.44	**.000**
FWC Multiple Items	-.42	.17	-.19	-2.55	**.012**

Positive Outcomes

The stepwise regression for the prediction of positive outcomes (for work-life balance single items) revealed that positive work characteristics and positive coping both significantly predicted positive outcomes (see Table 6.6.). However, for the regressions involving multiple-item work-life balance variables, while positive work characteristics significantly predicted positive outcomes, positive personality did not (see Table 6.7). Additionally, WFC multiple items significantly predicted positive outcomes while its corresponding single item did not. Again, this is different from the situation in the White British Sample where FWC multiple items (but not its single item) predicted positive outcomes.

Table 6.6.

Stepwise Regression Predicting Positive Outcomes (for Work-Life Balance Single Items) in Nigerian Workers

	Unstandardised Coefficients		Standard Coefficient		
Model	**B**	**Std. Error**	**Beta**	**t**	**sig.**
(Constant)	6.76	3.19		2.12	**.037**
Age	.10	.06	.12	1.67	.098
Positive Work Characteristics	.98	.11	.68	9.47	**.000**
Positive Coping	.38	.16	.16	2.33	**.022**

Table 6.7.

Stepwise Regression Predicting Positive Outcomes (for Work-Life Balance Multiple Items) in Nigerian Workers

	Unstandardised Coefficients		Standard Coefficient		
Model	**B**	**Std. Error**	**Beta**	**t**	**sig.**
(Constant)	5.39	3.18		1.70	.093
Age	.09	.06	.12	1.67	.098
Positive Work Characteristics	.94	.10	.65	9.16	**.000**
Positive Coping	.27	.17	.110	1.59	.116
WFC multiple items	.18	.08	.16	2.23	**.028**

Work-Life Balance Variable as Outcomes

WFC

Comparing findings from the stepwise regressions predicting WFC single items (see Table 6.8.) and WFC multiple items (Table 6.9.) show that both variables had negative work characteristics and negative coping as common predictors. In the White British Sample, negative work characteristics were the only common predictor of both scales (***4.2.4.3.***) This finding seems to highlight a similarity as well as a difference between the White British Sample and this sample.

Table 6.8.

Stepwise Regression Predicting WFC Single Item in Nigerian Workers

	Unstandardised Coefficients		Standard Coefficient		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	6.32	1.23		5.13	**.000**
Gender	-1.37	.57	-.22	-2.39	**.019**
Negative Work Characteristics	.17	.03	.49	4.92	**.000**
Negative Coping	-.14	.05	-.29	-2.88	**.005**

Table 6.9.

Stepwise Regression Predicting WFC Multiple Items in Nigerian Workers

	Unstandardised Coefficients		Standard Coefficient		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	15.00	3.23		4.65	**.000**
Negative Work Characteristics	-.35	.08	-.45	-4.61	**.000**
Positive Coping	.73	.19	.35	3.91	**.000**
Negative Coping	.22	.11	.20	2.09	**.041**

FWC

This pair of stepwise regressions had no predictors in common. These findings are in contrast with those in 4.2.4.3. which showed negative work characteristics and negative coping to predict both the single and multiple items FWC scales.

Table 6.10.

Stepwise Regression Predicting FWC Single Item

Model	Unstandardised Coefficients		Standard Coefficients		
	B	Std. Error	Beta	t	Sig.
(constant)	-.62	1.41		-.44	.661
Age	.08	.03	.27	2.79	**.007**
Negative Work Characteristics	.09	.03	.25	2.52	**.013**

Table 6.11.

Stepwise Regression Predicting FWC Multiple Item

Model	Unstandardised Coefficients		Standard Coefficients		
	B	Std. Error	Beta	t	Sig.
(constant)	19.18	3.14		6.10	**.000**
Current Position at Work	.89	.33	.26	2.71	**.008**
Negative Coping	-.23	.08	-.27	-2.79	**.006**
Positive Coping	.39	.15	.24	2.56	**.012**

6.3.5. Summary, Discussion, and Conclusion of the Nigerian Occupational Study

The first thing to be highlighted from the above results is that the established effects were mostly retained – with the negative established predictors predicting negative outcomes and positive predictors, positive outcomes. These could be suggestive of the well-being process, as explained by the DRIVE model, as being one that is generally consistent irrespective of national and cultural differences. More specifically, based on the stated aim of this study, the findings from the current study, when compared to their White British counterparts, show that cultural differences have little

or no impact on the established effects. This is surprising, considering that these societies have contrasting values. Thus, these similarities could be a consequence of imbibing western values. This is particularly plausible when considering that not less than 47.1% of the sample had post-graduate educational qualifications, and the educational system in Nigeria is largely based on western ideals.

The stepwise regressions, however, show some interesting findings. For instance, the established effects for the prediction of negative outcomes were retained. This also happened with the White British workers. However, one key difference in the stepwise regressions for the White British workers is that both the single and multiple items of WFC predicted negative well-being outcomes, while in the current study, both the single and multiple items of FWC predicted negative outcomes. This suggests that for the British sample, work interfering with family duties and commitments led to negative outcomes, and in the Nigerian sample, family interfering with work led to the experience of negative outcomes. This is an important cultural difference that needs to be explored. These differences possibly highlight which aspect of the work-family interface each society prioritises – work for the White British and family for the Nigerian. This may have something to do with the United Kingdom being an individualist society and Nigeria being a collectivist one. Individualist cultures tend to have a high focus on the needs of the individual and, as such, place a high premium on personal success and achievement (Hofstede, Hofstede, and Minkov, 2010). This sometimes comes at the cost of personal relationships, including familial ones. In such cases, WFC will not come as a surprise as work will most often take precedence over family. On the other hand, Nigeria being a collectivist culture means that people are often under pressure not just from their immediate families but from extended families, which impedes the fulfilment of work and career goals and ambitions. In this sort of situation, experiencing FWC is highly possible. This is evident by the fact that the Nigerian sample has a high number of people (65%) administering care for family members who are not their children. Therefore, WFC may be one of the key predictors of negative outcomes in the White British workers and FWC in Nigerian workers because of the individualism-collectivism cultural differences. Another reason for these findings is the relatively high number of the White British sample who have managerial responsibilities for more than 25 staff. Managerial roles tend to be very demanding in terms of time and effort and are likely to lead to situations of WFC. However, it is more likely that factors relating to the individualism-collectivism values have a strong influence on which of the conflicts is more prominent in these societies.

Again, stepwise regressions predicting WFC in the Nigerian occupational sample showed that both scales (single and multiple) were predicted by negative work characteristics and negative coping. These results were similar to those of the White British workers in that negative work characteristics were significant predictors and different in that negative coping did not predict WFC. Thus, the results from the studies agree that WFC is predicted by negative established predictors. Furthermore, negative work characteristics (like work pressure, etc.) led to WFC in both societies with the addition of negative coping behaviours (including escape avoidance, etc.) for the Nigerian cohort. It seems logical that negative work characteristics will predict WFC. One of the components of negative work characteristics is high job demand which could include demands on time that make it harder or impossible to perform family responsibilities. It, therefore, follows that negative work characteristics should predict WFC in both societies. However, negative coping was also a predictor in the Nigerian sample and not the White British one. This could be because negative coping exacerbated the situation and hence was a co-predictor of WFC. Stepwise regressions predicting FWC also showed that there were no predictors among the Nigerian workers as opposed to their White British counterparts. This could be because FWC was a cause rather than a consequence of well-being issues in the Nigerian sample as opposed to the White British Sample, where it was both a cause and a consequence.

6.4. Student Sample

6.4.1. University Education in Nigeria

Modern education in Nigeria has its roots in the work of religious missionaries and colonial administrators (Adelabu, 1971; Ajayi, 1975; Fafunwa, 1977). It attempted to replace the ages-old pre-existing traditional form of education, which integrated "physical training", "character-building" "manual activities", and "intellectual training" to prepare and subsequently initiate children into adulthood by training Nigerians to further the mission work and provide a competent indigenous workforce for the colonial administration, thus creating an elite middle-class group (Adelabu, 1971; Fafunwa, 1977, p. 16).

Indeed, the influence of colonialism on the Nigerian educational system, as it stands, cannot be overstated. Evidence of this is provided by Ajayi, 1975 (p. 423), who states:

> *Outwardly, Nigerian Universities seem very much like the British ones from which they have derived so much inspiration. Their statuses and government structures are similar; they share the ideals of University Councils and Senates and maintenance of standards through the institution of external examiners*.

The first university in Nigeria was the University College, Ibadan (known as the University of Ibadan since 1962), which was founded in 1948 by the British Colonial Government as a college of the University of London (Fafunwa, 1977; University of Ibadan, 2021). As universities in the UK, Nigerian university degrees are classified into: first class, second class upper, second class lower, third class, and pass, with the grade classifications, based on marks obtained, approximately the same. University administration is also quite similar, with the Vice-Chancellor as the chief executive, the senate in charge of academic affairs, and the council in charge of the strategic running of the institution. The career pathway for the academic is also roughly similar with the starting point typically as an Assistant Lecturer and peaking at Professor. Some of these similarities are a consequence of what some (e.g., Ashby, 1964) had criticised as the narrow-mindedness of the colonial government when the first universities were set up by transplanting a British concept into an African context without catering for the latter.

While universities in both Nigeria and the UK are autonomous, there are some differences. The majority of the universities in the UK are publicly owned and receive funds through Government grants, endowments, etc. (Universities UK (UUK), 2016). Universities in Nigeria are either Government-owned (federal or state) or privately-owned (by private individuals or religious organisations). There are 192 universities in Nigeria: 93 Government-owned and 99 privately-owned (National Universities Commission (NUC), 2021). The ownership structure of these universities implies that they look to their proprietors for the majority of their funds. For the Government-owned universities, this has been a source of friction between staff unions and the government(s)/universities, leading to frequent industrial actions, especially as they are heavily subscribed, and the fees paid by students are relatively low. For the privately-owned institutions, very high fees are charged to offset staff salaries and other expenses. Another feature of the Nigerian University system is the limited use of Information Technology, including Learning Management Systems, and this cuts across private and Government-owned universities (Ekundayo, 2012). This means that students in Nigerian universities have restricted access to ICT compared to students in the UK and other western countries.

6.4.2. Sample Description

The sample for this study was pooled from university undergraduates of Nigerian origin from different universities across the country. One hundred thirteen of the completed questionnaires met the inclusion criteria, with males as 63.7% of the sample. The ages of the respondents ranged from 17 to 42 (mean age: 23.18).

Table 6.12.

Nigerian Students' Sample Description

Demographic Characteristic	Number
Age	17-42 Mean=23.18
Gender	Male 72 (63.7%) Female 41 (36.3%)

The Nigerian students (mean age= 23.18) were older than the White British students (Mean age= 19.19). While the white British sample comprised a majority of female students (84.1%), the Nigerian sample was mostly male (63.7%).

6.4.3. Materials (Instruments)

The data collection instruments used for the Nigerian students are almost identical to those used for the White British Students in ***4.3.2.*** The difference is that the resilience scale, CD-RISC 2, was removed for reasons previously explained – the lack of similarity between the longer and shorter resilience scales in the White British samples. In the following sections, the scales used in this study will be briefly summarised.

6.4.3.1 The Student WPQ

The Student WPQ (Williams, Pendlebury, Thomas, and Smith, 2017) was designed to measure well-being issues peculiar to university students. As described in ***4.3.2.1.***, the student WPQ has a set of predictors, the established predictors: conscientiousness, positive personality, negative coping, social support (ISEL factors; Cohen, Mermelstein, Kamarck, & Hoberman, 1986), and student stressors (ICSLRE; Kohn, Lafreniere, & Gurevich, 1990; Bdenhorn, Miyazki, Ng, and Zalaquett, 2007) predicting negative well-being outcomes and positive well-being outcomes. Together, these were known as the established effects because they were observed in many studies with the student WPQ.

6.4.3.2. Single Items on Work-Life Balance

These single-item scales were developed for both WFC and FWC. However, these scales were developed specifically for students to measure interferences between their university work and other areas of their lives like part-time work, family, and social or romantic relationships (etc.). ***4.3.2.3*** provides details.

6.4.3.3. Single-Items on Burnout

These were the same single burnout items developed for the occupational samples.

6.4.4. Analyses

6.4.4.1. Multiple Regressions

Multiple linear regressions were performed to know if the established effects for the student WPQ were replicated in the Nigerian university undergraduates. Details of these analyses predicting the negative and positive well-being outcomes have been described in ***4.4.3.1.***

6.4.4.2. Stepwise Regressions

Following the linear regressions, multiple regressions were performed to develop models to predict negative outcomes, positive outcomes, WFC, FWC, emotional exhaustion, depersonalisation, and personal accomplishment, respectively. The stepwise regressions performed on the Nigerian student sample were very similar to those carried out for the White British Student sample in ***4.4.3.2.,*** the only difference is that resilience was excluded from the analyses for reasons earlier explained.

6.4.5. Results

6.4.5.1. Established Effects

Negative Outcomes

The results are presented in Table 6.13. show that all the established predictors except conscientiousness predicted negative well-being outcomes in the Nigerian undergraduate sample. These are similar to the findings for the White British Students in ***4.3.4.1,*** except that social support was found to be a non-significant predictor of the negative outcomes in the White British sample.

Table 6.13.

Established Effects for Nigerian Students (Negative Outcomes)

	Unstandardised Coefficients		Standard Coefficient		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	38.79	6.56		5.92	**.000**
Positive Personality	-.30	.11	-.26	-.28	**.006**
Negative Coping	.64	.16	.32	3.95	**.000**
Conscientiousness	-.38	.24	-.14	-1.62	.108
Student Stressors	.19	.08	.20	2.40	**.018**
Social Support	-.20	.09	-.17	-2.18	**.032**

Positive Outcomes

Positive personality, conscientiousness, and social support all significantly predicted positive well-being in Nigerian students. Table 6.14. presents these findings in detail. Comparing with the findings of the White British students shows that both samples had all three predictors in common – signifying some similarity in the well-being process in both samples.

Table 6.14.

Established Effects for Nigerian Students (Positive Outcomes)

	Unstandardised Coefficients		Standard Coefficient		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	5.74	2.55		2.56	**.026**
Positive Personality	.11	.04	.24	2.61	**.010**
Negative Coping	.08	.06	.10	1.23	.223
Conscientiousness	.20	.09	.19	2.16	**.033**
Student Stressors	-.01	.03	-.04	4.32	.666
Social Support	.18	.04	.41	5.08	**.000**

6.4.4.2. Stepwise Regressions

Negative Outcomes

The findings, as displayed in Table 6.15. show that all the established effects for the prediction of negative outcomes in ***6.4.4.1.*** were retained. These findings, however, slightly differed from the White British students who had positive personality, negative coping, and student stressors in common with the Nigerian students as predictors but had WFC and resilience as other significant predictors of negative outcomes.

Table 6.15.

Stepwise Regression Predicting Negative Outcomes in Nigerian Students

	Unstandardised Coefficients		Standard Coefficient		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	33.67	6.67		5.05	**.000**
Positive Personality	-.36	.10	-.30	-3.64	**.000**
Negative Coping	.61	.16	.30	3.79	**.000**
Student Stressors	.19	.08	.20	2.42	**.017**
Social Support	-.22	.09	-.19	-2.37	**.020**
WFC	.58	.27	.17	2.15	**.034**

Positive Outcomes

As in the stepwise regression for negative outcomes, all the established effects for positive outcomes in ***6.4.4.1***.: conscientiousness, social support, and positive personality were retained as significant predictors for positive outcomes. These findings replicate similar stepwise regression for the prediction of positive outcomes among the White British students, which had the same set of predictors. (see ***4.4.4.3.***).

Table 6.16.

Stepwise Regression Predicting Positive Outcomes in Nigerian Students

	Unstandardised Coefficients		Standard Coefficient		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	6.59	1.82		3.63	**.000**
Social Support	.19	.04	.43	5.35	**.000**
Positive Personality	.11	.04	.24	2.77	**.007**
Conscientiousness	.20	.09	.19	2.22	**.029**

WFC

There were no prediction models for WFC in this study.

FWC

Conscientiousness was the only predictor retained in the stepwise model for the prediction of FWC in Nigerian students (see Table 6.17. for details). Comparing these results to those of similar regressions for the White British student group showed that although both student groups had conscientiousness in common, the White British cohort also had gender, student stressors, and negative coping as predictors of FWC.

Table 6.17.

Stepwise Regression Predicting FWC in Nigerian Students

	Unstandardised Coefficients		Standard Coefficient		
Model	**B**	**Std. Error**	**Beta**	**t**	**sig**
(Constant)	6.79	.89		7.67	**.000**
Conscientiousness	-1.39	.07	-.20	-2.10	**.038**

Burnout

Each component of burnout was placed as an outcome of stepwise regressions.

Emotional Exhaustion

Negative coping and WFC were the only significant predictors of emotional exhaustion. Table 6.18. presents the results in detail. These findings show no similarity with those of the White British students in ***4.4.4.3.***

Table 6.18.

Stepwise Regression Predicting Emotional Exhaustion in Nigerian Students

	Unstandardised Coefficients		Standard Coefficient		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	.46	1.07		.43	.671
Negative Coping	.16	.05	.29	3.24	**.002**
WFC	.24	.09	.25	2.86	**.005**

Personal Accomplishment

The results are presented in Table 6.19. show that positive personality, student stressors, negative coping, and WFC all significantly predicted personal accomplishment in Nigerian students. Positive personality was the only predictor common to both the Nigerian and White British Student samples (see ***4.4.4.3.****)*

Table 6.19.

Stepwise Regression Predicting Personal Accomplishment in Nigerian Students

	Unstandardised Coefficients		Standard Coefficient		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	.95	1.65		1.30	.195
Positive Personality	.10	.03	.32	3.69	**.000**
Student Stressors	-.06	.02	-.26	-2.94	**.004**
Negative Coping	.11	.04	.22	2.70	**.008**
WFC	.20	.07	.23	2.75	**.007**

Depersonalisation

Table 6.20. shows that student stressors and FWC were the only significant predictors of depersonalisation among Nigerian students. Comparing this finding with a similar analysis in ***4.4.4.3.*** of the White British students showed that in addition to student stressors, depersonalisation in White British students was also predicted by social support and WFC.

Table 6.20.

Stepwise Regression Predicting Depersonalization in Nigerian Students

	Unstandardised Coefficients		Standard Coefficient		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	.81	.90		.91	.365
Student Stressors	.05	.02	.21	2.27	**.025**
FWC	.26	.09	.25	2.79	**.006**

6.5.5. Summary, Discussion, and Conclusion on Nigeria University Student Study

As was the case in the occupational sample, the established effects were replicated in the students' study. This gives credence to the well-being process, as described by the DRIVE model. It also suggests that the model outlines the well-being process both in occupational samples as well as in

undergraduate samples. Thus, further proving the well-being process to be similar for both sets of samples.

Comparing the established effects for the Nigerian Students in the current study and the White British in chapter 4 reveals a very striking similarity both for the negative and positive well-being outcomes. The only difference was that social support predicted negative outcomes in the Nigerian students in addition to the predictors of the same in the White British students. This finding is significant in the context of a cross-cultural study in the sense that it shows that lack of support from colleagues, parents, etc., predicted negative outcomes. As Nigeria is more of a collectivist society, this finding makes sense and appears to sit well with its cultural context. The stepwise regressions predicting both well-being outcomes in addition to retaining the established effects also replicated the findings from the White British student study while the Nigerian cohort had social support as a predictor for negative outcomes. Therefore, piecing together and comparing the findings from the linear and stepwise regressions for negative and positive well-being outcomes in both the Nigerian and White British samples suggest that while the well-being process in both samples is very similar, social support plays a pivotal role in the prediction of negative well-being for Nigerian students as should be expected in a collectivist society.

The stepwise regression predicting WFC in the Nigerian students showed no significant predictions. This is as opposed to the White British study that showed positive personality and student stressors as predictors. This comparison accentuates what seems to be a big difference between the White British and Nigerian samples. These results seem to suggest that WFC was not a well-being outcome for the Nigerian students; rather, it was only a well-being predictor.

Conscientiousness had a negative relationship with FWC. The implication of this was that students who scheduled their time wisely did not experience occasions when other activities prevented them from doing their university work. This finding was common to both the Nigerian and White British samples. Gender was also a significant predictor for the White British cohort. This is a possible consequence of the disproportionate representation of females in the White British sample.

The stepwise regressions for emotional exhaustion in the Nigerian and White British samples showed different sets of predictors for each sample. While WFC and negative coping were the predictors for the current sample, positive personality, FWC, and resilience were the significant predictors in the White British Sample. As resilience was dropped in the current study, there is no way to know what role, if any, it will have played in the prediction of emotional exhaustion. These findings present some conflicting cultural paradigms. For instance, having a positive outlook on life reduces the likelihood of being burned out (emotionally exhausted) for the White British students, while coping behaviours like wishful thinking escape/avoidance will lead to its increase among Nigerian students. It could be argued that an individual with positive personality traits is unlikely to have negative coping traits. Therefore, the findings from both samples point to approximately the same thing.

Still, on the findings from both studies that oppose each other, while WFC predicted emotional exhaustion in the Nigerian cohort, FWC was its predictor for the White British students. These findings seem to highlight fundamental differences between both samples: while university work interfering with other aspects of the Nigerian student life predicted emotional exhaustion, other aspects of life interfering with university work predicted it in the White British. The common factor in the two studies is that when one aspect of the interface interferes with the other, emotional exhaustion will occur. However, it also highlights the source of the conflict – university work for the Nigerians and other aspects of life outside university work for the White British. WFC for Nigerian students could be in the form of university work taking so much time, attention, and focus such that the student cannot attend

to roles, responsibilities, and duties in their families, for example, and this subsequently results in friction in relationships. If this continues to happen over time, it could lead to emotional exhaustion. On the other hand, FWC in the White British students could be a consequence of having rich relationships that are excessively demanding and interfering with university work and causing emotional exhaustion.

Similarly, depersonalisation was predicted by student stressors in both the Nigerian and White British studies, and it was additionally predicted in the stepwise regressions by FWC and WFC, respectively. These results, in addition to emphasising the important role played by student stressors in the prediction of depersonalisation, also highlighted how conflicts in the interface between university work and other activities affected well-being. FWC and student stressors predicted depersonalisation in Nigerian students, while WFC and student stressors predicted it in the White British student sample. In the regression predicting emotional exhaustion, the WLB variable predictors were reversed between both samples, i.e. WFC for Nigerians and FWC for White British. Apart from reiterating the pivotal nature of interface conflicts on well-being and particularly burnout, these results show what seems like crucial cultural differences between both samples. On both occasions, opposing conflicts predicted the same burnout outcome. These findings could be indicative of cultural differences influencing the direction of the conflict and subsequently resulting in burnout.

Positive accomplishment is the only 'positive' component of burnout, as postulated by Maslach and Jackson (1980). Unlike emotional exhaustion and depersonalisation, a high level of personal accomplishment is an indicator of positive well-being. It signifies satisfaction in one's professional accomplishments. It, therefore, comes as no surprise to find that it was predicted by positive personality in the stepwise regressions for both the Nigerian and the White British student studies. Recall from chapter 3 that positive personality is a composite of self-efficacy, self-esteem, and optimism. Therefore, it follows that positive accomplishment should transcend cultural boundaries to predict personal accomplishment. However, a positive personality was the only predictor they had in common. For the Nigerian student cohort, the other predictors were student stressors, negative coping, and WFC. For the White British students, the other predictors of personal accomplishment apart from positive personality were social support and conscientiousness. Comparing these results show that other than positive personality, the predictors of personal accomplishments in the two samples were very different. This could be indicating that the paths to personal accomplishment in both samples are very different. These findings could be underscoring key influences of cultural differences on the well-being process in the samples. Future research should delve into these more to tease out the fine details behind such findings.

6.6. Discussion of Findings

The studies in this chapter detailed the investigations into the well-being of Nigerian occupational and student samples. One commonality of both studies is that the established effects were mostly retained. Thus, proving the DRIVE model to be correct in the prediction of well-being in both occupational and university undergraduate samples. These findings are particularly important as, to the best of the researcher's knowledge, this is the first time the DRIVE model has been used to investigate well-being in any Nigerian sample. Comparing the results in these studies with those from other research using the same model in other cultures (e.g. Jamaican, Kuwaiti, and White British) yields similar results. These similarities point out two things. Firstly, the well-being process in occupational and student samples is quite similar across cultures. Secondly, the well-being process postulated in the DRIVE model probably transcends cultural boundaries.

However, the current results also highlight some key cultural differences in the well-being process. These differences have especially been accentuated by the 'new variables,' i.e., work-life balance and burnout. For example, in the stepwise regressions predicting negative outcomes in both samples (i.e., Nigerian occupational and student samples), WLB variables predicted negative outcomes in both cases. In the White British occupational sample, both the single and multiple items of WFC significantly predicted negative outcomes, whereas the same regressions for the Nigerian workers showed FWC (single and multiple items) as significant predictors. Likewise, for the Nigerian student sample, WFC was one of the significant predictors unique to that study. Overall, these findings seem to emphasise the importance of the work-non work interface in the prediction of negative well-being outcomes in the Nigerian samples. However, one may argue that the interface played a key role in the prediction of negative outcomes in the White British Occupational sample as well, since WFC was a significant predictor. However, as the results show, the conflicts in the work-family interface were counter to each other in the White British and Nigerian samples. Then while WFC was a significant predictor for the Nigerian students, it was not in the White British Students. In fact, neither did the FWC play such a role in the prediction. Summarily, while WLB significantly predicted negative outcomes in both the Nigerian occupational and student samples, it only played a key role in the prediction of similar outcomes in the White British workers and not the White British students.

6.7. Chapter Summary and Conclusion

In this chapter, an attempt has been made to link cultural differences to well-being. More importantly, comparisons were made between the two countries based on the values identified in Hofstede's IBM studies and the World Values Surveys. These comparisons show that both societies are very different. In fact, for most of the value pairs, both countries were opposite – indicating contrasting values. Even in cases where both countries were located on the same side of the value pair, the differences were still glaring. For instance, for the Long-Term Orientation vs the Short-Term Orientation value pair, both the Nigerian and UK societies were adjudged to have short term orientation. However, while the UK had a short-term orientation, Nigeria had a *very* short-term orientation.

Based on these obvious value differences, one would have expected very different well-being processes in the Nigerian and British samples. Surprisingly, the Nigerian samples studied in this chapter yielded results that were very similar to those obtained in the White British samples in chapter 4. The Nigerian studies detailed in this chapter showed that the established effects were largely retained for both the occupational and student samples. Thus, indicating a level of similarity between the two countries. These levels of similarity notwithstanding, some differences between both countries were observed when the 'new variables' were introduced. These differences particularly had to do with the direction of conflict in the work-family interface. On some occasions, the conflicts in the interface were working in different directions while predicting the same outcomes in both countries. In summary, comparing the findings from both samples indicated high levels of similarity between the Nigeran and White British samples which was quite unexpected, but cultural differences seem to affect how and which conflicts in the work-family interface predicted well-being outcomes.

So far, in this thesis, we have studied and compared well-being between samples that are 'ethnically indigenous' to their countries of residence. We are yet to study those who migrated voluntarily or against their will or whose parents or ancestors did. For this set of people, additional cultural differences may be germane to their well-being. In the next chapter, we investigate the well-being of Ethnic-minority workers and university undergraduates in the UK.

Chapter 7: Ethnic Minorities Studies

7.1. Chapter Introduction

This chapter aims to investigate the well-being of ethnic minorities in the United Kingdom. The first objective of the research presented in this chapter is to ascertain if the established effects of the WPQ (the prediction of negative and positive well-being by positive work characteristics, negative work characteristics, positive coping, negative coping, and positive personality) were replicated in Ethnic Minorities occupational sample and also to find out if the established effects of the Student WPQ (the prediction of negative and positive well-being by social support, conscientiousness, student stressors, positive personality, and negative coping) were retained in the student sample. The second objective of the research in this chapter was to investigate the role of cultural differences (perceived racial discrimination, ethnic identity, and acculturation strategies) in the well-being of ethnic minorities samples. Finally, the third objective was the comparison of longer and shorter items of the aforementioned cultural difference variables to develop a cultural difference iteration of the WPQ.

7.2. Linking Cultural Differences with Well-being

Some psychologists have criticised how cross-cultural psychology has been linked to mainstream psychology. Betancourt and Lopez (1993) mentioned how some studies which were purportedly cross-cultural in nature used cultural variables merely as descriptors. They mention a major weakness of cross-cultural research as being the tendency for researchers to establish cross-cultural differences on certain issues without specifically pinpointing the actual variables responsible for these differences. As a solution to this and to integrate cross-cultural psychology and mainstream psychology to yield more robust studies, they suggested two possible strategies: the bottom-up approach and the top-down approach. The bottom-up approach starts with the cultural variables and subsequently incorporates variables from mainstream psychology. The top-down approach takes the directly opposite path by beginning with mainstream psychology, then incorporating cultural differences. The studies in this chapter used the top-down approach. In this case, the main theoretical framework is the Demands-Resources Individual Effects (DRIVE) model (Mark and Smith, 2008). The flexibility of the DRIVE model has been discussed in previous chapters. This flexibility allows for the addition of variables based on the focus of the study – in this case, cultural differences. Hence, in the studies in this chapter, perceived racial discrimination, ethnic identity, and acculturation strategies are incorporated into the DRIVE model as predictor variables.

7.2.1. Cultural Differences Predicting Well-being

Smith et al. (2005) found ethnicity to be related to the incidence of stress, i.e. that people from some ethnic groups are more prone to stress than people from other ethnic groups. Specifically, they found that Black Caribbeans were more susceptible to work stress than White British and Bangladeshi people. It is noteworthy, however, that stress meant different things to different people (for instance, while the Bangladeshis defined stress in terms of job demands and characteristics, the black Caribbeans defined it more in terms of the social climate at work). Interestingly, the study showed that when Black Caribbean women experienced racial discrimination, they were more likely to experience high stress.

This particular finding linking racial discrimination and stress also ties in with that of Likupe and Archibong (2013), who showed that perceived racial discrimination against Black African migrant nurses led to feelings of distress as well as physical health problems. Again, Smith et al. (2005) found that white males who had experienced racial discrimination were also more likely to experience psychological distress, as were White and Bangladeshi women who had not experienced discrimination. Upon further analysis, when ethnicity was removed, gender and racial discrimination

were linked to psychological distress, with women who were being racially discriminated against more likely to experience psychological distress. In their study, Capasso, Zurlo, and Smith (2016b) found that over half of the migrant workers who reported being racially discriminated against experienced anxious-depressive disorders. These studies appear to draw a clear link between racial discrimination and negative well-being.

Caribbeans were also found to have a 60% higher incidence of depression than the white British populace (Nazroo, 1997a). Furthermore, Nazroo (1997b) stated that "Caribbeans were far more likely than other ethnic minority groups to report tiredness or that they lacked energy, and Bangladeshis were less likely" (p. 22) and "that over half of the Caribbean women reported that they suffered from tiredness or lack of energy, a third reported having problems with sleep, and three out of five of them reported they suffered from either of these" (p. 22). Finally, Nazroo (1997b) explained that although the Caribbeans seemed to suffer physical health problems at significantly lower rates than the whites, the difference between incidence levels of both groups was not very high. Smith et al. (2005) showed that ethnicity was not significantly linked with poor health but also highlighted "a possible trend towards poorer health among the Black Caribbean group, particularly males who had experienced racial discrimination" (p. 45). These reports suggest that ethnicity, in this case being from the Caribbean, is linked to ill health, which is probably a consequence of racial discrimination or exacerbated by it.

Although Smith et al. (2005) established a direct route between ethnicity and work stress, their work also showed that the relationship between work characteristics and work stress was similar across ethnicities. These have implications. Firstly, that ethnicity could be a predisposing factor to well-being issues. Secondly, that well-being is probably an objective process that itself has nothing to do with ethnicity.

Higher ethnic identity scores were associated with lower levels of psychological distress (Smith et al., 2005). In terms of acculturation strategies, for the Bangladeshis, for language, integrated as opposed to marginalised, was linked to psychological distress. In the same sample, integrated as opposed to traditional clothing was linked to psychological distress, whereas the direct opposite was the case for the Black Caribbean samples, i.e. traditional clothing was associated with psychological distress.

7.2.2. The approach employed in the present study

The approach used in measuring the influence of cultural differences on the well-being process is relatively similar to that used by Smith et al. (2005). The similarities stem from studying how cultural differences (perceived racial discrimination, ethnic identity, and acculturation strategies) were associated with well-being outcomes. One of the well-being outcomes considered was work stress which was measured using the DCS and ERI frameworks, which were important in the development of the DRIVE model.

Although the approaches were quite similar, there were also differences. For instance, the current study made use of the DRIVE model, which is based on the ERI and DCS models, but the DRIVE model tackled one of the main challenges of both models. One key weakness of both models, as discussed earlier in this thesis, is that they do not take account of the individual differences, whereas the DRIVE model emphasises the role of individual differences in the well-being process.

The well-being outcomes studied by Smith *et al.* (2005) were work stress, psychological distress, depression, and anxiety, which are all negative outcomes. In the current study, the DRIVE model allowed both negative and positive well-being outcomes to be investigated. And, as has been emphasised at various points in this thesis, well-being is best studied as a holistic concept consisting

of both negative and positive aspects which are not necessarily opposite of each other - although the approach of aggregating the outcomes into positive and negative outcomes could be faulted as not giving direct links to stress, depression, life satisfaction, etc.

Thirdly, while the Smith et al. studies only restricted their research to Black Caribbeans, Bangladeshis, and White British, the current studies attempted a wider coverage of ethnic minority groups in the UK, although the sample sizes were smaller. Also, the current research studied workers and student samples as opposed to Smith et al.'s samples that were only occupational.

7.3. Occupational Sample

7.3.1. Sample Description

Ethical approval for this study was granted by the Cardiff University School of Psychology Ethics Committee. Each participant gave informed consent and was told that they were free to skip any question they did not want to answer or to leave the study at any point. The sample for this study comprised 110 adults from ethnic minorities living and working across the United Kingdom (UK). This sample size has previously been proven to be sufficient to observe a medium effect. They were recruited online from the Qualtrics volunteer panel and were subsequently paid for their participation. The females were slightly more than the males making up 54.5% of the sample. The participants were aged 19-62, with a mean age of 34.56 (SD, 10), and were from different ethnic groups, including black African or Caribbean, Pakistani, Arabs, Latin, etc. Most (22.7%) identified themselves as being of mixed ethnic heritage, closely followed by Indians (20.9%) and Black Africans (18.2%). They had been residents in the UK for 1 to over 60 years.

Most of them (50.9%) were married, with 12.7% living with their partners and 30.9% indicating they were single. The rest were either widowed or divorced. 50.9% had children, while 23.6% had other family members they were looking after other than their children. 75.5% worked full-time (i.e. 30 hours or more every week), 80% had permanent job contracts, and 45.5% were employees without any managerial or supervisory responsibilities. 37.3% had a higher degree or professional qualification, and 27.3% were educated to Bachelor's degree level.

Putting ethnic minorities together and studying them as a group may lead to the mistaken idea that they are being treated as a homogenous group. Previous research (e.g. Jones, 1996; Madood et al. 1997, Nazroo, 1997a, 1997b) shows that the experiences of some groups are in sharp contrast to the experiences of others. However, studying the ethnic minorities in this way provides a window into their general well-being, especially relative to the white population.

Table 7.1.

Demographic Description of the Ethnic Minorities Occupational Sample

Demographic Characteristic	Number
Age	19-62 Mean=34.56 (SD=10)
Gender	Male 50 (45.5%) Female 60 (55.5%)
Ethnicity	Black African 20 (18.2%) Black Caribbean 9 (8.2%)

	Black Neither Caribbean nor African 1 (0.9%) Indian 23 (20.9%) Pakistani 8 (7.3%) Bangladeshi 4 (3.6%) Chinese 8 (7.3%) Mixed 25 (22.7%) Arab 1 (0.9%) Asian 2 (1.8%) Black British 1 (0.9%) Irish Traveller 1 (0.9%) Latin 1 (0.9%) Other 1 (0.9%) Singaporean 1 (0.9%) Thai 1 (0.9%) Vietnamese 3 (2.7%)
Number of Years Resided in the UK	1-62 years
Marriage/Relationship Status	Single 34 (30.9%) Married 56 (50.9%) Cohabiting/Living with Partner 14 (12.7%) Widowed 2 (1.8%) Divorced 4 (3.6%)
Having Children	Yes 56 (50.9%) No 54 (49.1%)
Caring for other family members other than children	Yes 26 (23.6%) No 84 (76.4%)
Full-Time Work vs Part Time Work	Full time 83 (75.5%) Part Time 26 (23.6%) Missing 1 (0.9%)
Type of Contract	Permanent 88 (80%) Temporary/Casual 17 (15.5%) Fixed Contract 5 (4.5%)
Current Position at Work	Self-employed (25+ employees) 12 (10.9%) Self-employed (less than 25 employees) 5 (4.5%) Self-employed (no employees) 9 (8.2%) Manager (25+ employees) 15 (13.6%) Manager (less than 25 employees)13 (11.8%) Supervisor 6 (5.5%) Employee 50 (45.5%)
Highest Educational Qualification	None 3 (2.7%) GCSE/O'Level 12 (10.9%) AS Level/SCE 15 (13.6%) BA/BSc 30 (27.3%)

	Higher Degree/ Professional Qualification 41 (37.3%)
Shift Working	Yes 35 (31.8%) No 75 (68.2%)

7.3.2. Material (Instruments)

7.3.2.1. WPQ/SWELL

The Well-being Process Questionnaire (WPQ; Williams, 2015) and the Smith Well-being Questionnaire (SWELL; Smith and Smith, 2017a) were developed from the DRIVE model (Mark and Smith, 2008). Both questionnaires are very similar, with the main difference being that the latter is more suited than the former to measure well-being in an organisation (Smith and Smith, 2017b). The WPQ and SWELL were used to study multivariate relationships between the established predictors and the positive and negative well-being outcomes. These relationships were called **established effects**. The established predictors were positive work characteristics, negative work characteristics, positive personality, positive coping, and negative coping. These predictors and outcomes have been fully explained in ***4.3.2.1.***

However, the composition of **negative outcomes** in the current study is quite different from the previous studies in this thesis. The previous studies have shown that work-life balance (Work-Family Conflict, WFC and Family-Work Conflict, FWC) and burnout (emotional exhaustion and depersonalisation) were related to the negative aspect of well-being. Further analysis in the current study, specifically factor analysis (after correlations had been performed between the single items and their respective multiple item scales), showed these components to load on to negative outcomes. *Therefore, scores from these single-item variables were included in the negative outcome score*.

7.3.2.2. Work-Life Balance

Both single and multiple item scales of WFC and FWC were used in this study. The multiple item scales were developed by Netameyer, Boles, and McMurrian (1996). The single items have also been previously described. For a detailed description of both scales, see 4.2.2.4. and 4.2.2.5., respectively.

7.3.2.3. Burnout

Each of the three components of burnout was measured by single and multiple items, respectively. The Maslach Burnout Inventory (MBI; Maslach and Jackson, 1980) served as the multiple-item scales while the single-item scales were self-developed. See both scales in 4.2.2.2. and 4.2.2.3., respectively

7.3.2.4. Perceived Racial Discrimination Single Item

Perceived racial discrimination was measured by answering yes or no to the question: "*Have you encountered any discrimination at work as a result of your ethnicity? (for example, not getting a promotion, experiencing some form of bias, etc.)*". This item had been featured in studies investigating the relationship and well-being (e.g. Smith et al., 2005). It had also been used in studies with the DRIVE model. It was thus used to measure perceived racial discrimination in this study.

31% of the sample in this study claimed to have experienced racial discrimination at work.

7.3.2.5. Single and Multiple Item Scales for Ethnic Identity Measurement

The Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) was used to measure ethnic identity in the current study. It was developed to measure aspects of ethnic identity common to different ethnic groups. Phinney postulated ethnic identity to be composed of four sub-components, three of which were studied in this research: affirmation and belonging, ethnic identity achievement, and

ethnic behaviours. Although the MEIM allows for the computation of an ethnic identity score, this study will measure ethnic identity using these three individual subcomponents.

The single items were developed from these three components of ethnic identity with the 'principles' of the WPQ in mind, i.e. using a statement that best captures the construct of interest and putting explanatory statements in parenthesis to provide further clarification. Also, the questions were assigned scores of 1-10 (1=low, 10= high). As previously mentioned, the MEIM was developed to measure aspects of ethnic identity common to all ethnic groups. This is particularly important in situations like the current study where the ethnic minorities are studied as one group. In this sort of situation, the focus should be on the features various ethnicities have in common rather than the differences. The MEIM meets this requirement

Both scales are presented below.

Table 7.2.

MEIM Scales (Phinney, 1992)

Variable	Items and Scores
Ethnic Identity Achievement	I have spent time trying to find out more about my ethnic groups, such as their history, traditions, and customs. 1234 Strongly Agree Strongly Disagree I have a clear sense of my ethnic background and what it means for me. 1234 Strongly Agree Strongly Disagree I think a lot about how my life will be affected by my ethnic group membership. 1234 Strongly Agree Strongly Disagree I am not very clear about the role of ethnicity in my life. **REVERSE SCORED** 1234 Strongly Agree Strongly Disagree I really have not spent much time trying to learn more about the culture and history of my ethnic group**. REVERSE SCORED** 1234 Strongly Agree Strongly Disagree I understand pretty well what my ethnic group membership means to me in terms of how to relate to my own group and other groups. 1234 Strongly Agree Strongly Disagree In order to learn more about my ethnic background, I have often talked to other people about my ethnic group. 1234 Strongly Agree Strongly Disagree
Affirmation and Belonging	I am happy that I am a member of the group I belong to 1234 Strongly Agree Strongly Disagree I have a strong sense of belonging to my own ethnic group. 1234 Strongly Agree Strongly Disagree

	I have a lot of pride in my ethnic group and its accomplishments. 1234 Strongly Agree Strongly Disagree I feel a strong attachment towards my own ethnic group. 1234 Strongly Agree Strongly Disagree I feel good about my cultural or ethnic background. 1234 Strongly Agree Strongly Disagree
Ethnic Behaviours	I am active in organisations or social groups that include mostly members of my own ethnic group. 1234 Strongly Agree Strongly Disagree I participate in cultural practices of my group, such as special food, music, or customs. 1234 Strongly Agree Strongly Disagree

Table 7.3.

Ethnic Identity Single Items

Variable	Item and Scores
Ethnic Identity Achievement	I have a clear sense of my ethnic identity (for example, I have spent time trying to find out more about my own ethnic group's traditions, history and customs; I have a clear sense of my ethnic background and what it means for me; I think a lot about how my life will be affected by my ethnic group membership; I understand what my ethnic group membership means to me, in terms of how to relate to my own group and other groups) 12345678910 Not at all proud Extremely Proud
Affirmation and Belonging	I am proud of my ethnic identity and heritage (for example, I am happy to be a member; I have a strong sense of belonging and attachment to my ethnic group; I am proud of my ethnic group and its accomplishments; I feel good about my cultural/ethnic groups) 12345678910 Not at all Very Clear
Ethnic Behaviours	I actively participate in the social and cultural practices of my ethnic group. 12345678910 Not at all Very Actively

7.3.2.6. Berry's Acculturation Schema

Berry (1997) postulated four possible acculturation strategies: assimilation, separation, integration, and marginalisation. Details of how these strategies were measured are presented below. The acculturation schema had been previously used in research with the DRIVE model (e.g. Capasso, Zurlo,

and Smith, 2018) to evaluate acculturation patterns of Italian migrant samples. Therefore, it was deemed suitable for the current study.

Table 7.4.

Berry's Acculturation Schema

Attitude	Item and Scoring
Own Culture	Is it considered to be of value to you to maintain your cultural identity and characteristics? 12345678910 Not at all Absolutely
Other cultures	Do you think it is important to maintain relationships with other ethnic groups? 12345678910 Not at all Absolutely

A score above 5 in both questions signified integration. A score above 5 in other cultures but lower than five on own cultures indicated assimilation. Separation was signified by a score above 5 in own culture but lower than 5 in other cultures; scores lower than 5 in both questions signified marginalisation.

The data shows that the majority (78; 70.9%) seemed to adopt the integration strategy, while 16 (14.5%) used the assimilation, 11 (10%) adopted the separation strategy; finally, 5(4.5%) appeared to make use of the marginalisation acculturation strategy.

7.3.3. Analyses

7.3.3.1. Correlations between Longer and Shorter Scales of Ethnic Identity

As one of the aims of the current study was to develop a short-item scale for the measurement of ethnic identity, the longer items of the components of ethnic identity as defined by Phinney (1992) – ethnic behaviours; affirmation and belonging; and ethnic identity - were correlated against corresponding single items. These analyses were done to measure the concurrent validity between both sets of items.

7.3.3.2. Multiple Regressions for Established Effects

As with the previous occupational samples, White British (chapter 4) and Nigerian (Chapter 6), multiple linear regressions were performed to ascertain that the established effects were replicated in the current study.

7.3.3.3. Stepwise Regressions

Stepwise regressions were performed for the prediction of positive and negative well-being outcomes to ascertain the role of the cultural difference variables in the prediction of well-being while controlling for demographic factors and established predictors. The rationale behind the choice of stepwise regressions for these analyses has been previously explained in ***4.3.3.3.*** Demographics were inputted into the first block, the established predictors in the second block, and the cultural difference variables (perceived racial discrimination, ethnic identity, and acculturation strategies) in the third block. These regressions were performed in pairs to conduct separate analyses for single and multiple items, respectively.

7.3.4. Results

7.3.4.1. Correlations between the Longer and Shorter Scales of Ethnic Identity

The findings from the correlational analyses between single and multiple item scales of the components of ethnic identity show that all the coefficients were between .70 and .75 (p<.001), indicating strong correlations based on Evans's (1996) criteria. The implication of this is that there appears to be a high similarity between the respective single and multiple items for each of the components. Table 7.5. presents these results in detail. Subsequent confirmation of the similarities of these single and multiple item scales will be done through stepwise regressions.

Table 7.5.

Correlations Between Longer and Shorter Scales of Ethnic Identity

Component	Correlation coefficient	p
Ethnic Identity	.75	**<.001**
Affirmation and Belonging	.71	**<.001**
Ethnic Behaviours	.70	**<.001**

7.3.4.1. Established Effects

Factor Analysis

Factor analysis was performed to investigate if WFC, FWC, emotional exhaustion, and depersonalisation could be streamlined to fewer outcomes or if all the aforementioned variables could be subsumed into the existing negative outcome variable. This was done using the Principal Component Analysis method. The variables all loaded on one factor, as only one of the factors had an Eigenvalue greater than 1. Table 7.6. below presents the extraction factors for these variables and negative well-being outcomes.

Table 7.6.

Extraction Factors for factor analysis for Negative Outcomes

	Initial	Extraction
WFC Single item	1.000	.630
FWC Single item	1.000	.524
Negative Outcomes	1.000	.750
Depersonalisation Single Item	1.000	.673
Emotional Exhaustion	1.000	.666

Negative Outcomes

The regression of the established predictors against the negative well-being outcomes yielded only two significant predictions (p <.001) – negative work characteristics and negative coping. Table 7.6. presents the full details of these findings.

Table 7.7.

Established Effects for Ethnic Minorities Workers (Negative Outcomes)

Model	Unstandardised Coefficients		Standard coefficients	t	Sig.
	B	Std. Error	Beta		
(constant)	25.42	6.36		4.00	**.000**
Negative Work Characteristics	1.01	.13	.53	7.53	**.000**
Positive Work Characteristics	-.50	.29	-.13	-1.71	.089
Positive Personality	-.41	.33	-.11	-1.23	.220
Positive Coping	.26	.48	.05	.55	.582
Negative Coping	1.27	.23	.38	5.50	**.000**

Positive Outcomes

The results show that positive work characteristics and positive coping both significantly predicted positive well-being among the workers from ethnic minorities (p<.001). See Table 7.7. for details.

Table 7.8.

Established Effects for Ethnic Minorities Workers (Positive Outcomes)

	Unstandardised Coefficients		Standard Coefficients		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(constant)	6.74	2.09		3.23	**.002**
Negative Work Characteristics	-.01	.04	-.01	-.21	.835
Positive Work Characteristics	.90	.10	.61	9.37	**.000**
Positive Personality	.11	.11	.08	.99	.326
Positive Coping	.71	.16	.33	4.58	**.000**
Negative Coping	-.12	.08	-.10	-1.55	.125

7.3.4.3. Stepwise Regressions

Negative Outcomes

The pair of analyses for the prediction of negative outcomes show that the established effects were retained even after controlling for the demographics and cultural difference variables. Tables 7.8. and 7.9. show that both analyses had negative work characteristics, negative coping, and positive work characteristics as significant predictors. Also, Perceived Racial Discrimination significantly predicted negative outcomes, marginally (p=.046), in the multiple item regressions (see Table 7.9.).

Table 7.9.

Stepwise Regression Predicting Negative Outcomes in Ethnic Minorities Workers (Single Items)

	Unstandardised Coefficients		Standardised Coefficient		
Model	**B.**	**Std. Error**	**Beta**	**t**	**Sig.**
(constant)	31.08	7.39		4.20	**.000**
Shift working	-4.24	2.66	-.094	-1.60	.114
Negative Work Characteristics	.94	.13	.50	7.18	**.000**
Negative Coping	1.34	.23	.41	5.92	**.000**
Positive Work Characteristics	-.66	.24	-.17	-2.79	**.006**

Table 7.10.

Stepwise Regression Predicting Negative Outcomes in Ethnic Minorities Workers (Multiple items)

	Unstandardised Coefficients		Standardised Coefficient		
Model	**B.**	**Std. Error**	**Beta**	**t**	**Sig.**
(constant)	41.93	8.56		4.90	**.000**
Age	-.22	.12	-.11	-1.84	.069
Negative Work Characteristics	.93	.13	.49	7.25	**.000**
Negative Coping	1.30	.22	.40	5.79	**.000**
Positive Work Characteristics	-.65	.23	-.17	-2.81	**.006**
No Perceived Racial Discrimination	-5.34	2.64	-.12	-2.02	**.046**

Positive Outcomes

The findings from these analyses, like those of the negative outcomes, revealed that the established effects were retained in both cases (see Tables 7.11. and 7.12.). The results also show that the Affirmation and Belonging (single item) component of ethnic identity significantly predicted positive outcomes. However, the corresponding multiple item scales did not.

Table 7.11.

Stepwise Regression Predicting Positive Outcomes in Ethnic Minorities Workers (Single Items)

	Unstandardised Coefficients		Standardised Coefficient		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(constant)	7.81	2.56		3.05	**.003**
Having Children	-.55	.80	-.04	-.69	.493
Positive Work Characteristics	.90	.08	.62	10.66	**.000**
Positive Coping	.59	.14	.28	4.41	**.000**
Negative Coping	-.14	.06	-.12	-2.30	**.023**
Affirmation and Belonging single item	.52	.20	.15	2.59	**.011**

Table 7.12.

Stepwise Regression Predicting Positive Outcomes in Ethnic Minorities Workers (Multiple Items)

	Unstandardised Coefficients		Standardised Coefficient		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(constant)	9.15	2.60		3.52	**.001**
Having Children	-.63	.82	-.04	-.77	.445
Positive Work Characteristics	.95	.09	.66	11.22	**.000**
Positive Coping	.72	.13	.33	5.54	**.000**
Negative Coping	-.14	.06	-.12	-2.21	**.029**

7.3.4.4. Summary, Discussion, and Conclusion of Ethnic Minorities Occupational Study

The findings from this study show that the established effects for both negative and positive well-being outcomes were retained, even though new elements were included in the negative well-being outcomes and cultural difference variables were included in the stepwise regressions. This further seems to prove the universality of the well-being process, bearing in mind similar findings from the other two occupational samples, which are culturally distinct from each other and this one.

Comparing the established effects from this study with those from the White British and Nigerian occupational samples yields interesting results that show that while the established effects were retained, each sample had its unique predictors. For the negative outcomes, negative work characteristics and negative coping were the predictors common to all three samples. In addition to these predictors, positive work characteristics and positive personality were the other predictors of negative outcomes in both the White British and Nigerian samples. Negative work characteristics and negative coping predicted negative outcomes among Ethnic Minorities. In other words, negative well-being outcomes were predicted by the same predictors in the White British and Nigerian samples. The Ethnic minorities were the odd ones out, suggesting that low levels of positive job and personal characteristics did not predict negative well-being among them. It is pertinent to note that the composition of the negative outcomes in the Ethnic Minorities sample is different from the previous occupational samples. However, this difference in composition is unlikely to affect the prediction levels and directions. Age could also be a factor accounting for these differences as the ethnic minorities had a lower mean age (34.56) than the White British (39.8) and Nigerian (38.34) samples. Thus, we can cautiously conclude that negative work characteristics and negative coping are the 'universal predictors' of negative outcomes in occupational samples, while the other predictors could be influenced probably by the cultural and age differences between samples. Table 7.13. summarises the established effects for each of the samples. For the positive outcomes, positive work characteristics were the only 'universal predictor' among the three samples. For the White British sample, the positive personality was the other predictor while it was positive coping for the ethnic minorities. Positive work characteristics were the only predictor of positive outcomes in the Nigerian

sample, suggesting that individual characteristics played no role. These findings from the regressions predicting positive outcomes highlight key differences among the three samples, which may most likely be cultural. See table 7.14. for a summary of differences in the established effects for positive outcomes for the three samples. The next chapter delves into these in detail.

Table 7.13.

Summary of Established Effects (Negative Outcomes) for the Three Occupational Samples

Ethnic Minorities	White British	Nigerian
Negative Work Characteristics	Negative work characteristics	Negative work characteristics
Negative Coping	Negative Coping	Negative Coping
	Positive Personality	Positive Personality
	Positive Work Characteristics	Positive Work Characteristics

Table 7.14.

Summary of Established Effects (Positive Outcomes) for the Three Occupational Samples

Nigerian	White British	Ethnic Minorities
Positive Work Characteristics	Positive Work Characteristics	Positive Work Characteristics
	Positive Personality	Positive Coping

This study aimed to investigate the role of cultural differences in the prediction of well-being in ethnic minorities with the possibility of developing a cultural differences version of the WPQ and yielded interesting results. The first finding to note here was the strong correlations between single and multiple items scales of all three components of ethnic identity postulated by Phinney (1992). This implies a high concurrent validity among both sets of scales which could suggest the interchangeability of the scales. This is particularly important when considering an instrument like the WPQ, for which single items and shorter scales are preferable.

However, to confirm this interchangeability, further tests must be performed, hence the need for the stepwise regression pairs. These regressions work on the assumption that if a single item is truly similar to its corresponding multiple item scale, both scales should more or less predict similar outcomes. From the findings above, it can be observed that while the single item for affirmation and belonging predicted positive well-being outcomes among the workers, its multiple item scales did not, thus showing that the scales may not be similar after all, even though they are strongly correlated. There was no other case where either the single item or multiple item scales of any of the ethnic identity constructs predicted positive well-being. Therefore, it is doubtful that the single and multiple item scales are measuring approximately the same thing, thus making the single items unsuitable for the development of a cultural difference iteration of the WPQ.

However, perceived racial discrimination significantly predicted negative outcomes but only in the multiple items regressions. Although it had only one scale, the criteria stated above also apply here. If the effect of perceived racial discrimination on negative outcomes is to be taken seriously, it should have also occurred in the stepwise regressions involving single items. Further doubts are cast on the role of perceived racial discrimination because it was only marginally predictive of negative outcomes (p=.046). This comes as a surprise because 31%, which is almost a third, of the sample reported having experienced perceived racial discrimination. One would have expected a much stronger effect. The reason for this disparity could be that although they experienced perceived racial discrimination, the ethnic minority workers did not let it affect their well-being or that they have found ways to cope with it. Capasso, Zurlo, and Smith (2018) also reported a high incidence of stress (26%) in a study of 250 Moroccan factory workers in Italy. The same study also linked high racial discrimination to increased health problems and low job satisfaction. Thus, even though the significance level of perceived racial discrimination is tending towards the margin between significance and insignificance, it seems to agree with previous research.

Interestingly as well, none of the acculturation strategies significantly predicted either of the outcomes.

7.4. Student Sample

7.4.1. Sample Description

The sample for this study was 103 university undergraduates from ethnic minorities in the UK. They were recruited online from the Qualtrics volunteer panel and were subsequently paid for participating in the study. Ethical approval for this research was granted by the Cardiff University School of Psychology Ethics Committee. Participants gave informed consent before completing the questionnaire and were made aware that they had the right to skip any question they did not wish to answer and that they were free to leave the study at any point. The sample was almost an even split between the male and female genders, with males making up 50.5%. The participants were between the ages of 18 and 28 (mean age= 20.72). 19.4% identified themselves as being from mixed ethnic backgrounds. This was closely followed by the Indian and black African ethnicities, which each accounted for 18.4%. The number of years resident in the UK ranged from less than one year to 28 years (mean= 14.69). This sample probably comprised home as well as international students, and there is no direct way of ascertaining as this information was not required in the questionnaire.

Table 7.15

Ethnic Minorities' Student Sample Description

Demographic Characteristic	Value
Age	18-28 (mean age= 20.72)
Gender	Male 52 (50.5%) Female 51 (49.5%)
Ethnicity	Black African 19 (18.4%) Black Caribbean 5 (4.9%) Indian 19 (18.4%) Pakistani 16 (15.5%) Bangladeshi 6 (5.8%) Chinese 8 (7.8%) Mixed 20 (9.4%) Other 10 (9.7%)
Years Resided in the UK	Less than I year-28 years Mean= 14.6 years

7.4.2. Materials (Instruments)

7.4.2.1. Student WPQ

The Student Well-being Process Questionnaire (Student WPQ; Williams, Pendlebury, Thomas, and Smith, 2017) was developed based on the DRIVE model to specifically measure the well-being of university undergraduate populations. The Student WPQ investigated multivariate relationships between established predictors and outcomes (positive and negative) unique to students. Like the occupational version, the predictors were called **established predictors,** and the multivariate relationships **established effects**. The established predictors were conscientiousness, positive personality, social support (including the ISEL factors; Cohen, Mermelstein, Kamarck, & Hoberman, 1986), negative coping, and the student stressors (ICSRLE; Bdenhorn, Miyazki, Ng, and Zalaquett, 2007; Kohn, Lafreniere, & Gurevich, 1990).

As was the case in the ethnic minorities occupational sample, work-life balance (WFC and FWC) and burnout (emotional exhaustion and depersonalisation) were included in the negative outcomes score.

7.4.2.2. Single-items on Work-Life Balance

These items were developed to measure WFC and FWC in a way specific to university undergraduates. See 4.3.2.3 for details.

7.4.2.3. Single items on burnout

These were the same as the scales used in the occupational sample.

7.4.2.4. Single Item on Perceived Racial Discrimination

Perceived racial discrimination was measured by answering yes or no to the question: "*Have you encountered any discrimination at work as a result of your ethnicity*?"

45.6% (47) of the sample reported that they had such experiences.

7.4.2.5. Berry's Schema

This has been previously described in the occupational sample in 7.3.

7.4.2.6. Short-Item Scale for Ethnic Identity

This has been described in 7.3.

7.4.3. Analyses

7.4.3.1. Multiple Regressions for Established Effects

Linear regression analyses were carried out to confirm if the established effects for student samples were replicated in this sample. The established predictors were regressed against negative and positive well-being outcomes, respectively.

7.4.3.2. Stepwise Regressions

Stepwise regressions were performed to test for the prediction of well-being outcomes while controlling for demographics and established predictors. Demographic variables were inputted into the first block, established effects in the second, and cultural difference variables in the third block.

7.4.4. Results

This section presents the results from the different analyses.

7.4.4.1. Established Effects

Negative Outcomes

Positive personality and negative coping were the only significant predictors of negative well-being outcomes among students from ethnic minorities. This generally agrees with the findings from the White British and Nigerian student studies. Table 7.16. presents the findings in detail.

Table 7.16.

Established Effects for Ethnic Minorities Students (Negative Outcomes)

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B.	Std. Error	Beta		
(constant)	85.65	10.63		8.34	**.000**
Student Stressors	.16	.10	.11	1.60	.114
Negative Coping	1.10	.26	.31	4.21	**.000**
Positive Personality	-1.11	.15	-.53	-7.55	**.000**
Conscientiousness	-.37	.40	-.07	-.92	.362
Social Support	-.24	.13	-.11	-1.67	.098

Positive Outcomes

Table 7.17. shows that positive personality, conscientiousness, and social support all significantly predicted positive well-being outcomes among the students from Ethnic Minorities. These findings also replicate those from previous student studies.

Table 7.17.

Established Effects for Ethnic Minorities Students (Positive Outcomes)

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
(constant)	-3.36	3.71		-.98	.331
Student Stressors	-.00	.04	-.01	-.06	.958
Negative Coping	.15	.10	.14	1.56	.122
Positive Personality	.27	.05	.43	5.09	**.000**
Conscientiousness	.31	.15	.19	2.13	**.036**
Social Support	.23	.05	.37	4.72	**.000**

7.4.4.2. Stepwise Regressions

Negative Outcomes

Positive personality, negative coping, and the assimilation acculturation strategy significantly predicted negative outcomes in this sample. See details in Table 7.18.

Table 7.18.

Stepwise Regression Predicting Negative Outcomes in Ethnic Minorities Students

	Unstandardised Coefficients		Standardised Coefficient		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(constant)	79.46	8.13		9.78	**.000**
Positive Personality	-1.16	.14	-.56	-8.16	**.000**
Negative Coping	1.26	.24	.36	5.28	**.000**
Assimilation Acculturation Strategy	.18	.09	.13	2.03	**.045**

Positive Outcomes

Table 7.19. shows that Ethnic Identity achievement, in addition to positive personality and social support, all significantly predicted positive well-being outcomes among the students from ethnic minorities.

Table 7.19.

Stepwise Regression Predicting Positive Outcomes in Ethnic Minorities Students

	Unstandardised Coefficients		Standardised Coefficients		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(constant)	-.23	2.10		-.11	.913
Positive Personality	.24	.05	.38	4.88	**.000**
Social Support	.21	.05	.34	4.35	**.000**
Ethnic Identity Achievement	.62	.19	.25	3.21	**.002**

7.4.4.3. Summary, Discussion, and Conclusion from Ethnic Minorities Students' Study

The findings from this study show that the established effects were largely retained even though the composition of the negative outcomes was slightly different from the previous studies with the inclusion of FWC, WFC, emotional exhaustion, and depersonalisation. These effects were still retained when demographics and cultural difference variables were included in the stepwise regression.

Comparing the established effects from all three student samples (White British, Nigerian, and Ethnic Minorities) show that positive outcomes were universally predicted by conscientiousness, positive personality, and social support. There were no predictors unique to any of the samples. For the negative outcomes, positive personality and negative coping were universal predictors of negative outcomes in all the student samples. However, in addition to the 'universal predictors', there were established predictors that were unique to the samples. While there were no other predictors for negative outcomes among Ethnic Minorities students, social support was unique to the Nigerian sample. Student stressors predicted negative outcomes in both the White British and Nigerian samples. These results, therefore, show that there were similarities among the samples as well as differences between them. The differences suggest that although some of the established effects were common to all the samples, there were also differences that could have been due to cultural differences. This will be investigated further in the next chapter. (It should be noted that although the negative outcomes variable for the ethnic minorities students is quite different from the previous two studies, the regression with the original negative outcome variable, i.e. without the WLB and burnout variables produced the same results). Table 7.20. summarises the predictors of negative outcomes for the three student samples.

Table 7.20.

Summary for Negative Outcome Predictors for the Student Samples

Ethnic Minority	White British	Nigerian
Negative Coping	Negative coping	Negative coping
Positive Personality	Positive personality	Positive personality
	Student Stressors	Student Stressors
		Social support

This study aimed to investigate the role of cultural differences in the prediction of well-being among students from Ethnic Minorities in the UK. The stepwise regressions show that while the assimilation acculturation strategy significantly predicted negative outcomes, ethnic identity achievement predicted positive outcomes. As previously explained, the assimilation acculturation strategy occurs when the individual decides to abandon their own culture to adopt the host/dominant culture. This finding appears to be logical in that deserting one's culture in favour of the dominant one is in line with what will be expected of adolescents and young adults who want to blend in with their peers. At the same time, such a choice is likely to place them at odds with their immediate family members (e.g. parents), who may prefer them to do the exact opposite – i.e. choose their culture at the expense of the host culture. This is likely to cause some form of tension which could lead to experiencing negative

outcomes. However, it should be noted that the significance of this prediction is only marginal (p=.045) and thus should be taken with caution as it could be spurious.

Ethnic identity achievement, as explained by Phinney (1992), has to do with having a clear sense of one's ethnic roots, having taken time to investigate one's ethnic background in terms of customs, history, etc. It also entails knowing what ethnic identity means to the individual in question and how their ethnicity differs from that of other people. This is central to the development of adolescents' identities. It, therefore, seems intuitive that ethnic identity achievement will be linked to positive well-being outcomes. Achieving one's ethnic identity will make the individual feel more grounded. This is particularly important for adolescents and young adults who were born outside their parents' country of origin and therefore had no 'first-hand connections' to their roots. It thus seems very plausible that ethnic identity achievement will predict positive outcomes among ethnic minorities students. This finding is also quite similar to that of Capasso, Zurlo, and Smith (2016b), who found ethnic identity to be related to better physical health among Eastern European migrant care workers in Italy.

It is interesting to note that despite the high incidence of perceived racism in the sample (almost half, 45.6%), it was not linked to either of the well-being outcomes.

7.5. Discussion of Findings

The first thing to note about this pair of studies is that, like the pairs previously discussed, the established effects were retained to an extent. The three pairs of studies taken together suggest that the well-being processes in occupational and student samples are quite predictable and objective. As these three sets of samples are culturally and ethnically distinct, the predictability and objectivity of well-being imply that the same process occurs irrespective of culture or ethnicity, as Smith et al. (2005) also found. However, a closer look and comparison shows that although there were predictors that were universal to all occupational or student samples, there were some predictors that were unique to particular samples. These peculiarities could be a consequence of cultural differences that exist between samples which will be studied in detail in the next chapter.

The studies described in this chapter aimed to investigate the role cultural differences – perceived racial discrimination, ethnic identity, and acculturation strategy – play in the well-being of workers and students, respectively, from British Ethnic Minorities. The first thing to note is that there were no cultural differences that commonly predicted the same outcomes in the occupational and undergraduate samples. It is also pertinent to note that although the incidences of perceived racial discrimination in both samples were high (31% of the occupational sample and 45.6% of the students), it only predicted negative outcomes in the occupational sample and not in the student sample. This is quite surprising as one would have expected perceived racial discrimination to also be a significant predictor of negative outcomes among the students, especially since a good number of them had experienced it. More so, even in the occupational sample, the significance level was marginal and probably spurious. That suggests that although the occurrence of perceived racial discrimination was undeniably high in both samples, experiencing it was somewhat unlinked to negative well-being outcomes. This could be a consequence of learning how to cope with it or becoming numb to it, such that it no longer has any effect on the individual's well-being. There were no other cultural difference variables involved in the prediction of either the negative or positive well-being outcomes for the occupational sample.

For the student sample, the assimilation acculturation strategy predicted negative outcomes but was close to the threshold of non-significance, and ethnic identity achievement significantly predicted positive well-being.

7.6. Chapter Conclusion

In this chapter, it was shown that the established effects of the DRIVE model/WPQ were retained in both samples. The effects of cultural differences on well-being have been doubtful for the most part. Also, despite the strong correlations between the single and multiple items of ethnic identity, they did not show predictive patterns of well-being and thus showed incongruency between the scales. Therefore, developing a cultural difference version of the WPQ using the current variables is deemed unsuitable.

The studies detailed in this chapter and the previous ones have studied the samples individually. Although comparisons have been made between the findings from the different samples, more detailed comparisons are required to ascertain the actual effect of ethnicity/nationality/cultural differences in the well-being discourse. Therefore, the next chapter will examine these at both macro and micro levels.

Chapter 8: Analyses of General Occupational and Student Data

8.1. Chapter Introduction

The objective of the research detailed in this chapter is to study the role of nationality/ethnicity in the well-being of combined samples that were culturally diverse. The combined samples comprised the occupational and university undergraduate samples studied in previous chapters: White British, Nigerian and Ethnic Minorities. For the combined occupational sample, these comparisons were made on a macro scale investigating the relationships between the established predictors (positive work characteristics, negative work characteristics, positive coping, negative coping, and positive personality) and well-being outcomes. For the student sample, in addition to investigating the relationships between the established predictors (social support, conscientiousness, student stressors, positive personality, and negative coping) and well-being, microanalyses were also performed the investigate the relationships between the predictors and two individual variables: course stress and work efficiency.

8.2. Occupational Sample

8.2.1. Nationality/Ethnicity and Well-being

In the previous chapter, we defined ethnicity as being used to describe people who share a common language, culture, and nation or tribe (Betancourt and Lopez,1993). According to Betancourt and Lopez (1993, p.631), “ethnos” refers to people of a particular tribe or nation, and “ethnikos” means national.

From the last chapter, it can be recalled that certain ethnicities were more prone to well-being problems than others. The literature appeared to suggest that Carribeans, for instance, were an at-risk group. Evidence from Smith et al. (2005) and Nazroo (1997a) show that there were high incidences of high work stress and depression among this group. Although it could be argued that ethnicity per se was not a predisposing factor or that cultural contextualisation was not considered, it still suggests that ethnicity could be a very key factor affecting the well-being process.

In an inter-ethnic study of occupational samples in Italy using the DRIVE model, ethnicity and job type played pivotal roles in the respondents’ perceptions of their physical and psychological health (Capasso, Zurlo, and Smith, 2016). Again, this study emphasises the role of ethnicity in the well-being process, although it only focused on negative well-being. Similarly, Pisanti, van der Doef, Maes, Lazzari, and Berlini (2011), in a cross-national comparative study of nurses in the Netherlands and Italy, found nationality to be a significant predictor of some of the positive and negative well-being outcomes. These studies all underscore the importance of ethnicity/nationality in the well-being discourse.

However, there is also the question of if these cross-national comparisons take differences in cultural contexts into account. Concerns have been raised about the suitability of questionnaires used in cultural contexts that significantly differ from those in which they were developed (Hofstede, Hofstede, and Minkov, 2010; Lim, Bogossian, and Ahern, 2010)

8.2.2. Aim of the Study

To this end, this study has two aims. Firstly, to investigate if the established effects were maintained in the occupational sample. The second aim of the study was to find out if nationality/ethnicity had any effect on the well-being process.

8.2.3. Sample Description

Data from 316 working adults between the ages of 18 and 66 (mean=37.45; SD=11.05) from the merged sample from the three previous studies were analysed in this study. By composition, the White

British (living in the UK) was 105; Ethnic Minorities (living and working in the UK), 110 and Nigerians (living and working in Nigeria), 101. The females comprised a little over half (51.6%) of the sample, which was spread across various professions. The majority (67.4%) of the sample were either married or cohabiting, while the remainder were either single, divorced, or widowed. 60.1% had children. The participants in the study were from a wide variety of occupations/professions ranging from education (teaching, lecturing) to information technology to healthcare, etc. 33.9% of the sample had post-graduate-level education while 30.1% had a Bachelor's degree or equivalent. Only 22.9% worked shifts. 88.3% were on permanent contracts, while 89.9% worked full time. 45.3% were employees without supervisory or managerial responsibilities. Time spent at current job ranged between 1 month and 30 years (mean=6.3 years). The total number of years worked was between 1 month and 46 years (mean=14.2 years)

8.2.4. Material (Instruments)

The data collection was conducted in three phases on an ethnicity-by-ethnicity basis (one ethnicity at a time) with the aid of an online questionnaire delivered in the English language on the Qualtrics platform. Since the questionnaire from the three samples was more or less the same, the data from the three phases were merged into a single file using the SPSS software. As explained in previous chapters, the instrument consisted of questions from the WPQ (Williams, 2015) and the SWELL (Smith and Smith, 2017a).

Again, recall that the instruments were made up of the established predictors (independent variables) predicting negative and positive well-being outcomes (dependent variables), respectively – these predictions were known as the established effects as they were often observed when the WPQ was used to measure well-being. The established predictors – negative work characteristics, positive work characteristics, negative coping, positive coping, and positive personality – and the well-being outcomes (positive and negative) have been explained in detail in chapter 3.

Typically, questions were assigned values of 1-10 (1=low, 10=high) in line with the WPQ visual scale format, which is preferable to the Likert scale format for single items constructs (Williams, Thomas, and Smith, 2017). Since the questions in the WPQ were mostly single items representing entire constructs, the questions comprised an initial statement or question (with explanatory statements in parentheses; Smith and Smith, 2017). An example is presented with the question measuring depression "On a scale of one to ten, how depressed would you say you are in general (e.g. feeling 'down', no longer looking forward to things or enjoying things you used to)."

8.2.5. Analyses

Statistical analyses were done by first performing a median split for each of the established predictors into "high" and "low" at the median. Analysis of Variance (ANOVA) tests was then carried out, firstly to compare positive and negative well-being outcomes means across the combined sample. Nationality was a nominal variable split into White British, Nigerian, and Ethnic Minority based on the nationality/ethnicity of the study participants. Demographic variables (age and marital status) were also split. While age was split at the median into two groups: 18-35 and >35, respectively, marital status was also dummy coded and split into two groups: married/cohabiting in one group and single, divorced, widowed in the other. Secondly, the ANOVA tests were used to investigate the main effects of each of the predictors (including nationality) on the well-being outcomes as well as two-way interactions between the established predictors and nationality. For example, the main effect of nationality on positive outcomes was investigated; the main effect of positive coping on positive outcomes was also investigated; finally, the combined effect of nationality and positive coping on the prediction of positive outcomes was also investigated. Similar analyses were performed on the

demographic variables for the prediction of well-being outcomes. These analyses were conducted using the SPSS 25 software. To correct for chance effects (Type I errors) that could result from conducting numerous analyses, the Holms-Bonferroni correction was performed. The "Holm-Bonferroni Sequential Correction: An Excel Calculator" (Justin Caetano, 2013; Pawel Kleka, 2015) was used to perform this correction. The calculator was based on Holm (1979). It works by ranking the significance (p) values from the smallest to the largest, after which adjusted significant values (p') are generated.

8.2.6. Results

The results here presented are for the ANOVAs for the comparison of means for the negative and positive well-being outcomes for the combined sample. The first key finding of this study, which relates to its first stated aim, is that nationality did not predict either of the well-being outcomes. This means that none of the samples studied was predisposed to experiencing positive or negative well-being because of their nationality/ethnicity. Although the differences were not significant, the results show that while the Ethnic Minorities group had the lowest mean score for negative well-being, the White British had the highest mean score for positive outcomes. Table 8.1. presents these findings in detail.

Table 8.1.

Mean Well-being Outcomes Based on Nationality

	White British	Nigerian	Ethnic Minority	Sig.	Holm-Bonferroni Correction
	Mean (SD)	Mean (SD)	Mean (SD)	F(df)=F-value, p	P'
Well-being Outcome					
Negative Outcomes	37.2 (1.2)	37.9 (1.5)	35.7 (1.0)	F (2,292) =0.91, p=.404	1.000
Positive Outcomes	37.5 (0.7)	36.1 (0.9)	36.0 (0.6)	F (2,295) =1.58, p=.208	

The remaining findings are presented in the sub-sections below.

8.2.6.1. Negative Outcomes

Established Effects

The established effects for the negative outcomes were mostly retained with negative work characteristics, negative coping, and positive work characteristics as significant predictors, which were retained even after corrections were applied. The retention of these effects was despite the predictors being dichotomised, unlike the previous studies. Table 8.2. shows the findings in detail.

Table 8.2.

Established Effects (Negative Outcomes) for the Merged Occupational Sample

Predictor	Mean (SD)	Sig. F(df)=F-value, p	Holm-Bonferroni Correction (p')
Low Negative Work Characteristics	31.1 (.9)	**F (1,292) =67.99, p=.000**	**.000**
High Negative Work Characteristics	42.8 (1.1)		
Low Positive Work Characteristics	37.1 (.9)	F (1,292) =0.58, p=.811	1.000
High Positive Work Characteristics	36.8 (1.0)		
Low Positive Coping	36.4 (1.0)	F (1,292) =0.80, p=.371	1.000
High Positive Coping	37.5 (.9)		
Low Negative Coping	32.4 (1.0)	**F (1,292) =52.48, p=.000**	**.000**
High Negative Coping	41.5 (1.0)		
Low Positive Personality	39.4 (1.1)	**F (1,292) =10.75, p=.001**	**.011**
High Positive Personality	34.6 (1.0)		

None of the interactions between the established predictors yielded significant results except between negative job coping and negative work characteristics, and negative work characteristics and positive work characteristics, respectively. The results are presented in Table 8.3 below.

Table 8.3.

Interactions Between Established Predictors Predicting Negative Well-being in the Merged Occupational Sample

Interaction	F(df)=F-value, p
Negative Work Characteristics*Negative Coping	**F (1, 300) = 4.45, .036**
Positive coping*Negative Coping	F (1, 300) =1.44, .231
Positive Work Characteristics*Negative Coping	F (1, 300) =0.11, .741
Positive Personality*Negative Coping	F (1, 300) =0.03, .858
Negative Work Characteristics*Positive Coping	F (1, 300) =0.00, .967
Negative Work Characteristics*Positive Work Characteristics	**F (1, 300) =10.79, .001**
Negative Work Characteristics*Positive Personality	F (1, 300) =2.94, .088
Positive Work Characteristics*Positive Coping	F (1, 300) =0.68, .409
Positive Work Characteristics*Positive Personality	F (1, 300) =0.42, .518

Interactions between nationality and the established predictors in the prediction of negative outcomes yielded a significant prediction when nationality interacted with positive work characteristics. However, when the Holm-Bonferroni correction was applied to correct for the multiple analyses, as Table 8.4 shows, the interaction was no longer significant.

Table 8.4.

*Nationality*Established Predictors Predicting Negative Outcomes*

	White British	Nigerian	Ethnic Minority	Sig.	Holm-Bonferroni Correction
	Mean (SD)	Mean (SD)	Mean (SD)	F(df)=F-value, p	p'
Variable					
Nationality*Low Negative Work Characteristics	31.7 (1.7)	35.5 (1.9)	29.9 (1.5)	F (2, 292) =1.22, p=.294	1.000
Nationality*High Negative Work Characteristics	42.7 (1.6)	40.4 (1.9)	41.6 (1.4)		
Nationality*Low Positive Work Characteristics	35.5 (1.7)	41.0 (1.6)	34.9 (1.4)	**F (2, 292) = 5.11, p=.007**	.070
Nationality*High Positive Work Characteristics	39.0 (1.6)	34.9 (2.1)	36.6 (1.5)		
Nationality*Low Positive coping	36.4 (1.6)	37.3 (2.0)	35.4 (1.6)	F (2, 292) =0.04, p=.964	1.000
Nationality*High Positive coping	38.0 (1.6)	38.5 (1.8)	36.1 (1.5)		
Nationality*Low Negative Coping	31.7 (1.8)	30.9 (1.5)	31.3 (1.5)	F (2, 292) = 2.80, p=.060	.480
Nationality*High Negative Coping	43.3 (1.7)	44.9 (2.4)	40.2 (1.4)		
Nationality*Low Positive Personality	37.9 (1.4)	41.5 (2.5)	38.6 (1.4)	F (2,292) = 1.30, p=.273	1.000
Nationality*High Positive Personality	36.5 (2.0)	34.4 (1.5)	32.9 (1.6)		

Effects of Demographics on Negative Outcomes

Here, the effects of age and marital status on Negative outcomes are reported. While age was dichotomised at the median (35) into two groups: 18-35 in the first group and those above the age of 35 in the other group, marital status was also split into two broad groups: married/cohabiting and the unmarried (comprising single, divorced and separated). Age was a significant predictor while marital status was not (see Table 8.5. for details). However, when a correction for the number of analyses was made, the finding was no longer significant.

Table 8.5.

Demographics Predicting Negative Outcomes

Demographic	Mean (SD)	Sig. F(df)=F-value, p	Holm-Bonferroni Correction (p')
18-35 years	38.5 (0.9)	**F (1,292) = 6.23, p=.013**	.117
>35 years	35.4 (1.0)		
Unmarried	37.3 (1.1)	F (1,292) = 2.61, p=.610	1.000
Married	36.6 (0.8)		

When nationality interacted with the demographic variables, no significant differences were observed across the samples. The findings are presented in Table 8.6.

Table 8.6.

*Nationality*Demographics Predicting Negative Outcomes*

	White British	Nigerian	Ethnic Minorities	Sig.
	Mean (SD)	Mean (SD)	Mean (SD)	F(df)= F-value, p
Variable				
Nationality*Age (18-35)	39.2 (1.7)	38.4 (1.7)	37.9 (1.7)	F (2, 292) =0.76, p=.467
Nationality*Age (>35)	35.2 (1.5)	37.5 (2.0)	33.61 (1.5)	
Nationality*Unmarried	37.1 (1.9)	38.9 (2.2)	35.9 (1.6)	F (2, 292) =0.21, p=.813
Nationality*Married	37.3 (1.4)	37.0 (1.8)	35.5 (1.2)	

8.2.6.2. Positive Outcomes

Established Effects

Nationality did not predict positive outcomes (see Table 8.1. above). The established effects for positive well-being outcomes were observed: negative work characteristics, positive work characteristics, positive personality, and positive coping despite being split into high and low groups. (see Table 8.7. for details). These effects were retained even after the Holm-Bonferroni corrections were applied.

Table 8.7.

Established Effects (Positive Outcomes) for the Merged Occupational Sample

Predictor	Mean (SD)	Sig. F(df)=F-value, p	Holm-Bonferroni Correction (p')
Low Negative Work Characteristics	37.8 (0.6)	**F (1, 292) =8.36, p=.004**	**.020**
High Negative Work Characteristics	35.4 (0.6)		
Low Positive Work Characteristics	32. 6 (0.5)	**F (1, 292) =118.07, p=.000**	**.000**
High Positive Work Characteristics	40.6 (0.6)		
Low Positive Coping	35.3 (0.6)	**F (1,292) = 11.17, p=.001**	**.006**
High Positive Coping	37.9 (0.6)		
Low Negative Coping	35.9 (0.6)	F (1,292) =3.46, p=.064	.192
High Negative Coping	37.3 (0.6)		
Low Positive Personality	34.7 (0.6)	**F (1, 292) =20.83, p=.000**	**.000**
High Positive Personality	38.5 (0.6)		

Table 8.8. shows that interactions between the established predictors did not significantly predict positive outcomes.

Table 8.8.

Interactions Between Established Predictors Predicting Positive Well-being in the Merged Occupational Sample

Interaction	F(df)=F-value, p
Negative Work Characteristics*Negative Coping	F (1, 300) =0.18, .672
Positive coping*Negative Coping	F (1, 300) =0.00, .970
Positive Work Characteristics*Negative Coping	F (1, 300) =0.06, .812
Positive Personality*Negative Coping	F (1, 300) =1.55, .215
Negative Work Characteristics*Positive Coping	F (1, 300) =0.39, .536
Negative Work Characteristics*Positive Work Characteristics	F (1, 300) =0.24, .622
Negative Work Characteristics*Positive Personality	F (1, 300) =0.86, .355
Positive Work Characteristics*Positive Coping	F (1, 300) =0.64, .425
Positive Work Characteristics*Positive Personality	F (1, 300) =2.74, .099

In the interactions between nationality and the established predictors, no significant differences were observed between the means of positive well-being outcomes. (The findings are presented in Table 8.9).

Table 8.9.

*Nationality*Established Predictors Predicting Positive Well-being*

Variable	White British Mean (SD)	Nigerian Mean (SD)	Ethnic Minorities Mean (SD)	Sig. F(df)=F-value, p
Nationality*Low Positive Work Characteristics	33.9 (1.0)	31.5 (0.9)	32.3 (0.8)	F (2, 292) =0.58, p=.633
Nationality*High Positive Work Characteristics	41.4 (0.9)	40.6 (1.2)	39.9 (0.9)	
Nationality*Low Positive Personality	35.3 (0.8)	34.6 (1.5)	34.1 (0.8)	F (2, 292) =0.29, p=.748
Nationality*High Positive Personality	40.0 (1.2)	37.6 (0.9)	38.1(0.9)	
Nationality*Low Positive Coping	36.0 (1.0)	35.7 (1.2)	34.4 (0.9)	F (2, 292) =1.30, p=.283
Nationality*High Positive Coping	39.3 (0.9)	36.5 (1.0)	37.8 (0.9)	
Nationality*Low Negative Work Characteristics	36.8 (1.1)	38.2 (0.9)	36.5 (0.9)	F (2, 292) =1.45, p=.236
Nationality*High Negative Work Characteristics	36.5 (1.0)	34.0 (1.4)	35.7 (0.8)	
Nationality*Low Negative Coping	36.9 (1.0)	35.7 (1.2)	35.1 (0.9)	F (2, 292) =0.24, p=.790
Nationality*High Negative Coping	38.5 (0.9)	36.4 (1.1)	37.0 (0.8)	

Effects of Demographics on Positive Outcomes

The results here were very similar to that of negative outcomes. While age significantly predicted negative outcomes, marital status did not. Again, this effect disappeared when the Holm-Bonferroni correction was applied. Table 8.10. presents the details.

Table 8.10.

Demographics Predicting Positive Outcomes

Demographic Characteristics	Mean (SD)	Sig F(df)=F-value, p	Holm-Bonferroni Correction (p')
18-35	35.9 (0.5)	**F (1, 292) =4.13, p=.043**	.172
>35	37.3 (0.6)		
Unmarried	36.8 (0.6)	F (1, 292) =0.30, p=.582	.582
Married	36.4 (0.5)		

When combined with nationality, there were no significant differences observed across the three samples. (See findings in Table 8.11.)

Table 8.11.

*Nationality*Demographics Predicting Positive Outcomes*

	White British	Nigerian	Ethnic Minorities	Sig.
	Mean (SD)	Mean (SD)	Mean (SD)	F(df)=F-value, p
Variable				
Nationality*Age (18-35)	37.8 (1.0)	34.9 (1.0)	34.9 (0.7)	F (2, 292) =1.5, p=.233
Nationality*Age (>35)	37.5 (0.9)	37.2 (1.2)	37.2 (0.9)	
Nationality*Unmarried	38.2 (1.1)	36.0 (1.3)	36.3 (0.9)	F (2, 292) =0.22, p=.802
Nationality*Married	37.1 (0.8)	36.2 (1.0)	35.9 (0.7)	

8.2.7. Discussion of Findings

This study aimed to ascertain if the established effects of the DRIVE model/WPQ were retained in a merged sample comprising occupational samples from three distinct cultural backgrounds: White British, Nigerian, and Ethnic Minorities (UK). The second aim was to investigate the role of nationality/ethnicity in the well-being process.

In line with the first aim, the findings showed that for both the positive and negative well-being outcomes, the established effects were observed. It is important to note that the established effects were observed in this study even though the predictors were dichotomised into 'high' and 'low' groups as opposed to the previous studies where the predictors were continuous variables. These findings for

a sample such as the one here studied are very crucial. This is because evidence showing the retention of the established effects in a merged sample from different cultural backgrounds suggests well-being as an objective process. This suggestion is further solidified by the fact that nationality itself did not predict either of the well-being outcomes. Fonberg and Smith (2019) argue that in order to determine whether the well-being process is subjective or objective, a subjective well-being instrument is needed as this should give a fair judgment. According to Fonberg and Smith, those in the objective school of thought believe well-being to be based on personal attitudes, values, and perceptions, while those from the subjective school of thought believe that well-being is predicted by universal predictors. Based on this argument, the DRIVE model, which is a subjective framework because of its emphasis on individual differences, appears to be suitable to make this judgment. The findings above thus suggest, based on and bolstered by Fonberg and Smith's argument, that well-being is an objective process, not a subjective one.

From another perspective, these results may be quite surprising considering the polar cultural differences between the Nigerian and British societies (presented in Chapter 6). One would expect cultures that are very different from having well-being outcomes that differ greatly. However, one possible explanation, apart from the universality of the well-being process, is the westernisation of societies in other parts of the world. That is because the world is now a global village; other societies now tend to imbibe practices from other societies and thus begin to experience similar life outcomes. This appears to be quite plausible, but then one will expect westernisation to also alter the cultural differences. For this reason, it is still believed that the objectivity of the well-being process and not westernisation is responsible for this uniformity in outcomes across cultures. It is, however, suggested that similar studies with larger and more ethnically diverse samples should be performed to gain a deeper insight.

Yet another possible explanation for these findings is the methodology employed in this set of studies. These studies were conducted utilising online questionnaires. The samples in these studies were likely opportunistic since an implied pre-qualification for participating in the studies was the ability to complete an internet questionnaire. This is as opposed to the methodology used in the World Values Survey (WVS). The WVS ensures that its samples are truly representative of the population (World Values Survey, 2020). Following this methodology led to findings that accentuated cultural differences across societies. Therefore, there is a very high probability that the sampling employed in these studies filtered off samples that would have been representative and hence reveal the influence of cultural differences in well-being like Fonberg did in his studies (Fonberg and Smith, 2017,2020). Fonberg and Smith (2020) contrasted the bottom-up and top-down approaches to measuring well-being. According to them, in the bottom-up approach, well-being is evaluated by measuring various facets of life and summing these evaluations. The top-down approach, on the other hand, evaluated well-being as a whole and then cascaded it to various aspects of life. They concluded that both approaches are suitable for well-being measurement but that the top-down approach was better suited for cross-national comparisons of well-being. Therefore, future studies should employ the top-down approach to the measurement of well-being.

Again, the findings from this study also show that the younger population (those between 18 and 35) were more prone to experiencing lower well-being – with the tendency to experience higher negative well-being and lower positive well-being. Although after the corrections were applied, these effects were no longer significant, this could be because the older people have over the years learnt to imbibe coping mechanisms that help them to experience better well-being. Therefore, further research should investigate this further, and well-being training programmes should aim to equip new entrants and younger workers with coping skills that will help them survive and thrive.

Although nationality did not predict well-being, the mean negative well-being outcomes scores were found to be significantly different across the sample when nationality was placed in tandem with positive work characteristics. This was eventually disproved when the corrections were applied. Nevertheless, it is also probably pointing out the relative importance of positive work characteristics in the prevention of negative well-being.

Finally, another point worth mentioning is that only a few of the interactions between the established effects predicted the outcomes. This is in line with some of the findings from the review(Mark and Smith, 2012b; Smith, 2019), reporting minimal or no significant interactions between the established predictors.

8.3. Student Sample

8.3.1. Aims of Study

The first aim of this study was to investigate the role of nationality/ethnicity in the prediction of well-being outcomes, work efficiency, and course stress. The second aim was to investigate the role of time pressure in the prediction of these outcomes. Finally, this study also sought to know the combined effects of nationality and time pressure on the outcomes. This study was designed to look at well-being from a micro-level, i.e. measuring the effect of a single factor, in this case, time pressure, in the prediction of well-being.

8.3.2. Time Pressure, Student Workload, Nationality, and Well-being

Student workload, or at least their perception of it, is very crucial to their student experience. Understanding it has the potential of improving teaching and learning, reducing student stress, and discouraging student attrition (Smith, 2019). Bowyer (2012, p. 240) defined student workload as "the time needed for contact and independent study, the quantity and level of difficulty of the work, and the type and timing of assessments, the institutional factors such as teaching and resources, and student characteristics such as ability, motivation and effort". This definition suggests that time is a key component of the concept of student workload, although it has been argued there are several other components (Bowyer, 2012; Kember, 2004; Kingsland, 1996; Kyndt, Berghmans, Dochy, and Bulckens, 2014). For instance, as Bowyer mentioned above, some of the other aspects of student workload include "the quantity and difficulty of the work", "institutional factors such as teaching and resources", the intellectual prowess of the students, their level of conscientiousness, etc. Previous research has linked high student workload to the tendency of students to want to cut corners by using surface learning, plagiarism, or in very extreme cases, leaving the university system altogether (Baeten, Kyndt, Struyven, and Dochy,2010; Bowyer, 2012; Delvin and Gray, 2007).

Student workload can either be subjective or objective (Bowyer, 2012). The objective workload is based on the assessment of the amount of time it takes the average student to complete the requirements of a module (Bowyer, 2012; Chambers, 1992; Delvin and Gray, 2007; Kember, 2004; Kyndt, Berghmans, Dochy, and Bulckens, 2014; Baeten, Kyndt, Struyven, and Dochy, 2010; Souto-Iglesias and Baeza_Romero, 2018). The objective workload is an estimate by the course developers of the time it takes the average student to complete the requirements of a course. This has at least two flaws. Firstly, how does one determine the average student? Secondly, the objective workload is only an estimate and, as such, makes and is based upon an assumption of students' abilities rather than the individual students' abilities (Kember, 2004; Souto-Iglesias and Baeza_Romero, 2018). On the other hand, the subjective workload is based on the students' perceptions of their workload, which may have nothing to do with time (Bowyer, 2012; Chambers, 1992; Kember, 2004; Kyndt, Berghmans, Dochy, and Bulckens, 2014). The subjective workload is further sub-divided into the qualitative and quantitative workload, with qualitative workload related to the consequences of subjective workload

on well-being – i.e. “feelings of stress, pressure or frustration” (Kyndt et al. 2014, p. 385). Although subjective workload could also be hard to calibrate and measure (Chambers, 1992), it is here preferred because it is based on the individual in ‘the eye of the storm’ perception.

So far, an attempt has been made to define and describe workload as it affects students, especially university undergraduates. It has also been stated and shown that although many factors influence student workload or the perception of it, time appears to play a very crucial role. Subsequently, an attempt is being made to shed more light on the relationship between time pressure and student workload. For instance, student workload and time pressure have been found to significantly correlate with each other (Smith, 2019).

Time pressure for students often goes beyond the time required for their academic commitment; it often has to do with attending to other aspects of their lives. According to Chambers (1992, p. 146), “when students suffer interruptions to their studies as a result of illness, family difficulties or whatever, their anxiety is often expressed as a feeling of overburden.” In other words, Chambers suggests that what students refer to as workload are actually pressures exerted by the various activities competing for their time. These could include part-time work, spending time with friends, hobbies, etc. (Kember, 2004). While it may be logical to cut away these ‘distractions’ to experience less time pressure and hence a perception of lower workload subsequently leading to healthy well-being, in reality, these ’distractions’ could be beneficial. For instance, students could augment their often-meagre income with part-time work. Kember (2004) also suggests that spending time with friends also helps the students improve their well-being and could be sometimes beneficial to their university work when socialising with friends that double as classmates who can help explain and resolve difficulties encountered in individual study. On the contrary, some students have experienced stress as a consequence of not having enough time to spend with friends and family because of a heavy workload. Thus, it has been demonstrated that even though workload and time pressure are not the same, they are strongly linked. More importantly, time pressure plays a central role in the perception of workload among students. Next, we briefly discuss the link between workload and time pressure on the one hand and well-being on the other.

As explained at various points in this thesis, well-being is conceptualised as comprising negative and positive aspects that should be studied together in an integrated manner. The DRIVE model allows well-being to be investigated in this way. Another advantage of the DRIVE model is that it emphasises the role of the individual in the well-being process. This makes the model well-suited to study the connection between well-being and subjective student workload. However, even with all these features, there is only one study (Smith, 2019) that has used the DRIVE model to investigate the link between the two concepts. Other studies have explored the connection between time pressure/student workload and well-being but not in as much detail as the DRIVE model allows. It has been previously mentioned that Smith (2019) reported significant correlations between student workload and time pressure. Again, this means that there is a very strong relationship between the two concepts, but they are not the same. Other findings from Smith’s study seem to buttress this similarity-but-not-sameness argument. The study reports that while workload predicted work efficiency, course stress, positive and negative well-being outcomes, time pressure only predicted negative well-being and course stress. These findings suggest that workload is associated with both positive and negative well-being, but time pressure is, expectedly, associated with negative well-being. Other pieces of literature agree with these findings.

For instance, Bergin and Pakenham (2015) also link high workload with both negative and positive well-being. Others (Chambel and Curral, 2005; Pritchard and McIntosh, 2003) associate a high workload with negative well-being. The link between high workload and negative well-being should

not be surprising as high workload puts the students under intense pressure and has the potential of causing "difficulty, stress and anxiety and the intention to quit" (Bowyer, 2012 p. 240). However, the link between high workload and positive well-being seems rather surprising and unexpected as a high workload is supposed to be bad, bearing in mind the thoughts of the likes of Bowyer. This positive relationship thus suggests that although high workload, as expected, is associated with well-being, it is not in itself negative. This suggests that a component of workload and not the whole concept has negative connotations. This component is most likely to be time pressure. There is considerable evidence to make this an assertion worth considering. Bergin and Pakenham (2015), in a study involving law students, reported that although they were able to cope with their high workload, their high workload also left them lonely, thus reducing their life satisfaction. This isolation was a consequence of not having enough time to socialise with friends and family because of their hectic schedules. As previously reported, Smith (2019) showed time pressure to significantly predict course stress and negative outcomes as opposed to workload, which significantly predicted these outcomes in addition to positive well-being and work efficiency. Chambel and Curral (2005) showed that time demand, as a constituent of job demands, predicted anxiety and depression among a group of students. Finally, Kyndt et al. showed that time pressure framed some students' perceptions of their workload. Thus, from the foregoing, it has been shown that workload is related to both negative and positive well-being while time pressure, a key aspect of student workload, is related to negative well-being. The current study is similar to Smith (2019) in many respects. However, one key difference between both studies is the focus of the current study on cultural differences as evidenced by nationality/ethnicity. Next, we discuss the role nationality/ethnicity plays in the relationship between workload, time pressure, and well-being,

There appears to be a paucity of literature on the role of nationality/ethnicity in the relationship between workload/ time pressure and well-being. As a result of differences in educational systems in different countries, it should not be surprising that international students could experience some level of academic strain relative to home students (Ballard, 1987). However, there are no significant differences between the workload experienced by international and home students (Alharbi and Smith, 2018; Mullins, Quintrell, and Hancock, 1995). In what seems like a contrary finding, Cotton, Dollard, and de Jonge (2002) found country of birth to be related to "study load", but they operationalised study load to refer to whether the students in question were full time or part-time. This is quite different as the students in the aforementioned were presumed to be in full-time education. Sheldon and Kreiger (2004) reported low positive well-being and higher negative well-being across different ethnicities and demographic demarcations.

8.3.3. Sample Description

The merged sample comprised 360 university undergraduates aged 17 – 42 (mean age = 20.94) from three distinct ethnic/cultural backgrounds: White British (in universities in the UK), 144; Ethnic Minorities (in universities in the UK), 103 and Nigerian (in universities in Nigeria), 113. Females made up the majority (59.4%) of the sample.

8.3.4. Materials (instruments)

The questionnaire was delivered in the English Language on the internet via the Qualtrics platform. Each phase of the data collection was approved by the Cardiff University School of Psychology Ethics Committee. Each participant gave their informed consent before participating in the study and was informed that they could leave out any question they did not feel comfortable with or leave the study altogether at any point. Data was collected using the Student WPQ (Williams, Pendlebury, Thomas, and Smith, 2015), which is based on the DRIVE model (Mark and Smith, 2008). The student WPQ was specifically designed to measure the well-being of university undergraduates and has been previously

described in this thesis. To recap briefly, the student WPQ is used to investigate how the established predictors predict negative and positive well-being outcomes. These relationships are known as the '*established effects'* and are so-called because they are observed whenever the student WPQ instrument is used to measure well-being. The negative outcomes scores were aggregated from the scores for life stress, depression, and anxiety, while the positive well-being outcomes score was derived from the sum of scores for happiness, life satisfaction, and positive affect. The established predictors are student stressors (from the ICSRLE), social support (ISEL factors), conscientiousness, negative coping, and positive personality. The Student WPQ comprises single-item questions, with scores ranging from 1-10.

8.3.5. Analyses

In summary, this study aimed to investigate the role played by time pressure and nationality in predicting positive well-being outcomes, negative well-being outcomes, course stress, and work efficiency. While negative and positive outcomes were composites derived from summing up scores from constituent individual outcomes, course stress and work efficiency scores were derived from the respective single item for either construct. The first step in the analyses was to split the predictor variable scores into "high" and "low" percentile groups at the median. Nationality was a nominal variable split into White British, Ethnic Minority, and Nigerian based on the nationality/ethnicity of the study participants. ANOVA tests were then conducted to ascertain the predictive influence of time pressure and nationality on the outcomes. Time pressure and nationality were inputted as the predictors (fixed factors) while controlling for negative coping, positive personality, conscientiousness, student social support (ISEL), (academic) developmental challenges, social annoyances, academic dissatisfaction, romantic problems, social mistreatment, and friendship problems (as covariates). The covariates were also split into high and low groups at the median. Also worth mentioning is that (academic) developmental challenges, academic dissatisfaction, romantic problems, and social mistreatment were factors from the ICSRLE, of which time pressure was also a constituent. The main effects of each of the predictors (time pressure and nationality) and covariates in the prediction of the outcomes were investigated. Likewise, the two-way interactions between nationality and time pressure, as well as with each of the covariates. For instance, the predictive effect of academic dissatisfaction in predicting the outcomes was investigated singly, as well as the predictive effects of academic dissatisfaction combined with nationality. Holms Bonferroni corrections were subsequently applied to correct for possible Type 1 errors that could arise from conducting multiple analyses on a sample. These analyses were done with SPSS 25.

8.3.6. Results

Table 8.12. shows that although nationality initially predicted negative well-being in the merged student sample, once the Holms-Bonferroni correction was applied, it became insignificant. Thus, nationality predicted neither of the well-being outcomes.

Table 8.12.

Mean Student Well-being Outcomes Across the Nationalities/Ethnicities

	White British	Ethnic Minorities	Nigeria	Sig.	Holms-Bonferroni
	Mean (SD)	Mean (SD)	Mean (SD)	F(df)= p	P'
Well-being Outcomes					
Negative Outcomes	39.8 (0.9)	40.0 (1.0)	35.6 (1.0)	**F (2, 324) = .017**	.187
Positive Outcomes	18.6 (0.4)	18.9 (0.5)	18.7 (0.4)	F (2, 324) = .907	

8.3.6.1. Negative Outcomes

Some of the established predictors (negative coping and positive personality) and social mistreatment all significantly predicted negative outcomes even though they were dichotomised into high and low groups as opposed to the previous student studies. These effects persisted even after corrections were applied. Table 8.13. shows that time pressure was not a significant predictor of negative well-being. The findings also revealed that although the social mistreatment component of the student stressors was also a significant predictor of negative well-being, this effect disappeared when the correction was applied.

Table 8.13.

Predictors of Negative Outcomes in the Merged Student Sample

Predictor		Sum of Squares	df	Mean Squares	F	Sig.	Holms-Bonferroni
Time Pressure	Between Groups	258.38	1	258.38	3.85	.051	.459
	Within Groups	21726.74	324	67.06			
	Total	21985.12	325	325.44			
Negative coping	Between Groups	3215.50	1	3215.50	47.95	**.000**	**.000**
	Within Groups	21726.74	324	67.06			
	Total	24942.24	325	3282.26			

Predictor		Sum of Squares	df	Mean Squares	F	Sig.	Holms-Bonferroni
Positive personality	Between Groups	3779.35	1	3779.35	56.36	**.000**	**.000**
	Within Groups	21726.74	324	67.06			
	Total	25506.09	325	3846.41			
Conscientiousness	Between Groups	25.92	1	25.92	0.39	.535	
	Within Groups	21726.74	324	67.06			
	Total	21752.66	325	92.98			
Social Support	Between Groups	27.76	1	27.76	0.41	.520	
	Within Groups	21726.74	324	67.06			
	Total	21754.5	325	94.82			
Academic Developmental Challenges	Between Groups	1.38	1	1.38	0.02	.886	
	Within Groups	21726.74	324	67.06			
	Total	21728.12	325	68.44			
Academic Dissatisfaction	Between Groups	46.50	1	46.50	0.69	.406	
	Within Groups	21726.74	324	67.06			
	Total	21773.24	325	113.56			
Romantic Problems	Between Groups	1.54	1	1.54	0.02	.880	
	Within Groups	21726.74	324	67.06			
	Total	21728.28	325	68.60			
Societal Annoyance	Between Groups	4.01	1	4.01	0.06	.807	
	Within Groups	21726.74	324	67.06			
	Total	21730.75	325	71.07			
Social Mistreatment	Between Groups	476.52	1	476.52	7.12	**.008**	.096
	Within Groups	21726.74	324	67.06			
	Total	22203.26	325	543.58			

Predictor		Sum of Squares	df	Mean Squares	F	Sig.	Holms-Bonferroni
Friendship Problems	Between Groups	15.23	1	15.23	0.23	.634	
	Within Groups	21726.74	324	67.06			
	Total	21741.96	325	82.29			

Table 8.14. shows that the interactions between nationality and time pressure, and positive personality, respectively, predicted negative well-being outcomes. However, these effects were not significant when Holms-Bonferroni corrections were applied.

Table 8.14.

Interactions between Nationality and Predictors/Covariates in the Prediction of Student Negative Well-being Outcomes

Predictor		Sum of Squares	df	Mean Square	F	Sig.	Holms-Bonferroni
Nationality*Time Pressure	Between Groups	527.48	2	263.74	3.93	**.021**	.210
	Within Groups	21726.74	324	67.06			
	Total	22254.22	326	330.80			
Nationality*Conscientiousness	Between Groups	185.48	2	92.74	1.34	.252	.511
	Within Groups	21726.74	324	67.06			
	Total	21912.22	326	159.80			
Nationality*Negative Coping	Between Groups	337.77	2	168.89	2.52	.082	.511
	Within Groups	21726.74	324	67.06			
	Total	22064.51	326	235.95			
Nationality*Positive Personality	Between Groups	681.23	2	340.62	5.08	**.007**	.091
	Within Groups	21726.74	324	67.06			
	Total	22407.97	326	407.68			
Nationality*Social Support	Between Groups	341.46	2	170.73	2.55	.080	.511
	Within Groups	21726.74	324	67.06			
	Total	22068.2	326	237.79			

Predictor		Sum of Squares	df	Mean Square	F	Sig.	Holms-Bonferroni
Nationality*Academic Dissatisfaction	Between Groups	353.46	2	176.73	2.64	.073	.511
	Within Groups	21726.74	324	67.06			
	Total	22080.2	326	243.79			
Nationality*Academic Developmental Problems	Between Groups	254.53	2	127.27	1.90	.152	.511
	Within Groups	21726.74	324	67.06			
	Total	21981.27	326	194.33			
Nationality*Friendship Problems	Between Groups	183.38	2	91.69	1.37	.256	.511
	Within Groups	21726.74	324	67.06			
	Total	21910.12	326	158.75			
Nationality*Romantic Problems	Between Groups	15.16	2	7.58	0.11	.893	
	Within Groups	21726.74	324	67.06			
	Total	21741.90	326	74.64			
Nationality*Societal Annoyance	Between Groups	400.54	2	200.27	2.99	.052	.459
	Within Groups	21726.74	324	67.06			
	Total	22127.28	326	267.33			
Nationality*Social Mistreatment	Between Groups	312.81	2	156.41	2.30	.099	
	Within Groups	21726.74	324	67.06			
	Total	22039.55	326	223.47			

8.3.6.2. Positive Outcomes

As previously presented in Table 8.10., there were no significant differences in the levels of positive well-being experienced among the constituent samples. Neither was time pressure a significant predictor of student well-being among the merged sample. Table 8.15. shows that positive personality, conscientiousness, and social support were significant predictors of positive well-being. These effects were retained after the corrections were applied. Again, as was the case in the prediction of negative well-being, social mistreatment was a significant predictor of positive well-being, but this effect became insignificant with the application of the Holms-Bonferroni correction.

Table 8.15.

Predictors of Positive Outcomes in the Merged Student Sample

Variable		Sum of Squares	df	Mean Square	F	Sig.	Holms-Bonferroni
Time Pressure	**Between Groups**	1.36	1	1.36	0.01	.753	
	Within Groups	4441.03	324	13.71			
	Total	4442.39	325	15.07			
Negative Coping	**Between Groups**	25.55	1	25.55	1.86	.173	1.000
	Within Groups	4441.03	324	13.71			
	Total	4466.58	325	39.26			
Positive Personality	**Between Groups**	312.60	1	312.60	22.81	**.000**	**.000**
	Within Groups	4441.03	324	13.71			
	Total	4753.63	325	326.31			
Conscientiousness	**Between Groups**	85.43	1	85.43	6.23	**.013**	0.156
	Within Groups	4441.03	324	13.71			
	Total	4526.46	325	99.14			
Social Support	**Between Groups**	409.18	1	409.18	29.85	**.000**	**.000**
	Within Groups	4441.03	324	13.71			
	Total	4850.21	325	422.89			
Academic Developmental Challenges	**Between Groups**	8.19	1	8.19	0.60	.440	1.000
	Within Groups	4441.03	324	13.71			
	Total	4449.22	325	21.90			
Academic Dissatisfaction	**Between Groups**	0.17	1	0.17	0.01	.910	
	Within Groups	4441.03	324	13.71			
	Total	4441.20	325	13.88			

Variable		Sum of Squares	df	Mean Square	F	Sig.	Holms-Bonferroni
Romantic Problems	**Between Groups**	2.84	1	2.84	0.21	.649	1.000
	Within Groups	4441.03	324	13.71			
	Total	4443.87	325	16.55			
Societal Annoyance	**Between Groups**	19.46	1	19.46	1.42	.234	1.000
	Within Groups	4441.03	324	13.71			
	Total	4460.49	325	33.17			
Social Mistreatment	**Between Groups**	67.10	1	67.10	4.90	**.028**	0.308
	Within Groups	4441.03	324	13.71			
	Total	4508.13	325	80.81			
Friendship Problems	**Between Groups**	1.16	1	1.16	0.09	.771	
	Within Groups	4441.03	324	13.71			
	Total	4442.19	325	14.87			

Table 8.16. below shows the results of the interactions between nationality and the predictors and covariates, respectively. The findings show that the interaction between nationality and time pressure did not significantly predict positive outcomes. The only significant interaction was between nationality and social annoyance, which became insignificant with the Holms-Bonferroni correction.

Table 8.16.

Interactions Between Nationality and Predictors/Covariates in the Prediction of Student Positive Well-being Outcomes

Variable		Sum of Squares	df	Mean Square	F	Sig.	Holms-Bonferroni
Nationality*Time Pressure	**Between Groups**	12.71	2	6.36	0.46	.629	1.000
	Within Groups	4441.03	324	13.71			
	Total	4453.74	326	20.07			
Nationality*Conscientiousness	**Between Groups**	3.99	2	2.00	0.15	.865	

Variable		Sum of Squares	df	Mean Square	F	Sig.	Holms-Bonferroni
	Within Groups	4441.03	324	13.71			
	Total	4445.02	326	15.71			
Nationality*Negative Coping	Between Groups	31.37	2	15.69	1.14	.320	1.000
	Within Groups	4441.03	324	13.71			
	Total	4472.40	326	29.40			
Nationality*Positive Personality	Between Groups	77.06	2	38.53	2.81	.062	0.620
	Within Groups	4441.03	324	13.71			
	Total	4518.09	326	52.24			
Nationality*Social Support	Between Groups	17.28	2	8.64	0.63	.533	1.000
	Within Groups	4441.03	324	13.71			
	Total	4458.31	326	22.35			
Nationality*Academic Dissatisfaction	Between Groups	8.07	2	4.03	0.29	.745	
	Within Groups	4441.03	324	13.71			
	Total	4449.10	326	17.74			
Nationality*Academic Developmental Problems	Between Groups	4.90	2	2.45	0.18	.837	
	Within Groups	4441.03	324	13.71			
	Total	4445.93	326	16.16			
Nationality*Friendship Problems	Between Groups	10.36	2	5.18	0.38	.686	
	Within Groups	4441.03	324	13.71			
	Total	4451.39	326	18.89			
Nationality*Romantic Problems	Between Groups	16.65	2	8.30	.61	.545	1.000
	Within Groups	4441.03	324	13.71			
	Total	4457.68	326	22.01			
Nationality*Societal Mistreatment	Between Groups	42.12	2	21.06	1.54	.217	1.000

Variable		Sum of Squares	df	Mean Square	F	Sig.	Holms-Bonferroni
	Within Groups	4441.03	324	13.71			
	Total	4483.15	326	34.77			
Nationality*Social Annoyance	**Between Groups**	144.46	2	72.23	5.27	**.006**	.078
	Within Groups	4441.03	324	13.71			
	Total	4585.49	326	85.94			

8.3.6.3. Course Stress

Course stress was measured by a single item, with a scale that ranged from 1 to 10 (1=low,10=high). The analyses performed have been described in 8.3.5. Table 8.17. shows that while there was no significant difference in course stress levels across the samples, time pressure was a significant predictor of course stress in the merged sample. This effect remained even after the correction for multiple analyses was performed.

Table 8.17.

Predictors of Course Stress in the Merged Student Sample

Variable		Sum of Squares	df	Mean Square	F	Sig	Holms-Bonferroni
Nationality	**Between Groups**	6.83	2	3.42	1.10	.853	
	Within Groups	1030.04	324	3.18			
	Total	1036.87	326	6.60			
Time Pressure	**Between Groups**	55.43	1	55.43	17.44	**.000**	**.000**
	Within Groups	1030.04	324	3.18			
	Total	1085.47	325	58.61			
Negative Coping	**Between Groups**	0.95	1	0.95	0.30	.585	
	Within Groups	1030.04	324	3.18			
	Total	1030.99	325	4.13			
Positive Personality	**Between Groups**	9.67	1	9.67	3.04	.082	.820
	Within Groups	1030.04	324	3.18			
	Total	1039.71	325	12.85			

Variable		Sum of Squares	df	Mean Square	F	Sig	Holms-Bonferroni
Conscientiousness	**Between Groups**	0.92	1	0.92	0.28	.593	1.000
	Within Groups	1030.04	324	3.18			
	Total	1030.96	325	4.10			
Social Support	**Between Groups**	4.80	1	4.80	1.51	.220	1.000
	Within Groups	1030.04	324	3.18			
	Total	1034.84	325	7.98			
Academic Developmental Problems	**Between Groups**	0.11	1	0.11	0.03	.853	
	Within Groups	1030.04	324	3.18			
	Total	1030.15	325	3.29			
Academic Dissatisfaction	**Between Groups**	10.41	1	10.41	3.27	.071	.781
	Within Groups	1030.04	324	3.18			
	Total	1040.56	325	13.59			
Romantic Problems	**Between Groups**	0.55	1	0.55	0.17	.678	
	Within Groups	1030.04	324	3.18			
	Total	1030.59	325	3.73			
Societal Annoyance	**Between Groups**	0.72	1	0.72	0.23	.634	
	Within Groups	1030.04	324	3.18			
	Total	1030.76	325	3.90			
Social Mistreatment	**Between Groups**	0.03	1	0.03	0.01	.918	
	Within Groups	1030.04	324	3.18			
	Total	1030.07	325	3.21			
Friendship Problems	**Between Groups**	5.62	1	5.62	1.77	.185	1.000
	Within Groups	1030.04	324	3.18			
	Total	1035.66	325	8.8			

Only the interactions between nationality and positive personality and social annoyance, respectively, significantly predicted course stress in the merged sample, and this disappeared with the application of the Holms-Bonferroni correction. Table 8.18. presents more details.

Table 8.18.

Interactions Between Nationality and Predictors/Covariates in the Prediction of Course Stress

Predictor		Sum of Squares	df	Mean Square	F	Sig.	Holms-Bonferroni
Nationality*Time Pressure	**Between Groups**	17.67	2	8.83	2.78	.064	.768
	Within Groups	1030.04	324	3.18			
	Total	1047.71	326	12.01			
Nationality*Negative Coping	**Between Groups**	2.96	2	1.48	0.46	.629	1.000
	Within Groups	1030.04	324	3.18			
	Total	1033.00	326	4.66			
Nationality*Positive Personality	**Between Groups**	21.44	2	10.72	3.37	**.036**	.468
	Within Groups	1030.04	324	3.18			
	Total	1051.48	326	13.90			
Nationality*Conscientiousness	**Between Groups**	3.45	2	1.72	0.54	.582	1.000
	Within Groups	1030.04	324	3.18			
	Total	1033.49	326	4.90			
Nationality*Social Support	**Between Groups**	9.77	2	4.89	1.54	.217	1.000
	Within Groups	1030.04	324	3.18			
	Total	1039.81	326	8.07			
Nationality*Academic Developmental Problems	**Between Groups**	9.53	2	4.77	1.50	.225	1.000
	Within Groups	1030.04	324	3.18			
	Total	1039.57	326	7.95			
Nationality*Academic Dissatisfaction	**Between Groups**	3.46	2	1.73	0.54	.581	1.000
	Within Groups	1030.04	324	3.18			

Predictor		Sum of Squares	df	Mean Square	F	Sig.	Holms-Bonferroni
	Total	1033.50	326	4.91			
Nationality*Romantic Problems	**Between Groups**	0.54	2	0.27	0.09	.919	
	Within Groups	1030.04	324	3.18			
	Total	1030.58	326	3.45			
Nationality*Societal Annoyance	**Between Groups**	22.05	2	22.05	3.47	**.032**	0.448
	Within Groups	1030.04	324	3.18			
	Total	1052.09	326	25.23			
Nationality*Social Mistreatment	**Between Groups**	2.48	2	1.24	0.40	.678	
	Within Groups	1030.04	324	3.18			
	Total	1032.52	326	4.42			
Nationality*Friendship Problems	**Between Groups**	7.90	2	4.00	1.24	.290	1.000
	Within Groups	1030.04	324	3.18			
	Total	1037.94	326	7.18			

8.3.6.4. Work Efficiency

Time pressure was the only significant predictor of work efficiency in the merged student sample. See Table 8.19. for details.

Table 8.19.

Predictors of Work Efficiency in the Merged Student Sample

Variable		Sum of Squares	df	Mean Square	F	Sig.	Holms-Bonferroni
Nationality	**Between Groups**	6.83	2	3.42	54.92	.343	1.000
	Within Groups	1030.04	324	3.18			
	Total	1036.87	326	6.60			
Time Pressure	**Between Groups**	55.43	1	55.43	17.44	**.000**	**.000**
	Within Groups	1030.04	324	3.18			
	Total	1085.47	325	58.61			

Variable		Sum of Squares	df	Mean Square	F	Sig.	Holms-Bonferroni
Negative Coping	**Between Groups**	0.95	1	0.95	0.30	.585	1.000
	Within Groups	1030.04	324	3.18			
	Total	1030.99	325	4.17			
Positive Personality	**Between Groups**	9.67	1	9.67	3.04	.082	.820
	Within Groups	1030.04	324	3.18			
	Total	1039.71	325	12.85			
Conscientiousness	**Between Groups**	.91	1	.91	0.29	.593	
	Within Groups	1030.04	324	3.18			
	Total	1030.95	325	4.09			
Social Support	**Between Groups**	4.80	1	4.80	1.51	.220	1.000
	Within Groups	1030.04	324	3.18			
	Total	1034.84	325	7.98			
Academic Developmental Problems	**Between Groups**	0.11	1	0.11	0.03	.853	
	Within Groups	1030.04	324	3.18			
	Total	1030.15	325	3.29			
Academic Dissatisfaction	**Between Groups**	10.41	1	10.41	3.27	.071	0.781
	Within Groups	1030.04	324	3.18			
	Total	1040.45	325	13.59			
Romantic Problems	**Between Groups**	0.55	1	0.55	0.17	.678	
	Within Groups	1030.04	324	3.18			
	Total	1030.59	325	3.73			
Societal Annoyance	**Between Groups**	0.72	1	0.72	0.23	.634	
	Within Groups	1030.04	324	3.18			
	Total	1030.76	325	3.90			

Variable		Sum of Squares	df	Mean Square	F	Sig.	Holms-Bonferroni
Social Mistreatment	**Between Groups**	0.03	1	0.03	0.01	.918	
	Within Groups	1030.04	324	3.18			
	Total	1030.07	325	3.21			
Friendship Problems	**Between Groups**	5.62	1	5.62	1.77	.185	1.000
	Within Groups	1030.04	324	3.18			
	Total	1035.66	325	8.80			

None of the interactions between nationality and time pressure or any of the established predictors or covariates significantly predicted work efficiency. Table 8.20. shows that the interactions between nationality and positive personality, and societal annoyance significantly predicted work efficiency. When the corrections for multiple tests were applied, these effects disappeared.

Table 8.20.

Interactions Between Nationality and Predictors/Covariates in the Prediction of Work Efficiency

Predictor		Sum of Squares	df	Mean Square	F	Sig.	Holms-Bonferroni
Nationality*Time Pressure	**Between Groups**	17.67	2	8.83	2.78	.064	0.768
	Within Groups	1030.04	324	3.18			
	Total	1047.71	326	12.01			
Nationality*Conscientiousness	**Between Groups**	3.45	2	1.72	.54	.582	1.000
	Within Groups	1030.04	324	3.18			
	Total	1033.49	326	4.90			
Nationality*Negative Coping	**Between Groups**	2.96	2	1.48	.47	.629	
	Within Groups	1030.04	324	3.18			
	Total	1033.00	326	4.66			
Nationality*Positive Personality	**Between Groups**	21.44	2	10.72	3.37	**.036**	0.468
	Within Groups	1030.04	324	3.18			
	Total	1051.48	326	13.9			

Predictor		Sum of Squares	df	Mean Square	F	Sig.	Holms-Bonferroni
Nationality*Social Support	**Between Groups**	9.77	2	4.89	1.53	.217	1.000
	Within Groups	1030.04	324	3.18			
	Total	1039.81	326	8.07			
Nationality*Academic Dissatisfaction	**Between Groups**	3.46	2	1.73	.55	.581	1.000
	Within Groups	1030.04	324	3.18			
	Total	1033.50	326	4.91			
Nationality*Academic Developmental Problems	**Between Groups**	9.53	2	4.77	1.50	.225	1.000
	Within Groups	1030.04	324	3.18			
	Total	1039.57	326	7.95			
Nationality*Friendship Problems	**Between Groups**	7.90	2	3.95	1.24	.290	1.000
	Within Groups	1030.04	324	3.18			
	Total	1820.40	326	7.13			
Nationality*Romantic Problems	**Between Groups**	0.54	2	0.27	0.09	.919	
	Within Groups	1030.04	324	3.18			
	Total	1030.58	326	3.45			
Nationality*Societal Annoyance	**Between Groups**	22.05	2	11.02	3.45	**.032**	0.448
	Within Groups	1030.04	324	3.18			
	Total	1052.09	326	14.20			
Nationality*Social Mistreatment	**Between Groups**	2.48	2	1.24	0.39	.678	
	Within Groups	1030.04	324	3.18			
	Total	1032.52	326	4.42			

8.3.7. Discussion of Findings

The current study investigated the well-being of a merged student sample comprising the White British, Ethnic Minorities (in the UK), and Nigerian samples. These investigations were performed at the micro level – looking at the effect of time pressure, a single variable separately, and in addition to

nationality in the prediction of the well-being outcomes as well as single-component outcomes (work efficiency and course stress).

The findings show that the established effects were retained. Again, as this sample is a merged one comprising students from various cultures, the retention of the established effects could be suggesting that the well-being process is a universal process among students from various backgrounds. The veracity of these findings has been emphasised by the fact that they were retained even after the Holm-Bonferroni correction was applied. Also worth emphasising is that, like the occupational sample, nationality was not a significant predictor of positive or negative well-being. Nationality also did not predict course stress or work efficiency.

The other key predictor studied in this investigation was time pressure, which has been previously described as a core component of student workload. Expectedly, time pressure significantly predicted course stress. Course stress, which is how much stress students experience because of their studies, is likely to be impacted by their workload, which is, in turn, influenced by time pressure. With this in mind, it thus seems logical for time pressure to predict course stress. Indeed, as previously mentioned, Chambers (1992) highlighted a tendency for students to use workload and time pressure interchangeably. Stating that when students reported high workload, it was actually a consequence of other aspects of life impinging on their time resources. This finding is also in concord with Smith (2019), who reported a significant correlation between time pressure and course stress.

Time pressure was also found to significantly predict work efficiency even after the corrections were applied. Smith (2019) reported significant but negative correlations between work efficiency and time pressure. Smith's study showed that increased time pressure was linked to reduced work efficiency, which is somewhat linked to the findings in this study. It stands to reason that how well a student manages their time will have an impact on how efficiently they do their university work. Students who perceive their time to be insufficient are likely to rate their work efficiency as being low.

This study has thus shown that nationality did not play any role in the prediction of well-being. Neither did it play any role in the prediction of work efficiency and course stress. It has further shown that the established effects were retained for both aspects of well-being. Furthermore, time pressure, although not predicting the well-being outcomes, was found to predict both course stress and work efficiency. Nationality predicted neither course stress nor work efficiency. Finally, none of the interactions between nationality and the predictors or covariates significantly predicted any of the four outcomes.

8.4. Chapter Summary and Conclusion

The studies articulated in this chapter investigated the role of nationality/ethnicity in the well-being processes in merged occupational and student samples, respectively. This was done from various perspectives. For the occupational sample, the investigations were done at the macro level – i.e. studying the effects between macro variables, in this case, the established predictors - and nationality on the well-being outcomes. These investigations studied the multivariate effects of the established predictors and nationality singly and also the interaction between these predictors and nationality in the prediction of the well-being outcomes. For the students, these relationships were studied at the micro-level. Here, some of the macro variables were deconstructed and studied individually. For instance, the student stressor variable was broken down into its constituent variables: time pressure, romantic problems, academic dissatisfaction, etc. Particularly, time pressure and nationality were the main predictors of interest in the student study. Work efficiency and course stress were the dependent variables in the student study in addition to negative and positive well-being outcomes. Work efficiency and course stress were also single item variables.

For both studies, the established effects were mostly retained, which could be a signal of the well-being process being universal in both student and occupational samples. Nationality was also not found to predict any of the outcomes in both studies. The interaction between nationality and the predictors (and covariates) did not predict any of the outcomes in the merged occupational and student samples.

Composite independent and dependent variables are very useful in studying the well-being process. Especially in situations like these where the role of cultural differences, in terms of ethnicity, is being studied alongside the well-being process to investigate if, how, and or why they affect the well-being process. For instance, it helped gain a perspective of if the established effects were retained when samples from various cultural backgrounds were merged to form a single sample and further understand if the well-being process could be generalised. The interactions between nationality and the established effects also helped provide a deeper understanding of these relationships and make comparisons. However, the student study using the microanalytical approach provided rich insight into these relationships. These rich insights could be more useful when designing interventions to tackle the issues. For instance, the findings that time pressure predicted both course stress and work efficiency across ethnic divides suggests that more research should be performed to investigate these relationships, and interventions should be designed to help deal with, or at least help to cope with time pressure for students to reduce course stress and optimise work efficiency. This paints a much clearer picture than reporting the finding that student stressors predict course stress.

The next chapter discusses all the studies in this thesis in the context of past research to suggest areas for future research while highlighting the thesis' significant contributions to knowledge.

Chapter 9 – General Discussion, Conclusion, and Suggestions for Future Research

9.1. Chapter Introduction

This chapter sums up all the research that has previously been discussed in this thesis. It provides a general overview of the research and summarises its key findings. It subsequently discussed the findings and mentioned some of the limitations of the study to proffer recommendations and suggest areas of future research. Finally, the chapter concludes by outlining the thesis' key contribution to knowledge.

9.2. Aims and Objectives

The overarching aim of the research described in this thesis was to investigate the roles of cultural differences in the well-being processes of workers and students. Specifically, the well-being of workers and students from three distinct cultural backgrounds – White British, Nigerian, and Ethnic minorities (British) - were investigated and subsequently compared. Culture, as people's way of life undergirded by their values, influences virtually all aspects of human existence, from their beliefs about the importance of religion to the types, forms, and functions of social relationships, etc. Culture, therefore, affects their outlook and predisposition to life and differentiates one society from others. This is because the culture of a particular set of people is unique to them and is different from every other culture. Thus, it is expected that culture will influence people's well-being. Also, as workers and university undergraduate students are arguably at different stages of life, the research aimed to compare well-being across these stages and also to find out if cultural differences had stronger effects on one group than the other.

The first objective of this thesis was to present a conceptual narrative review of well-being and how it is operationalised in this research. The DRIVE framework was also presented as a flexible framework that allowed different aspects of well-being to be studied in an integrated manner. The WPQ was presented as the vehicle that allows different aspects of well-being to be measured using the same instrument. Finally, three potential variables to be added to the WPQ were presented and discussed. Continuing from where the first objective stopped, the second objective aimed to test if three new variables could be added to the WPQ. This was done by comparing findings from corresponding shorter and longer items of work-life balance, burnout, and resilience. These three variables have been found to have a significant impact on well-being.

As many of the studies with the DRIVE model have been intracultural or have not factored in the role of culture and cultural differences in the well-being process, the third objective of this thesis was to conceptualise culture and cultural differences. Here, cultural differences were explained based on contrasting pairs of cultural values. The fourth objective of the thesis was to compare well-being between the Nigerian and White British samples. These comparisons became very imperative because of the contrasting cultures of both sets of samples.

The third and fourth objectives of this thesis studied cultural differences based on the comparison of homogenous samples. However, ethnic minorities occupy a unique position in that either they or their ancestors moved to and settled in a place different from their place of birth. They are therefore faced with challenges different from those faced by the Nigerian and White British samples because they are faced with the reality of having to relate with two cultures daily and determining how to conduct those relationships. As a result of this, the thesis' fifth objective was to investigate the role of cultural differences in the well-being of workers and students. Specifically, the roles of racial discrimination, ethnic identity, and acculturation strategies were studied. Also, findings were compared between

single and multiple items of the aforementioned cultural difference variables to possibly develop a cultural difference version of the WPQ.

In line with the overarching aim of this thesis, the sixth objective of the thesis was to investigate the well-being processes in combined worker and student samples, respectively. The aim was to find out if nationality/ethnicity affected well-being when the individual samples were merged to form a larger sample.

The literature showed that the established effects were often observed in studies with the WPQ (and the Student WPQ). Thus, it was hypothesised that for the occupational samples, the established predictors (positive personality, positive work characteristics, negative work characteristics, positive coping, and negative coping) would show significant effects with positive and negative well-being – with positive predictors generally predicting positive well-being and negative predictors negative well-being. While for the student samples, student stressors, conscientiousness, positive personality, negative coping, and social support would show significant effects with positive and negative well-being outcomes. These effects were observed despite varying occupational contexts. However, most of the studies involved White British samples in the UK. This raised the question of the generalisability of these effects across cultures. Although there were studies performed with members of other ethnicities, sometimes living outside the UK, reporting similar effects, they were not numerous enough to be the basis of a claim of cultural invariance of the established effects of the DRIVE model. This, therefore, highlighted a knowledge gap. The established effects go a long way in detailing the well-being process, but due to the wide range of factors that influence or could be influenced by it, they appear to be inadequate in giving a perfect picture of well-being. Therefore, over time various versions of the WPQ have included new variables as the DRIVE model platform affords the flexibility of the addition of variables. The literature review reported the effects of noise, fatigue, WLB, etc., into the WPQ. This led to the focus on WLB, burnout, and resilience. WLB had been previously included in previous WPQ/SWELL studies but was not deconstructed into WFC and FWC neither was there evidence comparing the single and multiple items. These warranted further investigations. Based on previous research, both WFC and FWC were expected to predict and be predicted by negative well-being. Burnout, although initially considered in the formative stages of the WPQ, has never been included. However, it was found to be related to negative well-being and was, hence, hypothesised to be predicted by negative predictors. Resilience is a protective trait that can shelter the worker from unfavourable work conditions like shift work, fatigue, etc., that may be impossible to eradicate, thus moving well-being from a reactive perspective to a proactive one. It is an important variable that has not been included in the various iterations of the WPQ and was hypothesised based on the findings from the literature to predict positive well-being. Furthermore, it was hypothesised that the shorter and longer item scales of work-life balance, burnout, and resilience, respectively, will show satisfactory concurrent validity. Furthermore, it was expected that the concurrent validity between the scales would be further confirmed through paired stepwise regressions for both sets of scales.

It was expected that cultural differences would influence well-being. Cultural values based on the World Value Surveys and the IBM Hofstede studies showed that Nigeria and the United Kingdom had very contrasting cultures. It was thus hypothesised that these differences would be brought to bear on the well-being processes of the samples studied. For the ethnic minorities, previous research (e.g., Capasso et al., 2016) has shown that their well-being could be influenced by ethnic identity, perceived racial discrimination, and acculturation. It was thus hypothesised that cultural differences would influence the well-being of ethnic minorities. The last hypothesis was the cultural invariance or otherwise of the well-being process as conceptualised by the DRIVE model.

9.3. Methods Used

A variety of methodologies were employed to arrive at and test these hypotheses. Firstly, a review of the literature on published research on the WPQ was performed to summarise the key findings and identify knowledge gaps. Another survey of the literature was carried out to investigate the relationships between the 'new variables' (work-life balance, burnout, and resilience) and well-being.

Data collection was through online questionnaires hosted on the Qualtrics platform. Participation in all the studies was voluntary, where participants were required to give consent before proceeding to answer the questions. They were also given the option of omitting any question they did not want to answer.

The data from the questionnaires were analysed to test the hypotheses. Univariate analyses, correlations were used to measure the concurrent validity of the longer and shorter items of the 'new variables' and cultural difference variables for the ethnic minorities. Linear regressions were performed to ascertain if the established effects of the DRIVE model/WPQ were replicated. Stepwise regressions were also performed in pairs to compare the effects observed from shorter items and the corresponding longer items. Finally, Analysis of Variance (ANOVA) tests were carried out to compare outcome means of different groups (i.e., White British, Nigerian, and Ethnic Minority British) merged into respective single samples of workers and students

The section that follows presents the key findings.

9.4. Summary of Key Research Findings

Objective 1 –Review of the WPQ

The first objective aimed to present a review of the published research on the WPQ, SWELL, Student WPQ, and Student SWELL. The review summarised the findings from the published literature on the instruments and subsequently identified yet-to-be filled gaps. The review showed that the established effects for both the occupational and student studies were often replicated. The review also showed that although the established effects explained the well-being processes of occupational and student samples to a large extent and these effects often overshadowed the effects of other variables in the WPQ. However, there were exceptions, e.g., noise, where the effects of the new variable were still observed even in the presence of the established predictors and effects. These findings are significant in that they prove that that the established effects may not be adequate in the explanation and understanding of the well-being process. Therefore, there is the need for the further addition of variables into the WPQ. Also, the review showed that most of the WPQ/SWELL studies involved white British samples – thus leading to the question of if the established effects can be observed among other cultures.

Objective 2 – Conceptual Narrative Review Linking the New Variables with Well-being

A conceptual narrative review linking the 'new variables' with well-being variables was presented. The review highlighted the associations between both sets of variables from the literature. The 'new variables' here considered were work-life balance, burnout, and resilience. Work-life balance comprised Work-Family Conflict (WFC) and Family-Work Conflict (FWC), while burnout was made up of emotional exhaustion, depersonalisation and personal accomplishment. The work-life balance had previously been investigated in WPQ studies, but it was studied as one variable rather than two, while burnout was considered in initial iterations of the WPQ but was deemed unsuitable. Work-life balance and burnout (emotional exhaustion and depersonalisation) were related to the negative aspect of

well-being. The personal accomplishment component of burnout and resilience were linked to positive well-being.

The review revealed that the influence of cultural differences in these variables was mixed. While it appeared to exert a strong influence on resilience, it had some influence on burnout and none on work-life balance.

Objective 3 – Adding new variables to the WPQ

The third objective of this thesis aimed to add new variables – work-life balance, burnout, and resilience - to the WPQ. To confirm the suitability of these variables for subsequent addition into the WPQ, correlation analyses were performed to ascertain the concurrent validity between the shorter and corresponding longer items before stepwise regressions were performed. While the components of work-life balance and burnout showed satisfactory concurrent validity indicating possible similarity between their longer and shorter scales, the scales for resilience did not meet the criteria set for concurrent validity. The stepwise regressions worked on the assumption that if corresponding shorter and longer items are truly similar and interchangeable, they should approximately show the same effects. To this end, again, the longer and shorter items of work-life balance and burnout largely showed similar effects, thus further confirming the similarity between their longer and shorter items. The resilience scales did not show similar effects. Thus, from the findings, it was concluded that the single items for work-life balance and burnout could be included in future versions of the WPQ. New scales will need to be tested to include resilience in the future,

It is pertinent to note that the studies were conducted with White British respondents. It should also be emphasised that for both the worker and student samples, the established effects of the DRIVE model were retained.

Objective 4 – Conceptualizing Culture and Cultural Differences

Culture is the total way of life of a particular group of people. It comprises symbols, heroes, rituals, and values, with symbols lying at the surface and values embedded at its very core. Values form the innermost and most important aspect of culture. They answer the 'why' questions of culture and basically chart the course of which choices people make from an array of dichotomised alternatives. Choosing from either alternative leads to cultural differences among different societies.

Dichotomised value pairs were taken from the World Values Surveys (WVS) and IBM studies. These values are Traditional vs Secular-Rational Values, Survival vs Self-Expression Values, Power Distance, Individualism vs Collectivism, Masculinity vs Femininity, Uncertainty Avoidance, Long-term Orientation vs Short-term Orientation, and Indulgence vs Restraint. These value pairs were presented and discussed.

Objective 5 – Comparison of Well-being of Nigerian and White British Respondents

Based on the cultural values listed and conceptualised in objective 4, the Nigerian and White British societies are opposites. As such, one would expect a comparative study of well-being to yield equally different results. However, comparing findings from the Nigerian samples with the White British samples revealed very similar findings – indicating surprising similarities in the well-being processes of the White British and Nigerian samples despite highly contrasting cultural differences.

Although the well-being processes in both sets of samples virtually followed the same path, there were still some differences noted. This was especially the case with the new variables, specifically work-life balance. The results seemed to suggest that the work-non-work interface was very crucial to the prediction of well-being in both the Nigerian occupational and student samples as opposed to the White British samples, where the interface was key to the prediction of negative well-being only in

the occupational sample. Also, while WFC (single and multiple items) predicted negative well-being in the White British Occupational sample, FWC (single and multiple items) predicted negative well-being in the Nigerian occupational sample. This possibly indicated opposite directions in the work-family interface, causing negative well-being in the samples.

Objective 6 – Evaluating the Role of Cultural Differences in Ethnic Minorities

In contrast to the previous sets of samples studied in this research, this objective aimed to study the link between cultural differences and well-being in workers and university undergraduates from ethnic minorities in the UK. Although the approach taken in these studies differs from much of previous research in that all the ethnic minorities were subsumed into one group as opposed to being split according to their various ethnicities, it in no way renders the findings invalid as the purpose of this aspect of the research was to compare the well-being of ethnic minorities in the UK as a whole to the other populations studied in this research.

The cultural differences considered in this study were perceived racial discrimination, ethnic identity, and acculturation strategies. Although the incidences of perceived racial discrimination in both samples were high, 31% and 45.6% in the workers and students, respectively, it was only marginally predictive of negative outcomes in the workers' sample. Perceived racial discrimination did not predict negative outcomes in the analyses involving single items, nor did it predict any outcome in the student study. Also, even though there were strong correlations between single and multiple items of the ethnic identity sub-components indicating good concurrent validity, none of the corresponding single and multiple items predicted the same outcomes. This indicates the incongruence between the single and multiple items of ethnic identity used in this study. For the student sample, the ethnic identity achievement component of ethnic identity predicted positive well-being, while the assimilation acculturation strategy marginally predicted negative outcomes.

The findings from these studies suggest that although the established effects were retained, cultural differences did not appear to have a very strong effect on the perception of well-being. Furthermore, the incongruency of the single and multiple items suggest that the single item ethnic identity scales were not suitable

Objective 7 – Investigating the Role of Nationality/Ethnicity in Well-being of Combined Samples

The seventh and main objective of the thesis was to investigate the role of nationality/ethnicity in the well-being of combined occupational and student samples, respectively. For the occupational sample, the analyses were carried out on the macro-level, i.e. the established factors and nationality were involved in the prediction of well-being outcomes, while the investigations for the student sample were done at the micro-level, i.e. looking at the predictive effects of specific variables (e.g. time pressure) on the well-being outcomes as well as specific variables (work efficiency and course stress). The findings show that nationality did not significantly predict either of the well-being outcomes in both samples. Although in the student sample, nationality was a significant predictor of negative outcomes, with the Nigerian sample reporting significantly lower negative well-being than the other two samples but the effect was no longer significant when the Holm-Bonferroni post-hoc correction was applied. The same was also found for the effect of age, with the 18–35-year-old group experiencing greater negative well-being than the older group. Again, this effect disappeared after corrections. For both samples, the established effects were retained. This occurred even though the predictors were split to high and low, unlike the individual studies in chapters 4,6 and 7. Furthermore, there was evidence suggesting the interaction between the established predictors yielded few effects

The next section presents a general discussion of the findings of the research described in this thesis.

9.5. General Discussion

The overarching aim of this research was to investigate if cultural differences had any role to play in the well-being processes of workers and students. Studies were performed on a sample-by-sample basis, i.e. White British (workers and students, respectively, Chapter 4), Nigerian (workers and students respectively, Chapter 6), and Ethnic minorities in the UK (workers and students, respectively, Chapter 7). All the worker samples were merged to form a single sample, as were the student samples in Chapter 8, to account for the role of nationality/ethnicity in the well-being process.

All eight individual studies appear to suggest that well-being is an invariant process to a very large extent. All the studies show that the established effects were retained. In chapter 7, Tables 7.12 and 7.13 show that in the workers' samples, for each of the well-being outcomes, the three samples had at least one established effect in common. Interestingly, Table 7.12 shows that the predictors for negative well-being for both the Nigerian and White British were the same. This is very surprising because comparing the Nigerian and British societies based on the findings from both the World Values Surveys and IBM studies (see chapter 6) show that both societies are very different from each other. One would have expected such stark differences to also lead to, at least, different paths to the prediction of the outcomes. This suggests an objective well-being process. As Fonberg and Smith (2019) suggest, to demonstrate the objectivity or subjectivity of the well-being process, a subjective model is required. The argument they put forward is that if well-being is actually an objective process, a subjective model should yield similar results in any context it is used. Therefore, following the logic of this argument and bearing in mind that the DRIVE model is subjective bolsters the suggestion of the objectivity of well-being. In addition, another possible reason for this similarity is that Nigerian workers have become "westernised" in their approach to life. This may be a possibility based on the fact their approaches to life may have been conditioned by their education, media, and travel, among other things. The role of education seems important, particularly bearing in mind that the Nigerian occupational sample was very highly educated (at least 47.1 % were educated to postgraduate level).

Even with this high level of similarity, the influence of cultural differences has not been discounted. For instance, while WFC (single and multiple items) predicted negative well-being in the white British workers, FWC predicted the same outcome in their Nigerian counterparts. This comparison is particularly important when viewed through the lens of cultural differences. Recall that In Chapter 6, Nigeria was shown to be a collectivistic society and the UK an individualistic one. In an individualistic society, a premium is placed on personal success, while the emphasis in a collectivistic society is on the goals of the entire group. Therefore, it follows that workers in the UK will most likely experience WFC, which in turn leads to the experience of negative outcomes as they will more likely put their careers before family and other relationships. That is not to say that their Nigerian counterparts are not career-focused or career-minded. It simply could be the case that the demand from the family (including extended family) is so great that it gets in the way of fulfilling work objectives in the way or to the standard or extent they would have preferred.

For the students, Table 7.19 showed that all three samples had negative coping and positive personality as common predictors of negative well-being. A closer look shows that the predictors of negative well-being among Nigerian and White British students were virtually the same except for social support, which was a predictor among the Nigerian sample and not the White British sample. Again, while this comparison shows the very high similarity in the prediction of well-being among the Nigerian and White British students, the inclusion of social support for Nigerian students could also be a pointer to the role of cultural differences in the process. Nigerian students, being part of a collectivistic society, are likely to place a higher premium on social support, the lack of which will cause or exacerbate negative well-being.

Another aspect of cultural differences that was explored was the effect of perceived racial discrimination, ethnic identity, and acculturation strategies on the well-being of ethnic minority workers and students. Though the incidences of perceived racial discrimination in both samples were high, the link between perceived racial discrimination and well-being was doubtful because it only marginally predicted negative well-being in the analyses involving the multiple items but not those involving single items. This finding is doubtful even though it agrees with previous research (e.g. Capasso et al.) on the prediction of negative outcomes by perceived racial discrimination. Also, among the ethnic minority students, ethnic identity achievement predicted positive well-being, and assimilation acculturation strategy predicted negative well-being. One reason for these weak links, particularly between perceived racial discrimination and well-being, was the relatively small size of the samples compared to Capasso et al.'s, for instance. Another reason was probably the heterogeneity of the samples. As highlighted in Chapter 7, the experiences of ethnic minorities vary from one another and subsuming them in one relatively small group probably masks some effects.

One key limitation of this research is selection bias. All the six component studies were conducted utilising online questionnaires. It could be that only people with certain occupational, academic, and individual characteristics had access to the internet and thus could participate in the study. People without internet access or not conversant with its use were automatically excluded. It, therefore, could be that the similarity between the well-being experience of these groups was observed due to the very similar demographic characteristics. Future research could employ other modes of sampling and data collection like those employed by the World Values Survey, which ensured more diverse and representative samples.

9.6. Impact and Suggestions for Future Research

Overall, the research described in this thesis has shown well-being as a culturally invariant process. It suggests that well-being interventions designed for an educated white sample are likely to be workable for other educated samples from other cultural groups since their well-being processes are similar. Therefore, interventions designed to solve well-being problems should target doing so at the input stage either by modifying the job characteristics or improving the individual characteristics like coping. Drawing from his research in the development of the WPQ, Williams (2015) developed a practical well-being assessment tool that can be used in “real-life” situations. The tool was designed such that it reduced redundancy as much as possible in addition to allowing for the cognitive, emotional, positive, and negative aspects of well-being to be independently investigated, thus giving an insight into the troubled spots as well as the good aspects of their well-being. This tool was administered online employing specialised computer software or through the phone via call centres. Once the respondents’ responses were captured, their well-being profile was then developed and subsequently communicated to highlight the good and the bad to gain an understanding of their needs and to chart a way forward. Often, “the bad” is further investigated. The current research has successfully shown evidence supporting the addition of work-life balance and burnout. The addition of these variables will further increase the utility of Williams’ tool and other similar well-being instruments.

However, for the claim of the objectivity of the well-being process to be further verified, larger and more culturally diverse samples should be studied. Also, as well-being is a multi-dimensional concept, with the DRIVE model being one that allows for the addition of the required variables to aid a better study of well-being bolstered by the use of the WPQ, further variables should be included. For instance, although resilience has been reported to be a protective factor against negative well-being, the longer and shorter scales used in the White British studies (Chapter 4) were incompatible and were subsequently not included. Future research should continue to test other scales of resilience for

addition to the WPQ until a suitable scale is found, which would help to get a more robust picture of well-being.

In the same vein, for the development of the cultural difference iteration of well-being, future research could consider either rephrasing the single items of ethnic identity based on its sub-components as operationalised by Phinney (1992) or look for other scales that could perform very similar measurements to the MEIM and would allow for the easy formulation of corresponding single items. Also, future cultural difference studies with the WPQ could consider using much larger samples in addition to studying ethnic minority samples according to their ethnic groups rather than as a single unit.

Future research could also consider using sampling techniques that are likely to be more representative of the population being studied. Also, data collection techniques should be such that they do not leave out certain segments of society to be able to get richer and meaningful results.

9.7. Conclusion

Well-being is basically an invariant process that has almost nothing to do with cultural differences.

9.8. Thesis' Contribution to Knowledge

- Work-life balance and burnout proved suitable for addition to future iterations of the WPQ
- Despite the stark cultural differences between Nigeria and the United Kingdom, the well-being process of their workers and students were very similar.
- Cultural differences do not play as important a role as expected in the well-being of ethnic minorities.
- Well-being is an invariant process when samples that can complete online surveys are used. This may not be the case if other methods of sampling and data collection are used.

REFERENCES

Adelabu, A. (1971). Studies in Trends in Nigeria's Educational Development: An Essay on Sources and Resources. *African Studies Review*, 14(1), 101-112. https://doi.org/10.2307/523614

Ahmad, M.I., Firman, K., Smith, H., & Smith, A.P (2018a). Psychological Contract Fulfilment and Well-Being. *Advances in Social Sciences Research Journal*, 5(12). https://dx.doi.org/10.14738/assrj.512.5758

Ahmad, M.I., Firman, K., Smith, H., & Smith, A.P. (2018). Short Measures of Organisational Commitment, Citizenship Behaviour and Other Employee Attitudes and Behaviours: Associations with Well-Being. *Business & Management Studies: An International Journal*, 6(3). https://dx.doi.org/10.15295/v6i3.391

Ahmad, M.I., & Smith, A. (2020a). Associations between perceptions of noise at work and the psychological contract. *In The 13th ICBEN Congress on Noise as a Public Health Problem* (pp. 1-7). Stockholm, Sweden.

Ahmad, M.I., & Smith, A. (2021). Associations Between Job Demands, Perceptions of Noise at Work and the Psychological Contract. In L. Longo & M. Chiara Leva, *Human Mental Workload: Models and Applications 4th International Symposium, H-WORKLOAD 2020* Granada, Spain, December 3–5, 2020 Proceedings (4th ed., pp. 138-146). Switzerland: Springer. Retrieved from https://doi.org/10.1007/978-3-030-62302-9

Ajayi, J.F.A. (1975). Higher Education in Nigeria. *African Affairs*, 74(297), 420-426. Retrieved 18 March 2021, from. https://www.jstor.org/stable/721685

Ajayi, J.F.A. (2021). Nigeria | Culture, History, & People. *Encyclopedia Britannica*. Retrieved 14 March 2021, from https://www.britannica.com/place/Nigeria/Government-and-society

Akintayo, D.I. (2010). Managerial Effectiveness: Impact of Emotional Intelligence and Work-Family Role Conflict in Work Organizations in Nigeria. *Eastern Africa Social Science Research Review*, 26(1), 23-40. https://dx.doi.org/10.1353/eas.0.0016

Akinwande, M.I., Dikko, H.G., & Gulumbe, S.U. (2015). Identifying the Limitation of Stepwise Selection for Variable Selection in Regression Analysis. *American Journal of Theoretical and Applied Statistics*, 4(5), 414. https://dx.doi.org/10.11648/j.ajtas.20150405.22

Alharbi, E.S., & Smith, A.P. (2018). Review of the Literature on Stress and Wellbeing of International Students in English-Speaking Countries. *International Education Studies*, 11(6), 22. https://dx.doi.org/10.5539/ies.v11n6p22

Alharbi, E., & Smith, A. (2019). Studying-away Strategies: A Three-wave Longitudinal Study of the Wellbeing of International Students in the United Kingdom. *The European Educational Researcher*, 2(1), 59-77. https://doi.org/10.31757/euer.215

Alheneidi, H.H. (2019) *The Influence of Information Overload and Problematic Internet Use on Adults Wellbeing* (Unpublished PhD Thesis) Cardiff University

Alheneidi, H., & Smith, A.P. (2020a). Problematic Internet Use and Wellbeing: A Study of Kuwait And UK Students. *International Journal of Education Humanities and Social Science*, 3;(4), 1-14. Retrieved 18 December 2020, from http://ijehss.com/.

Alheneidi, H., & Smith, A.P. (2020b). Effects of the Internet use on Wellbeing and Academic Attainment of Students Starting University. *International Journal of Humanities Social Sciences and Education*, 7(5), 20-34. https://doi.org/10.20431/2349-0381.0705003

Alheneidi, H., & Smith, A.P. (2020c). Perceptions of noise exposure, information overload, wellbeing and academic attainment. In *The 13th ICBEN Congress on Noise as a Public Health Problem (pp. 1-7). Stockholm*.

Ashby, E. (1964). *African Universities and Western Tradition*. Harvard University Press.

Aryee, S., Luk, V., Leung, A., & Lo, S. (1999). Role Stressors, Interrole Conflict, and Well-Being: The Moderating Influence of Spousal Support and Coping Behaviors among Employed Parents in Hong Kong. *Journal of Vocational Behavior*, 54(2), 259-278. https://dx.doi.org/10.1006/jvbe.1998.1667

Baeten, M., Kyndt, E., Struyven, K., & Dochy, F. (2010). Using student-centred learning environments to stimulate deep approaches to learning: Factors encouraging or discouraging their effectiveness. *Educational Research Review*, 5(3), 243-260. https://dx.doi.org/10.1016/j.edurev.2010.06.001

Ballard, B. (1987). Academic Adjustment: The Other Side of The Export Dollar. Higher Education Research & Development, 6(2), 109-119. https://dx.doi.org/10.1080/0729436870060203

Bergin, A., & Pakenham, K. (2014). Law Student Stress: Relationships Between Academic Demands, Social Isolation, Career Pressure, Study/Life Imbalance and Adjustment Outcomes in Law Students. *Psychiatry, Psychology and Law*, 22(3), 388-406. https://dx.doi.org/10.1080/13218719.2014.960026

Bernard, B. (1993). Fostering Resilience in Kids. *Educational Leadership*, 44-48.

Berry, J.W. (1997). Immigration, Acculturation, and Adaption. *Applied Psychology: An International Review*, 1997, 46(1), 5-68. http://dx.doi.org/10.1111/j.1464-0597.1997.tb01087.x

Betancourt, H., & López, S.R. (1993). The study of culture, ethnicity, and race in American psychology. *American Psychologist*, 48(6), 629-637. https://dx.doi.org/10.1037/0003-066x.48.6.629

Black, C. (2008). *Working for a Healthier Tomorrow*. London: The Stationery Office.

Bonanno, G.A. (2004). Loss, Trauma, and Human Resilience: Have We Underestimated the Human Capacity to Thrive After Extremely Aversive Events?. *American Psychologist*, 59(1), 20-28. https://dx.doi.org/10.1037/0003-066x.59.1.20

Booth, R., & Mohdin, A. (2018, December 3). Racism in Britain: The Stark Truth Uncovered. *The Guardian*, p. 1.

Bodenhorn, N., Miyazaki, Y., Ng, K., & Zalaquett, C. (2007). Analysis of the Inventory of College Students' Recent Life Experiences. *Multicultural Learning and Teaching*, 2(2). http://dx.doi.org/10.2202/2161-2412.1022

Bowen, L., & Smith, A.P. (2019). Drive better, feel better: Examining associations between well-being and driving behaviour in students. *Advances in Social Sciences Research Journal*, 6(2), 302-318. https://doi.org/10.14738/assrj.62.6221

Bowyer, K. (2012). A model of student workload. *Journal of Higher Education Policy and Management*, 34(3), 239-258. https://dx.doi.org/10.1080/1360080x.2012.678729

Brinner, R.B., Harris, C., & Daniels, K. (2004). How do work stress and coping work? Toward a fundamental theoretical reappraisal. *British Journal of Guidance & Counselling* 32(2), 223-234. http://dx.doi.org/10.1080/03069880410001692256

Burke, R.J., Koyuncu, M., Wolpin, J., Yirik, S., Koyuncu, K., & Yurcu, G. (2017). "Gender Similarities in Work Experiences, Satisfactions and Well-Being among Physicians in Turkey: One More Time". *JOJ Nursing & Health Care*, 3(4). https://dx.doi.org/10.19080/jojnhc.2017.03.555618

Burton, N.W., Pakenham, K.I., & Brown, W.J. (2010). Feasibility and effectiveness of psychosocial resilience training: A pilot study of the READY program. *Psychology, Health & Medicine*, 15(3), 266-277. https://dx.doi.org/10.1080/13548501003758710

Byron, K. (2005). A meta-analytic review of work–family conflict and its antecedents. *Journal of Vocational Behavior*, 67(2), pp.169-198.

Cambridge Online Dictionary (2020) DISCRIMINATION | meaning in the Cambridge English Dictionary. *Cambridge Online Dictionary*. (2020). Retrieved 30 June 2020, from https://dictionary.cambridge.org/dictionary/english/discrimination.

Cacioppo, J.T., & Berntson, G. G. (1999). The Affect System. *Current Directions in Psychological Science*, 8(5), 133-137. http://dx.doi.org/10.1111/1467-8721.00031

Capasso, R., Zurlo, M. C., & Smith, A. P. (2016). Work characteristics and occupational health in different ethnic groups In P. Waterson, R. Sims, & E. Hubbard (Eds.), *Contemporary Ergonomics and Human Factors 2016: Proceedings of the International Conference on Ergonomics & Human Factors 2016*, Daventry, Northamptonshire, UK, 19–21 April 2016 (pp. 160–166).

Capasso, R., Zurlo, M. C., & Smith, A. P. (2016b). Ethnicity and work-related stress in Eastern European care workers for the elderly: an application of a proposed multi-dimensional model. *Diversity & Equality in Health and Care*, 13(2), 197-205. https://doi.org/10.21767/2049-5471.100052

Carlson, D.S., & Perrewé, P.L. (1999). The Role of Social Support in the Stressor-Strain Relationship: An Examination of Work-Family Conflict. *Journal of Management*, 25(4), 513-540. https://dx.doi.org/10.1177/014920639902500403

Carvalho, V.S., Chambel, M.J., Neto, M., & Lopes, S. (2018). Does Work-Family Conflict Mediate the Associations of Job Characteristics With Employees' Mental Health Among Men and Women?. *Frontiers in Psychology*, 9(966), 1-12. https://dx.doi.org/10.3389/fpsyg.2018.00966

Chambel, M. J., & Curral, L. (2005). Stress in Academic Life: Work Characteristics as Predictors of Student Well-being and Performance. *Applied Psychology: An International Review*, 54(1), 135–147. https://doi.org/10.1111/j.1464-0597.2005.00200.x

Chambers, E. (1992). Work-load and the quality of student learning. *Studies in Higher Education*, 17(2), 141-153. https://dx.doi.org/10.1080/03075079212331382627

Chaney, W.A., Kishlansky, M.A., Josephson, P.R., Ravenhill, W., Spencer, U.M., & Kellner, P. et al (2020). United Kingdom | History, Population, Map, Flag, Capital, & Facts. Encyclopedia Britannica. Retrieved 2 June 2020, from https://www.britannica.com/place/United-Kingdom.

Chen, S. Y., & Fu, Y. C. (2009). Internet use and academic achievement: gender differences in early adolescence. *Adolescence*, 44(176), 797-812.

Clark, R., Anderson, N.B., Clark, V. R., & Williams, D. R. (1999). Racism as a stressor for African Americans: A biopsychosocial model. *American Psychologist*, 54(10), 805-816. http://dx.doi.org/10.1037/0003-066x.54.10.805

Cohen, S., Mermerlstein, R., Kamarck, T., & Hoberman, H.M. (1985). Social support: Theory, Research, and Applications. In I.G.Sarason & B. Sarason (Eds), *Social support: Theory, Research, and Applications* (pp. 73-94). The Hague: MartinusNijhoff. Retrieved from http://dx.doi.org/10.1007/978-94-009-5115-0_5

Connor, K.M., & Davidson, J.R.T. (2003). Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety*, 18(2), 76-82. https://dx.doi.org/10.1002/da.10113

Conrad, P. (1988). Health and fitness at work: A participants' perspective. *Social Science & Medicine*, 26(5), 545-550. http://dx.doi.org/10.1016/0277-9536(88)90387-5

Cooper, C. L. (2009). Editorial. *Stress and Health*, 25(1), 1-1. http://dx.doi.org/10.1002/smi.1256

Cordes, C., & Dougherty, T. (1993). A Review and an Integration of Research on Job Burnout. *The Academy of Management Review*, 18(4), 621. http://dx.doi.org/10.2307/258593

Cotton, S.J., Dollard, M.F., & de Jonge, J. (2002). Stress and Student Job Design: Satisfaction, Well-Being, and Performance in University Students. *International Journal of Stress Management*, 9(3), 147-162.

Cronbach, L. J. (1990). *Essentials of Psychological Testing* (5th ed.). HarperCollinsPublishers, Inc.

Danna, K., & Griffin, R. W. (1999). Health and Well-Being in the Workplace: A Review and Synthesis of the Literature. *Journal of Management*, 25(3), 357-384. http://dx.doi.org/10.1177/014920639902500305

Devlin, M., & Gray, K. (2007). In their own words: a qualitative study of the reasons Australian university students plagiarize. *Higher Education Research & Development*, 26(2), 181-198. https://dx.doi.org/10.1080/07294360701310805

Diener, E. (1984). Subjective Well-being. *Psychological Bulletin*, 95(3), 542-575.

Diener, E. & Suh, E.M. (1999). Well-being and the Workplace. In D. Kahneman, E. Diener & N. Schwarz (eds), *Well-being: The Foundations of Hedonic Psychology*. New York: Russell Sage Foundation.

Demerouti, E., Bakker, A.B., & Schaufeli, W.B. (2005). Spillover and crossover of exhaustion and life satisfaction among dual-earner parents. *Journal of Vocational Behavior*, 67(2), 266-289. https://dx.doi.org/10.1016/j.jvb.2004.07.001

Eby, L.T., Casper, W.J., Lockwood, A., Bordeaux, C. & Brinley, A. (2005). Work and family research in IO/OB: Content analysis and review of the literature (1980–2002). *Journal of Vocational Behavior, 66(1), pp.124-197.* http://dx.doi.org/10.1016/j.jvb.2003.11.003

Ekundayo, M.S. (2012). *The Use of Activity Theory to Explain the Complexities Surrounding the Use of ICT in Overcrowded University Classrooms: The Case of Nigeria* (PhD). Auckland University of Technology.

Elfering, A., Igic, I., Kritzer, R., & Semmer, N.K. (2020). Commuting as a work-related demand: Effects on work-to-family conflict, affective commitment, and intention to quit. *Psych Journal*, 9(4), 562-577. https://doi.org/10.1002/pchj.350

Evans, J.D. (1996) *Straightforward Statistics for the Behavioral Sciences*. Brooks/Cole Publishing.

Fafunwa, A.B. (1977). *History of education in Nigeria* (6th ed.). Allen & Unwin.

Falola, T.O., Kirk-Grene, A.H.M., Udo, R.K., & Ajayi, J.F.A. (2020). Nigeria | Culture, History, & People. *Encyclopedia Britannica*. Retrieved 10 April 2020, from https://www.britannica.com/place/Nigeria

Fan, J., & Smith, A.P. (2017). The Impact of Workload and Fatigue on Performance. In L. Longo & M. Leva, *H-WORKLOAD 2017, CCIS 726* (1st ed., pp. 90-105). Springer. Retrieved 18 December 2020, from http://dx.doi.org/10.1007/978-3-319-61061-0_6

Fan, J., & Smith, A.P. (2018). The Mediating Effect of Fatigue on Work-Life Balance and Positive Well-Being in Railway Staff. *Open Journal of Social Sciences*, 06(06), 1-10. https://doi.org/10.4236/jss.2018.66001

Fan, J., & Smith, A.P. (2019). Mental Workload and Other Causes of Different Types of Fatigue in Rail Staff. In L. Longo & M. Leva H-WORKLOAD 2018, CCIS 1012, (pp. 147–159). Springer. Retrieved 18 December 2020, from https://doi.org/10.1007/978-3-030-14273-5_9

Firth, H., & Britton, P. (1989). "Burnout," absence and turnover amongst British nursing staff. *Journal of Occupational Psychology*, 62(1), 55–59. https://dx.doi.org/10.1111/j.2044-8325.1989.tb00477.x

Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*, 21(3), 219–239. https://doi.org/10.2307/2136617

Fonberg, J., & Smith, A.P. (2019). The Validity of a Single Question about Life Satisfaction. International *Journal of Arts Humanities and Social Sciences*, Volume 4(Issue 2), 38-44.

Fonberg, J., & Smith, A. (2020). Cross-National Variation in the Predictors of Wellbeing: Life Domains and Positive Personality Traits. *Sumerianz Journal of Behavioral Science and Psychological Studies*, 1(4), 99-106.

Fredrickson, B.M., Tugade, M.M., Waugh, C.E., & Larkin, G.R. (2003). What good are positive emotions in crisis? A prospective study of resilience and emotions following the terrorist attacks on the United States on September 11th, 2001. *Journal of Personality and Social Psychology*, 84(2), 365-376. https://dx.doi.org/10.1037/0022-3514.84.2.365

Frone, M. R. (2003). Work-family balance. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of occupational health psychology* (p. 143–162). American Psychological Association. https://dx.doi.org/10.1037/10474-007

Galvin, J., & Smith, A.P. (2015). Stress in U.K. Mental Health Training: A Multi-dimensional Comparison Study. *British Journal of Education, Society & Behavioural Science*, 9(3), 161-175. https://doi.org/10.9734/bjesbs/2015/18519

Galvin, J. (2016). *A multi-method approach to researching stress and mental health in two groups of healthcare students: nursing students and trainee clinical psychologists* (unpublished PhD Thesis). Cardiff University.

Garmezy, N. (1987). Stress, competence, and development: Continuities in the study of schizophrenic adults, children vulnerable to psychopathology, and the search for stress-resistant children. *American Journal of Orthopsychiatry*, 57(2), 159-174. http://dx.doi.org/10.1111/j.1939-0025.1987.tb03526.x

Glennie, E.J. (2010). Coping and Resilience. In J.A. Rosen, E.J. Glennie, B.W. Dalton, J.M. Lennon & R.N. Bozick, *Noncognitive Skills in the Classroom: New Perspectives on Educational Research* (pp. 169-194). North Carolina: Research Triangle Institute.

Golembiewski, R. T. (1989). A Note on Leiter's Study. *Group & Organization Studies*, 14(1), 5-13. https://doi.org/10.1177/105960118901400102

Grandey, A.A., Cordeiro, B.L., & Crouter, A.C. (2005). A longitudinal and multi-source test of the work-family conflict and job satisfaction relationship. *Journal of Occupational and Organizational Psychology*, 78(3), 305-323. https://dx.doi.org/10.1348/096317905x26769

Greenhaus, J.H., & Beutell, N.J. (1985). Sources of Conflict between Work and Family Roles. The *Academy of Management Review*, 10(1), 76. http://dx.doi.org/10.2307/258214

Grzywacz, J. G. & Marks, N. F. (2000). Reconceptualizing the work–family interface: An ecological perspective on the correlates of positive and negative spillover between work and family. *Journal of Occupational Health Psychology*, 5(1), pp.111-126.

Harter, J.K., Schmidt, F.L., & Keyes, C.L.M. (2003). Well-Being in the Workplace and its Relationship to Business Outcomes: A Review of the Gallup Studies. In C. Keyes & J. Haidt (Eds.), *Positive Psychology and the Life Well-lived* (1st ed., pp. 205-224). Washington D.C.: American Psychological Association

Health and Safety Executive (2018), Health and Safety Statistics http://www.hse.gov.uk/statistics/ accessed July 11, 2019.

Health and Safety Executive (2018b), Work-*related Ill Health and Occupational Disease in Great Britain* http://www.hse.gov.uk/statistics/causdis/ accessed July 11, 2019

Health and Safety Executive (2018c) *Costs to Great Britain of workplace injuries and new cases of work-related Ill Health – 2016/17* http://www.hse.gov.uk/statistics/cost.htm accessed July 11, 2019

Health Scotland. (2007). *Review of scales of positive mental health validated for use with adults in the UK: Technical report.* Health Scotland.

Higgins, C.A., Duxbury, L.E., & Irving, R.H. (1992). Work-family conflict in the dual-career family. *Organizational Behavior and Human Decision Processes*, 51(1), 51-75. http://dx.doi.org/10.1016/0749-5978(92)90004-q

Hofstede, G., Hofstede, G.H., & Minkov, M. (2010). *Culture and Organizations: Software of the Mind*. McGraw Hill.

Holm, S. (1979). A simple sequential rejective method procedure. *Scandinavian Journal of Statistics*, 6, 65-70.

Howells, K., & Smith, A.P. (2019). Daytime Sleepiness and the Well-Being and Academic Attainment of University Students in the UK. *OBM Neurobiology*, 3(3), 1-18. https://doi.org/10.21926/obm.neurobiol.1903032

Inglehart, R., Basáñez, M., & Menéndez Moreno, A. (1998). *Human values and Beliefs: A Cross-Cultural Sourcebook*. University of Michigan Press.

International Organization for Migration. (2017). *World Migration Report 2018*. Geneva: International Organization for Migration.

Jackson, S.E., & Maslach, C. (1982). After-effects of job-related stress: Families as victims. *Journal of Organizational Behavior*, 3(1), 63-77. https://dx.doi.org/10.1002/job.4030030106

Jebb, A.T., Morrison, M., Tay, L., & Diener, E. (2020). Subjective Well-Being Around the World: Trends and Predictors Across the Life Span. *Psychological Science*, 31(3), 293-305. https://dx.doi.org/10.1177/0956797619898826

Jeong, H.S., Kang, I., Namgung, E., Im, J.J, Jeon, Y., & Son, J. et al. (2015). Validation of the Korean version of the Connor–Davidson Resilience Scale-2 in firefighters and rescue workers. *Comprehensive Psychiatry*, 59, 123-128. https://dx.doi.org/10.1016/j.comppsych.2015.01.006

Johnson, J., & Hall, E. (1988). Job strain, work place social support, and cardiovascular disease: a cross-sectional study of a random sample of the Swedish working population. *American Journal of Public Health,* 78(10), 1336-1342. http://dx.doi.org/10.2105/ajph.78.10.1336

Jones, T. (1996). *Britain's ethnic minorities*. London: Policy Studies Institute.

Junco, R. (2012). Too much face and not enough books: The relationship between multiple indices of Facebook use and academic performance. *Computers in Human Behavior*,28(1), 187-198.

Kahn, R.L., Wolfe, D.M., Quinn, R.P., Snoek, J.D., & Rosenthal, R.A. (1964). *Organizational stress: studies in role conflict and ambiguity*. New York: Wiley.

Karaırmak, Ö., & Figley, C. (2017). Resiliency in the Face of Adversity: A Short Longitudinal Test of the Trait Hypothesis. *The Journal of General Psychology*, 144(2), 89-109. https://dx.doi.org/10.1080/00221309.2016.1276043

Karasek, R. (1979). Job Demands, Job Decision Latitude, and Mental Strain: Implications for Job Redesign. *Administrative Science Quarterly*, 24, 285-308. http://dx.doi.org/10.2307/2392498

Kember, D. (2004). Interpreting student workload and the factors which shape students' perceptions of their workload. *Studies in Higher Education*, 29(2), 165-184. https://dx.doi.org/10.1080/0307507042000190778

Keselman, H.J., & Keselman, J.C. (1988). Repeated Measures Multiple Comparison Procedures: Effects of Violating Multisample Sphericity in Unbalanced Designs. *Journal of Educational Statistics*, 13(3), 215-226. https://doi.org/10.2307/1164652

Kingma, M. (2008). Nurse Migration and the Global Health Care Economy. *Policy, Politics, & Nursing Practice*, 9(4), 328-333. http://dx.doi.org/10.1177/1527154408327920

Kingsland, A.J. (1996). Time expenditure, workload, and student satisfaction in problem-based learning. *New Directions for Teaching and Learning*, 1996(68), 73-81. https://dx.doi.org/10.1002/tl.37219966811

Kirschner, P. A., & Karpinski, A. C. (2010). Facebook® and academic performance. *Computers in Human Behavior*, 26(6), 1237-1245.

Kohn, P.M., Lafreniere, K., & Gurevich, M. (1990). The Inventory of College Students' Recent Life Experiences: A decontaminated hassles scale for a special population. *Journal of Behavioral Medicine,* 13(6), 619-630. http://dx.doi.org/10.1007/bf00844738

Kyndt, E., Berghmans, I., Dochy, F., & Bulckens, L. (2014). 'Time is not enough.' Workload in higher education: a student perspective. Higher Education Research & Development, 33(4), 684-698. https://dx.doi.org/10.1080/07294360.2013.863839

Langer, J., Smith, A., & Taylour, J. (2019). Mental Workload and Other Causes of Different Types of Fatigue in Rail Staff. In R. Charles & D. Golightly, *Contemporary Ergonomics and Human Factors 2019* (pp. 223-233). Chartered Institute of Ergonomics and Human Factors.

Langer, J., Taylour, J. & Smith, A.P. (2020). Noise exposure, satisfaction with the working environment, and the wellbeing process. *In The 13th ICBEN Congress on Noise as a Public Health Problem* (pp. 1-8). Stockholm.

Lee, J.W., Jones, P.S., Mineyama, Y., & Zhang, X.E. (2002). Cultural differences in responses to a Likert scale. *Research in Nursing & Health*, 25(4), 295-306. https://dx.doi.org/10.1002/nur.10041

Lee, R.T., & Ashforth, B.E. (1990). On the meaning of Maslach's three dimensions of burnout. *Journal of Applied Psychology*, 75(6), 743-747. http://dx.doi.org/10.1037/0021-9010.75.6.743

Lee, R.T., & Ashforth, B.E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology*, 81(2), 123-133. http://dx.doi.org/10.1037/0021-9010.81.2.123

Leiter, M.P. (1990). The Impact of Family Resources, Control Coping, and Skill Utilization on the Development of Burnout: A Longitudinal Study. *Human Relations*, 43(11), 1067-1083. https://dx.doi.org/10.1177/001872679004301102

Leiter, M.P. (1991a). Burnout as a crisis in professional role structures: Measurement and conceptual issues. *Anxiety, Stress, & Coping*, 5(1), 79-93. https://dx.doi.org/10.1080/10615809208250489

Leiter, M.P. (1991b). Coping patterns as predictors of burnout: The function of control and escapist coping patterns. *Journal of Organizational Behavior*, 12(2), 123-144. https://dx.doi.org/10.1002/job.4030120205

Leiter, M.P. (1993). Burnout as a developmental process: Consideration of models. In W. Schaufeli, C. Maslach & T. Marek (Eds), *Professional burnout: Recent developments in theory and research* (pp. 237-250). Taylor & Francis.

Lepp, A., Barkley, J. E., & Karpinski, A. C. (2015). The relationship between cell phone use and academic performance in a sample of US college students. *Sage Open*, 5(1), 343-350.

Likupe, G., & Archibong, U. (2013). Black African Nurses' Experiences of Equality, Racism, and Discrimination in the National Health Service. *Journal of Psychological Issues in Organizational Culture*, 3(S1), 227-246. https://dx.doi.org/10.1002/jpoc.21071

Lim, J., Bogossian, F., & Ahern, K. (2010a). Stress and coping in Singaporean nurses: A literature review. *Nursing & Health Sciences*, 12(2), 251-258. http://dx.doi.org/10.1111/j.1442-2018.2010.00514.x

Loh, J.M.I., Schutte, N.S., & Thorsteinsson, E.B. (2013). Be Happy: The Role of Resilience Between Characteristic Affect and Symptoms of Depression. *Journal of Happiness Studies*, 15(5), 1125-1138. https://dx.doi.org/10.1007/s10902-013-9467-2

Lonner, W.J., & Malpass, R.S. (1994). When Psychology and Culture Meet: An Introduction to Cross-Cultural Psychology. In W. Lonner & R. Malpass, *Psychology and Culture* (pp. 1-12). Allyn and Bacon.

Lup, K., Trub, L., & Rosenthal, L. (2015). Instagram #instasad?: exploring associations among Instagram use, depressive symptoms, negative social comparison, and strangers followed. *Cyberpsychology, Behavior, and Social Networking*, 18(5), 247-252.

Luria, R. E. (1975). The validity and reliability of the Visual Analogue Mood scale. *Journal of Psychiatric Research,* 12(1), 51-57.

Maxwell, S.E. (1980). Pairwise Multiple Comparisons in Repeated Measures Designs. *Journal of Educational Statistics*, 5(3), 269-287. https://doi.org/10.2307/1164969

Mabogunje, A.L. (2019). Niger River | river, Africa. *Encyclopedia Britannica*. Retrieved 10 April 2020, from https://www.britannica.com/place/Niger-River

MacKay, C.J., Cousins, R., Kelly, P.J., Lee, S., & McCaig, R.H. (2004). 'Management Standards' and work-related stress in the UK: policy background and science. *Work & Stress*, 18(2), 91-112. https://doi.org/10.1080/02678370410001727474

Madood, T., Berthoud, R., Lakey, J., Nazroo, J., Smith, P., Virdee, S., & Beishon, S. (1997). *Ethnic minorities in Britain.* London: Policy Studies Institute.

Mark, G., & Smith, A. (2008). Stress Models: A Review and Suggested New Direction. In J. Houdmont & S. Leka, *Occupational Health Psychology Volume* 3 (pp. 111-144). Nottingham University Press.

Mark, G., & Smith, A.P. (2012a). Occupational stress, job characteristics, coping, and the mental health of nurses. *British Journal of Health Psychology*, 17(3), 505-521. http://dx.doi.org/10.1111/j.2044-8287.2011.02051.x

Mark, G., & Smith, A.P. (2012b). Effects of occupational stress, job characteristics, coping, and attributional style on the mental health and job satisfaction of university employees. *Anxiety, Stress & Coping*, 25(1), 63-78. http://dx.doi.org/10.1080/10615806.2010.548088

Maslach, C., & Jackson, S.E. (1981) *Maslach Burnout Inventory*. Palo Alto, CA: Consulting Psychologists Press

Maslach, C., Jackson, S.E. and Leiter, M. P. (1996) *Maslach Burnout Inventory* (3rd edition). Palo Alto, CA: Consulting Psychologists Press

Maslach, C., & Leiter, M.P. (1997). *The Truth about Burnout: how Organizations Cause Personal Stress and what to do about it* (1st ed.). Jossey-Bass Publishers.

Maslach, C., & Schaufeli, W.B. (2017). Historical and Conceptual Development of Burnout. In W.B. Schaufeli, C. Maslach & T. Marek, *Professional Burnout: Recent Developments in Theory and Research* (Volume 33, pp. 1-16). Routledge.

Masten, A. (2001). Ordinary Magic: Resilience Processes in Development. *American Psychologist*, 56(3), 227-238. https://dx.doi.org/10.1037/0003-066X.56.3.227

Mccraty, R., & Atkinson, M. (2012). Resilience Training Program Reduces Physiological and Psychological Stress in Police Officers. *Global Advances in Health and Medicine*, 1(5), 44-66. https://dx.doi.org/10.7453/gahmj.2012.1.5.013

McDonald, G., Jackson, D., Wilkes, L., & Vickers, M.H. (2012). A work-based educational intervention to support the development of personal resilience in nurses and midwives. *Nurse Education Today*, 32(4), 378-384. https://dx.doi.org/10.1016/j.nedt.2011.04.012

Mealer, M.L., Shelton, A., Berg, B., Rothbaum, B., & Moss, M. (2007). Increased Prevalence of Post-traumatic Stress Disorder Symptoms in Critical Care Nurses. *American Journal of Respiratory and Critical Care Medicine*, 175(7), 693-697. https://dx.doi.org/10.1164/rccm.200606-735oc

Mealer, M., Jones, J., Newman, J., McFann, K.K., Rothbaum, B., & Moss, M. (2012). The presence of resilience is associated with a healthier psychological profile in intensive care unit (ICU) nurses: Results of a national survey. *International Journal of Nursing Studies*, 49(3), 292-299. https://dx.doi.org/10.1016/j.ijnurstu.2011.09.015

Michel, J.S., Kotrba, L.M., Mitchelson, J.K., Clark, M.A., & Baltes, B.B (2011). Antecedents of work-family conflict: A meta-analytic review. *Journal of Organizational Behavior*, 32(5), 689-725. http://dx.doi.org/10.1002/job.695

Minkov, M., Bond, M.H., Dutt, P., Schachner, M., Morales, O., & Sanchez, C. et al. (2018). A Reconsideration of Hofstede's Fifth Dimension: New Flexibility Versus Monumentalism Data From 54 Countries. *Cross-Cultural Research*, 52(3), 309-333. https://doi.org/10.1177/1069397117727488

Mullins, G., Quintrell, N., & Hancock, L. (1995). The Experiences of International and Local Students at Three Australian Universities. *Higher Education Research & Development*, 14(2), 201-231. https://dx.doi.org/10.1080/0729436950140205

National Universities Commission (2021). Retrieved 15 March 2021, from https://www.nuc.edu.ng/.

Nazroo, J.Y. (1997a). *Ethnicity and mental health Findings from a National Community Survey*. London: Policy Studies Institute.

Nazroo, J.Y. (1997b). *The Health of Britain's Ethnic Minorities*. London: Policy Studies Institute.

Nelson, K.V. (2017) *Behind the Frontlines: Occupational Stress and Well-being in Jamaican Police Officers* (Unpublished PhD Thesis)

Nelson, K.V., & Smith, A.P. (2016). Occupational stress, coping and mental health in Jamaican police officers. *Occupational Medicine*, 66(6), 488-491. https://dx.doi.org/10.1093/occmed/kqw055

Netemeyer, R.G., Boles, J.S., & McMurrian, R. (1996). Development and Validation of Work-Family Conflict and Family-Work Conflict Scales. *Journal of Applied Psychology*, 81(4), 400-410. http://dx.doi.org/10.1037/0021-9010.81.4.400

Neto, M., Carvalho, V.S., Chambel, M.J., Manuel, S., Pereira Miguel, J., & de Fátima Reis, M. (2016). Work-Family Conflict and Employee Well-Being Over Time. *Journal of Occupational and Environmental Medicine*, 58(5), 429-435. https://dx.doi.org/10.1097/jom.0000000000000707

Neveu, J. (2006). Jailed resources: conservation of resources theory as applied to burnout among prison guards. *Journal of Organizational Behavior*, 28(1), 21-42. http://dx.doi.org/10.1002/job.393

Nohe, C., Meier, L.L., Sonntag, K., & Michel, A. (2015). The chicken or the egg? A meta-analysis of panel studies of the relationship between work–family conflict and strain. *Journal of Applied Psychology*, 100(2), 522-536. https://dx.doi.org/10.1037/a0038012

Office of National Statistics. (2019). *Personal and economic well-being in the UK: April 2019* (pp. 6,12,13). Retrieved from https://www.ons.gov.uk/releases/personalandeconomicwellbeingintheukapril2019

Office of National Statistics. (2019b). *Employment in the UK: August 2019* (pp. 1-17). Retrieved from https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/uklabourmarket/august2019

Ozyurt, A., Hayran, O., & Sur, H. (2006). Predictors of burnout and job satisfaction among Turkish physicians. *Q J Med*, 99(3), 161-169. http://dx.doi.org/10.1093/qjmed/hcl019

Perrewé, P.L., & Zellars, K.L. (1999). An examination of attributions and emotions in the transactional approach to the organizational stress process. *Journal of Organizational Behavior*, 20(5), 739-752. https://doi.org/10.1002/(sici)1099-1379(199909)20:5<739::aid-job1949>3.0.co;2-c

Peterson, C., 1991. The Meaning and Measurement of Explanatory Style. *Psychological Inquiry*, 2(1), pp.1-10.

Pilkington, A. (2003). *Racial disadvantage and ethnic diversity in Britain*. Hampshire: Palgrave MacMillan.

Pisanti, R., Gagliardi, M.P., Razzino, S., & Bertini, M. (2003). Occupational Stress and Wellness Among Italian Secondary School Teachers. *Psychology & Health*, 18(4), 523-536. https://dx.doi.org/10.1080/0887044031000147247

Pisanti, R., van der Doef, M., Maes, S., Lazzari, D., & Bertini, M. (2011). Job characteristics, organizational conditions, and distress/well-being among Italian and Dutch nurses: A cross-national comparison. International *Journal of Nursing Studies*, 48(7), 829-837. https://dx.doi.org/10.1016/j.ijnurstu.2010.12.006

Parkinson, J. (2008). *Review of Scales of Positive Mental Health Validated for use with Adults in the UK: Technical Report.* Edinburgh: Health Scotland.

Phinney, J.S. (1992). The Multigroup Ethnic Identity Measure. *Journal of Adolescent Research*, 7(2), 156-176. http://dx.doi.org/10.1177/074355489272003

Phinney, J.S., & Ong, A.D. (2007). Conceptualization and measurement of ethnic identity: Status and future directions. *Journal of Counseling Psychology*, 54(3), 271-281. http://dx.doi.org/10.1037/0022-0167.54.3.271

Pritchard, M.E., & McIntosh, D.N. (2003). What Predicts Adjustment Among Law Students? A Longitudinal Panel Study. *The Journal of Social Psychology*, 143(6), 727-745. https://dx.doi.org/10.1080/00224540309600427

Rice, V., & Liu, B. (2016). Personal resilience and coping Part II: Identifying resilience and coping among U.S. military service members and veterans with implications for work. *Work*, 54(2), 335-350. http://dx.doi.org/10.3233/wor-162301

Ryan, R., & Deci, E. (2001). On Happiness and Human Potentials: A Review of Research on Hedonic and Eudaimonic Well-Being. *Annual Review of Psychology*, 52(1), 141-166. http://dx.doi.org/10.1146/annurev.psych.52.1.141

Ryff, C.D., & Singer, B. (1996). Psychological Weil-Being: Meaning, Measurement, and Implications for Psychotherapy Research. *Psychotherapy and Psychosomatics*, *65*(1), 14-23. https://dx.doi.org/10.1159/000289026

Ryff, C.D. (2013). Psychological Well-Being Revisited: Advances in the Science and Practice of Eudaimonia. *Psychotherapy and Psychosomatics*, *83*(1), 10-28. https://dx.doi.org/10.1159/000353263

Sánchez-Martínez, M., & Otero, A. (2009). Factors associated with cell phone use in adolescents in the community of Madrid (Spain). *CyberPsychology & Behavior*, 12(2), 131-137.

Schaufeli, W.B., & Bakker, A.B. (2004). Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. *Journal of Organizational Behavior*, 25(3), 293-315. http://dx.doi.org/10.1002/job.248

Schaufeli, W., & Janczur, B. (1994). Burnout among Nurses: A Polish-Dutch Comparison. *Journal of Cross-Cultural Psychology*, 25(1), 95-113. https://dx.doi.org/10.1177/0022022194251006

Schimmack, U., Oishi, S., & Diener, E. (2002). Cultural influences on the relation between pleasant emotions and unpleasant emotions: Asian dialectic philosophies or individualism-collectivism?. *Cognition and Emotion*, 16(6), 705–719. https://doi.org/https://doi.org/10.1080/02699930143000590

Sheldon, K.M., & Krieger, L.S. (2004). Does legal education have undermining effects on law students? Evaluating changes in motivation, values, and well-being. *Behavioral Sciences & The Law*, 22(2), 261-286. https://dx.doi.org/10.1002/bsl.582

Szczepura, A., Gumber, A., Clay, D., Davies, R., Elias, P., & Johnson, M. et al. (2004). *Review of Occupational Health and Safety of Britain's Ethnic Minorities.* Norwich: Her Majesty's Stationery Office.

Seago, J. A., & Spetz, J. (2008). Minority nurses' experiences on the job. *Journal of Cultural Diversity*, 15(1), 17-23.

Shin, J., Taylor, M.S., & Seo, M. (2012). Resources for Change: The Relationships of Organizational Inducements and Psychological Resilience to Employees' Attitudes and Behaviors toward Organizational Change. *Academy of Management Journal*, 55(3), 727-748. http://dx.doi.10.5465/amj.2010.0325

Sigelman, L., & Welch, S. (1994). *Black Americans' views of racial inequality – The Dream Deferred*. Cambridge [England]: Cambridge University Press.

Smith, A., Wadsworth, E., Moss, S., & Simpson, S. (2004). *The Scale and Impact of Drug Use by Workers (Report 193)*. HSE Research, HSE Books.

Smith, A.P., & Firman, K.L. (2020). The Microstructure of the Student Wellbeing Process Questionnaire. *Journal of Education, Society and Behavioural Science*, 76-83. https://doi.org/10.9734/jesbs/2020/v33i130196

Smith, A. (2015). Stress and Wellbeing at Work: An Update. In S. Sharples, S. Shorrock & P. Waterson (Eds), *Contemporary Ergonomics and Human Factors* (pp. 415-422). CRC Press.

Smith, A.P. (2017). Prior and current perceptions of noise exposure: effects on university students' wellbeing and attainment. *In 12th ICBEN Congress on Noise as a Public Health Problem* (pp. 1-11). Zurich; ICBEN.

Smith, A.P. (2018). Cognitive Fatigue and the Wellbeing and Academic Attainment of University Students. Journal of Education, Society and Behavioural Science, 24(2), 1-12. http://dx.doi.org/ 10.9734/jesbs/2018/39529

Smith, A. (2019). Student Workload, Wellbeing and Academic Attainment. In L. Longo & M. Leva, Human Mental Workload: Models and Applications (pp. 35-47). Springer Nature. https://doi.org/10.1007/978-3-030-32423-0_3

Smith, A.P. (2019b). Smoking, Alcohol, Wellbeing and Academic Attainment. *Journal of Health and Medical Sciences*, 2(3), 337-343. https://doi.org/10.31014/aior.1994.02.03.55

Smith, A.P. (2019c). Smoking, Wellbeing and Academic Attainment. Journal of Health and Medical Sciences, 2(3), 279-284. https://doi.org/10.31014/aior.1994.02.03.48

Smith, A.P., (in preparation, a). A holistic approach to the well-being of nurses: A combined effects approach. *Nursing Standard*.

Smith, A.P., (in preparation,b). A combined effects approach to the Demands-Resources-Individual Effects (DRIVE) model of the wellbeing-process. *World Journey of Methodology*

Smith, A.P., & Izadyar, S. (2020). Effects of The Internet, Other Media and Study Time on Wellbeing and Academic Attainment of University Students. International Journal of Education Humanities and Social Science, 3(2), 1-13. Retrieved 18 December 2020, from http://ijehss.com/.

Smith, A.P, & Smith, H. (2017a). An International Survey of the Wellbeing of Employees in the Business Process Outsourcing Industry. *Psychology*, 08(01), 160-167. http://dx.doi.org/10.4236/psych.2017.81010

Smith, A., & Smith, H. (2017b). Workload, Performance and Fatigue in the Rail Industry. In L. Longo & M. Leva*, H-Workload 2017*, CCIS 726 (pp. 251-263). Springer International Publishing. Retrieved 28 December 2020, from http://doi.org/10.1007/978-3-319-61061-0_17.

Smith, A.P. and Smith, H.N., 2019. Wellbeing at Work and the Lie Scale. *Journal of Health and Medical Sciences*, 2(1), pp.40-51. https://doi.org/10.31014/aior.1994.02.01.18

Smith, A.P., Smith, H., & Jelley, T. (2018). Studying Away Strategies: Well-being and Quality of University Life of International Students in the UK. *Journal of Education, Society and Behavioural Science*, 26(4), 1-14. http://dx.doi.org/10.9734/jesbs/2018/43377

Smith, A., Wadsworth, E., Shaw, C., Stansfeld, S., Bhui, K., & Dhillon, K. (2005). *Ethnicity, work characteristics, stress and health*. Research Report 308. Norwich: HSE Books.

Smith, A., & Wadsworth, E. (2011). *A Holistic Approach to Stress and Wellbeing at Work. Occupational Health* [At Work], 8(4).

Smith, A.P. & Wadsworth, E.J.K. (2015) 'The good job score: associations with positive and negative outcomes'. In *Contemporary Ergonomics and Human Factors 2015*. S Sharples, S. Shorrock & P. Waterson. (Ed). CRC Press.

Souto-Iglesias, A., & Baeza_Romero, M.T. (2018). Correction to: A probabilistic approach to student workload: empirical distributions and ECTS. *Higher Education*, 76(6), 1027-1027. https://dx.doi.org/10.1007/s10734-018-0270-1

Suh, E.M. (2000). Self, the Hyphen between Culture and Subjective Well-being. In E. Diener & E.M Suh (Eds), *Culture and Subjective Well-being* (pp. 63-86). Massachusetts Institute of Technology.

Szalai, A. (Ed.) (1972) *The use of time: Daily activities of urban and suburban populations in twelve countries.* Moutom

Tajfel, H. (1981). *Human Groups and Social Categories*. Cambridge University Press.

Tandoc, E. C., Ferrucci, P., & Duffy, M. (2015). Facebook use, envy, and depression among college students: Is Facebooking depressing?. *Computers in Human Behavior*, 43, 139- 146.

The World Bank Group (2020) *GDP (current US$) - Nigeria, United Kingdom* Retrieved 17 June 2020, from https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=NG-GB.

Thomas, L.J., & Revell, S.H. (2016). Resilience in nursing students: An integrative review. *Nurse Education Today*, 36, 457-462. http://dx.doi.org/10.1016/j.nedt.2015.10.016

Thomas, W., & Kellner, P. (2020). England - People. Encyclopaedia Britannica. Retrieved 2 June 2020, from https://www.britannica.com/place/England/People.

Triandis, H.C. (2000). Cultural Syndromes and Subjective Well-being. In E. Diener & E.M Suh (Eds), *Culture and Subjective Well-being* (pp. 13-36). Massachusetts: Massachusetts Institute of Technology

Tugade, M.M., & Fredrickson, B.L. (2004). Resilient Individuals Use Positive Emotions to Bounce Back from Negative Emotional Experiences. *Journal of Personality and Social Psychology*, 86(2), 320-333. https://dx.doi.org/10.1037/0022-3514.86.2.320

Tusaie, K., & Dyer, J. (2004). Resilience: A Historical Review of a Construct. *Holistic Nursing Practice*, 18(1), 3-10. https://dx.doi.org/10.1097/00004650-200401000-00002

Umurkulova, M.M., Sabirova, R.S., Slanbekova, G.K., Kabakova, M.P., & Kalymbetova, E.K. (2021). Adaptation of the Student Well-being Process Questionnaire for Russian-speaking students of Kazakhstan. International *Journal of School & Educational Psychology*, 1-12. https://dx.doi.org/10.1080/21683603.2020.1859420

University of Ibadan (2021) Home | UNIVERSITY OF IBADAN. Ui.edu.ng. (2021). Retrieved 18 March 2021, from https://www.ui.edu.ng/

Universities UK. (2016). *University Funding Explained*. Universities UK

Vallone, F. (2017). *Stress and wellbeing in nursing: a multi-dimensional approach* (Unpublished PhD thesis). UNIVERSITÀ DEGLI STUDI DI NAPOLI Federico II.

Vaishnavi, S., Connor, K., & Davidson, J. (2007). An abbreviated version of the Connor-Davidson Resilience Scale (CD-RISC), the CD-RISC2: Psychometric properties and applications in psychopharmacological trials. *Psychiatry Research*, 152(2-3), 293-297. http://dx.doi.org/10.1016/j.psychres.2007.01.006

Veenhoven, R. (2000). Freedom and Happiness: A Comparative Study in Forty-four Nations in the Early 1990s. In E. Diener & E.M Suh (Eds), *Culture and Subjective Well-being* (pp. 257-288). Massachusetts: Massachusetts Institute of Technology

Waddell, G., & Burton, A. (2006). *Is Work Good for your Health and Well-Being?*. London: The Stationery Office.

Waugh, C.E., & Koster, E.H.W. (2015). A resilience framework for promoting stable remission from depression. *Clinical Psychology Review*, 41, 49-60. https://dx.doi.org/10.1016/j.cpr.2014.05.004

Wanous, J.P., Reichers, A.E., & Hudy, M.J. (1997). Overall job satisfaction: How good are single-item measures?. *Journal of Applied Psychology*, 82(2), 247-252. http://dx.doi.org/10.1037//0021-9010.82.2.247

Wanous, J., & Hudy, M. (2001). Single-Item Reliability: A Replication and Extension. *Organizational Research Methods*, 4(4), 361-375. http://dx.doi.org/10.1177/109442810144003

Warr, P. (1999). Well-being and the Workplace. In D. Kahneman, E. Diener & N. Schwarz (eds), *Well-being: The Foundations of Hedonic Psychology*. New York: Russell Sage Foundation.

Watanabe, M., & Yamauchi, K. (2016). Psychosocial Factors of Overtime Work in Relation to Work-Nonwork Balance: A Multilevel Structural Equation Modeling Analysis of Nurses Working in Hospitals. *International Journal of Behavioral Medicine,* 23(4), 492-500. http://dx.doi.org/10.1007/s12529-016-9563-x

Watkins, C. L., Lightbody, C. E., Sutton, C. J., Holcroft, L., Jack, C. I. A., Dickinson, H. A., et al. (2007). Evaluation of a single-item screening tool for depression after stroke: A cohort study. *Clinical Rehabilitation*, 21(9), 846-852.

Williams, G., & Smith, A. (2012). A holistic approach to stress and wellbeing Part 6: The Wellbeing Process Questionnaire (WPQ). *Occupational Health at Work*, 9(1), 29-31.

Williams, G.M. (2015) *Researching and developing mental health and well-being assessment tools for supporting employers and employees in Wales*. Unpublished PhD Thesis. Cardiff University

Williams, G.M., & Smith, A.P. (2016). Using Single-Item Measures to Examine the Relationships between Work, Personality, and Well-Being in the Workplace. *Psychology*, 07(06), 753-767. http://dx.doi.org/10.4236/psych.2016.76078

Williams, G.M., Pendlebury, H., & Smith, A.P. (2017). Stress and Well-Being of Nurses: An Investigation Using the Demands-Resources-Individual Effects (DRIVE) Model and Well-Being Process Questionnaire. *Jacobs Journal of Depression and Anxiety*, 1(1).

Williams, G.M., Thomas, K., & Smith, A.P. (2017). Stress and Well-Being of University Staff: An Investigation Using the Demands-Resources- Individual Effects (DRIVE) Model and Well-Being Process Questionnaire (WPQ). *Psychology*, 08(12), 1919-1940. http://dx.doi.org/10.4236/psych.2017.812124

Williams, G., Pendlebury, H., Thomas, K., & Smith, A. (2017). The Student Well-Being Process Questionnaire (Student WPQ). *Psychology*, 08(11), 1748-1761. http://dx.doi.org/10.4236/psych.2017.811115

Williams, G., & Smith, A.P. (2018). A Longitudinal Study of the Well-being of Students Using the Student Wellbeing Process Questionnaire (Student WPQ). *Journal of Education, Society and Behavioural Science*, 24(4), 1-6. http://dx.doi.org/10.9734/jesbs/2018/40105

Williams, G., & Smith, A.P. (2018b). Diagnostic validity of the anxiety and depression questions from the Well-Being Process Questionnaire. *Journal of Clinical and Translational Research.* http://dx.doi.org/10.18053/jctres.04.201802.001

What Works Centre for Wellbeing. (2018). *Who participates in different cultural activities?* Retrieved 5 August 2019, from https://whatworkswellbeing.org/blog/who-participates-in-different-cultural-activities/

World Values Surveys (2020). *Fieldwork and Sampling* Retrieved 16 November 2020, from http://www.worldvaluessurvey.org/WVSContents.jsp.

World Values Surveys (2020). *Findings and Insights* Retrieved 20 June 2020, from http://www.worldvaluessurvey.org/WVSContents.jsp.

Yeh, C.J., & Inose, M. (2003). International students' reported English fluency, social support satisfaction, and social connectedness as predictors of acculturative stress. *Counselling Psychology Quarterly*, 16(1), 15-28. https://dx.doi.org/10.1080/0951507031000114058

Youssef, C.M., & Luthans, F. (2007). Positive Organizational Behavior in the Workplace. *Journal of Management*, 33(5), 774-800. https://dx.doi.org/10.1177/0149206307305562

Zaiedy Nor, N., & Smith, A.P. (2019). Psychosocial Characteristics, Training Attitudes and Well-being of Students: A Longitudinal Study. *Journal of Education, Society and Behavioural Science*, 1-26. https://doi.org/10.9734/jesbs/2019/v29i130100