

**Being on-call: an exploration of the experiences of doctors and significant others**

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I declare that this thesis is my own work and has not been submitted for the award of a higher degree elsewhere

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“I can do all things through Christ who strengthens me” (Philippians 4:13).

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## **ABSTRACT**

Previous research has not compared proximal and distal doctors' subjective evaluations of their on-call experiences and there is a dearth of evidence on the impact of being on-call on doctors' personal lives. The aim of this thesis was to explore on-call doctors (i.e. proximal and distal) and significant others' (SOs) perceptions of their experiences when they or their partners are on-call. The thesis also sought to uncover the meaning of being on-call for the participants' family and social lives. Consistent with qualitative methodology, 25 semi-structured interviews were conducted with 18 Trinbagonian doctors who worked on-call and seven Trinbagonian SOs whose partners worked on-call. Thematic analysis was used to search for commonalities in the meaning of the experience between and within the groups. The findings revealed that the participants were ambivalent in their perceptions of their on-call experience (i.e. it could not be classified as either favourable or unfavourable). Themes centred on the doctors' acceptance of their on-call duties despite describing their experience as tiring, stressful and dangerous. They also emphasised SOs' perceptions of their partners' on-call as no longer an issue. Nevertheless, it was a source of distraction and they remained concerned about their partners' safety when responding to call-outs. Being on-call also had implications for how the doctors and SOs managed their intimate and parent-child relationships and the extent to which they engaged in non-work activities. These implications differed according to on-call category and gender - the latter of which was indicative of the reproduction of wider Trinbagonian gendered ideologies within social structures. The study suggests that strategies geared towards improving the on-call experience of doctors should reflect distinctions in the on-call experiences of proximal and distal doctors and role expectations of men and women doctors. It should also incorporate the experiences of those who live with them.

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## GLOSSARY OF KEY TERMS

- active on-call period - time within which a worker is actively working or responding to call-outs.
- distal on-call - a situation in which the worker can be away from the workplace during the on-call period.
- District Health Agency (DHA) - fictitiously named agency charged with the responsibility for the delivery of healthcare and the implementation of healthcare policy in the public sector in Trinidad and Tobago.
- high-effort activities - high intensity activities such as sport which require a relatively high level of resources and self-regulation to initiate and sustain.
- inactive on-call period - time within which a worker is not actively working or responding to call-outs.
- low-effort activities - relatively passive activities such as watching television which place low or no demands on resources to initiate and sustain.
- on-call period - time within which a worker is on-call “either between regular work hours or during a set period” (Nicol & Botterill, para. 2).
- proximal on-call - a situation in which the worker must stay at the workplace during the on-call period.
- significant other - a spouse or intimate partner.

Word count: 40,000.

## **Chapter 1: INTRODUCTION**

### **1.1. Study background and rationale**

In a press release on May 18, 2018, the Trinidad and Tobago Medical Association reported that there was a growing prevalence of burnout among Trinidad and Tobago (T&T) doctors (Doughty, 2018). While empirical work is ongoing, these claims might be supported by other findings which reveal that a majority of T&T medical students have high levels of stress, burnout and depression (Youssef, 2016). Among US surgeons, research has shown that higher levels of burnout and depression have not been only associated with reduced performance, but with a number of individual negative outcomes such as addictive behaviour and suicide ideation (Balch et al., 2010).

Increasing work hours and being on-call in particular, have been found to be directly related to burnout and other measures of distress among doctors generally (Balch et al., 2010). Being on-call, defined as a situation “where workers are called to work either between regular hours or during set on-call periods” (Nicol & Botterill, 2004, para. 2), has also been identified as one of the most common causes of stress among doctors surveyed in Britain, Ireland, Finland and New Zealand (Heponiemi, Aalto, Pekkarinen, Siuvatti, & Elovainio, 2015; Heponiemi et al., 2008; Heponiemi, Puttonen, & Elovainio, 2014; Lindfors et al., 2006). However, up to the time of writing this thesis, no empirical research on the topic had been conducted in T&T nor in the wider Caribbean region, despite calls by the Trinidad and Tobago Medical Association for improvements in on-call working arrangements (e.g. on-call rosters that include sufficient rest time) for local doctors (Doughty, 2018).

## **1.2. The Trinidad and Tobago healthcare structure**

In T&T, the provision of healthcare services occurs through public, private and non-governmental organisations. Public healthcare is funded by the State and taxpayers, while private healthcare operates on a “fee-for-service model” (Pan American Health Organization, World Health Organization, n.d., para. 10) which usually makes it unaffordable for low-income individuals. The public health system, which is the dominant system, functions at two tiers. At the first tier, the National Health Department is responsible for general oversight of healthcare including policy development, regulation and resource allocation among others. The National Health Department is supported in its work through collaborations with regional and international non-governmental organisations such as the World Health Organization and the Pan American Health Organization. At the second tier, the delivery of healthcare has been devolved to five District Health Agencies. Within their geographical jurisdictions, there is at least one major <sup>1</sup>tertiary-level hospital, a few smaller district health facilities or clinics and several community health centres.

Citizens’ perceptions of public healthcare service have been generally negative. According to a random survey conducted in 2015, 65% of the respondents were dissatisfied with the state’s management of public healthcare (Guardian Media, 2015). This can be compared with the 29% dissatisfaction rate with the National Health Service in the UK among respondents in a 2017 survey (Robertson, Appleby & Evans, 2018). Long waits for medical and surgical attention, lack of beds, poor patient/customer

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<sup>1</sup> Hospitals with state-of-the-art facilities which provide specialised medical care usually over an extended period.

service at the hospital, poor ambulance service and inadequate blood bank and drug supplies, are some of the complaints which have been levied against the T&T public health system for at least the last decade (Bahall, 2012; Guardian Media, 2015). This has led to many choosing private over public healthcare if they could afford to.

Overall, the doctor to population ratio in the country is approximately 1.8:1000, according to the latest report in 2011 (Central Intelligence Agency, US, n.d.). While this ratio meets the WHO standard of 1:1000 and is generally better than most other Caribbean nations, it trails behind more developed nations in the European Union which on average has a ratio of 3.8:1000 and the UK and US which on average have ratios of 2.8:1000 and 2.6:1000 respectively according to the same report (Central Intelligence Agency, US, n.d.).

Evidence on the demographical composition (including gender and ethnicity) of the population of T&T doctors remains unavailable. However, observations (although unfounded) would suggest that with regards to ethnic variations, the majority of Trinbagonian doctors are of East Indian descent which mimics statistics in the national population. The ethnic composition of the country based on 2011 estimates is 35.1% East Indian, 34.2% Africans, 15.3% mixed - other, 7.7% mixed African/East Indian, 1.3% other and 6.2% unspecified (Central Intelligence Agency, US, n.d.). Observations regarding the ratio of men to women doctors were not as apparent.

### **1.3. Contribution to knowledge**

The evidence base on on-call work is limited relative to research on other irregular working arrangements such as shift and over time work (Karan, Vincent, Ferguson, & Jay, 2019; Nicol & Botterill, 2004; Roberts, Vincent, Ferguson, Reynolds, & Jay, 2019). Furthermore, while the majority of the existing research has been carried out within the medical profession, there are several gaps in the literature which this thesis seeks to fill. Firstly, most studies have emphasised the experiences of doctors providing proximal call and there are fewer studies which focus on the experiences of distal on-call workers across all occupations including doctors (van de Ven et al., 2015; Ziebertz et al., 2015). Proximal on-call refers to a situation whereby the worker remains on-site for the duration of the on-call period (Nicol & Botterill, 2004; Ziebertz et al., 2015). Doctors who provide proximal call are relatively junior doctors (Nicol & Botterill, 2004). In most instances, these doctors are on-call at nights and may be afforded the opportunity to sleep for a few hours in on-call rooms.

On the other hand, distal on-call doctors are usually off-site during the on-call period (Ziebertz et al., 2015). These doctors are relatively senior doctors and are only called out for emergencies or when proximal on-call doctors are unable to manage the patient. Distal on-call services may also be provided by general practitioners who own practices in their communities and make house visits. Unlike proximal on-call workers, for distal workers (including doctors) being on-call is unpredictable because they are not certain if they will be called out to work, when, for what and for how long (Bamberg et al., 2012; Jay, Aisbett, & Ferguson, 2016). The inherent unpredictability of the distal on-call period differentiates it from proximal call (where workers are almost always faced

with work demands) and from other irregular working schedules such as shift and over time work (Hall et al., 2017; van de Ven et al., 2015). With these other schedules, individuals know when or that they must work. On the contrary, the ambiguity associated with waiting to be called makes it difficult for distal workers to organise their time and lives around their work schedules (Nicol & Botterill, 2004). Some scholars have argued that previous studies on on-call workers failed to “distinguish between important parameters of on-call work, e.g. distal and proximal on-call work” (van de Ven et al., 2012, p. 1934). As such, they posit that future studies should compare these systems (Kiernan, Civetta, Bartus, & Walsh, 2006) since the impact of being on-call in each might be different. Hence, the current study aims to compare the on-call experiences of distal and proximal on-call doctors.

The perceptions of significant others (SOs) of on-call doctors are also being explored to bring to light another set of realities about the on-call experience. The last study which investigated the on-call experiences of doctors and SOs was conducted by Cuddy, Keane and Murphy in 2001. Similar studies such as those on the experience of shift-working and homeworking (e.g. Sullivan & Smithson, 2007) have sought to understand such phenomena from the perspective of those who experience it and those who live with those who experience it. Thus, in their qualitative study on the experiences of flexibility in homeworking, Sullivan and Smithson (2007) explored the perspectives of both homeworkers and their co-residents. A co-resident was defined as the spouse or partner of the homeworker. In the current study, a SO is defined as a spouse or intimate partner of an on-call doctor. However, unlike the co-residents in Sullivan and Smithson (2007) and those in previous on-call studies, the SOs are not matched to the doctors in

this study. Nevertheless, the current study offers more up-to-date evidence on the on-call experiences of doctors and SOs of on-call doctors.

Secondly, Ziebertz et al. (2015) commented that the experience of being on-call has implications for health and well-being including family and social life. However, previous research has mainly highlighted the impact of being on-call on sleep and other physiological outcomes, mental well-being and performance (Bamberg et al., 2012) and there are relatively few studies which emphasise its impact on family and social life. Therefore, the second objective of this thesis is to explore the meaning of being on-call for the family and social lives of doctors and SOs. Family and social life is conceptualised as participation in familial relationships and non-work activities. The lack of research on the family and social impact of being on-call might be related to the lack of research on distal on-call workers. One can expect that the restrictions and randomness of the distal on-call period may dictate the extent to which these workers interact with family and friends (Nicol & Botterill, 2004; Ziebertz et al., 2015).

Finally, there have been scholarly calls for research to explore the role of gender in on-call experiences across all occupations (Bamberg et al., 2012; Emmett et al., 2013; Lindfors et al., 2006). This is because there is inconsistent evidence across some studies (e.g. Lindfors et al., 2006; Nicol & Botterill, 2004) and inconclusive findings in others due to gender imbalanced samples (e.g. Bamberg et al., 2012; Emmett et al., 2013). Nevertheless, the literature seems to suggest that where women (doctors and non-doctors) reported more stress due to the demands of being on-call than men, this was because the former usually assumed greater responsibility for domestic and childcare duties (Lindfors et al., 2006; Nicol & Botterill, 2004). This was amid having similar on-



call duties to that of men and, thus, having to balance it all. Furthermore, these findings are similar across cultures, ages, dual and single career families. However, most of the on-call research has been conducted in either the US, UK or Europe and thus, it might be misleading to assume that the findings in these territories could be applied elsewhere.

In Caribbean countries such as T&T, for instance, patriarchal ideologies which challenge women's involvement in economic activity still prevail (despite the rise in female employment) and women from across all occupations are expected to prioritise their responsibilities to their families over their paid work (Esnard, 2014; Reddock & Bobb-Smith, 2008). Thus, Trinbagonian women who report sacrificing family for paid work also report feelings of guilt (Reddock & Bobb-Smith, 2008). However, it remains unclear how dominant these gendered ideologies are within the Trinbagonian medical context and family unit and what this means for the participants' constructions of their on-call experiences and ability to engage in family and social life. Consequently, where relevant, gendered constructions of on-call workers' experiences of being on-call and their family and social life during this period are highlighted.

#### **1.4. Thesis structure**

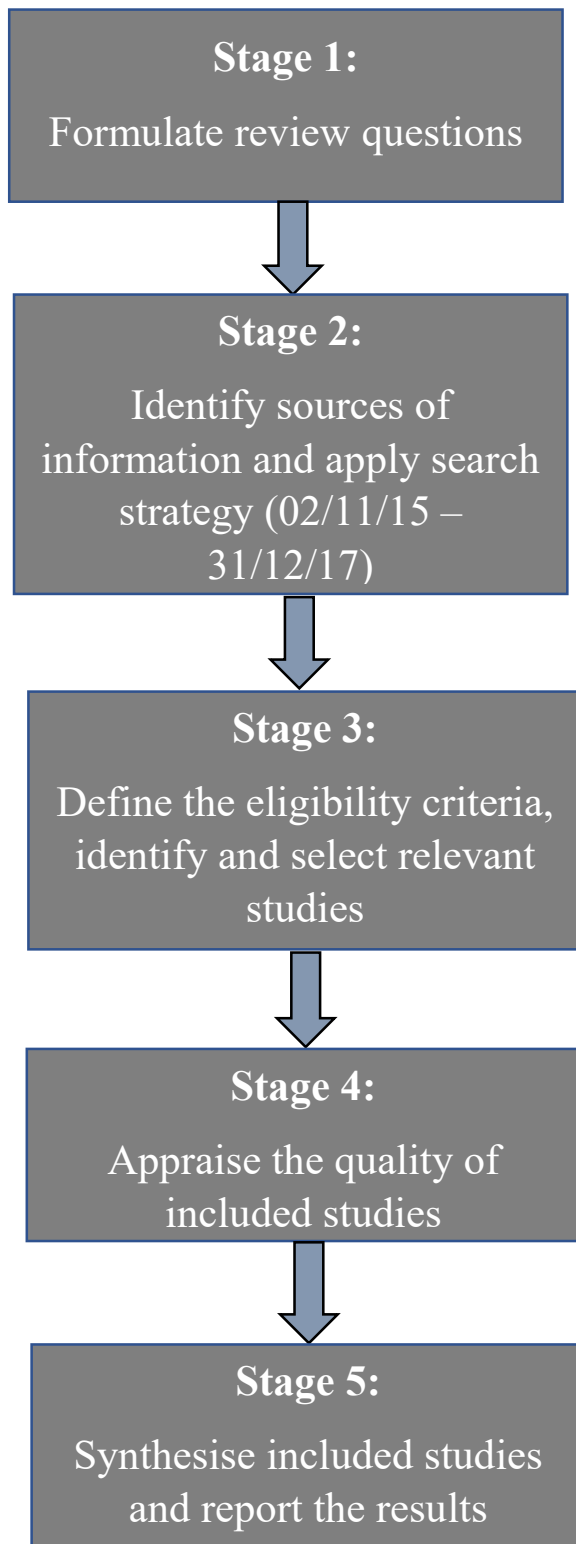
The remainder of this thesis is divided into five chapters. In the following chapter, a critical review of the literature as it relates to the current investigation is undertaken. Subsequently, a description and justification for the methodology and methods used to explore the evaluations of the experiences of being on-call among Trinbagonian doctors and SOs of on-call doctors is offered. In the next chapter the findings are presented followed by an interpretation and discussion of same. The last chapter concludes the thesis offering personal reflections and providing insight into the study's strengths, limitations and implications of the findings for practice and future research. It is worth noting that all names mentioned in this thesis, including those of organisations and places (with the exception of T&T), are fictitious.

## **Chapter 2: LITERATURE REVIEW**

### **2.1. Chapter overview**

The following review informs the empirical study on the subjective experience of being on-call and the meaning of being on-call for family and social life reported in this thesis. In 2014, the Joanna Briggs Institute (JBI) contended that “any review which focuses exclusively on one form of evidence presents only half the picture and will thus have limited applicability in many contexts” (p. 6). As such, a mixed methods studies review approach was chosen to “manage the heterogeneity among studies” based on quantitative, qualitative and/or mixed methods traditions (Sahin, Yaffe, Sussman, & McCusker, 2014, p. 504). While mixed methods studies reviews have been largely used to assimilate studies on attitudes, barriers and facilitators to the implementation of public health interventions (e.g. Bélanger, Rodriguez, & Groleau, 2011; Vedio, Liu, Lee, & Salway, 2016), this format was considered appropriate for this review so that a broad “picture of the research landscape in [this] topic area” could be obtained (Grant & Booth, 2009, p. 99). The approach utilised was informed by Pluye and Hong’s (2014) systematic mixed studies review guidelines displayed in the diagram below and reported in the following sections of this chapter. The chapter contains an account of how the review was conducted from the formulation of the review questions to the discussion of the results and its limitations.

Fig 1: Diagram showing stages in review process - adapted from Pluye and Hong (2014)



## **2.2. Formulating the review questions, identifying sources of information and applying the search strategy**

The review sought to explore:

1. How individuals who worked on-call and/or their significant others (SOs) evaluated their experience when they or their partners were on-call?
2. How being on-call impacted their family and social lives?

The literature search began on Nov 2, 2015 and ended on Dec 31, 2017. However, alerts were created and maintained in each database to keep abreast of new research on the topic up to the time of submission. The latest additions were two new articles (i.e. Jay, Paterson, Aisbett, & Ferguson, 2018; Roberts et al., 2019) which were identified on Feb 15, 2019 and incorporated into the discussion section of this chapter.

The search was conducted for articles published in the following electronic databases: PubMed (1966-2017), Web of Science (1945-2017): all databases, EBSCO Host (searching Academic Search Ultimate [1888-2017], CINAHL [1918-2017], PsycINFO [1888-2017] and SocINDEX [1910-2017]), Scopus (1959-2017) and ScienceDirect (1995-2017). Since the experience of being on-call (particularly among healthcare workers) and its impact on family and social life is a multi-disciplinary topic including occupational health psychology, sociology, public health and management among others, these databases were considered suitable. Furthermore, they were used in similar reviews on the topic (Hall et al., 2017; Nicol & Botterill, 2004).

The search strategy was kept relatively broad so as not to miss relevant studies on the topic. Other reviews on the topic (Hall et al., 2017; Karan et al., 2019; Nicol & Botterill, 2004) used the key terms: '*On-call*' or '*on call*' or '*night-call*' or '*night call*' or '*stand-by*' or '*standby*' which were also used to search titles in this review. Not '*call-cent\**' nor '*call cent\**' was also applied to distinguish between on-call work done in addition to regular work within designated on-call shifts (Nicol & Botterill, 2004) and on-call work done on an as-needed basis such as in call-centres. Filters were applied for language (English), population (humans) and document or source type (peer-reviewed empirical articles in academic journals). The latter was in keeping with the features of a systematic approach to mixed methods studies reviews as identified earlier, i.e. the synthesis of empirical quantitative, qualitative and/or mixed method research (Sahin et al., 2014).

### **2.3. Defining the eligibility criteria, identifying and selecting relevant studies**

Eligible studies were those which had as one of their objectives the evaluation of the experience of being on-call. The population of interest was on-call workers from any occupation (including doctors and student doctors working on-call) and/or their spouses or SOs. Studies were also selected if they examined the impact of being on-call on family and social well-being outcomes directly or indirectly. The search generated 17,279 references across all databases and duplicates ( $N=4924$ ) were removed. The remaining references were reviewed firstly by their titles and then by their abstracts and 12,262 were excluded. The remaining 93 references were identified for further full-text screening.

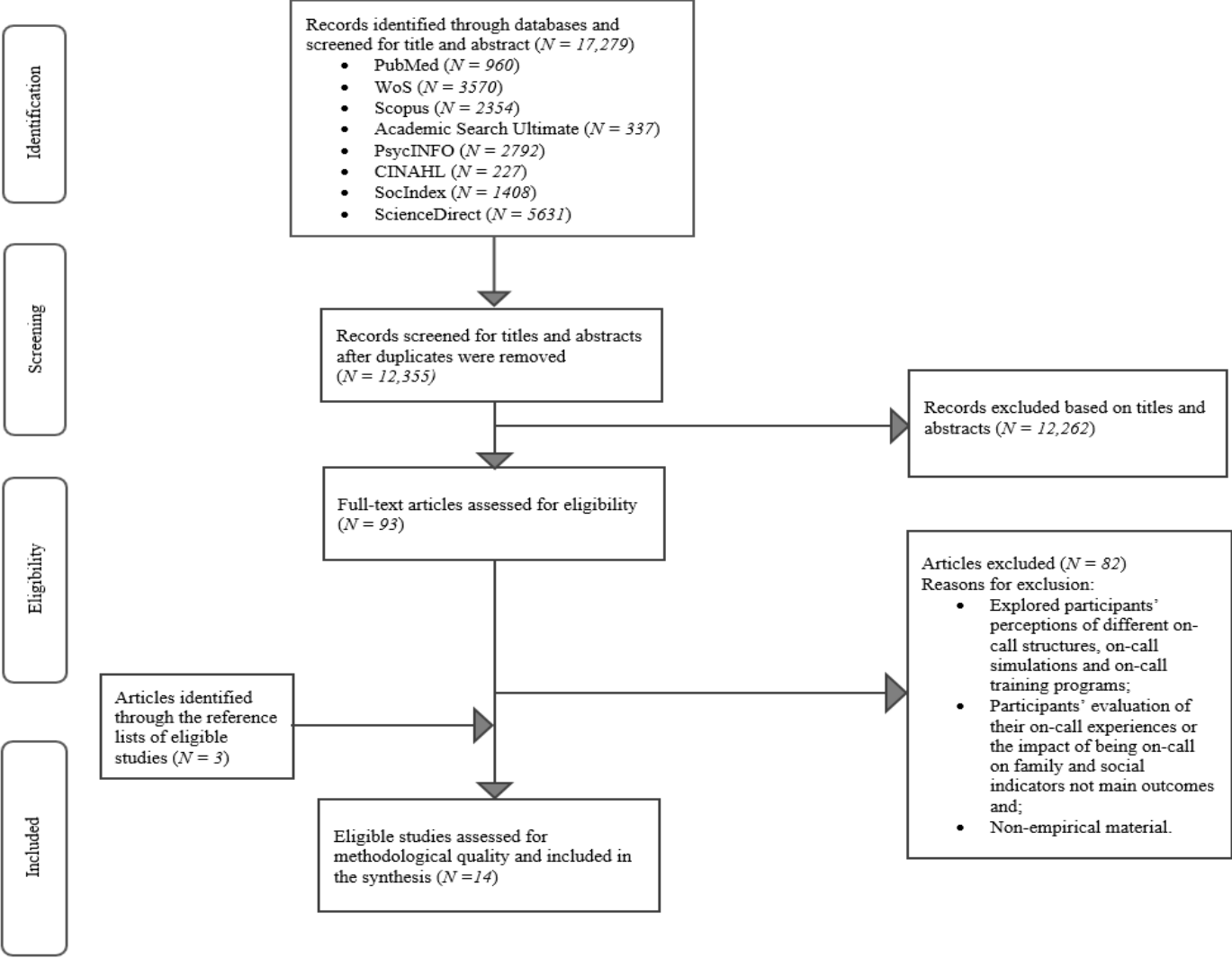
The reasons for exclusion were due to titles which did not meet the inclusion criteria and abstracts which revealed the sole objective of studies as participants' subjective evaluations of; on-call training programs (e.g. King & Mason, 2010; Tynes & Crapanzano, 2016), on-call simulation exercises (e.g. Bloom & Dean, 1997); or drinking alcohol while on-call (e.g. Ahmad, Wallace, Peterman, & Desbiens, 2002). Studies which assessed levels of on-call coverage were also not selected (Menchine & Baraff, 2008; Rao, Lerro, & Gross, 2010; Rudkin et al., 2009). Studies were also excluded if they solely examined the impact of on-call on physiological, psychological, performance and patient outcomes and not on family/personal or social outcomes (e.g. Albergo, Fernandez, Zaifrani, Giunta, & Albergo, 2016; Nagaraja, Eslick, & Cox, 2014; Tobaldini et al., 2013; Wada et al., 2010). Non-empirical material were also excluded (e.g. Freeman, 2011; Geller, 2014; Moriates, 2012).

Of the 93 references identified for full-text screening, 82 were excluded mainly because of the reasons identified above. In addition, they also mainly compared participants' perceptions of a night float system versus a traditional 24-hour system (e.g. Farkas, Shah, & Cosgrove, 2013; Moore, Talarico, Kempinska, Lawrence, & Weisz, 2015). The remaining 11 references were selected to be included in the review. Their reference lists were searched, and three additional studies were considered relevant. These studies might have been missed because they did not have the applied search terms in their titles but referred to on-call in their abstracts or full-text. A study by Mateen, Oh, Tergas, Bhayani and Kamdar (2013) revealed that there are no differences between using a "titles-first" and titles and abstract approach (p. 89). Both methods result in the identification of "the same set of articles for the final systematic review" (Mateen et al., 2013, p. 92). Other systematic review authors have screened references by their titles first (e.g. Frost, Kolstad & Bonde, 2009; Skagen & Collins, 2016; Wagstaff & Lie, 2011) to benefit from "an accurate, less time-consuming process that does not compromise the quality of the final review" (Mateen et al., 2013, p. 93).

14 references in total were selected to be reviewed. As in quantitative systematic and other systematic mixed methods studies reviews (e.g. Sahin et al., 2014; Shorey, Yang, & Ang, 2018), the flow chart below which depicts the search strategy and results from the screening and selection process was informed by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines (Moher, Liberati, Tetzlaff, & Altman, 2009).



Fig 2: Flow chart depicting search process and results - adapted from the Preferred Reporting Items for Systematic Reviews and Meta-Analyses



## 2.4. Quality Appraisal

The eligible studies covered quantitative, qualitative and mixed methods designs and as such were appraised using the Mixed Methods Appraisal Tool. The Mixed Methods Appraisal Tool, also used in other mixed methods studies reviews (e.g. Bélanger et al., 2011; Donovan, Wakefield, Russell, & Cohn, 2015; Frantzen & Fetters, 2015), was developed based on literature and theoretical reviews, pilot testing, workshops and expert consultations (Pluye & Hong, 2014). Hence, it has been promoted as reliable and valid (Pluye & Hong, 2014). It is also efficient because it includes criteria which allow for the assessment of studies of different research designs concurrently (Pluye & Hong, 2014). In doing so, it avoids the difficulties associated with using different tools to appraise studies belonging to different epistemological traditions.

The studies were appraised on 19 items based on methodological quality criteria using the 2018 version of the Mixed Methods Appraisal Tool (Hong et al., 2018) attached in Appendix A. While it was important to note the quality of the included evidence, no study was excluded based on quality assessment. This was due to the scarcity of studies relevant for answering the review questions and the review objective which was to identify the gaps in the literature rather than to exclude studies based on quality. Nevertheless, the limitations of low-quality studies were addressed in the discussion of the review findings. The non-exclusion of studies due to low quality was also done in other mixed methods studies reviews (e.g. Bélanger et al., 2011; Vedio et al., 2016).

## **2.5. Data extraction**

Drawing on the literature and input from a panel of experts, the JBI (2014) developed, piloted, and refined data extraction instruments for the extraction of quantitative and qualitative data included in mixed methods studies reviews. The JBI data extraction tools have also been used in other mixed methods studies and quantitative systematic reviews (e.g. Gorecki et al., 2009; Shorey et al., 2018). Qualitative and quantitative data were extracted using the appropriate JBI extraction instruments in tabular form in Microsoft Excel. For qualitative research, the interpretative and critical studies extraction form (see Appendix B) was used while the experimental and observational studies extraction form (see Appendix C) was used to extract data from quantitative research designs. Extracted data gave specific details on the names of the authors and articles, years of publication, journals, reference numbers, methodologies and methods used, settings or contexts, participants, interventions or phenomena of interest, the authors and reviewers' comments, data analyses and outcomes or findings. The extracted data were then synthesised.

## 2.6. Synthesis method

One of the main data synthesis techniques used in mixed methods studies reviews is the conversion of all data into one form or tradition so that the same analytical method could be used to analyse the findings concurrently (Onwuegbuzie & Teddlie, 2003; Pluye & Hong, 2014; Tashakkori & Teddlie, 1998, Teddlie & Tashakkori, 2009). Convergent or concurrent qualitative synthesis occurs when the quantitative findings either from studies with quantitative designs or mixed method research designs are transformed into qualitative themes, categories or narratives (Onwuegbuzie & Teddlie, 2003; Pluye & Hong, 2014; Tashakkori & Teddlie, 1998; Teddlie & Tashakkori, 2009). Tashakkori and Teddlie (1998) refer to this process as “qualitizing” (p. 129) the data.

Concurrent QUAL synthesis or qualitizing is appropriate for answering ‘what’, ‘how’ and ‘why’ review questions such as the current’s (Pluye & Hong, 2014) and several studies have used either simple or more complex variations of this method (e.g. Ivankova, Creswell & Stick, 2006; Taylor & Tashakkori, 1997). In the current study, quantitative findings were converted into qualitative themes using Tashakkori and Teddlie’s (1998) “narrative profile formation” (p. 130). “Holistic profiles” or descriptions were created for each quantitative study and quantitative component of a mixed method study, which were treated as units of investigation (Tashakkori & Teddlie, 1998, p. 131). The holistic profile of one of the included quantitative studies is attached in Appendix D.

A thematic analysis, as inspired by Braun and Clarke (2006) and used in another mixed methods studies review (i.e. Bélanger et al., 2011) was then manually performed on

these profiles together with the data from the qualitative studies. For instance, line by line coding was done on the profiles of each quantitative study in the same manner as it was done on the original data from qualitative studies. Thematic analysis is the subject of further discussion in the methodology chapter since it was also used to analyse the primary data in this thesis. The review identified five themes relating to the evaluation of the experience of being on-call and its impact on family and social life. These themes are discussed in the next section following the presentation of the studies' characteristics.

## **2.7. Results**

### **2.7.1. Study Characteristics.**

Of the 14 articles that met the inclusion criteria, nine used quantitative methods, four qualitative methods and one mixed method. The studies were published between 1993 and 2016 and were conducted in Europe, New Zealand, the UK, Ireland, the US and Canada. Data from the quantitative studies were obtained primarily from cross-sectional surveys. One study (Heponiemi et al., 2014) employed a longitudinal survey and another (Imbernon, Warret, Roitg, Chastang, & Goldberg, 1993), a weekly report together with a cross-sectional survey. The mixed method study (Corriere, Hanson, Hemmer, & Denton, 2013) used a retrospective cohort design with survey questionnaires. Data from the qualitative studies were obtained primarily from in-depth structured and semi-structured interviews.

Four studies (Callaghan, Hanna, Brown, & Vassilas, 2005; Corriere et al., 2010; McDonald, Berbaum, Bennett, & Mullan, 2005; Ziebertz et al., 2015) had as their main objectives participants' perceptions of being on-call. Two other studies (Bamberg et al., 2012; Ziebertz et al., 2015) investigated whether participants' perceptions of being on-call moderated the relationship between the effects of being on-call on health and well-being indicators (e.g. cortisol levels, sleep quality, negative mood, fatigue, work-home interference and performance difficulties). Four studies (Cuddy et al., 2001; Imbernon et al., 1993; Rout, 1996; Smithers, 1995) reported on participants' evaluations of being on-call as part of their analysis of the impact of being on-call on family and social life outcomes. Seven studies (Altomonte, 2016; Balch et al., 2010; Emmett et al., 2013; Heponiemi et al., 2014; Imbernon et al., 1993; Smithers, 1995; Tucker et al., 2010) had

as one of their main objectives the impact of on-call work on family and social life outcomes.

Sample sizes ranged from 10 to 7905 medical professionals (e.g. junior doctors surgeons, general practitioners [GPs]) and/or their spouses, medical students, National Health Service managerial and administrative staff, network administrators, electrical supervisors, social and service workers and caregivers. Ages ranged from 20 to 69 for those for whom this information was reported. On-call rotas ranged from one week in every four weeks to everyday on-call for those studies in which the data were reported.

Nine studies were conducted on doctors or student doctors, of which the majority were junior doctors (i.e. house officers or residents) providing proximal call at night. In one study (Heponiemi et al., 2014), information on the category of on-call doctors provided was not made explicit. In another (Callaghan et al., 2005), some of the doctors were on distal and others on proximal call. However, the analyses were not separated nor were these differences controlled.

Three studies were carried out on on-call workers (all of whom were doctors on distal call) and/or their spouses. In two of these (Cuddy et al., 2001; Emmett et al., 2013), the majority of doctors were men while the majority of spouses were women which may have had implications for the findings. Overall, while the potential role of gender in participants' on-call experiences was not an explicit objective in any of the studies reviewed, its influence was acknowledged in four studies (Altomonte, 2016; Bamberg et al., 2012; Emmett et al., 2013; Rout, 1996). Nevertheless, in three of these, the on-call realities of men and women within the studies could not be compared due to the

imbalanced samples. An excerpt of the studies' characteristics and results is presented in tabular form in Appendix E.

### ***2.7.2. Theme 1: The rewards and demands of being on-call.***

In more than half of the studies across all occupations, there tended to be conflicting results with regards to participants' evaluations of their on-call experiences (Cuddy et al., 2001; Imbernon et al., 1993; Smithers, 1995). To put differently, while being on-call was described as demanding, it was also rewarding and considered a "reasonable and important" part of the participants' jobs (Bamberg et al., 2012, p. 310). The majority of studies which had as its main objective the exploration of participants' perceptions of being on-call were conducted in the medical profession (e.g. Callaghan et al., 2005; Corriere et al., 2013; McDonald et al., 2005). Among these, the opportunity to provide comfort for the ill and continuity of care were identified as rewards of being on-call (Cuddy et al., 2001).

Team or ward relationships (including relationships with seniors) also seemed to influence the perception of participants' on-call experiences. Three studies (Callaghan et al., 2005; Corriere et al., 2013; McDonald et al., 2005) addressed the value of team relationships within the context of the medical profession. With the exception of one (Callaghan et al., 2005), results revealed that being on-call provided the opportunity to improve team relationships (including relationships with senior doctors) which was believed to enhance learning and act as a buffer against the detrimental impacts of being on-call. In one study (McDonald et al., 2005), the majority of residents felt comfortable contacting their seniors at home for assistance. The authors concluded that when junior



doctors know that they can solicit the help of their seniors, their perceptions of their ability to handle on-call work improves and their stress lowers (McDonald et al., 2005).

Despite, the consensus that better team relationships were developed on-call, there was a disconfirming case. The senior house officers in Callaghan et al. (2005) felt that they did not feel as part of a team when on-call neither did they avail themselves of opportunities to liaise with medical and nursing colleagues. As a result, they described their on-call experience as “isolating” (Callaghan et al., 2005, p. 61). The difference in results may have been due to the context in which on-call work was provided in the studies. Unlike the homogeneous sample of participants in the other studies who remained at the hospital with their colleagues during the on-call period, and thus, might have had better opportunities to work together, some of the participants in Callaghan et al. (2005) were on distal call. Hence, they may not have had the same opportunities to work together with colleagues as those on proximal call.

Another reported benefit of being on-call was its educational value or the opportunities it afforded particularly junior doctors on proximal call to obtain practical clinical experience which they believed prepared them for their future careers as senior doctors (Callaghan et al., 2005; Corriere et al., 2013). While the fatigue associated with the demands of frequent on-call duties hindered private study time (Tucker et al., 2010), being on-call was thought to provide junior doctors on proximal call with valuable training experiences such as informal sessions with seniors and opportunities to manage unstable patients (Corriere et al., 2013). Being on-call, in the context previously described, was found to improve doctors’ confidence to make decisions and gave them

insight into what being a senior doctor would be like (Callaghan et al., 2005; Corriere et al., 2013).

Despite the opportunity to provide continuous care and comfort to the ill, foster excellent team relationships and gain clinical experience, medical participants described being on-call as tiring and stressful. Tiredness was particularly common among junior doctors and students who were on proximal call at night and seemed to be related to the frequency of these shifts (Corriere et al., 2013; Tucker et al., 2010). For example, the junior doctors in Tucker et al. (2010), on proximal on-call rotas structured in blocks of seven consecutive nights, reported more fatigue than those working three or four nights consecutively. The authors suggested that this was due to the lack of recovery between duties since fatigue was also associated with the number of rest days following consecutive nights on-call and with the length of the interval between shifts. Other studies revealed that increasing hours of active on-call duty had adverse impacts on the health and well-being of physicians including surgeons (Balch et al., 2010; Heponiemi et al., 2014).

However, in studies conducted on distal medical and non-medical participants, while fatigue was mentioned as a negative consequence of being on-call, it was not merely due to exposure to active on-call duty. In a study on on-call professionals from various occupations (Ziebertz et al., 2015), exposure to active on-call duty was not related to fatigue. The authors reasoned that the difference between their study's findings and previous findings may have been due to the time at which their participants were on-call. Previous studies on the impact of exposure to active on-call duty have been mostly

carried out on participants who were on-call at nights. Night shifts have been shown to be negatively related to employees' health and well-being (Ziebertz et al., 2015).

However, another explanation might have been due to the type of on-call provided (i.e. distal versus proximal). Proximal employees (especially doctors) are the first to respond and as such are essentially always faced with an emergency. Therefore, their exposure to active on-call duty would be relatively higher than those on distal call who are usually only called out in the event that proximal workers are unable to manage the emergency. The participants in Ziebertz et al. (2015) were on distal call and thus, their exposure to active on-call duty might have been too insignificant to have had a substantial impact on fatigue.

Electricity and gas supply on-call workers on distal call in Imbernon et al. (1993) reported that their tiredness was related to the "frequency of on-call shifts" (p. 1135). Frequency in this instance, did not merely describe exposure to active on-call duty but represented how often participants had to be on-call. This finding suggests that for distal workers it may be that the sheer expectation or preoccupation with being called out and not only active on-call duty is tiring. The reports of the transplant coordinators in Smithers (1995), some of whom were on distal call and the distal network administrators in Bamberg et al. (2012), support this explanation.

Several studies across the literature (e.g. French, McKinley, & Hastings, 2001; Lindfors, Heponiemi, Meretoja, Leino, & Elovainio., 2009; Lindfors et al., 2006) and in this review (e.g. Bamberg et al., 2012; Heponiemi et al., 2014; Ziebertz et al., 2015) have either reported on the effect of on-call work on stress or have characterised

participants' evaluations of being on-call as stressful based on scores on various scales or measures. This has been mainly due to the quantitative research objectives and methods used in these studies. Thus, on-call stress was usually a tested variable and did not necessarily emerge as a theme in the participants' responses. As such, the underlying meanings participants attached to their evaluation of being on-call as stressful were not always visible.

Nevertheless, in three of the studies included in this review (Cuddy et al., 2001; Rout, 1996; Smithers, 1995), participants (the majority of whom were on distal call) described their evaluations of being on-call as stressful. This was due to the disruptive impact it had on their family and social lives and its unpredictable nature. In one of these studies, which was based on qualitative traditions, a GP commented that "often what becomes stressful is not what you have to do but what you have to be available to do" (Cuddy et al., 2001, p. 287). These results were consistent with the reports of GPs who were men in another qualitative study by Rout (1996) as described in the quote below:

The uncertainty about the content of an on-call day makes me really unhappy.  
Any moment the telephone might ring. (p. 158)

Women GPs, on the other hand, found the role conflict and overload they experienced in attempting to meet their professional and personal commitments, stressful (Rout, 1996). These findings suggest that (based on their role expectations) there may be differences in the underlying meanings of on-call stress for men and women and perhaps in how they perceive their on-call experiences generally. However, as previously mentioned, differences in gender were either not identified as a research objective or

definitive conclusions within studies could not have been made due to the imbalanced nature of some samples.

As mentioned earlier, spouses' perceptions of their experiences when their partners are on-call were only explored in three studies (Cuddy et al., 2001; Emmett et al., 2013; Rout, 1996). In these studies, the participants were spouses of doctors on distal call. Furthermore, with the exception of one (Rout, 1996), the spouses were predominantly women. As with their medical partners, spouses generally perceived their experience as tiring and stressful (Emmett et al., 2013). They also felt depressed, frustrated and angry (Emmett et al., 2013). This was primarily due to the impact of their partners' call on their personal lives (including their careers) but also due to the lack of intimacy and communication with their partners, their partners' detachment from the family during the on-call period, their workload, short-tempered moods and patients who intruded their homes (Cuddy et al., 2001; Emmett et al., 2013; Rout, 1996).

Yet, despite these negative perceptions, spouses believed that being on-call was beneficial to their partners because it provided them with opportunities to enhance their skills, gain "financial stability, [offer] community service and [provided] a sense of career satisfaction" (Emmett et al., 2013, p. 248). They also felt that there was an added advantage of having their partners at home during inactive on-call periods (Emmett et al., 2013). Spouses in Emmett et al. (2013) compared their experience now with a time earlier in their partners' careers when their partners were on-call more frequently and were on proximal call. They concluded that in those times, there were more "destructive effects" (Emmett et al., 2013, p. 248). Yet, being on distal call meant that for these

workers, various aspects of their family and social lives were disrupted as is discussed in the following sections.

### ***2.7.3. Theme 2: The impact of on-call on spousal relationships.***

With the exception of one study (Imbernon et al., 1993), in which participants reported that they were satisfied with their conjugal relationships including their sex lives, the data revealed that being on distal call interrupted intimacy between the on-call worker and his/her spouse at nights (Cuddy et al., 2001; Emmett et al., 2013; Rout, 1996). In one study, a spouse confessed that “when on-call he [her husband] is more edgy and so it is much harder to relax [. . .] we don’t tend to get so intimate on on-call nights” (Emmett et al., 2013, p. 247). The difference in the results might have been because unlike the other studies, the data in Imbernon et al. (1993) were gathered from the on-call workers and not their spouses. The perceptions of the spouses might have been different from those of the on-call workers themselves. Additionally, occupational differences might have accounted for these findings. Still, these are only speculations since Imbernon et al. (1993) offered no explanation for the on-call participants’ satisfaction with their intimate relationships.

As the above quote indicated, intimacy was partly affected by the on-call worker’s “edgy” mood (Emmett et al., 2013, p. 247). Nevertheless, spouses learnt to adapt over the course of their marriages (Emmett et al., 2013). Emmett et al. (2013) pointed out that the literature suggests that “strong marital relationships” and maturity in marriage help buffer against the marital impact of on-call duty (p. 249). Perhaps the most dominant explanation reported for strained marital relationships was the impact being

on-call had on spouses' careers and personal lives (Cuddy et al., 2001; Emmett et al., 2013).

#### ***2.7.4. Theme 3: Personal and professional sacrifices by spouses.***

Spouses believed that their marital relationships were strained by the impact of their partners' on-call on their own lives (Cuddy et al., 2001; Emmett et al., 2013). Their social and career lives, in particular, were hindered (e.g. through restrictions in occupational choices and working hours) because they had to assume most of the responsibility for domestic and childcare duties (Cuddy et al., 2001; Emmett et al., 2013). In one study, a wife believed that her "family life and [...] marriage were eroding [due to] the nature of [her husband's] on-call that was unsustainable and caused [them] to move from one end of the world to the other" (Emmett et al., 2013, p. 247).

In that same study, several other participants stated that their partners being on-call restricted the pair from working full-time (Emmett et al., 2013). However, it was usually wives who made these sacrifices to facilitate their husbands' on-call commitments. For example, almost all the wives of on-call doctors in Emmett et al. (2013) worked part-time or were not employed. On the contrary, the only husband in the sample worked full-time while his wife, who was an on-call doctor, worked part-time. This observation led the authors to suggest that the traditional asymmetry in the division of domestic duties between men and women appear evident even in the context of on-call working arrangements (Emmett et al., 2013). However, as with the evaluation of on-call experiences, any conclusions regarding gendered differences in the impact of being on-call on the family and social life of doctors and/or their spouses could not be

substantiated since the majority of participants across the studies were women (Cuddy et al., 2001; Emmett et al., 2013).

#### ***2.7.5. Theme 4: Commitment to children and adjusted behaviours.***

Apart from marital relationships, the review revealed that being on distal call disturbs children's rest and impacts the quantity and quality of time on-call workers spend with their children (Cuddy et al., 2001; Emmett et al., 2013). Additionally, on-call participants spoke of reducing activities with their children or missing school events and other activities entirely either because they were called out or because they "didn't have the energy for family life [...] or the space [in their heads] for anybody's needs" (Cuddy et al., 2001, p. 289).

Moreover, children had to adjust their behaviours when their parents were on-call. For example, in Emmett et al. (2013), children learnt to withhold requests for attention during this period. In another study (Cuddy et al., 2001), one spouse explained that her husband's on-call causes her and her children to be more cautious around him. She described a scenario where, "everything is shhh" and the children are going around the house saying, "gosh Daddy is having a bad time" (Cuddy et al., 2001, p. 289). Still, despite its impact on conjugal and parent-child relationships, the most pronounced impact of being on-call based on the current review was its restriction on leisure and social life as is discussed under the last theme.

#### ***2.7.6. Theme 5: Opportunities for leisure and socialisation.***

The negative impact of being on-call on leisure and social activities such as participation in clubs and meeting with family and friends was a recurrent theme in five studies



conducted on medical and non-medical participants (Altomonte, 2016; Bamberg et al., 2012; Cuddy et al., 2001; Emmett et al., 2013; Imbernon, et al., 1993). It is worth highlighting, however, that this theme seemed to be more relevant in the context of distal call. Being on distal call required that these on-call workers remain in a state of availability (Cuddy et al., 2001). The unpredictability of the distal on-call period meant that participants did not know in advance if they could socialise or become involved in leisure activities. Even if they did, the requirement to be in proximity to the worksite, restricted the location of these activities (Cuddy et al., 2001). In one study (Emmett et al., 2013), decisions regarding living locations were constrained by the need to remain available.

In Altomonte (2016), being on distal call in the context of providing care to elderly relatives was described as “a web of unpredictability” which restricted caregivers’ “participation in shared temporalities like socializing or taking vacations with their family” (p. 2). It also restricted their ability to craft individual immediate and long-term plans such as meeting friends for coffee or pursuing a career opportunity (Altomonte, 2016). Even when they had the opportunity to socialise, the caregivers’ awareness that an emergency might occur at any moment impeded them from being emotionally able to get away from care work (Altomonte, 2016). Thus, while they were rarely interrupted when they were away from their relatives, the caregivers struggled to experience quality social time because of their “expectations of interruption” (Altomonte, 2016, p. 15). Although these expectations did not correspond with actual emergencies, they were a central component of the caregivers’ narratives (Altomonte, 2016).

Despite the above, there were notable contextual distinctions between the unpaid caregivers discussed in Altomonte (2016) and the paid work of on-call workers in the other studies. For example, the caregivers in her study may have been unable to opt out from their work at any given time because their work was their family and therefore, the boundary between private and care time was blurred. In some cases, participants lived with those for whom they cared. Moreover, Altomonte (2016) suggested that there was an unequal distribution of time between care work and leisure for men and women. Thus, she contended that it was usually women who experienced less leisure time because of their greater caring responsibilities (Altomonte, 2016).

In one study (Bamberg et al., 2012), the impact of being on distal call on participation in non-work activities was largely dependent on the type of activity being pursued. Bamberg et al. (2012) found that the network administrators in their study who were men, conducted fewer social and household activities when on-call versus when off-call. The authors contended that their findings could be explained by the concept of “self-regulation” (Bamberg et al., 2012, p. 303). According to Muraven and Baumeister (2000), the process of self-regulation, defined as the controlled use of cognitive, emotional and behavioural resources to direct behaviour towards the accomplishment of a goal, is a “limited resource” (p. 247). Therefore, when applied within the context of being on-call, it is usually conserved in the event of a call-out (Bamberg et al., 2012). Sonnentag & Jelden (2009) found that activities requiring less self-regulation are usually pursued when resources are depleted or are being conserved (such as during inactive on-call periods) while those requiring more self-regulation are avoided. In particular, activities such as organising to meet with friends or cleaning may have been

relatively complex especially for the men in Bamberg et al.'s (2012) sample and thus, might explain why they may have been avoided during the on-call period.

Bamberg et al. (2012) also hypothesised that fewer “low-effort activities” (i.e. those requiring less self-regulation) would be conducted (p. 303). They commented that merely coping with being on distal call requires self-regulation to remain available and therefore, may impede the further self-regulation needed to conduct low-effort activities (Bamberg et al., 2012). However, although their predictions were confirmed, Sonnentag (2001) and Sonnentag and Jelden (2009) maintain that low-effort activities are deliberately pursued when self-regulatory resources are depleted or are being conserved because they require little or no self-regulation. These activities provide a “cognitive distraction” (Sonnentag, 2001, p. 200) from work, facilitate recovery and promote positive affect (Sonnentag & Fritz, 2009). Besides the fact that their sample consisted of mainly men, the small sample size used in Bamberg et al. (2012) was inconsistent with the survey method adopted by the authors. This might explain their findings and therefore, its limited applicability in other contexts.

Finally, the impact of being on-call on the conduct of physical activity was not as Bamberg et al. (2012) predicted. They hypothesised that their distal participants would engage in fewer physical activities when on-call. Results showed that there was no difference with regards to the conduct of physical activity when on-call versus when off-call. While activities requiring more self-regulation (such as physical activity or exercise) are usually avoided during the inactive on-call period, engaging in these activities can provide new resources and facilitate recovery and improved well-being (Sonnentag & Fritz, 2009). Furthermore, successfully completing and mastering these

activities promotes feelings of efficacy, competence and positive affect which builds resources (Sonnentag & Fritz, 2007). Therefore, the high degree of self-regulation necessary to pursue such activities might have intersected with its benefits with regards to promoting recovery and improving well-being (Sonnentag, 2001; Sonnentag & Jelden, 2009). Participants' performance in physical activity was also not consistent across the literature. For instance, the men electricity workers on distal on-call in Imbernon et al. (1993) participated less in sporting activities when compared to those who were not on-call. On the other hand, the men GPs in Rout (1996) used exercise to cope with the detrimental impact of being on distal call.

## **2.8. Discussion and research agenda**

Findings from this review suggest that on-call workers and their spouses held neither entirely positive nor negative perceptions about their experiences when they or their partners were on-call. This conflict was demonstrated in that while they described this working arrangement as tiring and stressful, they also believed that it was a necessary and beneficial part of their jobs. The review also confirmed that the impingement of being on-call on the personal lives of especially distal on-call workers and their families contributed to the conflicting evaluations associated with the experience. Although, “the evidence base is currently skewed towards studies focused primarily on” medical professionals, particularly doctors, there were several content and methodological knowledge gaps regarding research within this occupation (Vedio et al., 2016, p. 535).

### ***2.8.1. Considering differences in the on-call experience.***

Further research is needed to isolate the experiences of proximal and distal doctors. Although a distinction between these systems has not been made in the literature, there may be important differences between them which might produce different challenges and experiences. Unlike proximal doctors who are usually always exposed to work, a large part of distal doctors’ time on-call is spent waiting to be called (Jay et al., 2018). Research has found that “this largely unacknowledged period” may not only have “a latent impact on factors such as sleep” (Jay et al., 2018, p. 835) but on participation in family life, leisure and social activities (Bamberg et al., 2012; Nicol & Botterill, 2004). Therefore, there is a need to investigate proximal and distal on-call doctors separately or to assess the differences and similarities in their experiences. This is so that

appropriate strategies could be developed to meet the diverse needs of doctors on-call in each system.

Applying the realities of proximal doctors to the realities of distal doctors could be risky. For instance, previous research has shown that being on proximal call especially at night is associated with fatigue and other adverse outcomes due to reductions in sleep quantity and quality in a similar manner to night shifts (Balch et al., 2010; Heponiemi et al., 2014; Ziebertz et al., 2015). However, it is unclear how distal doctors may experience fatigue when physically away from work. The problem is that the majority of studies included in this review were not informed by any explicit theory. Indeed, the lack of detailed theory-led evaluations meant that it was not possible to ascertain how these evaluations were constructed. The research described in this thesis utilises Meijman and Mulder's (1998) Effort-Recovery (E-R) theory to situate the construction of on-call doctors' experiences. Two studies in the review, albeit conducted on non-medical participants referred to this theory to explain how fatigue among distal on-call workers occurs (Bamberg et al., 2012; Ziebertz et al., 2015).

### ***2.8.2. Theorising being on-call: The E-R model and the role of psychological detachment.***

According to the E-R theory, recovery occurs when individuals are no longer confronted with work demands, so that the psychophysiological systems which are activated when effort is expended, return to their "baseline level" (Meijman & Mulder, 1998, p. 9). In this way, the short-term effects of work demands (i.e. fatigue and poor sleep) are reversed. On the contrary, prolonged exposure to work demands results in incomplete recovery so that psychophysiological systems remain in a state of activation and

compensatory effort must be expended to meet work demands in the next work situation (Meijman & Mulder, 1998). This results in an accumulation of negative load reactions which over time can lead to long-term impairments on health and well-being (Meijman & Mulder, 1998).

As was previously stated, the E-R model was considered applicable to the current study since it was used in other on-call studies (e.g. Bamberg et al., 2012; Ziebertz et al., 2015) to demonstrate how physical and psychological exposure to on-call duty impact on-call workers. The availability of time periods particularly after work or between shifts are crucial to recovery because it is usually during these periods, employees are no longer exposed to work demands (Guerts & Sonnentag, 2006). Yet, it is during these same periods that workers are usually placed on-call (Nicol & Botterill, 2004). For proximal on-call workers, being physically present at the workplace impedes recovery in a manner akin to working over time because these workers are still effectively being exposed to work demands (Nicol & Botterill, 2004). This might explain why in some studies, as was previously highlighted, tiredness was particularly common among junior doctors and students on proximal call who were more likely to be actively working during the on-call period (Corriere et al., 2013; Tucker et al., 2010). Similarly, when distal on-call workers are called out, the recovery process is disrupted because they now become physically exposed to work demands (Bamberg et al., 2012; Ziebertz et al., 2017; Ziebertz et al., 2015).

However, even when on-call workers are not called out or are not physically confronted with work demands, they may be mentally confronted (Bamberg et al., 2012; Sonnentag, 2011). For instance, the distal worker, while not actively working, may still

have intrusive work-related thoughts or ruminations (Guerts & Sonnentag, 2006) about whether they will be called out, when they will be called out and what they may be required to do when called out (Ziebertz et al., 2015). The expectation that they may be interrupted makes it difficult to psychologically detach from work (Bamberg et al., 2012). In a simulated on-call laboratory study by Wuyts et al. (2012), expectations of interruption affected both objective and subjective sleep measures among university students. The authors suggested that the findings may have been due to the anticipation around expecting a call, having to act upon it and concerns over missing the call altogether (Wuyts et al., 2012).

While there are other experiences (e.g. relaxation, mastery activities and control over leisure) which contribute to recovery (Sonnentag, Binnewies, & Mojza, 2008; Sonnentag & Fritz, 2015), psychological detachment referred to as “an individual sense of being away from the work situation” (Sonnentag & Fritz, 2007, p. 205) is argued to be a crucial component of recovery (Derks, van Mierlo, & Schmitz, 2014). This is because being mentally preoccupied with the possibility of being called out (van der Hulst & Geurts, 2001) draws upon the same resources used for work (Sonnentag, 2001; Sonnentag & Bayer, 2005). This assertion is supported by the findings in van de Ven et al. (2012) who found that distal on-call workers showed a greater “need for recovery” when they were on-call whether they were called out or not compared to when they were not on-call (p. 1927). Based on the assumptions of the theory, mental ‘rest’ from work-related thoughts is thus, necessary to reverse the effects of work exposure and return the functioning systems to their pre-stressor level.



Notwithstanding its applicability to the current study, there have been certain criticisms levied against the assumptions of the E-R theory. Firstly, Zijlstra, Cropley and Rydstedt (2014) contended that the conceptualisation of recovery as a change in psychophysiological systems implies that it is a dynamic process and not a static construct. Therefore, unlike the model's depiction, it may not be clear when recovery starts or stops especially in jobs characterised by mental demands (Zijlstra et al., 2014). As previously explained, distal doctors may not be necessarily called out to physically work on a patient but may be called at home by proximal doctors for consultation on a patient's condition. Additionally, in some cases, mental preoccupation with work may occur within the individual unconsciously and extend beyond the on-call period. For example, research has shown that junior doctors on-call reported "anticipatory" stress on the night preceding call and "hangover" stress on the night following call (French et al. 2001, p. 172). In the current study, I remain alert to the less than obvious ways in which on-call doctors talk about being mentally exposed to their jobs (during and beyond the on-call period) and the implications of this on their ability to recover.

Secondly, the model has been criticised for its lack of consideration for the role of personality factors in recovery (Guerts & Sonnentag, 2006; Taris & Schaufeli, 2014). For example, it has been argued that anxious individuals may perceive work demands as more stressful than they really are and thus, may need to expend more energy to meet these demands (Guerts & Sonnentag, 2006). Consequently, this can result in more negative load reactions and a greater need for recovery. Similarly, persons with certain traits (e.g. neuroticism, extraversion and Type A behaviour) may be more susceptible to ruminative thoughts (Guerts & Sonnentag, 2006; Taris & Schaufeli, 2014). Zoupanou et al. (2013) argued that people's core beliefs about the importance of their job are

integral to their ability to psychologically detach themselves from work. While this is a valid concern, my study's objectives centre on group-level experiences and differences (e.g. between proximal and distal on-call doctors). Therefore, it is not my intention to explore the role of individual factors in participants' (in)ability to psychologically detach from being on-call and to recover.

Finally, the individual orientation of the theory suggests that more systemic factors in the work and family domains may be overlooked. Thus, while the theory is useful for exploring how prolonged physical and mental exposure to on-call duty can impact on-call workers' perceptions of their experiences, it is important to remain cognisant of the impact social structures have on the workers' constructions. Past evidence has revealed a moderating role for stressful work and family conditions in the relationship between prolonged exposure to work demands and a need for recovery (Guerts & Sonnentag, 2006). To put differently, the extent to which recovery is impeded might be a function of situational factors in the work and non-work domains (Guerts & Sonnentag, 2006; Taris & Schaufeli, 2014).

To illustrate, home demands (e.g. household chores and care-giving tasks) require obligatory effort and time, placing further strain on the employee's already depleted resources after work (Guerts & Demerouti, 2003). The situation is compounded if there is a lack of resources at home particularly, spousal support (Guerts & Demerouti, 2003). This means that additional effort may need to be expended to meet work demands thereby, prompting a process of an accumulation of negative load effects (Guerts & Sonnentag, 2006; Taris & Schaufeli, 2014). Within the work domain, in one study, while no significant relationship was found between prolonged exposure to work

demands or over time and a need for recovery, over time was associated with a need for recovery in jobs which were characterised as highly demanding - that is, those jobs with a high workload and skill variety (van der Hulst, van Veldhoven & Beckers, 2006). Thus, while the E-R model might be arguably individual in its focus, I will use it in the current study to show the role institutional factors at work (e.g. the expectations associated with being a doctor on-call) and at home (e.g. social role expectations as it relates to family life) might play in the participants' narratives about their (in)ability to recover from on-call duty.

### ***2.8.3. Spouses' experiences: Another perspective.***

The perceptions of others who may be directly or indirectly affected by the on-call worker's requirement to be on-call have been relatively neglected in the literature (Karan et al., 2019). In a study by Roberts et al. (2019), published after the conduct of this review, over half of the participants "either agreed or strongly agreed that their on-call work negatively impacted important people in their lives" (para.13). Apart from children, this review suggests that it particularly impacts the social and professional lives of the on-call workers' spouses. Yet, as previously explained, the evidence on the experiences of this group is scarce, mostly outdated and based predominantly on samples of women. More current research with intentionally balanced samples is needed to explore the experiences of SOs of on-call doctors so as to bring to light another set of realities.

### ***2.8.4. Methodological gaps.***

The findings from studies which followed quantitative research designs were primarily limited by the unrepresentativeness of the samples (i.e. low response rates and

unbalanced characteristics). In a majority of the studies (e.g. Callaghan et al., 2005; Heponiemi et al., 2014; McDonald et al., 2005), the authors either did not report or give sufficient information to indicate whether the risk of non-response bias was low. In others, the risk of non-response bias was assessed as high which challenged the validity of the results (e.g. Balch et al., 2010; Ziebertz et al., 2015). Additionally, almost all quantitative studies relied on self-reported measures. However, these were not always validated and thus, results may have been affected by “<sup>2</sup>common-method bias” (Brown, 2006, p. 159). Furthermore, with the exception of one (Heponiemi et al., 2014), the quantitative studies were cross-sectional so that causal relationships and directionality of effects could not have been established. Relatedly, the likelihood of the presence of confounding factors could not have been ruled out.

Apart from this, the majority of the studies in the review focused on quantitatively assessing participants’ evaluations of being on-call or the effect being on-call had on family and social life outcomes. As such, there were relatively fewer studies exploring, via qualitative approaches, the subjective meanings participants attached to their on-call experiences or how family and social life was lived out during this period. The use of quantitative methodologies tended to force participants’ experiences into the pre-determined categories of closed-ended questionnaires, thereby, limiting their descriptions of their realities. For example, the negative wording of the scale used to measure the experience of being on-call in Ziebertz et al. (2015) indicated that the authors might have allowed their pre-assumptions about how being on-call is experienced to lead participants towards negative perceptions. Furthermore, they

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<sup>2</sup> Common method bias, “exists when some of the differential covariance among items is due to the measurement approach rather than the substantive latent factor.” (Brown, 2006, p. 159)

contended that distal “on-call stress (i.e., the experience of stress due to the unpredictability of being on-call) seemed to be the most important predictor of health and well-being outcomes as it was positively related to [almost] all outcome variables” (Ziebertz et al., 2015, p. 8). While results from qualitative studies (e.g. Cuddy et al., 2001; Rout, 1996) might have also described the random nature of being on distal call as stressful, they also implied that there may be other underlying meanings in the perceptions of distal on-call stress (such as restrictions to stay within close proximity to the worksite, disruptions to family and social life and the inability to detach) which are important to health and well-being. Furthermore, these workers might describe their on-call experiences in other ways besides being stressful.

Therefore, further qualitative research that provides a deeper and more nuanced understanding of the realities of the on-call experience from those who experience being on-call and which allows them to share their experiences, is needed. Qualitative research can also “shed light on the ways that on-call workers limit or modify” their family and social lives during the on-call period (Roberts et al., 2019 para. 18). The richness of the data in such studies can provide context and understanding to the quantification needed in quantitative studies (Roberts et al., 2019).

#### ***2.8.5. On-call work and family as gendered.***

A limitation of the evidence base was that the role of gender in the on-call experience (on medical and non-medical participants) was not sufficiently explored. Such an objective would have been especially important for understanding how the organisation of family and social life, during the on-call period, was influenced by ideologies about the roles of men and women at work and at home. Furthermore, where gender was

explored, it was difficult to isolate the similarities and differences in the on-call perceptions and family and social life experiences of men and women within studies due to the homogenous nature of samples (e.g. Altomonte, 2016; Cuddy et al., 2001; Emmett et al., 2013; Ziebertz et al., 2015).

Wharton (2005) contended that the construct of gender (defined as “a system of social practices [that creates and maintains] differences and inequalities”) is important for understanding the patterning of the social world or social phenomena such as work and family life (p. 7). By its very definition, it implies going beyond sex categorisation or the “taken for granted” physical and biological markers assigned at birth or prenatally (Wharton, 2005, p. 2) and instead looking at the “social processes or practices” that give them meaning (Wharton, 2005, p. 23). She identified three frameworks which reflect where the “sociological action” that (re)produce gender and gender inequalities resides (Wharton, 2004, p. 157).

An individualistic concept of gender locates it as a function of people’s emotions, attitudes, personalities or beliefs (Wharton, 2004, 2005). Those adopting this position, emphasise the sex differences between men and women that predispose them to behave in different ways (Wharton, 2005). Intra-group differences (i.e. race, age and class differences among men or women) and inter-group similarities are usually minimalised to emphasise inter-group differences. The interactional framework underscores the importance of group interactions and relations in (re)producing gender (Wharton, 2004). Those following this perspective, propose that people (re)produce gendered behaviours and reactions in their environment, that is, in response to other people and features of their social setting. In other words, gender is a function of social context and

not based merely on individual traits (Wharton, 2004). Finally, in an institutional approach, systems and practices rooted in macro-structures such as work and the family are viewed as playing a role in (re)producing gender (Wharton, 2004).

Wharton (1991) suggests that no one conceptualisation of gender is superior to the other or offers a complete explanation for social action. Instead, she called for a “historically and situationally contingent” approach, which focuses on the conditions in which a particular perspective becomes appropriate for understanding action (Wharton, 1991, p. 381). Thus, while I agree that gender is a part of social relations at all levels, (i.e. the individual, interactional and institutional levels), in this study, I stress the institutional approach to gender, highlighting the ways in which it is reinforced in structures such as in the medical profession and family unit. This approach is relevant to the focus of my research which explores the on-call experiences of doctors within the T&T medical profession and the implications of this working arrangement for their families. Notwithstanding its relevance, the institutional perspective has been criticised for its view of gender as an external and independent phenomenon acting on a passive social actor (Wharton, 1991). However, rather than regard gender as being initially produced in external structures, I view gender as a social construct that is merely reinforced or perpetuated within macro-structures or institutions.

Institutions refer to those permanent patterns or ways of doing things that are rarely scrutinised but socially shared and accepted (Wharton, 2004). Gendered patterns in institutions, while they can be changed, are not always explicit or understood and are thus, maintained often unconsciously or unintentionally (Wharton, 2004). For example, traditional ideologies relating to women as “caretakers” and men as “breadwinners” are

reproduced within the T&T labour landscape where, while women who are pregnant are afforded at least three months paid maternity leave, there is no statutory requirement for paternity leave (Wharton, 2005, p. 105).

It follows therefore, that femininity and masculinity are bound up with the performance of normative roles which have been sustained through institutionalised practices and beliefs in the workplace and in some occupations relative to others. In the medical profession, masculinity is reproduced in the notion of the “ideal worker” who must be committed to placing work before family (Turk, Davas, Tanik & Montgomery, 2014, p. 444). However, because women have primary responsibility for childcare and domestic work, it follows that, being an ‘ideal’ doctor and more specifically, “being on-call as a pattern of work may pose uniquely different challenges for men and women” (Roberts et al., 2019, para. 2). Recent research indicates that the unequal distribution of unpaid work between men and women, makes it particularly difficult for the latter to navigate the unpredictable nature of being on-call (Jay et al., 2018; Roberts et al., 2019) since women are expected to behave in ways that put their families first. Those who deviate from these role expectations are usually penalised through stigmatisation (Wharton, 2005). Therefore, gender role expectations provide men and women with a diegesis about how they should behave and dictate the choices they should make about the organisation of their work and lives (Wharton, 2005).

The findings in this review supported these assertions since it was usually women who sacrificed their careers and social lives so that they could more effectively perform their caretaker roles. Traditional gender role expectations appeared to be intact between couples with irregular work patterns such as on-call work (Emmett et al., 2013). This



observation was consistent with findings relating to another type of irregular work pattern - homeworking. Sullivan and Smithson (2007) sought to understand the ways in which the flexibility associated with homeworking was experienced and made sense of by homeworkers and their co-residents. The authors found that the flexibility advantage afforded to homeworkers was constructed by women in terms of their ability to be available for domestic labour (Sullivan & Smithson, 2007) which was consistent with their internalisation of their role as caretakers. Men homeworkers, on the other hand, seldom constructed the advantage of homeworking in terms of family life and when they did, it was in terms of merely spending time with family or 'helping' their wives with domestic duties (Sullivan & Smithson, 2007).

Nevertheless, the evidence presented here (Emmett et al., 2013; Jay et al., 2018; Roberts et al., 2019; Sullivan & Smithson, 2007) was based on studies primarily conducted in the UK, Australia and New Zealand. Therefore, it remains uncertain what insight the findings might offer into the ways in which men and women on-call doctors and SOs in different regions such as in the Caribbean, think of their roles generally and when their partners are on-call. More specifically, research in this context is also needed to understand how these ideologies might be reinforced in the workplace and family and the implications this may have for how the participants organise and manage their family and social lives during the on-call period.

#### ***2.8.6. Contextual differences.***

As alluded to in the previous section, the extrapolation of the review findings to Trinbagonian on-call doctors and SOs cannot be made without caution. This holds true even with regards to the studies which were carried out on doctors. The majority of

these studies were conducted in developed regions with divergent healthcare contexts and on-call arrangements from that of T&T and the wider Caribbean. For example, there are greater opportunities for doctors to work part-time or flexibly in countries such as New Zealand, the UK and the Netherlands when compared with T&T. In those countries, such opportunities are mainly utilised by women so that they could be more available for their families. Consequently, women on-call doctors in those countries may have different on-call experiences when compared with women doctors in the Caribbean if they are better able to manage the burden of being on-call with their domestic responsibilities.

## 2.9. Limitations

This review was limited by the contemporary and independent nature of its approach. Firstly, mixed methods studies reviews are relatively a new form of review and even less has been written about convergent synthesis within these reviews. There have been particularly fewer examples of ‘qualitizing’ quantitative data to learn from (Teddlie & Tashakkori, 2009). Furthermore, narrative profile formation, especially the use of holistic profiles, has been criticised for presenting an “oversimplified view” of quantitative findings and for the influence of the reviewer’s subjectivities in the analysis of the results (Tashakkori & Teddlie, 1998, p. 133). However, the consistency between original qualitative findings, which were used along with the qualitized summaries of the quantitative studies, reduced the likelihood of this bias (Tashakkori & Teddlie, 1998). Yet, as is discussed in the next chapter, bias is considered inevitable and is welcomed in the interpretation of data associated with the interpretivist epistemological tradition, within which the current research was carried out.

Additionally, the current review was independently conducted in the context of a PhD thesis. Therefore, it lacked an important criterion necessary for it to be truly considered systematic - “at least two researchers working independently to assess the reliability of the review process” (Pluye & Hong, 2014, p. 36). Nevertheless, Bélanger et al. (2011) commented that “a literature review is considered systematic if it is guided by a research question and if the processes of identification, selection, appraisal, and synthesis of the literature are explicitly described” (p. 243). This chapter aimed to be transparent about how these stages identified by Bélanger et al. (2011) were carried out in this review

process. Moreover, once the data were extracted and synthesised, my supervisors were involved in reviewing the results and the analysis of the findings.

## **2.10. Chapter summary**

The preceding mixed methods studies review explored the evaluation of on-call work and its impact on the social well-being of on-call workers and their families. However, there were several limitations and knowledge gaps, particularly as it related to the experiences of doctors.

Research that isolates the experiences of different categories of on-call doctors and explores the experiences of SOs of on-call doctors, is needed. Explicit reference to theory to shed light on how participants arrive at their evaluations of their on-call experiences is also needed. Qualitative research which provides a deeper understanding of the subjective meanings behind doctors and SOs' perceptions of being on-call and their engagement in family and social life during this period is underrepresented when compared with quantitative research on the strength of relationships. Additionally, future research should remain alert as to whether being on-call has different meanings and implications for men and women. Finally, on-call doctors and SOs across the world are not homogeneous but differ in terms of their employment and healthcare contexts, on-call policies and procedures and general societal norms - all of which may have a bearing on the meaning they attach to being on-call. The applicability of the review findings to Caribbean nations such as T&T needs to be explored given that on-call research has never been conducted in the region. Recent claims of a growing epidemic of burnout among Trinbagonian doctors and the increased focus on their health and well-being, including on-call working arrangements, warrant such an investigation.

## **2.11. Research questions, aims and objectives**

Therefore, the current study seeks to explore:

- A. How do on-call doctors and SOs of on-call doctors perceive their experience when they or their partners are on-call?
- B. What does being on-call mean for the family and social lives of on-call doctors and SOs of on-call doctors?

The study aims to identify:

- a) How doctors on proximal on-call evaluate their on-call experience relative to doctors on distal on-call
- b) How SOs evaluate their experience when their partners are on-call and;
- c) How on-call doctors and SOs of on-call doctors engage in family relationships and non-work activities when on-call.

These aims will be accomplished through the following objectives:

- a. to explore how doctors providing proximal call generally describe their experience of being on-call
- b. to explore how doctors providing distal call generally describe their experience of being on-call
- c. to explore how SOs generally describe their experience when their partners are on-call
- d. to explore how doctors and SOs describe their personal relationships and participation in non-work activities as a result of on-call

- e. to explore whether on-call experiences (including family and social life experiences) are based on traditional ideologies about gender and how these ideologies are reproduced at work and within the family.

## **Chapter 3: METHODOLOGY**

### **3.1. Chapter overview**

As indicated in the previous chapter, the majority of the on-call literature has followed quantitative traditions. However, the aims of this study were to understand the meaning doctors and significant others (SOs) ascribed to their experiences of being on-call and to their family and social lives when on-call. In light of these aims, a qualitative methodology was considered more appropriate (Cuddy et al., 2001). The following sections describe: the philosophical influences of the study which shaped how participants were selected, data were collected, and findings analysed.



## **3.2. Philosophical approach**

### **3.2.1. *The interpretive paradigm.***

The majority of studies referred to in chapter two utilised quantitative methodologies to determine the relationship between being on-call and other variables such as stress, fatigue and work-life interference. Cuddy et al. (2001) inferred that the quantitative nature of studies in the on-call literature do not provide “a deeper understanding of the [participants’] perceptions and experiences” necessary for uncovering the hidden realities of being on-call (p. 286). Research utilising quantitative methodologies are usually based on positivist ideologies (Crossan, 2003) whereby the aim is to establish generalisable laws to explain or predict behaviour (Darlaston-Jones, 2007; Fossey, Harvey, McDermott, & Davidson, 2002; Ormston, Spencer, Barnard, & Snape, 2014, Rolfe, 2013; Taylor, Bogdan, & DeVault, 2016). However, my goal in the current study was to understand the meanings doctors and SOs attached to being on-call in their everyday lives. In light of this, I chose to utilise a qualitative methodology which I believed allowed me to attain this goal.

Ontologically, I subscribed to an idealist view that participants’ realities about being on-call were constructed in their minds as they interacted with their SOs, the rest of their families, colleagues and society during the on-call period (Ormston et al., 2014). Thus, I assumed that there was no external reality of being on-call independent of the participants’ constructions or interpretations of it (Bahari, 2010; Collis & Hussy, 2014; Hamlin, 2015; Ormston et al., 2014). However, while I believed that the reality of being on-call was socially constructed, I was interested in the shared constructions among participants within a specific group or context (Guba & Lincoln, 1994) - a form of

idealism known as “contextual or collective idealism” (Ormston et al., 2014, p. 5). For example, the experience of being on-call might have been similar for: proximal on-call doctors relative to distal on-call doctors, those working in hospitals versus those working in community health centres, men versus women doctors and so on. Hence, it became the goal of the research to find out what these group constructions were.

Epistemologically, I believed that knowledge about these groups’ constructions could not be acquired objectively nor observed with the senses as is consistent within positivist frameworks (Ormston et al., 2014). Exploring participants’ constructions of their experience of being on-call required getting as close as possible to them in order to understand their realities from their perspectives (Alvermann & Mallozzi, 2010; Ormston et al., 2014). It also meant that I was personally involved in the construction of the participants’ realities through my dialogical exchanges with them and as I interpreted and re-told their stories. Furthermore, my interpretations were not “value-free” but were a function of my own pre-assumptions and past experiences (Ormston, et al., 2014, p. 8). These were reflected upon in this chapter and in chapter six. The above contextual-idealist ontological and constructivist epistemological beliefs placed the study within the interpretive tradition (Ormston et al., 2014) and influenced how I recruited my participants and collected and analysed my data.

### 3.3. Sampling

Trinbagonian doctors working on-call (including those who may have been training and working on-call abroad as part of their training) and who were able and willing to reflect and talk about their experiences, were purposefully selected to provide rich and detailed meaningful data with which to answer the research questions (Koerber & McMichael, 2008; Latham, 2007). Doctors who may have worked on-call in the past and those who did not work on-call at the time of recruitment were excluded. Consistent with qualitative research, is the use of purposive sampling - i.e. the selection of those who have experienced the phenomena relevant for answering the research question (Joffe, 2012). Other qualitative on-call studies in the literature also utilised purposive sampling (e.g. Cuddy et al., 2001; Emmett et al., 2013).

After acquiring ethical approval from all relevant committees, electronic mails (e-mails) were sent to the doctors on my behalf by the Medical Chiefs of Staff of each District Health Agency (DHA) inviting them to the study (see Appendix F). Due to demographic and geographical differences, doctors were selected from across multiple DHAs in the country. Of the five DHAs, one was not approached due to <sup>3</sup>intellectual data property concerns and the other due to the logistical difficulties involved in conducting research there. Doctors were thus recruited from the other three DHAs, namely, the Cranville DHA, the Pramble Lake DHA and the Sun Valley DHA which altogether serviced a catchment of approximately 78% of the national population.

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<sup>3</sup> The contractual requirements from one DHA was that they would have had to have ownership of the data and, as such, permission would have had to have been sought from them to publish the findings.

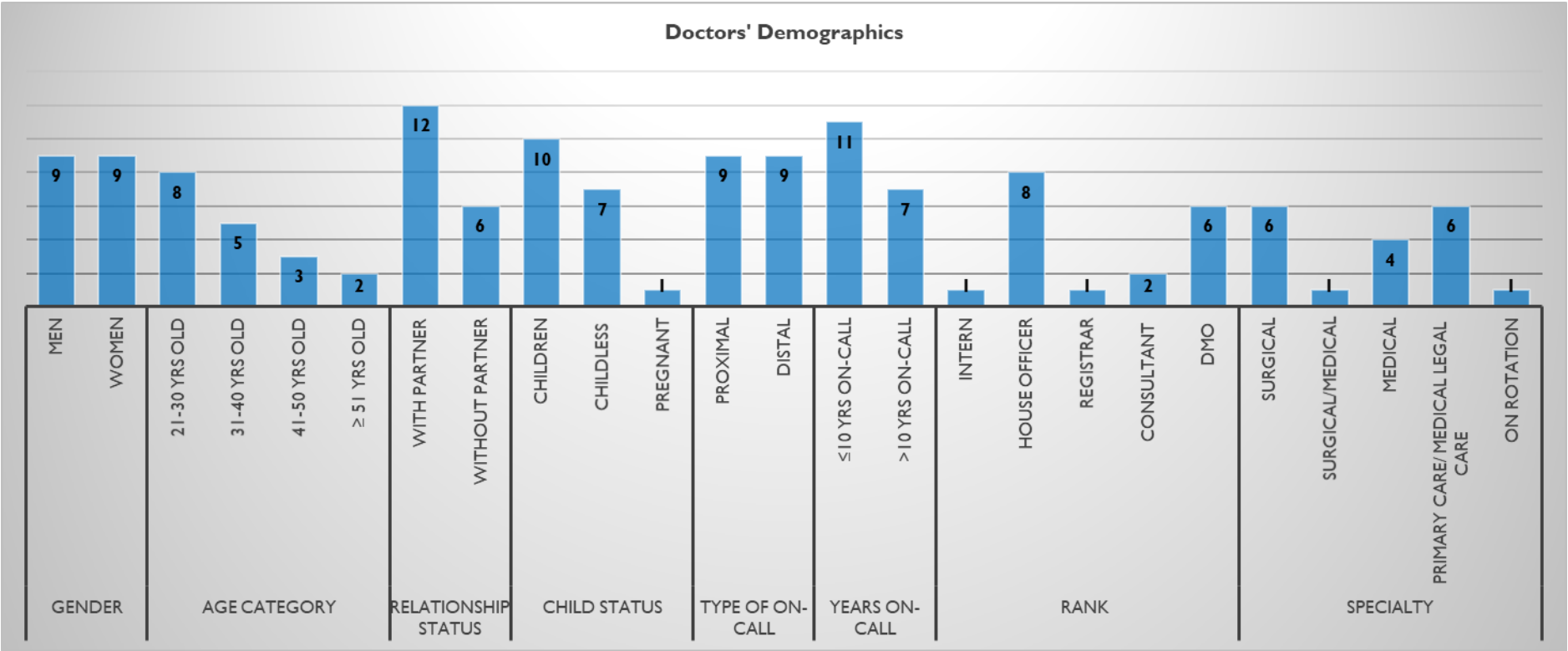
While the majority of doctors recalled being informed about the study, only two responded to the e-mails. The remaining doctors were reminded when I made on-site visits to the hospitals. Some distal on-call hospital doctors did not believe that their experience of being on-call away from the hospital qualified them for the study. They felt that because they were rarely called, I should have sought only to engage doctors who were on proximal call since they believed that it is those doctors who are mostly affected by being on-call. Their perceptions about their unsuitability for the study remained even after I explained to them how their experiences were also relevant to the research.

As such, recruiting distal on-call hospital doctors, proved to be relatively difficult when compared to the recruitment of proximal on-call doctors. The former, therefore, were mainly invited to the study through snowballing techniques and referrals (Koerber & McMichael, 2008; Latham, 2007; Marshall, 1996). Coyne (1997) described all qualitative sampling methods including snowballing sampling as purposeful because the underlying element is the selection of “information-rich cases” or those purposefully selected to answer the research question (p. 627). However, the distal hospital doctors’ perceptions of being on-call caused me to wonder how many other distal hospital doctors felt that their experiences were irrelevant. It is not known whether these perceptions were responsible for the low recruitment of distal hospital doctors via the e-mail invitation which did not distinguish between being on proximal or distal call.

While the sample of doctors was generally homogenous (i.e. on-call doctors providing either proximal or distal on-call), maximum variation was applied to recruit equal numbers of men and women doctors and those representing a range of medical

specialties, ages, ranks, and lengths of on-call experience among others (Koerber & McMichael, 2008; Marshall, 1996). While I did not aim to generalise the results, these demographics were thought to be relevant in shaping the doctors' on-call experiences. However, in most instances, the doctors' demographics corresponded with the on-call category to which they belonged. For instance, proximal on-call doctors were usually younger doctors in junior positions with shorter years of on-call service. Thus, besides gender, on-call categories were ultimately relevant in the analysis of the on-call experience. A more detailed presentation of the demographics of each doctor was provided in table form in chapter four. However, the bar graph below was used to provide a numerical overview of the characteristics of the sample at large.

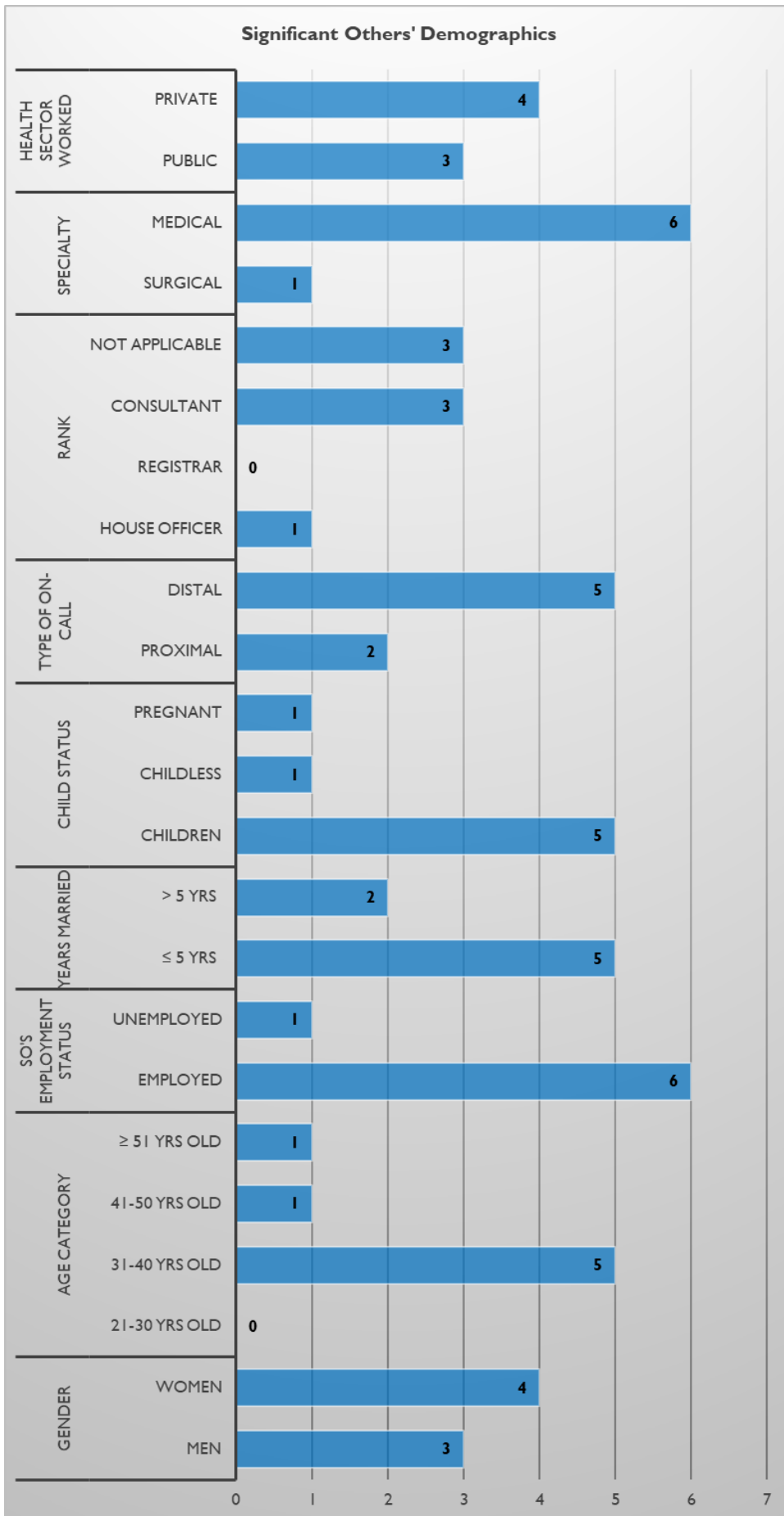
Figure 3: Vertical bar graph showing sample demographics for doctors



SOs were also invited to take part in the study because this was in alignment with the research question which explicitly sought to explore their experiences when their partners were on-call. In chapter two, it was argued that being on-call impacts the lives of SOs. Furthermore, as was consistent with the interpretive nature of this study, recruiting SOs allowed for a more nuanced understanding of the realities of being on-call. As interpretivists would argue, there is no absolute or single on-call experience (Ormston et al., 2014).

After interviewing the doctors, I asked them if they would invite their SOs to participate in the study since my initial intentions were to match SOs to doctors in the sample. However, the doctors acted as gatekeepers. Of those who had SOs, some did not invite them stating that they would not be interested in participating. Others stated that their SOs did not wish to take part in the study. Thus, SOs were recruited from the general population using snowballing methods and referrals (Coyne, 1997; Koerber & McMichael, 2008; Latham, 2007; Marshall, 1996). As with the sample of doctors, SOs represented a variety of occupations, ages, and number of years married and almost equal numbers of men and women were recruited. The bar graph below offers a numerical overview of the number of SOs belonging to a particular demographic while a table detailing demographic information for each participant is provided in chapter four.

Figure 4: Horizontal bar graph showing sample demographics for SOs





The choice of sample size for studies following a qualitative methodology and using thematic analysis (the method of analysis chosen in this study) is based on whether there are sufficient participants to allow for the discernment of variation within the dataset as a whole and across sub-groups (Braun & Clarke, 2014; Joffe, 2012), yet small enough to allow for rich and complex data on the “lived experience” to be drawn out (Ormston et al., 2014, p. 13). Braun and Clarke (2014) broadly recommends recruiting 30 or more participants for interviews for a PhD project. While, it was my intention to follow this recommendation, in the current investigation, 25 participants were recruited (i.e. 18 doctors and seven SOs). This was due to the difficulties encountered in the recruitment of distal hospital doctors and in gaining access to the partners of the doctors in the study, as was previously highlighted. Nevertheless, at this point, group-based patterns within and across the dataset were discernible. Similar qualitative studies on on-call workers (doctors and non-doctors) have had an average of 27 participants (e.g. Altomonte, 2016; Cuddy et al., 2001; Emmett et al., 2013; Rout, 1996).

Once participants had indicated their interest in the study, I forwarded a participant information sheet which outlined the right to withdraw consent, issues of anonymity and confidentiality, help-seeking resources, dissemination plans and relevant contact information to their e-mail addresses (Oliver, 2010; ESRC, 2015). There were separate participant information sheets for doctors and SOs (see Appendices G & H). Participants were given adequate ‘cooling off’ time to review the information sheets and decide if they were interested in taking part in the study. After this period, I contacted them to determine if they still had any questions about the information provided on the sheets and if they had maintained interest in the study. During these conversations, assurances of anonymity, limits to confidentiality and voluntary

participation were reinforced. Those who maintained interest were invited to an interview.

### **3.4. Interviews**

In keeping with philosophical and methodological consistency, individual qualitative interviews, the main method of data collection in qualitative research, were used to collect data on the participants' experiences of being on-call (Braun & Clarke, 2013). As discussed earlier, in qualitative research, both the researcher and participant are actively involved in the construction of meaning (King, 2004). Thus, the qualitative interview facilitated the social closeness I required to co-create meaning with the participants (King, 2004). It was also the way through which I was able to access the participants' realities of being on-call. Other qualitative studies on the impact of being on-call on doctors and/or their spouses have also utilised individual interviews (e.g. Cuddy et al., 2001; Emmett et al., 2013).

Some qualitative researchers (e.g. Knox & Buckard, 2009; Yüksel & Yıldırım, 2015) propose the conduct of multiple group or individual interviews and the pairing of interviews with other data collection methods (e.g. observation) - features from which there was a departure in the current research. However, Knox and Buckard (2009) maintain that single interviews are sufficient when participants are hard to access or when the topic could be effectively examined from a single interaction. The characteristics of the samples (i.e. doctors and professional SOs who were difficult to access more than once) and overall sample size, reduced the feasibility of conducting multiple interviews (Knox & Buckard, 2009). While I acknowledge that the impracticality of holding multiple interviews with each participant may have been a limitation of the study, I was satisfied that their realities of being on-call were

sufficiently explored through the single one-to-one in-depth conversations which I held with them.

Secondly, I believed that the sensitive nature of some of the topics addressed in the interviews (e.g. the meaning of being on-call as it related to intimate and organisational relationships) would have been more effectively and comfortably revealed in individual interviews than within a group setting. Some authors argued however that the “opposite may be true” (Kitzinger, 1995, p. 300). More courageous participants may stimulate disclosure on sensitive topics from more inhibited participants provided that the latter feel safe and supported in discussing these issues (Coenen, Stamm, Stucki, & Cieza, 2011; Kitzinger, 1995). However, I would not have been able to afford the participants confidentiality and anonymity which might have lowered their participation rates. It would have also been more time-consuming and logistically difficult to bring together busy professionals such as those in the current sample in one place at the same time. Additionally, I was not trained in moderating the interactions and dynamics characteristic of group interviews (Coenen et al., 2011).

Finally, I found observations to be unsuitable because it would have meant having to observe participants in their personal spaces when they were on-call. This might have been intrusive especially for doctors who were on distal call or SOs who would have had to be observed while they were at home. It might have also been unsafe for me as a lone researcher. While it might have been relatively less intrusive and safer to observe doctors, who were on proximal call at the hospital, there would have been restricted access to areas such as on-call rooms, operating theatres and wards outside of hospital visiting hours. Conducting observations would have also been impracticable given that

the on-call period was sometimes 24-hours long. Diary entries could have also been used to complement the interviews and deepen the analysis. However, these require commitment on the part of the participants regularly to chronicle their experiences over time. Given the characteristics of the sample, updating diary records along with being interviewed would have entailed additional and sustained effort to their already hectic schedules. As a consequence, my ability to attract and maintain their participation might have been lowered. Hence, single individual interviews were the sole research method employed.

#### **3.4.1. *Interview structure and questions.***

I began the interviews by sharing information relating to who I was, what I was aiming to achieve and what motivated me to conduct research in this area. At times, I discussed further research and career plans I had for myself because these questions were asked by participants. I believed that answering these types of questions before the interview helped establish rapport with the participants and made them comfortable to share their stories. Evidence suggests that building rapport with participants before the interview increases the likelihood that they will disclose rich and detailed data about their experiences (Braun & Clarke, 2013; DiCicco-Bloom & Crabtree, 2006; Novick, 2008; Whiting, 2008). Ice-breaker questions such as “How long have you been working on-call?”; “What is your on-call rota like?” and “For how much of your life together your partner has worked on-call?” were also used to establish rapport with participants. While I was successful in making participants comfortable in sharing their stories, I was not certain whether rapport building predisposed them to provide socially desirable accounts of their experiences. However, I attempted to minimise this likelihood by

reminding them that there were no right or wrong answers and encouraging them to be as open and honest as possible.

Semi-structured interviews were used to solicit detailed and rich responses about the on-call experience in the participants' own words (DiCicco Bloom & Crabtree, 2006; Knox & Buckard, 2009). My decision to use semi-structured interviews was driven by their use in qualitative on-call studies in the literature (e.g. Cuddy et al., 2001; Emmett et al., 2013) and by the philosophical assumptions I adopted in the study (King, 2004). For instance, interpretivist ideologies do not call for interviewees who are restricted to checking boxes to selected categories or pre-set answers as is the case in quantitative interviews or surveys (Knox & Buckard, 2008; Potter & Hepburn, 2005). Interpretivists explore hidden meanings behind participants' lived experiences. Thus, a method had to be chosen which would have allowed the participants to share their rich and in-depth descriptions on the meaning of being on-call (DiCicco-Bloom & Crabtree, 2006; Kvale, 2007). Unstructured interviews might have also been appropriate given the constructionist nature of the study (Ennis & Chen, 2012; Knox & Buckard, 2009). However, these interviews are not defined by interview guides or pre-determined questions, which would have made the search for commonalities in meaning as relatively difficult.

The interview protocol consisted of 16 open-ended questions for doctors and 15 open-ended questions for SOs exclusive of follow-up questions and probes (See Appendices J & K). The questions reflected the aim of the study which was not to determine the essence of being on-call but to explore what it meant for participants to live out being on-call in their everyday lives. The protocol was influenced by my own pre-assumptions

which were to a large extent based on personal experiences and themes identified in the literature review. For example, the literature identified the impact of on-call on children as one of the relevant themes in understanding the on-call experience. Therefore, I asked questions about parent-child interactions when the doctors were on-call to prompt stories on: how on-call doctors prepared for and organised their children for their on-call duty; how these preparations differed based on when and where they were on-call and how gender and parental roles were constructed or re-constructed during the on-call period. Participants were also encouraged to share their experiences of leaving their children to respond to call-outs. I was aware that my own experiences of being left in the middle of the night to supervise my younger siblings when my mother was called out to work may have prompted me to ask some of these questions and may have also influenced what I expected to find.

The questions also sought to bring to light shared meanings in participants' stories such as those among: distal and proximal on-call doctors and men and women doctors and SOs. Consistent with its semi-structured nature, the protocol was not always followed in the same sequence. Furthermore, new questions were added, and irrelevant questions dropped based on the participants' responses. Additionally, some questions were not relevant to particular doctors. For example, for proximal on-call doctors, being on-call meant that they were essentially working and away from most of their familial and social network. Thus, questions that sought to solicit experiences of engaging in family and social activities such as cleaning the house and making dinner during the on-call period were dropped when interviewing them. Instead their questions focused more on their post-call experiences and how they organised their lives around their on-call schedules.

### **3.4.2. *The interview process.***

Participants were invited to be interviewed face-to-face but were also given the option to be interviewed via telephone. Knox and Buckard (2009) have argued that participants should be allowed where feasible to choose how they would like their interview conducted to increase the likelihood that they will disclose more freely in the method with which they feel more comfortable. Furthermore, telephone interviews are an option for reaching participants who may be otherwise difficult to access due to work commitments (Cachia & Millward, 2011). With the exception of one, all participants in the sample were career professionals who were extremely busy or had unpredictable schedules. Therefore, I believed that offering them the option of telephone interviews increased the likelihood that they would participate and maintain interest in the study.

Only one doctor chose to be interviewed via telephone. However, all SOs agreed to telephone interviews due to work and family commitments. Telephone interviews increased flexibility in terms of scheduling interviews at times and places convenient to the SOs. Furthermore, missed telephone appointments were easily re-scheduled maintaining participants' commitment to the study. Moreover, participants who were interviewed over the telephone shared as much as those who were interviewed face-to-face and vice versa. The same result was found in Cachia and Millward (2011) and Sturges and Hanrahan (2004) in their qualitative studies. It helped that I had developed rapport with the participants through e-mails and informal telephone conversations prior to the interview and that no "cold calls" were made (Cachia & Millward, 2011, p. 267).

The absence of visual cues during telephone interviews, however, made it difficult to know when participants were finished responding to a question. As the interviews



progressed, I circumvented this challenge by allowing for lengthier silences before I resumed questioning. Furthermore, communication with the participants over the telephone was intentionally made more explicit and articulate (Cachia & Millward, 2011; Musselwhite, McGregor, & King, 2007) to reduce the risk of misunderstanding. For example, I spoke slowly and repeated questions when required. Video-conferencing tools such as SKYPE or Zoom might have provided a similar convenience to the use of telephones while skirting the absence of visual cues. However, I decided against them because of the risk of technological and connectivity issues when compared with more conventional telecommunication networks. Finally, in both face-to-face and telephone interviews, there were moments when despite my best efforts not to, I expressed empathy when participants shared their experiences on difficult topics. In those instances, I was mindful how my verbal empathetic responses such as “I’m sorry to hear that you felt that way” or “Wow, I had no idea” provoked participants to share more on an issue. Nevertheless, I am not certain whether these expressions influenced what was shared.

Participants consented in writing to take part in the study prior to their interviews. In the case of telephone interviews, they were asked to sign and e-mail the consent form to me before being interviewed (see Appendix I). The interview did not proceed unless the participants agreed to the statements and thus, they were given the option to not be interviewed. They were made aware of their right to withdraw consent before the interview, during the interview and up to two weeks after the interview. They were also informed of their right to request the destruction of any part or all of the data supplied up to two weeks after the interview (The British Psychological Society, 2014). They were also reminded that while their data were anonymised, there were limits to its

confidentiality. Anonymised data from transcripts were shared with supervisors in the analysis phase of the thesis and some direct quotes were used to support arguments in the presentation of findings. However, these quotes were matched to respondents using pseudonyms which I provided. The link between the pseudonyms and participants were stored securely on a storage facility (i.e. Personal Filestore) at Lancaster University.

I held face-to-face sessions with doctors in private offices or in empty medical rooms at their workplaces because they wished to be interviewed there. While disruptions rarely occurred, in some instances they were unavoidable. When disruptions did occur (such as when someone entered the room or called on the telephone), the interview was stopped for the duration of the interruption and resumed where the discussion was halted. There were relatively fewer interruptions during the telephone interviews with SOs. However, when SOs were interrupted such as by incoming phone calls, I stopped the interview for them to take the call and resumed when they were finished. There were also rare instances where background noise such as vehicular traffic in the participants' environment made it difficult to hear. When this occurred, I asked the participants either to: repeat themselves; find a quieter place to be interviewed; or consider if they wanted to re-schedule at their convenience.

Interviews averaged 45 minutes in duration, were conducted either in the morning or afternoon, were audio recorded with participants' permission and transcribed verbatim by me. I remained alert to non-verbal expressions although these were not transcribed since I was interested in the content of the participants' constructions. Local vernacular terms were in some instances replaced by formal English words for the benefit of the readership of the thesis. Grammatical errors however, were not corrected so as to stay

as true as was possible to the participants' narratives. No participant became distressed during the interviews or more specifically due to the questions asked. Questions on intimate relationships were not answered by doctors with as much elaboration as other topics even when probed. One doctor preferred to elaborate on his relationship with his ex-wife off-record. As a result, these comments were not included in the transcript. The reluctance by doctors to share their experiences regarding their interactions with their partners when on-call might have been linked to the difficulties associated with recruiting their SOs. The SOs who were recruited, however, were more forthcoming with details about their interactions with their on-call partners and about sensitive topics such as career sacrifices.

I did not feel that my status as a woman affected any of the interviews. However, in one interview, I was made aware of how my identity as a research student contributed to the power dynamics at work between a doctor and myself. The doctor, who was a surgical consultant, constantly used medical jargon throughout the session, corrected me on what he perceived to be my interviewing flaws and terminated the interview by his abrupt exit out of the room. Nevertheless, I was satisfied with the data gathered. The perceived power imbalance did not stop the doctor from giving a rich and in-depth account of the meaning of his on-call experiences nor did it stop me from remaining open to his narrative. SOs, on the other hand, were generally concerned with providing socially acceptable answers or whether they were being of sufficient help to me. In these interviews, there seemed to be a reversal of power which was unintentional on my part. Still, as previously mentioned, I reassured SOs that there were no right or wrong answers and encouraged them to be open and honest as possible. During the interviews with this sample, I felt more confident compared to the interviews with the doctors. This

might have been due to the practice effects of interviewing (since interviews with doctors preceded interviews with SOs) which I felt improved my skill. Every participant was thanked and told that their accounts were appreciated. A thematic analysis of the results occurred after the interviews were transcribed and is the subject of discussion in the following section.

### **3.5. Thematic analysis**

Although arguably theoretically independent (Braun & Clarke, 2014, Clarke & Braun, 2014), some authors contend that thematic analysis belongs to a phenomenological or qualitative methodology since “it is best suited to elucidating the specific nature of a given group’s conceptualisation of the phenomenon under study” (Joffe, 2012, p. 214). Hence, I performed a thematic analysis of the data to identify, analyse and make sense of the commonalities in meaning participants attached to their experiences of being on-call (Braun & Clarke, 2006, 2012; Clarke & Braun, 2014; Vaismoradi, 2013). This was in keeping with the qualitative approach and contextual-idealist ontological and constructionist epistemological framework previously presented (Ormston et al., 2014). The purpose of thematic analysis is to “understand how people feel, think and behave within a particular context relative to a specific research question” (Guest et al. 2012, p. 13), Therefore, it was also consistent with the study’s aim which was to explore the shared meanings in the lived experience of being on-call among doctors who were either on proximal or distal call and those who were partners of on-call doctors.

The thematic analytic process moved from description, where the data were merely organised and summarised “to show patterns in semantic content” in the analysis chapter (Braun & Clarke, 2006, p. 13), to interpretation, where there was interrogation of the hidden or latent assumptions underpinning the semantic content in the discussion chapter (Braun & Clarke, 2006, 2012; Clarke & Braun, 2014). The latent analysis included exploring the implications of the findings in relation to previous literature and theory to tell the interpretative story (Braun & Clarke, 2006, 2012; Clarke & Braun, 2014).

The analysis was influenced by the six phases identified in Braun and Clarke (2006). It must be noted, however, that the stages described by the authors were not followed in the exact order as prescribed. This was because the very nature of qualitative research and analysis is messy and seldom linear (Braun & Clarke, 2006). Therefore, there were iterative movements across the stages where I constantly moved back and forth from coding the raw data, to presenting the findings and writing the interpretive story.

Firstly, I uploaded the transcripts from my secure account on Box onto the Computer Assisted Qualitative Analysis Software (CAQDAS) NVivo 11 Pro and read them twice for familiarity (Alhojailan, 2012; Braun & Clarke, 2006; Clarke & Braun, 2014; Mason, 2002). They were immediately removed from the programme following the submission of the thesis and retained on Box. Bryman (2008) has advised students that if the data set is small then using CAQDAS may not be worth the trouble of learning to use it or the cost to purchase it. However, it was believed that manually coding 25 interview transcripts even in Microsoft Word or Excel would have been time-consuming and problematic (Smith, 2011). Moreover, my choice to use CAQDAS was motivated by free university access to the software, free training to learn to use it and the opportunity to acquire a new transferable skill relevant for a career in academia in the future (Liamputtong, 2009).

The transcripts were classified in NVivo according to participant group namely; doctor (sub-classified as proximal versus distal) or SO. I then created initial or lower-level codes which were influenced by participants' words (in some cases these codes were in-vivo) to capture the essence of their responses (Alhojailan, 2012; Liamputtong, 2009). For example, codes such as "Always tired"; "It's a strain" and "It's lonely" were

created to capture the negative connotations of being on-call as described by the participants. I used NVivo to create a code index (i.e. a list of the codes and their descriptions) which I consistently applied to the cross-section of the data (Bazeley, 2013; King, 2004; Liamputtong, 2009; Pope, Ziebland, & Mays, 2000). The programme facilitated the linking of the coded data to the codes (Bazeley, 2013; King, 2004; Liamputtong, 2009; Pope et al., 2000) so that the coded data were always viewed in context.

After coding, I organised all the lower-level codes under sub-themes and overarching themes, along with the coded data (Braun & Clarke, 2006; King, 2004). The superordinate themes were more interpretive or were linked to themes and theoretical constructs in the existing literature as was previously mentioned (Pope et al., 2000; Spencer et al., 2014). For example, the lower-level code: 'No time to breathe' was coded under the sub-theme: 'Being on-call as tiring'. This sub-theme was linked to evidence in the literature which suggested that on-call workers experienced fatigue as a result of their prolonged exposure to work. The sub-theme was then placed under the overarching theme: 'Ambivalent perceptions of being on-call' to answer the research question: 'How do on-call doctors and SOs of on-call doctors perceive their experience when they or their partners are on-call?' Joffe (2012) argued that high-quality qualitative work adopts a dual approach (i.e. the use of semantic codes derived inductively or based on the participants' own words and the use of latent themes uncovered deductively or drawn from the existing literature).

Irrelevant lower-level codes were discarded, and some were merged (Braun & Clarke, 2006). For instance, codes describing interactions with friends when on-call such as

‘Our schedules don’t mesh’ and ‘Forming meaningful relationships’ were merged into one code ‘Forming meaningful relationships’ which was later clustered with other codes under the sub-theme ‘Participating in non-work activities’ to describe the impact of being on-call on social relationships including those with friends. Tables 3, 4 & 5 (see Appendices L, M & N) show the transition from codes to themes. A draft mind map was then developed using NVivo to display the link between codes and themes (Alhojailan, 2012; Braun & Clarke, 2006; King, 2004; Mason, 2002; Spencer et al., 2014).

Subsequently, themes were refined and as with the codes, some were discarded or merged (Braun & Clarke, 2006). At this point, I shared the themes, codes and coded data with my supervisors who challenged my interpretive assumptions (Barbour, 2013). For instance, there were discussions on developing a sub-theme entitled: ‘Being a mother’ to reflect the unique experience of mothers who were either on-call or who were a SO of an on-call doctor. This sub-theme was later discarded because it would have meant that all other sub-themes would have had to be discussed under it. Instead, the decision was taken to incorporate these gendered discussions as a lower-level code under every sub-theme. By offering their alternative suggestions or ways of interpreting the phenomenon, I was forced to justify every decision I made which in turn increased the richness of my interpretations and soundness of the research (Barbour, 2013; Fereday & Muir-Cochrane, 2006). All themes were appropriately defined to capture the essence of the data represented and their boundaries were determined (Braun & Clarke, 2006; Fereday & Muir-Cochrane, 2006; Spencer et al., 2014). The coded data were checked for coherence and consistency and adjustments were made (Braun & Clarke, 2006; Spencer et al., 2014).



Queries were run in NVivo to facilitate the analysis of the findings per on-call category and gender. As previously stated, factors such as age, rank and years of on-call service were in most instances corroborated with on-call categories and where this was not the case, these demographic differences in the on-call experiences were highlighted. I also remained alert to instances where the findings were unique to a specific specialty. For instance, research has shown that more surgeons than doctors belonging to non-surgical specialties work on-call and are on night call frequently (Balch et al. 2010). As a result, surgeons' experiences of being on-call might be more intense when compared to other on-call doctors. The results were analysed and presented per sub-theme and overarching theme.

In the final stage, interpretive summaries of each theme were written to tell a convincing story of the lived experience (Braun & Clarke, 2006, 2013; Crist & Tanner, 2003). However, in writing around the themes, there were several times in which there were iterative movements between writing the interpretive story and redefining the themes. When inner contradictions were satisfied, the mind map identified earlier was revised (see Appendix O). A table was also developed in Microsoft Excel (see chapter four) to visually display the findings under the final codes, sub-themes and overarching themes. These visual representations organised my thoughts and in so doing informed the writing of the interpretive story (Alhojailan, 2012; Mason, 2002).

### **3.6. Chapter summary**

The decisions made in the conduct of this investigation were steered by a constructivist epistemology and contextual-idealist ontology (Ormston et al., 2014). I believed that knowledge about the experience of being on-call and its implications for family and social life did not exist apart from the participants' shared constructions of it which were shaped by their historical and cultural context (Ormston, et al., 2014). I also believed that as a researcher, I was involved in the meaning creation with my participants when I interacted with them and re-interpreted their stories. However, I was cognisant of how my own fore-structures (i.e. pre-understandings, past experiences, values, beliefs) came to bear on my interactions and interpretation of the participants' experiences (Ormston et al., 2014). This philosophical stance was consistent with an interpretive theoretical framework (Gray, 2014).

Gray (2014) states that interpretive studies are usually qualitative in nature. As a result, the current study utilised qualitative approaches to sampling, data gathering and analysis which were revealed in its: purposeful recruitment of people who experienced the phenomena (i.e. doctors and SOs); rich qualitative descriptions of the lived experience through the use of semi-structured interviews (administered face-to-face and via telephone) and thematic analysis of the data to unveil commonalities in the meaning of being on-call among the participants. Finally, CAQDAS, namely NVivo 11 Pro, was used to facilitate the thematic analysis of the findings which are presented in the next chapter.

## **Chapter 4: ANALYSIS OF FINDINGS**

### **4.1. Chapter overview**

The following analysis which merely offers a description of the study's findings, is presented in two parts. The first part addresses the first research question and therefore, relates to doctors and significant others (SOs) of on-call doctors' perceptions of their experience when they or their partners are on-call. These findings are presented under the overarching theme: '**Ambivalent perceptions of being on-call**' with seven associated sub-themes. The second part addresses the second research question and therefore, relates to the implications of being on-call for the participants' family and social lives. These findings are presented under the overarching themes: '**Managing interpersonal demands of being on-call**' and '**Limits to engagement in non-work activities**' with four broader sub-themes altogether. Where applicable, differences in the narratives according to on-call category and gender are highlighted. The contextual features of the samples are discussed in the following sections.

## **4.2. Sample features**

Proximal and distal doctors were selected from public institutions across the three aforementioned District Health Agencies (DHAs), given that the on-call burden at public institutions was perceivably greater than at private institutions. The on-call partners of the SOs however, worked at public and private institutions. This was because SOs were recruited from the general population rather than through the on-call doctors selected for the study. Due to the difficulties involved in gaining access to this sample, there were no recruitment restrictions with respect to the healthcare sector within which the SOs' partners worked. Thus, all SOs of on-call doctors working in any sector were invited to participate, especially since it was not the intention to compare the experiences between the two study groups.

### ***4.2.1. Proximal on-call doctors.***

Proximal on-call doctors were junior doctors (i.e. house officers and interns) who were relatively young (i.e. almost all were between 21-30 years old) and had less than 10 years on-call experience. Although the majority had partners, almost all were without children. They were considered first-call officers because they were stationed at the hospital and as a result were the first to respond in the event of an emergency. In this study, proximal on-call doctors worked only at public hospitals. These doctors were generally on-call either one in four or one in five days which equated to roughly seven on-call sessions per month and one weekend call per month. The on-call period usually began at 4 pm and lasted for 16 hours. Thus, although they were mostly on-call overnight, their on-call rotas included days, afternoons and evenings.

For proximal doctors, being on-call was synonymous with working since there were always patients coming through the emergency department. While there were some departmental or specialty differences, proximal on-call doctors generally assessed: all emergency cases referred to their department either by other management teams; ward patients who had developed into emergency cases; and all admissions through the emergency department. These doctors were responsible for entire wards as it pertained to their specialties and implemented management decisions on behalf of their seniors. Some of their decisions resulted in surgery and in such cases, distal on-call doctors would usually come in to do these procedures.

#### ***4.2.2. Distal on-call doctors.***

Distal on-call doctors were primarily senior doctors who were relatively older than proximal doctors (i.e. their ages ranged from 37-60 years old), usually had more than 10 years' on-call experience and had partners and/or children. In this study, these doctors were either registrars or consultants at public hospitals or were DMOs at primary healthcare centres and clinics. The DMOs' on-call duties came from their work as medical legal officers providing clinical support to the Trinidad and Tobago (T&T) Police Service.

The hospital doctors were considered second or third-call officers and were only called in if proximal doctors were unable to manage the patient/s. First, second and third call officers in the DMO system did not hold the same meaning as at the hospital. First DMO on-call meant that they were the first one called by the police in the case of an emergency. In the event the DMO first on-call was unreachable, then the DMO second

on-call was contacted and so on. Nevertheless, all distal doctors waited off-site to be called during the on-call period.

On-call rotas for distal doctors ranged from every day on-call to one in six days. This large variation was due to DMO calls which were determined by the level of staffing and DMO supply in each region. The on-call period for both DMOs and hospital distal doctors lasted 24 hours (i.e. from 8 am one day to 8 am the next day). They were also on-call on weekends.

While distal doctors were not required to be at the hospital or health centre during the on-call period, it was expected that they would stay within a distance that would allow them to respond within a reasonable time to emergency call-outs. Therefore, they were to avoid activities which were not in proximity to the hospital or within the relevant region or that would require them to be in transit during peak traffic hours. It was also expected that they would not engage in activities that would hinder their ability to perform their job if called out. For instance, the consumption of alcohol was prohibited.

When compared with DMO calls, distal hospital calls were generally described as more hectic. Since hospital distal doctors were relatively senior doctors, in most cases they were called out for emergencies (e.g. surgery) or situations requiring high demands on their time and skill. DMO calls, however, entailed responding to call-outs from the police within the region for which they were responsible primarily to: view bodies resulting from sudden death, homicide and suicide and to examine medical legal cases such as rapes and incest. The work of the DMO in the Trinbagonian setting can be likened to the work of coroners or forensic pathologists in other settings. The table

below identifies the doctors by their pseudonyms and categorises them per their demographics including whether they provided proximal or distal on-call. It is worth noting that the on-call categories were mutually exclusive. That is, no doctor provided both types of on-call.

Table 1: Showing doctors identified by pseudonyms and characterised per demographic data

Doctor	Gender	Age Category	Relationship status	Child status	Type of on-call	Rank	Specialty	No. of years on-call based on a 10-year marker
Barbara	Woman	31-40	Partner	Child/Children	Distal	Registrar	Surgical	More than 10
Billy	Man	21-30	No partner (divorced)	Childless	Proximal	House Officer	Surgical	Less than 10
Carl	Man	41-50	No partner (separated)	Child/Children	Proximal	House Officer	Surgical	More than 10
Carol	Woman	41-50	Partner	Child/Children	Distal	Consultant	Surgical	More than 10
Drew	Man	41-50	No partner (divorced)	Child/Children	Distal	DMO	Primary Care/Medical Legal Care	More than 10
Earl	Man	Over 50	Partner	Child/Children	Distal	DMO	Primary Care/Medical Legal Care	More than 10
Harry	Man	21-30	Partner	Childless	Proximal	House Officer	Surgical	Less than 10
Hazel	Woman	31-40	Partner	Child/Children	Distal	DMO	Primary Care/Medical Legal Care	Less than 10
Jill	Woman	31-40	Partner	Pregnant	Proximal	House Officer	Medical	Less than 10
Jon	Man	21-30	Partner	Childless	Proximal	House Officer	Medical	Less than 10
Kate	Woman	31-40	Partner	Child/Children	Distal	DMO	Primary Care/Medical Legal Care	Less than 10
Lilly	Woman	21-30	No Partner	Childless	Proximal	Intern	On rotation	Less than 10
Macy	Woman	21-30	Partner	Childless	Proximal	House Officer	Medical	Less than 10
Paul	Man	31-40	Partner	Childless	Distal	DMO	Primary Care/Medical Legal Care	Less than 10
Rebecca	Woman	21-30	No Partner	Childless	Proximal	House Officer	Medical/Surgical	Less than 10
Ron	Man	Over 50	No partner (divorced)	Child/Children	Distal	Consultant	Surgical	More than 10
Tina	Woman	21-30	Partner	Childless	Proximal	House Officer	Medical	Less than 10
Tom	Man	31-40	Partner	Child/Children	Distal	DMO	Primary Care/Medical Legal Care	More than 10



#### **4.2.3. SOs.**

All SOs were married partners of on-call doctors. The majority were married for less than five years; had at least one child; were employed and had partners who were on distal call. Additionally, three SOs had partners who worked at public versus four whose partners worked at private health institutions, including at their own practices. As a result, the official ranks of the doctors were not applicable in all cases. For example, in most private institutions, ranks were not used or were not equivalent to the ranks used in public hospitals. Still, with the exception of one partner who was a junior doctor, all SOs indicated that their partners were middle range to senior doctors (i.e. either registrars or consultants). The doctors represented six specialties and one doctor belonged to two specialties.

On-call rotas varied widely from one in every four days to one in every four weeks on-call and some rotas were based on staffing and skill demand. Since most partners were relatively senior doctors, they were only called out for emergency or complex cases. The on-call period also varied and ranged from lasting about two hours for house calls to 24 hours on-call at public hospitals.

The table below identifies the participants by their pseudonyms and categorises them per their demographics. It is worth noting that the on-call categories for SOs' partners were mutually exclusive. In the section, which follows, the analysis began with a description of what it was like for doctors and SOs when they or their partners were on-call.

Table 2: Showing SOs identified by pseudonyms and characterised per demographic data

SO	Gender	Age category	No. of years married based on a 5-year marker	Child status	Employment Status	Partner's type of on-call	Partner's rank	Partner's specialty
Brad	Man	41-50	Less than 5	Child/Children	Employed	Distal	Not Applicable	Surgical
Faye	Woman	31-40	Less than 5	Child/Children	Unemployed	Proximal	Not Applicable	Medical
Nicki	Woman	Over 50	More than 5	Child/Children	Employed	Distal	Consultant	Medical
Robert	Man	31-40	More than 5	Child/Children	Employed	Distal	Consultant	Medical
Smith	Man	31-40	Less than 5	Childless	Employed	Proximal	House Officer	Medical
Tiffany	Woman	31-40	Less than 5	Child/Children	Employed	Distal	Not Applicable	Medical
Victoria	Woman	31-40	Less than 5	Pregnant	Employed	Distal	Consultant	Medical

### **4.3. Theme 1: Ambivalent perceptions of being on-call**

This theme provides an account of how participants perceived their experience when they or their partners were on-call. The ambivalence in their perceptions of what it is like to be on-call or to have a partner who is on-call is presented including the nuances in the experiences between proximal and distal doctors and men and women doctors and SOs where applicable.

#### **4.3.1. Doctors' experiences**

##### **4.3.1.1. *Accepting on-call duty.***

Rather than articulating their experience of being on-call as either favourable or unfavourable, the majority of doctors (i.e. proximal and distal) had accepted their on-call responsibilities because they believed that it was: a part of their jobs, necessary for the provision of 24-hour healthcare and the continuity of patient care and beneficial for their training and professional development. Firstly, the doctors accepted that being on-call simply came “*with the territory*” of their jobs (Lilly, Intern, Proximal) and was something that they were made aware of before they “*signed onto the profession*” (Tom, DMO, Distal). While some doctors explained that if they had the choice, “*they wouldn't do it*” (Tina, House Officer, Proximal), they also recognised that being on-call was mandatory in their chosen specialties within the Trinbagonian medical context.

I like the idea of not being on-call more and more but in our setting it is actually quite difficult. If I worked in the UK, there would be more options, more opportunities I think for just doing 8-4 work and not doing on-call. But down

here that really isn't so much of an option too much if you're in like my department certainly [...]. I know of nobody here in the surgical department who can only do work and not be on-call. (Carol, Consultant, Distal)

Secondly, proximal doctors felt that the on-call service they provided offered patients 24 hours healthcare “*so that there [was] always [...] someone available and that they wouldn't have to wait [...] to get someone on-site*” (Macy, House Officer, Proximal). The majority saw the “*sacrifice*” (Lilly) of being on-call from a “*humanitarian point of view*” (Lilly) and believed that it was necessary as long as there were sick people. Distal doctors also believed that being on-call was beneficial for patient care because it meant that a physician even at the most senior levels was always available. This awareness contributed to them accepting their on-call responsibilities because they felt they were fulfilling their “*duty of care*” (Carol) obligation to their patients. Apart from this, they thought that being on-call provided continuity of care to patients which was different from the proximal doctors' concept of 24-hour care. For distal doctors, because their on-call shift usually ran from 8 am one day to 8 am the next, if the doctor was scheduled to do a regular shift immediately after the on-call period, they could follow up on patients who they would have admitted during their on-call shifts. They believed that this continuity was beneficial to the patients because their care was in the hands of a doctor who was familiar with their case.

So, if we start call 8 this morning, I'm post-call 8 tomorrow morning and then I have my regular day job [...] so, I get to see the patient. [...] I would be the one to see them when they came through emergency, I would be the one to

operate on them and then I would see them tomorrow. So, [...] it provides a really good continuity of care. (Barbara, Registrar, Distal)

Finally, being on-call was perceived to be beneficial because it increased clinical exposure to routine and challenging cases or those the doctors would not have necessarily encountered on a regular shift. For proximal doctors, it was particularly regarded as a valuable aspect of their training for their current jobs and provided them with skills and knowledge for their future jobs as senior doctors. Barbara, who was now on distal call, recalled that most of the emergency procedures she learnt to do as a junior doctor were those that came in on proximal call. When faced with an emergency, junior doctors had to be able to assess the patient, make decisions and effectively utilise resources to implement those decisions. Lilly described it as “*throwing you in the deep end of the pool and [having] you [...] learn to swim.*” It was important that proximal doctors got as much clinical exposure as possible and they felt that being on-call was the only system which allowed them to do so. Despite having accepted having to be on-call, doctors still defined their experience as tiring, stressful and dangerous as discussed in the following sections.

#### **4.3.1.2. *Being on-call as tiring.***

Most proximal doctors described being on-call as tiring and it was more prominent in their narratives than distal doctors. This was because being on-call for them meant that they were actively working or were more likely to be exposed to work when compared with distal doctors. More exposure contributed to tiredness and this was especially so for those in surgical specialties. For example, Billy, a surgeon on proximal call, explained that he could sometimes remain at the hospital from Saturday to Wednesday

*“with a little break to maybe run home, shower, eat and then come back again.”* Since the on-call period usually either immediately preceded or followed regular duty, for most proximal doctors, the issue was not being on-call per se but the lack of recovery between duties as evidenced by the statement below.

If you are only on-call and you have no additional duties and you have a set shift, then I can see the advantages [...] because you are fresh [...]. I would change having to do a normal day’s work the next day. (Billy, House Officer, Proximal)

Another surgeon on proximal call, Carl, explained that, *“when you do a 24-hours, it takes about two or three days before you can really recover.”* As illustrated in the above quote, surgeons such as Billy and Carl often spent more than 24-hours at the hospital. Yet, they did not have two or three days to recover and hence were *“always playing catch up”* as Harry, another surgeon on proximal call explained.

Unlike proximal doctors, whether distal doctors had sufficient time to recover or not depended on whether they had a busy or active on-call duty as indicated in the quote below.

If I’m out 2, 3 in the morning say on the Monday night and then I’m still coming back out for 8 o’ clock Tuesday morning then no, there’s not a lot of time to recover. So, I’ll often be tired on Tuesday and by the [...] evening I’m usually quite tired. (Carol)

Perceptions of insufficient recovery time led to extreme behaviours when off-duty among distal doctors such as binge drinking, drug experimentation, gambling and self-destructive behaviours as indicated by Drew's (who recently transitioned from hospital distal call to DMO call) recount of his distal experience at the hospital. However, only distal doctors who were men shared this reality.

It's gruelling. It severely affects you. [...] I mean I telling you from experience, a lot of the guys end up you know either drinking frequently because you don't really have time to breathe. (Drew, DMO, Distal)

For Drew, having insufficient time for recovery or tiredness for that matter was not just because of being called out but was also related to the anxiety associated with not knowing if and when he would be called out as highlighted below.

[...] and it's not that you're necessarily tired from doing things but you just tired because any-time your phone could ring, you can't plan anything, you can't set out to do anything because they could call you out. [...] you get up very early, whether they wake you up or not [...] [and] you always have that phone in your hand, just batting an eye. (Drew)

Drew found that his preoccupation with being called out was present even when on vacation. Other distal doctors also spoke about their inability to "switch off" (Ron, Consultant, Distal) post-call and during vacation. For instance, Ron, a surgical consultant, explained that:

You never switch off. It's a state of being receptive. Switching off only occurs when you are on sanctioned leave and even that switch off is not immediate because people will still call you when you start leave because [of] the continuity of your patient.

Proximal doctors also spoke about not being able to take their minds off work. Macy, a house officer, elucidated that even on less intense on-call days when she did have opportunities to relax, she was unable to do so because her mind was still on work.

Sometimes I do spend a lot of time wondering if this patient got that CT scan or I wonder if this patient is still alive. [...] it just takes a while to decompress and you're going over ok did I do this, that or the other. (Macy)

At other times, Macy's rumination over call was because of her inability to predict "*whether [...] [she] would be having a rough or a light call.*" The constant thinking about work contributed to tiredness. Proximal doctors were also tied in to work when they were not on-call or post-call via technology. For instance, Billy lamented that "*you never get to escape, you can't turn off cause when you go home your bosses [...] texting you for updates on this patient.*" Although proximal doctors were not mandated to keep their phones switched on after call, there was an implicit expectation by their seniors that they would.

[...] for some odd reason there's this [...] conception [...] especially among consultants, [...] that you have to sort of prove yourself to be invincible [...]. You are not entitled to have a life. (Carl)



In addition to clinical work, because proximal doctors were junior doctors, many were in post-graduate programs or still undergoing academic training. Consequently, whenever they were not on-call, they were studying for exams or writing papers which also contributed to their inability to switch off as described below.

Then because again it's an academic department you would have classes to do.

So, there would be papers to write. So, you never get to shut off. (Billy)

Overall, more men felt that it was difficult to switch off when compared to women. The difficulty experienced by men doctors with regards to switching off matched their prioritisation of being on-call over other aspects of their lives and will be discussed in a later section.

#### **4.3.1.3. *Being on-call as stressful.***

Approximately half of the doctors in the sample described being on-call as stressful. Proximal doctors attributed their on-call stress to the intensity of the on-call period which was characterised by the concurrent occurrence of emergency situations, time constraints and irate patients. The requirement to be in multiple places simultaneously was the feature of intense calls that proximal doctors spoke most about. For example, Tina, a house officer in a medical specialty, recalled a time when two patients in different units needed emergency care and as a result, she had to decide on which patient to attend to first. Priority was given to the patient she considered to be more critical. Harry, who shared a similar experience, explained that in such situations:

you in your mind as that one officer [...] have to be thinking where I'm needed most. [...] And all of that adds to [...] your stress levels [...]. (House Officer, Proximal)

On-call intensity was also characterised by time constraints and patient aggravation. In intense on-call situations, doctors either had a high volume of patients or complicated cases. This situation coupled with a shortage of staff usually meant that there were lengthy wait times to see a doctor as Harry described below.

If we got referred any patients, unless they absolutely dying, those patients unfortunately have to wait, because we have to finish clinic. [...] So, let's say they come casualty 8 o' clock and casualty refers them like half 8, from half 8 to half 12 when we finish clinic, that patient is just waiting to be seen because we just can't physically be in two places at once.

When this happened, patients became irritated escalating an already tense situation as evidenced in the quote below.

So, with [that] environment now, it's stressful in the sense that patients are being aggravated and taking out their stress on us. I mean we are not allowed to defend ourselves really so we just have to sit and take all these verbal abuse and things. (Jill, House Officer, Proximal)

Poor organisational interpersonal relations also contributed to the doctors' stress when on proximal call. Relationships with co-workers were described as more overwhelming than dealing with patients as shown below.

A lot of the moments [...] where I feel overwhelmed will be [...], not because of patients [...] [but] because of the co-workers I have. Lazy nurses, other doctors who don't do their job, people who try to [skip] work and [...] leave you to pick up the slack. (Billy)

Additionally, senior doctors' expectations that proximal doctors prove themselves to be "*invincible*" (Carl) by always being available even when post-call (as previously mentioned), added to the doctors' stress. Proximal doctors also spoke of the lack of proper on-call facilities and work equipment that caused yet "*another strain*" (Jill).

Distal doctors' stress, as with their tiredness, was related to whether they were having a busy on-call duty and had little time to recover. For example, Carol, a paediatric surgical consultant, explained that while "*some on-call days are quiet [...] other ones can be quite demanding.*" For distal hospital doctors such as Carol, on-call stress was also linked to their perceived confidence in the competency of junior doctors. To rephrase, being on-call was "*perceivably less demanding*" (Ron) when distal doctors could trust the clinical acumen of their junior doctors or house officers on proximal call.

[...] if you have an experienced house officer, then it's much easier. But if you have a junior house officer, then it means that almost every patient that they see on-call not only are they calling but [...] you're coming in much more often

because you have to sort of cover for their lack of experience. So, that can be quite taxing. (Carol)

Due to the staff shortages in Carol's department, she would often not have the assistance of a registrar (i.e. a mid-level doctor who directly supervised junior doctors on proximal call) when she was on-call. Hence, she would have to be the first to respond to phone calls and call-outs from junior doctors. However, when she was working with a registrar, her experience was different as described below.

If I'm on-call with the registrar, it makes my life easier because [she] fields a lot of the phone calls from the house officers and then I'm only going to be contacted for the more ill patients or for the neonates or something. So, that makes the burden a lot less on me. (Carol)

Notwithstanding the above, most distal doctors had learnt to cope with on-call stress because they had been on-call for a relatively long time. Moreover, in the study sample, most of them were DMOs who had previously worked in the hospital system. Since DMO calls were perceivably less intense than hospital calls, DMOs who would have passed through the hospital system had become used to the stress associated with being on-call. For example, Tom, a DMO who was formerly a hospital distal doctor explained that:

From the beginning and especially when I was in the ward, it was more hectic. So, you get used to that kinda stress.

Nonetheless, this was not the case for every DMO. Drew shared that because he had been anxious for so long, his stress levels remained high although he no longer worked at the hospital.

It's not high intensity for the DMO calls but the stress level is always. I'll tell you this: working through the hospital system and the on-call service, it develops a level of anxiety and fearfulness in your mind because you don't know what to expect. You could be called at any time and in some of us [...], it becomes so engrained [...] that even on the non-call days we would find ourselves thinking well, "*Am I on-call?*" "*When next am I on-call?*" You at this heightened level of attention all the time [...]. (Drew)

The above quotes suggest that the anxiety associated with the unpredictability of hospital call was not only tiring as explained in the last section but was also experienced as stressful. Secondly, it was common to both hospital and DMO calls although when compared with the former, the stress associated with the latter was perceived as less intense and thus, bearable. Thirdly, it was experienced as chronic or long term as it was present even on days when not on-call.

The trauma associated with DMO calls was also described as stressful. Traumatic cases were difficult for doctors to get out their minds. For instance, Hazel, a DMO, recalled the first time she had a homicide and "*could not sleep properly that night.*" According to Drew:

It takes a day or two to get it out of your mind. The rape cases or children you find murdered for example [...]. I had to clear the body of a six-year old girl. I'd be honest with you that night [...] when the call was done [...] I sat down and I [...], revel in that for a few days [...].

#### **4.3.1.4. *Being on-call as dangerous.***

Doctors who were DMOs spoke about the danger associated with being on-call. Unlike the relative safety of being called to a hospital, DMO calls usually happened “*in fairly remote areas and at fairly odd hours of the morning*” (Drew). The DMOs would sometimes receive police escort when going into high risk areas. However, at other times, they usually woke their families to accompany them.

So, sometimes the whole family is wake up to accompany me. Cause it's a female out there. And it's not like you going to a hospital or a very safe environment. You are out there within the public, sometimes in lonely areas, rural areas. (Kate, DMO, Distal)

The above implied that besides fear for their safety, being on-call had an additional disadvantage of disrupting families. Moreover, the threat of danger was believed to be more intense for women than men. Hence, Paul believed that being on-call as a DMO was “*not a good job for a lady to do*” (DMO, Distal). He explained that besides having to go to lonely and high crime risk areas in the middle of the night, being on-call presented other dangers for women especially.

For one of my jobs, we had to get an excavator [...], because they buried somebody and [...] we had to dig a hole 20 feet by 20 feet. And I had to go down in that hole in the mud, in the rain. I drove home in my [underwear] that day. [...] So that's why I say a lady shouldn't really be doing that. [...] it might sound sexist but [...] I don't know, if that is [...] safe for a woman to do. (Paul)

Notwithstanding the above, the two women DMOs in the sample did not share Paul's realities about the physical limitations of the job but instead only attributed the danger of being on-call to leaving their homes at unsocial hours to go into lonely or risky areas.

### 4.3.2. SOs' experiences

#### 4.3.2.1. *Being on-call as a non-issue.*

SOs felt that their partners being on-call was no longer “*an issue*” (Nicki) for them because it was: better than it used to be; they had become accustomed to it and were preoccupied with their own careers. Firstly, because almost all of their partners had transitioned from being junior doctors on proximal call to being senior doctors on distal call, they described their on-call experience as better than it used to be. Being a senior doctor on distal call meant that their partners did not have “*to be there [at the hospital] all the time*” (Nicki) nor were their partners on-call often. Robert who was married to a consultant on distal call, recounted his experience when his wife was a junior doctor on proximal call and was required to stay at the hospital. He explained that “*those [...] days were hard on the doctor and [...] a young spouse as well*” (Robert).

Besides being able to have her husband home with her during the on-call period and not on-call often, one participant, Nicki, explained that her on-call experience was “*a lot easier now than it ever was*” because her children were older. In drawing a contrast with her experience now and in her past, she pointed out that the difficulties associated with having a partner on proximal call was further compounded with life stage developments such as having relatively young children.

I think it's a lot harder when kids are younger and the paradox of it is, that's when the call is most intense because when you have young kids that's when you're either a house officer or registrar or something. They not exactly consultants and so the demands are a lot more [...] and that's when the demands



on your family are most extreme because you have young kids who depend on you for everything. [...] we have such a different life now because [...] the kids have grown and he's not on-call as much. (Nicki)

In addition to transitioning to distal call, the majority of SOs explained that their partners had moved from working at public to private institutions. They described being on-call in the private system as “*a lot easier*” (Nicki) because the on-call demands were relatively less intense as the volume of patients was lower. Schedules were also more “*flexible [...] in private practice*” (Tiffany) which meant that the medical partners and SOs now enjoyed a better “*quality of life*” (Tiffany) with each other and their children.

Well, one of the reasons why I think he left the Public Service was because of quality of life and I'm not talking about material benefits but in terms of it's a more flexible schedule. In private practice you could kind of dictate your own pace, set your hours. (Tiffany)

Secondly, apart from their experience being better than it used to be, they had become accustomed to their partner's on-call over several years. All of them explained that before marriage and throughout their dating relationships, their partners were on-call. As a result, it became “*normal*” (Faye) to them and was now part of their “*rhythm*” (Nicki) as illustrated in Victoria's comments below.

[...] they would call him at any given time. Sometimes you sleeping and they would call [...]. Even if we out in the movies or whatever. [...] but it is not an issue because like I get accustomed to it.

Finally, SOs did not perceive that their partners' being on-call was an issue because they were pre-occupied with their own jobs and therefore, could identify with their partners' on-call commitments. For instance, Brad, who was a lawyer, elucidated that he was usually busy himself especially when his wife was on-call during the day. He explained: "*I think a very important part of it [...] [is] the fact that I'm also a professional with very demanding time requirements and therefore, I understand if her profession requires her to do X, Y and Z*" (Brad). Likewise, it was only when Victoria started to work herself, that she became forgiving of her husband's inability to be there for her when she "*needed him*". In comparing her time now spent working with a time earlier on in her relationship where she was only attending university she revealed:

Before [...] it was just school and then when its vacation I just home. [...] I had nothing else. But then when I started to work it changed. It got better at that time because I became busy too [...]. [...] So, now when he started to be busy and I was busy, I could have understand. (Victoria)

SOs also kept themselves busy with young children or studies. Faye, a Trinbagonian doctor who was unemployed at the time of the interview and had migrated to the U.S. for her husband's specialist training, pointed out that when her husband was at the hospital, her baby kept her "*so busy.*" However, she wondered how her life would change once the baby went off to school. In fact, only women SOs admitted that they felt lonely at some point in their lives when their partners were on-call. Faye had no family in the US and had not made any friends in the state in which she was staying. With her husband's long hours on proximal call, it got "*lonely sometimes, especially with [her] being away without anybody*" (Faye). Nevertheless, she coped with her

loneliness by keeping in constant communication with her husband when he was at work and focusing all her attention on her two-year-old daughter. While Nicki acknowledged that her experience when her husband was on-call was much easier now that her children were grown, and her parental demands had been reduced, having grown children also meant that they led their own lives. Thus, when her husband left to respond to call, she had no one to occupy her time.

As our kids are all grown now, it's usually just him and me and he's not here so I'm in the house by myself. [...] when the kids were younger it was easier because I had their company. But now the house is like an empty nest. (Nicki)

Unlike the women, men did not express feelings of loneliness when their wives were on-call. Apart from being preoccupied with their own careers, they kept themselves busy with study and leisure. For example, one SO, Smith, who was also an on-call doctor enrolled in a post-graduate program, did not mind being alone because “*when [his wife] was on work, [he had] more free time for [his] studies.*” Furthermore, he had a lot of friends with whom he socialised when his wife was unavailable. All in all, despite their partners’ on-call being no longer an issue, SOs still found that there were aspects of the experience that were distracting and worrying for them.

#### **4.3.2.2. *Distractions and interruptions.***

Almost all SOs described their experience when their partners were on-call as distracting. The distractions stemmed from their partners’ minds being “*taken up with work*” (Faye) after proximal call and the “*constant phone ringing*” (Nicki) while they were on distal call which disturbed their sleep. Firstly, some SOs explained that when

on-call and post-call, their partners could not “*switch off*” (Nicki) from work. They were always on their phones inquiring about test results and patients’ statuses or giving advice to other doctors. Faye explained that after proximal call her husband kept tied into work via technology. She pointed out that apart from him receiving calls “*to follow up on stuff,*” he had remote access to his labs at work and so he was “*able to still do a lot of [work] stuff from home.*” For her, that was not “*great*” (Faye). Nicki, whose husband was on distal call explained that:

[...] it doesn’t matter physically where he is, when he is on-call he is not with us! There may be [...] a slow week and you would find him more present physically as well as in his presence of being with us. But generally, once he’s on-call [...] there’s a disconnect with the family.

The inability to switch off for those such as Nicki’s partner was related in part to the unpredictability of being on-call particularly when SOs’ partners had to leave critical patients in the care of others. Nicki explained that “*when [the patients] are in the hospital it’s that thing that you don’t know what’s going to happen and you’re always waiting for some response from somebody else.*” Consequently, the partners were described as being in a state of “*waiting and calculating*” (Nicki) which led to them constantly checking their messages and being disconnected from the rest of the family.

Apart from their partners’ inability to switch off, almost all SOs spoke about telephone interruptions to their sleep and their partners’ conversations being so loud that it seemed to “*invade every single aspect of their lives*” (Nicki). Brad confessed that “*a couple of times [he scolded his wife] because she was speaking really loudly*” and Nicki explained

that when her husband was on-call “*the level of chatter in the house*” changed everything. Despite the above, SOs had grown accustomed to these interruptions over time.

#### **4.3.2.3. Concerns about safety.**

The danger associated with being on-call was a concern of SOs of distal hospital doctors as it was of DMOs described in a previous section. SOs explained that they felt anxious when their partners had to respond to or return from calls at unsocial hours. This was evidenced by the fact that they usually did not sleep until they knew their partners arrived at their destinations securely, and in some cases, until they returned home.

[...] when he goes out at night, I can't sleep. [...] and I don't fall asleep until he comes back. (Nicki)

[...] and it's not just criminals but it could be a drunken driver or anything at that hour. If she's tired, it could be anything. (Robert)

The SOs' anxiety about their partners' safety made them constantly message or call their partners to ensure that they reached the hospital. For example, Robert described his experience like this:

It's always a bit nerve wracking and a lot of messages, you know “*Have you reached, have you reached, have you reached?*” And then you just wait until she calls to say that she's arrived and invariably I would stay up until she comes home.

Robert's anxiety over his wife's safety when she was called out was also to an extent due to her being a woman. Although he felt that because of the crime epidemic in T&T he would worry about anyone's safety, whether they were men or women, it was more a concern for him because his partner "*was a female doctor going out at hours*" (Robert). However, women were also concerned about their husbands' safety as evidenced by Nicki's earlier comment.

#### **4.4. Theme 2: Managing interpersonal demands of being on-call**

This theme explores how participants navigated their relationships with their partners and childcare responsibilities amid their on-call duties. There were some noteworthy differences in the narratives of distal versus proximal doctors. There were also differences with regards to how men and women managed their relationships and fulfilled their responsibilities at home and at work which were reinforced by institutionalised ideologies about their gender roles.

##### **4.4.1. Navigating intimate relationships**

###### **4.4.1.1. Doctors' experiences.**

Being on proximal call required doctors to remain at the hospital. Hence, couples relatively spent little time together. For instance, Carl, who had separated from his wife, ascribed his failed marriage to not being able to spend sufficient time with his wife because of his long hours on-call. However, when time was available, he had difficulty being intimate with her because he was tired. He explained that, "*when [...] you're tired [...], you want to sleep and if you have things to get done at home, your libido kind of goes down.*" Unlike other proximal doctors, he had more than 10 years on-call experience and although his wife was understanding of his on-call commitments at first, over the years, it "*had taken its toll on her*" (Carl).

The inadequacy of time spent with each other was exacerbated where both partners were doctors because they usually had different schedules. When proximal on-call partners did have the opportunity to be together, they usually would rather rest. Macy was

unmarried but, in a relationship, and felt that she would sacrifice time spent with her boyfriend for the opportunity to rest. However, she explained that this was not a source of conflict in her current relationship because her boyfriend was also an on-call doctor “*and it [was] something [they] both [understood]*” (Macy). Thus, despite their lack of time together, she perceived that it was advantageous to be in a relationship with a doctor like herself because he understood her on-call demands. On the contrary, while Billy shared Macy’s reasoning, he was divorced from his ex-wife who was also a doctor. He explained that although they were both doctors and she understood the demands of being on-call, they did not share the same priorities.

My ex-wife she was a medic but for her, [...] she didn’t really commit much to surgery as I did. So, she would suffer in work for it. [...] But she was willing to accept that [...] in terms of trying to do more outside. But for me, I want to make sure what I do, I do it properly. (Billy)

For Billy, making sure he was successful at his career meant prioritising it over his life outside of work. On the contrary, it was more important for his ex-wife to have time to do more outside of work. This was evidenced by her switching to a specialty which was “*much lighter and lower in volume*” (Billy). Ron, a distal doctor, also believed that his commitment to being on-call increased his skill but required him to make familial and personal sacrifices including not expending energy on activities he considered trivial in his marriage. Thus, he was less patient in his interactions with his ex-wife as the following revealed.



On-call took priority over everything, including marriage! The on-call at that point in time had a lot of one in one call. It did a few things. It made you very competent at what you're doing [...], but also made you highly intolerant of anything that wasted your time, including small talk, banter and the day to day small things that involve a marriage or any relationship outside of the professional one. (Ron)

As with Billy, Ron was also divorced. In fact, while there were no differences per on-call type with regards to doctors who were divorced and separated, all divorced and separated doctors were men. Ron explained that those who were unwilling to make familial sacrifices usually “switched [to] disciplines” with fewer or no on-call shifts as Billy’s wife did. However, no doctor (i.e. distal or proximal) in the sample, who was a man, explicitly expressed their willingness to do so. Nevertheless, Drew, who was also divorced, pointed out that both men and women have now begun to prefer medical fields such as primary care with relatively fewer on-call shifts to balance work and life.

Guys in the primary care service who never choose to [...] move up the ladder with the on-call service because they say from flat out from internship you see this on-call thing, I ain’t able with that. [...] and I use to think that it was mostly applicable to the female officers, but you have an abundance of male officers doing it. (Drew)

Yet, while according to Drew there was an abundance of men opting to practise in fields with less on-call responsibilities, the stereotypical views held within the medical fraternity with regards to the inferiority of these fields or as Drew put it “*lazy man*

*medicine*” made going into such disciplines frowned on by “*the average hospital guy*” (Drew). This might explain why no other man in the sample corroborated Drew’s comment about leaving their intense on-call specialties. Women on the other hand, were more articulate about their consideration of leaving their current on-call specialties for those with lesser on-call burdens. However, the ideal situation would have been if they had the option of lessening their on-call shifts or not being on-call within their current specialties. However, as previously explained, this option was hardly available within the T&T medical context.

When compared with proximal doctors, distal doctors’ partners seemed more understanding of their on-call requirements perhaps because they had become accustomed to it over time. As stated earlier in the chapter, distal doctors were usually on-call for a greater number of years than proximal doctors. Barbara who had been working on-call for over 10 years, said this about her husband:

Since I started working, that’s all he’s known! I’ve always been on-call one in every four days. [...] That’s the norm for us. It wasn’t like I had a particular job before and then all of a sudden, I’m not home one in every four nights.

Furthermore, distal doctors reported that their partners had supported them in their on-call duties by answering phones; driving them to work when the doctors had to respond to a call and taking care of household duties including childcare. Still, they spoke about how being on-call disturbed their partners’ rest as indicated in the following quote.

It would be distracting and disturbing too because we would be keeping the phone with us all the time and if it rings in the night, [it] disturbs the whole family. [...] my phone rings, [she] wakes up. [...] but apart from that, it's ok and my wife, she understands. (Tom)

Overall, most doctors (i.e. distal and proximal) failed to talk extensively about their intimate relationships and had to be probed more with respect to these issues. Additionally, as pointed out in the last chapter, they either failed to invite their partners to the study as was the initial intent of the research or reported that their partners were unwilling to participate.

#### **4.4.1.2. SOs' experiences.**

As was shown under the last theme, SOs felt that their experience when their partners were on-call was hardly an issue anymore because: it was better than it used to be; they had adjusted to it and were pre-occupied with jobs of their own. Similarly, they believed that their relationships with their partners were not affected by them being on-call because they had matured over the years of their marriages and now were more understanding of their partners' on-call commitments. For example, Victoria recalled that earlier in her relationship her "*mindset [...] [was] different*" and she did not accept that she could not always have her husband (then boyfriend) with her when she needed him.

So, yeah. It took a toll [...]. I guess we used to fight a lot about seeing each other and spending time [...] and then [...] sometimes we'd break up for like a day or two like those kinda children stuff. (Victoria)

Despite the above, as Victoria became “*more mature*” she “*started to understand*” her husband’s career demands. SOs had also matured in how they responded to their partners’ mood changes when on-call. For instance, Nicki pointed out that her husband’s “*edgy*” aura when on-call “*permeated the house.*” She attributed his mood to the anxiety associated with the unpredictability of being on-call and the “*sheer volume*” (Nicki) of patients that kept him in an anticipatory mode so that he could not switch off from work during this period. However, because she had been married for 25 years at the time of the interview and had matured over the course of her marriage, her husband’s on-call mood had become less of an “*issue*” (Nicki) for her.

It wasn’t easy, especially when you’re younger in marriage and stuff because you tend to take everything personally. But now it you just know ok well this is his week on-call and you just leave him to do what he has to do. (Nicki)

Other SOs also spoke about learning to adapt to their partners’ moods when on-call. This entailed giving them their space to do what they had to as Nicki explained. For example, Faye stated that she knew her husband’s “*limits*” and when “*not to ask for something at a certain time.*” Robert explained that when his wife goes into her on-call mode:

[his] main role is to make sure that [he] and Joshy [his son] [...] don’t make too much noise. So, [they’d] go in his room or something like that and [...] give her the main space so that she can talk freely.

SOs who were doctors themselves or previously employed as doctors were especially understanding of their partners' on-call demands. For example, Smith explained that because he and his wife "*met at the hospital*" where they both worked as on-call doctors, he understood the demands of her being on-call and consequently when she did not feel like going out with him post-call. Recounting his days as a junior doctor on proximal call, he described that:

When she's post-call the next day she's very tired. [...] I could say for myself, when I was a house officer it was very tiresome. [...] So, [...] I understand as well, and I think that's where we won't have any issues really. (Smith)

SOs' maturity in their marriages and understanding of their partners on-call requirements were also lived out in the childcare and domestic support they provided and is discussed throughout the rest of this chapter.

#### 4.4.2. Negotiating childcaring responsibilities and interactions

##### 4.4.2.1. *Doctors' experiences.*

As with their relationships with their partners, being on proximal call meant that these doctors could not spend sufficient time with their children and usually missed events in their lives. For instance, Carl explained that when he was on-call, he could not “*take weekends with the children*” or “*if they had a school event or something [he] couldn't go.*” Moreover, as the following quote illustrated, Harry predicted that the burden for childcare would be unevenly distributed between him and his fiancé when they had children.

Realistically I wouldn't have time to be the kind of father, I mean it definitely won't be 50-50. More of the burden will fall on her unfortunately until you move up to probably a more senior doctor. (Harry)

The above suggested that because of his on-call responsibilities, Harry's ability to be in his children's lives the way he wanted would not come until later in his career when he was on distal call. Switching to less demanding fields where there was either no or fewer on-call shifts might have also afforded Harry more time to be the kind of father he wanted. However, as pointed out in the last section, only women voiced their consideration of this alternative as evidenced below by Jill who was pregnant at the time of her interview.

I really have to consider or not whether I will still be willing to be in this field due to the fact that I would be having a child because I really think that mothers supposed to be with their children at least for a year. So, that would be hard.

Although distal doctors waited to respond to call-outs at home, the impact of being on-call on their relationships with their children seemed to be more pronounced than proximal doctors. Being on distal call: disturbed their children's rest; made leaving to respond to call-outs difficult especially for mothers with younger children; led to maternal guilt; made committing to spending time with their children when they were on-call difficult; influenced their interactions with their children and adjusted children's behaviours. Firstly, when distal doctors were called out, the telephone calls usually disturbed their children's rest. For example, Kate, a DMO explained that when she was called out, particularly at night, her son would wake up as well "*and sit and wait until [she] came home.*" Secondly, younger children seemed to be more attached to their mothers and as such had trouble letting them leave the house to respond to a call-out.

[...] they hate when I leaving. So, if they up on a morning and I have to leave, [...] especially the [two-year old], [...] she does not like that. (Barbara)

Due to the difficulties involved in leaving her two-year old daughter, Barbara viewed the arrangement she now had in terms of staying at her parents' house when on-call, as working out "*quite well.*" She explained that, "*it would be nice to be able to go home to [her children] in between calls or whatever when I'm on-call, but I think it would be really more difficult for them*" (Barbara).

Thirdly, mothers but not fathers felt guilty about leaving young children behind.

I felt very guilty on-call leaving them especially one with tears “*Why are you leaving me?*” [...] when I have to leave them, I feel badly about it. (Carol)

In light of the above, Carol wished she had the option of not working on-call or at least, “*lessening [her] on-call commitments*” to spend more time with her family, as was mentioned in the last section.

Fourthly, because of the unpredictability of being on distal call, doctors felt that they could have made no commitments to their children during the inactive on-call period. For example, if they did manage to go out with their children, they could not go very far; their children had to understand that they may have to leave suddenly if the doctor was called out and the doctors usually had to organise alternative modes of transportation to take their children home in the event of a call-out. Ron, a single father, put it like this:

You cannot afford even when you’re parked to get blocked in. [...] Your children must understand that they may have to leave with you immediately and wait or always arrange secondary modes of transportation for them.

Finally, if their mind was on the clinical status of a patient or some other situation at work, although physically present, distal doctors were mentally absent in their children’s lives during the on-call period and their on-call mood influenced their interactions with them as evidenced by the following quote.



[...] even when interacting with my kids, my interaction is different if I'm concerned with what's happening at work. [...] I'm probably going to be less patient or certainly less relaxed with them. (Carol)

Nevertheless, children learnt to adjust their behaviour over time to accommodate the doctor's on-call needs. For instance, Ron's children "[...] *knew not to disturb [him] while [he] was sleeping unless somebody was dying or the house was burning down*" and these instructions were "*absolutely adhered to.*" Also, because he was a single father, his children had "[...] *grown up doing things for themselves [...] [and] being self-sufficient* (Ron).

Overall, fathers mainly spoke about the impact of being on-call on their ability to attend special school events in the children's lives and to spend quality time with them. Mothers, on the other hand, spoke about the impact being on-call had on the performance of their parental duties which included transporting children to and from school; helping with homework, committing to taking children to different forms of recreational activities and breastfeeding.

It's different for a father because they always have mothers. I mean I've told colleagues of mine [...] all the childcare and the toing and froing [...] a lot of them because their jobs are demanding, the wife just does! But, I am the wife so I'm still juggling work and home responsibilities. (Carol)

Carol's comments revealed that although her job was just as demanding as men doctors, her childcare responsibilities were greater. Another mother shared a similar view as

evidenced in her comment “*the bulk of the stuff falls on the mummies*” (Barbara) as she explained this notion of balancing home and work in comparison to her husband. While they did admit that they received support from their partners who were men when they had to be on-call, women doctors perceived that generally, they did more in terms of childcare than their non-medic partners and their medic colleagues who were men.

#### **4.4.2.2. SOs’ experiences.**

Only two SOs had no children, one of whom was pregnant at the time of the interview. When their partners were not physically available, SOs were responsible for childcare. With the exception of Nicki, whose husband remained distracted even when “*not physically at the hospital,*” if the SOs’ partners were home, they were involved in childcare. When both they and their partners had to leave the house, the couples relied on babysitters, grandparents and other extended family for support.

So, if it’s during the day, we’re fortunate enough to have a very good [nanny]. She comes over and she takes care of him during the day and if it’s in the night when she leaves, and my wife has to go in well, I’m there! [...] My parents live here [...] and [...] she has a brother and a sister living on the same compound we do. (Robert)

Both men and women SOs spoke about taking “*up the slack*” (Robert) with regards to childcare when their partners were not physically available. With the exception of Brad, who utilised a hired caregiver when his wife was on-call whether he was at home or not, SOs who were men, were usually willing to make sacrifices to be at home with their children when their wives could not. For example, although Smith was childless

at the time of the interview, he predicted that when he and his wife had children, he “*may actually have to request taking less calls*” to care for them. Robert was already cutting back on his professional and personal life to accommodate his caregiving responsibilities. In his home, he perceived that the traditional male breadwinner model was shattered.

Once I know she’s on-call, I just fix my schedule to suit. [...] So, for example, if I have an event to go to, a dinner or whatever I know she’s going to be on-call, “*Sorry, I going home.*” [...] As I said it’s because of her role and the structure of the family. [...] The breadwinner status I think is equally shared. I have to respect when she is on [call] because my son is still young. (Robert).

However, while sacrifices to attend to children for men entailed cutting back on work hours and at times missing social events as evidenced by the above quotes, for women such as Nicki and Faye, sacrifice meant giving up their entire careers or passing up promotional opportunities and this decision was usually made for them. Nicki, a lawyer, specifically remembered that when her kids were younger and her husband’s on-call demand was greater (i.e. when he was on proximal call), “*you couldn’t rely on him to pick up the kids from school or to be home at a certain time.*” As a result, “*there [were] certain limitations on [her] practice*” (Nicki).

At times, I didn’t mind because I loved being home with my children [but] it was like the decision was made for me. [...] you didn’t have a choice. [...] opportunities would present itself which would have helped me to expand my

practice [...] [but] I couldn't take advantage of those opportunities. So, at those times you would feel resentful. (Nicki)

Another woman, Victoria, who was pregnant, shared that her husband hoped that she would quit her job so that she could stay home once the baby was born. Faye, a Trinbagonian doctor left, her job in T&T and had relocated to the US for her husband's career. Although she could have still practised in the US, because of her husband's demanding on-call schedule coupled with what would have been her own demanding on-call schedule, she would have had to place her young child in day care against which she and her husband had decided. As a result, Faye did not enter the American job market and opted instead to stay at home and care for her daughter. However, she explained that if she did not practise medicine within a specified number of years, she would be unable to practise in the foreseeable future unless she re-sat the relevant professional examinations. Since her daughter was very young, she did not believe she would be able to re-enter the job market soon nor did she want to re-sit the examinations. Thus, she decided she would soon stop practising medicine altogether.

I made those sacrifices and now I'm ok with it because of our daughter and she's totally worth it but I miss practicing for sure. Like I see a lot of my other colleagues that I was with so far ahead of where we were and you know I could have been there too. [...] I don't mind him doing the on-call but I wish we were doing all of this in T&T [...]. [...] because I would still have my career [...] and I wouldn't have to sacrifice like how much I did. (Faye)

Faye's quote indicates that if she did not have to move for her husband's career, she would have still been employed because she could have relied on and would have been more comfortable with her relatives (who were in T&T) caring for her daughter. Thus, although she "*wanted to be married and have a family*" (Faye) and had now come to accept her new life, she admitted that at first as with Nicki, having to sacrifice her career for her husband's, had made her "*really resentful*" (Faye).

#### **4.5. Theme 3: Limits to engagement in non-work activities**

This theme explored how participants socialised with family and friends and engaged in leisure and other non-work activities (i.e. household chores) during and post-call. The extent to which they participated in social life differed per on-call category for doctors and by gender for doctors and SOs.

##### **4.5.1. Participating in leisure and social activities**

###### **4.5.1.1. Doctors' experiences.**

Participating in non-work activities was impossible for proximal doctors because they were required to stay at the hospital while on-call. It was also difficult to “*maintain consistency*” (Rebecca, House Officer, Proximal) in their involvement in activities such as attending religious places of worship or yoga classes because of the nature of their on-call schedule. For example, Rebecca, a Hindu proximal doctor in Urology, explained that although she went “*to temple when [she] could,*” being on-call affected her ability to do so regularly. She explained that:

if you're a Christian and you're supposed to go every Sunday morning service, there are some Sundays you're going to miss. So, it will affect your consistency [...]. [...] you don't have a regular fixed routine then so that you can plan something and stick with it [...]. (Rebecca)

Working according to an on-call rota also meant that they missed special celebrations and events with family and friends. For some doctors, in certain departments and teams,

internal arrangements such as switching shifts or asking a colleague for cover were used as mechanisms to circumvent the situation described above. Still, the possibility of using these strategies depended primarily on the workload and availability of staff and in most instances, participants complained that they worked on-call with critical staff shortages. Even when post-call, proximal doctors found it difficult to participate in activities such as socialising with friends because they were either too tired or had difficulty coordinating their schedules with others. For instance, Rebecca explained that:

when you do have a day off a lot of times on an evening you just prefer sometimes to rest or do something less tiring. So, it takes away a lot of your time and energy from other things.

Activities such as socialising with family or friends were thought to require a relative degree of effort that the doctors felt they did not have after call. This reasoning was supported by Macy who explained that she had not connected with old friends in a long time because she was *“too tired to pick up the phone and say hey how are you and sustain the entire conversation.”* As a result, proximal doctors preferred to rest or spend time with pets, read, listen to music, watch television, among others. Exercise, however, was seldom skipped and was done either before or after the on-call period as a method of relieving stress.

I do a lot of mixed martial arts, jujitsu and boxing and stuff like that. So, I would sacrifice like two three hours of sleep to do that, but I feel better when I do that. (Billy)

Proximal doctors also found it difficult to synchronise their schedules with others. For example, Harry explained that at times he had to settle for enjoying occasions by himself because “*nobody is want to go out during the week*” or whenever he happened to be off-call. It was particularly difficult attempting to coordinate with friends who worked at different hospitals or who were not doctors.

All my friends from secondary school, even the ones that are doctors because our schedules don't coincide [...] I don't have strong relationships with any of them. [...] most of my close [...] friends that I [get together] with are those who I work with now. [...] Any good strong relationships I have with friends, all of them become superficial, to be honest. (Harry)

As work friendships were easier to maintain, old friendships usually waned. Desynchronised schedules and distant living locations also prevented proximal doctors from visiting relatives as often as they wanted. Jon revealed that he did not even get to see his “*own parents much because they [lived] about a half an hour from [him] and [...] it depended on their schedule as well.*”

When distal doctors were called out, as with proximal doctors, it was impossible to engage in leisure and other social activities. However, whether they engaged in these activities during their inactive on-call periods, depended on their perception of on-call time as work or free time; their willingness to enjoy these activities within the restrictions that accompanied being on-call and whether these activities were perceived as time-consuming and/or requiring a great deal of effort.



Firstly, some distal doctors felt that although they were away from the worksite, on-call time was still considered work time and therefore, as with the prohibition of alcohol, all “*leisure activities [were put] on hold*” (Earl, DMO, Distal). The reasoning behind this perception was that these doctors believed that once they were on-call, they had to be prepared to respond to a call-out or in other words remain available. For example, Kate felt that:

[...] you can't go [...] watch a movie or go to the beach or [...] go Dream Bay. You can't do anything like that when you on-call. So, those activities will have to be put off.

This would explain why she preferred to socialise on:

a day when I'm not on-call so I feel freer. Cause when you're socialising you don't want that behind you that I can be called at any time. I mean you hanging with your friends, you want to be free (Kate).

Kate's comment above revealed that besides the restrictions associated with being on-call, her perceptions of being free when on-call was limited by the possibility that she could be called at any time which dissuaded her from socialising. Her experience was however, contrasted with Hazel's who did not let the possibility of interruption stop her from socialising when on-call. As a result, she would meet up with friends “*within the vicinity of where [she] worked*” (Hazel). This brought to light the next point.

The likelihood that doctors would engage in leisure activities also depended on whether they did not mind participating in these activities within proximity to their workplace. When compared with proximal doctors, distal doctors had more flexibility in the non-work domain. However, they had to remain accessible by being within a reasonable distance and having their phones close by to respond to call-outs.

So, when I'm on-call I tend to just stick around home or nearby its environment. I mean I'm not house bound but I tend to stay close to the hospital. So yes, I love to garden. [...] Long runs and certainly things like hikes that takes me further away, I would not do. So, recreation in terms of going to the beach [...] or things like that, [...] there're only possible if it's close to work. (Carol)

Even living decisions were influenced by the need to be close to the hospital as illustrated in Paul's comments below.

It could affect [...] where you choose to live because if I was living in Regent (a town which was relatively far from where he worked) and I was working here and then I was put on-call I wouldn't want to be living in Regent. It's too far when you reach home to have to respond to a call way up on [this] side.

Thirdly, not only did being on distal call dictate where doctors could spend their recreation time, but as Carol's last quote demonstrated, what they could do. Most doctors chose to participate in activities which did not take up too much of their time (e.g. long walks and hikes as pointed out by Carol) nor energy. As such, like proximal doctors, distal doctors usually resorted to activities such as reading, gardening,

socialising with family and friends (provided that they went with separate vehicles so that they could leave with minimum disruption to others to respond to call-outs) and meditation. However, unlike proximal doctors, almost all distal doctors explained that on on-call days they usually skipped their exercise or physical routines or did not engage in them for as long or as hard.

I always try to conserve my energy [...] when I'm on-call, always! I would never try to over exert or over extend myself on a day when I'm on-call because I never know how much work I'll have to do. [...] So, if I do go to play golf, I won't really play as much or I might not play golf that day. (Paul)

As the above comment illustrated, distal doctors like Paul left activities which required relatively much effort for days when they were off-call. For some doctors, such activities included household duties which will be discussed later.

Overall, both men and women doctors spoke similarly of not being able to participate in leisure and social activities at all or at least consistently because of: where they spent the on-call period; their on-call rotas; fatigue post-call; difficulties coordinating their schedules with friends and family; their perceptions of being 'free' and their willingness to and the effort required to engage in certain activities amid on-call restrictions. Despite this, Barbara, a married mother of two young children, attributed her inability to engage in leisure and social activities in part to the fact that she was a mother.

If I have a babysitter two nights that I'm on-call, to get a babysitter on an additional night is difficult. So, [...] to that extent you kinda miss out on certain

things. But I wouldn't say work solely makes me miss out on socialising. I think what actually makes you miss out is when you have two young babies. That just comes with the territory of being a new mom. (Barbara)

Barbara's quote suggested that most of her time when not on-call was spent with her children merely because she was a mother and specifically a mother to young children. Other mothers had older children and therefore, it was not clear if the responsibilities associated with parenting young children hindered women's ability to engage in social and leisure activities.

#### **4.5.1.2. SOs' experiences.**

Leisure and social time for the SOs who had children meant spending time with them and their partners. Nevertheless, their partners' on-call restrictions influenced how often their families could socialise; where they went and what they did. For those whose partners were on proximal call, finding time to socialise was difficult because these doctors were required to stay at the hospital during the on-call period. Faye lamented that because her husband was on proximal call, her family did not go out often due to "*his long hours*" at the hospital. Moreover, post-call, he often preferred to rest than go out.

Being on-call for sure does hold us back from doing a lot of stuff, cause he just doesn't have the time. Then sometimes he may just want to stay home because he's out every day for so long. (Faye)

Smith also explained that when his wife had a difficult on-call duty, she would sleep for the most part of the day after “*and then in the evening time [they would] probably do something simple*” like go to the “*movies or dinner and [...] talk about the events that happened on-call.*” Moreover, since he was also an on-call doctor with a rota of one in two, finding free time which coincided with his wife’s was difficult.

When there were difficulties synchronising their schedules, Smith also socialised on his own with his friends as highlighted under a previous theme; went to the gym and participated in sport “*as much as [was] feasible.*” He suggested that having no children contributed to his ability to have such opportunities for leisure and predicted that “*a child coming into the mix [will mean] more dedication so [he would have] to cut back on some of [his] sports*” (Smith) as suggested under the previous theme. Thus, the extent to which SOs participated in leisure and social activities was not merely based on their partners’ on-call category but whether or not they had young children. This view was supported by Nicki’s, a mother of two, reality. She recalled that when her husband was on proximal call and her kids were younger:

[...] just to go to the grocery was an issue because there was nobody else here to look after the kids! So, everything was a juggling thing. I think it’s a lot harder when you have kids. (Nicki)

Nevertheless, SOs whose partners were on distal call, had more opportunity when compared to those whose partners were on proximal call to engage in social and recreational activity. Still, while distal partners were on-call, there were restrictions to their families’ leisure and social time including the leisure and social time of the SOs

who spent it with them. Firstly, most SOs clarified that while they could go out with their partners during the inactive on-call period, they could not go anywhere that was too far or where it would have been difficult for their partners to respond to call-outs in a timely manner. Even living decisions were influenced by the distance to their partners' workplace. For example, Robert explained that although he and his wife's decision to live where they were living was based on the fact that his wife's family lived on the same compound and supported them with childcare, they "*would still have chosen somewhere where it would be close for her to access work.*" Similarly, with regards to leisure, when his wife was on-call he explained that:

We do stuff as much as we can with Joshy. So, he loves to go shopping. So, little things that are in the area [but] not too far. We can't, she can't be too far and she has to [...] be within 10 or so minutes that she can just reach. (Robert)

Secondly, not only did SOs stay close to the hospital at which their partners worked, some also did not engage in activities they did not want to be interrupted from in the event they had to leave with their partners when they were called out. For instance, Victoria explained that because her husband "*could get call at any point in time,*" during the on-call period, they usually went "*for [take-out] food or ice-cream or something.*" The majority of SOs spoke of engaging in activities such as those mentioned by Victoria in addition to watching television and going for walks to enable their partners to relax. Activities such as going to "*see a show*" (Tiffany) or going out to "*lunch as a family*" (Nicki) were usually left for off-call days. Nevertheless, regardless of what they did, SOs felt that they always had to be "*on guard and have it in the back of [their] mind that if [something] happens [they will] need to be able to mobilise quickly for [their*

partners] *to be able to go*” (Tiffany). To facilitate this, they usually went out “*with separate cars*” (Brad).

Nicki avoided the risk of interruption altogether by not planning “*for [her husband] to be included in anything*” family-related when he was on-call. She and her children “*had gotten into the mode that whatever [they] could do without him [they went] ahead and [did it]*” (Nicki). Still, in instances where there were special events which could not be postponed, she wished there was “*more flexibility*” in the on-call structure that would allow for her husband to attend these with his family (Nicki).

[...] because [...] all his colleagues are also stretched, [...] you just can't go to one of them and say, “*Can you fill in for me?*” because that's their time off. They would have their own obligations [...] their own responsibilities to their families [...]. So, [...] I keep coming back to the word flexibility. There's no room for flexibility because everything is so rigid [...] and strung so tightly. (Nicki)

Brad also revealed that “*he still carried on with his normal activities*” including “*attending social functions*” and special events when his wife was on-call. However, unlike Nicki, he “*had no problem*” (Brad) doing so. Nevertheless, most SOs spent their leisure time with their partners and children and because of this, their partners' on-call restrictions influenced what they could do and where they could do it.

## 4.5.2. Performing household duties

### 4.5.2.1. Doctors' experiences.

Even when scheduled after call, for some proximal doctors, performing household duties was problematic because of tiredness. For instance, Billy lamented that “*many days [...], you won't be able to clean [the house] or [do the laundry] because [...] you're too tired.*” Moreover, by the time they left the hospital, it was often too late to go on errands such as grocery shopping or paying bills because business hours had passed. Proximal doctors also tended to avoid performing household chores before their on-call shifts as a means of conserving their energy. For example, Jon explained that “*if I'm working [on-call] after midnight, normally what I try to do is go to sleep in the day.*” This was also the case for most distal doctors who performed household chores on off-call days rather than during the inactive on-call period. For instance, although Kate (a married DMO with one child) usually did some house cleaning when on-call, she clarified that she just did “*basic stuff on that day*” which was consistent with distal doctors' avoidance of other activities requiring a great deal of energy when on-call.

While all doctors (i.e. proximal and distal) had support from their partners and parents in terms of getting household chores and errands done, in some cases, the burden fell almost entirely on their support system. Specifically, nearly half of all men claimed that primary responsibility for household duties fell on their partners or parents. For example, Jon pointed out that while he slept in preparation for his on-call duty, “[*his wife*] would have to [...] cook dinner [...], prepare [...] breakfast for the morning and organise [*him*] to get ready to go [...].” Drew described his parents support with his children and taking care of the home in the following:



Well my mother and father kinda spoil me from ever since so they do a lot of the stuff home. [...] things like meals for me and the kids, my mother is most adept at doing those things. Sometimes she'd have somebody come once a week and clean [...] but a lot of things, their time is taken up [doing things] for me when I have to go out and be on-call.

Although, there were some men who believed that domestic duties were divided between them and their familial network, all men felt that they were not mainly accountable for these duties. This was contrasted with women who claimed that generally, they had ultimate responsibility for the home. For example, Barbara, who though she had some support from her husband and baby-sitter, described her experience as follows:

My babysitter makes sure the [...] downstairs area where the kids are, [...] clean [...] because she's home all day. The rest of the stuff I do when I get home [after call] and on the weekends and in between [calls]. [...] I do whatever needs to be done; which will be [...] cleaning upstairs and laundry and stuff.

The above suggested that while women did feel that their partners supported them when they were on-call, they also felt that there was a "*difference in the sexes with the work and the home*" (Carol) in that generally, the burden for the latter fell more on them than their on-call counterparts who were men. Hence, when Carol, who was married, compared herself to her colleagues who were men, she revealed that what she felt she needed was "*a good wife at home, because there [were] things they [left] to their wife to do!*" However, because she was the wife, she had to juggle both home and work

responsibilities. In one Indian-Trinbagonian household, the discrepancy in the division of household labour was described as more pronounced. Kate, who was a Trinbagonian of East Indian descent explained that in these homes, “*it [is] mostly the responsibility of the woman*” to care for the house and if men did anything, it would be considered as “*they helping you.*”

#### **4.5.2.2. SOs’ experiences.**

Both men and women SOs spoke about supporting their on-call partners by performing household duties when their partners were on-call. Men felt that there was an even distribution of these duties between them and their on-call partners regardless of whether their partners were on-call or not as illustrated in the quote below.

She will do the cooking [...] and the cleaning. I deal with [...] the other household items, the washing, the drying and the ironing [...] changing bed sheet and that sort of stuff. (Robert)

Women SOs on the other hand, believed that they did “*the majority*” (Faye) of household tasks such as cooking and laundry. In one case, the uneven distribution of household labour was attributed to a husband’s upbringing in a predominantly masculine household. For example, Victoria explained that her husband came from such a household where men “*were not brought up like to do household duties and anything in the house.*” Hence, like other women SOs in the study, she felt that the responsibility for these chores rested largely with her.

#### **4.6. Chapter summary**

Overall, the participants were ambivalent in their perceptions of their on-call experiences and as such these perceptions could not be merely categorised as either favourable or unfavourable. The doctors accepted that being on-call was part of their jobs, increased their clinical exposure which was beneficial to their training and professional development and allowed for the provision of 24-hour healthcare and the continuity of patient care. Yet, despite their acceptance, all doctors described their on-call experiences as tiring, stressful and dangerous. SOs felt that their partners being on-call was no longer an issue because the experience was better than it used to be; they had adjusted to it over time and were preoccupied with demanding careers of their own. However, they still defined their experiences as distracting and worrying.

Being on-call also had implications for the participants' family and social lives, particularly with regards to its interpersonal demands (i.e. their interactions and relationships with their partners and children) and limits to their engagement in non-work activities. For proximal doctors, the requirement to stay at the hospital meant they were not able to spend sufficient time with loved ones nor engage in activities in the non-work domain. Distal doctors on the other hand, spoke more about disturbances to their family's sleep and on-call restrictions which dictated where they could go and what they could do. There were also differences in the narratives of men and women in both samples with regards to the negative rumination about work and the inability to psychologically detach, engagement in risky behaviours, safety concerns, feelings of loneliness, prioritisation of on-call duty relative to participation in the non-work domain

and the uneven distribution of childcare and household responsibilities. The table below provides a visual representation of the study's findings.

Table 3: Showing a snapshot of the results of 'Being on-call: an exploration of the experiences of doctors and significant others

Being on-call: An exploration of the experiences of doctors and significant others	On-call doctors	Significant others of on-call doctors
<i>The experience of being on-call</i>		
<b>Ambivalent perceptions of being on-call</b>	<p>1). <i>Accepting on-call duty</i>  a. Part of the job  b. Necessary for the provision of continuous patient care  c. Increased clinical exposure - More relevant in training and development of proximal doctors.</p> <p>2). <i>Being on-call as tiring</i>  <b>Proximal:</b> due to: insufficient recovery between shifts; lack of psychological detachment due to uncertainty around on-call workload, patient status and study post-call; seniors' expectations to remain available.  <b>Distal:</b> dependent on whether they were called out or not; lack of psychological detachment due to the unpredictability of being on-call and patient status. Lack of detachment even when not on-call. Lack of detachment overall articulated more by <b>men</b> than <b>women</b> doctors.</p> <p>3). <i>Being on-call as stressful</i>  <b>Proximal:</b> due to on-call intensity; poor organisational interpersonal relationships and on-call facilities; seniors' unrealistic expectations.  <b>Distal:</b> dependent on whether they had to respond to a call-out; perceived competency of junior doctors; lack of psychological detachment due to the unpredictability of the on-call period and trauma associated with certain cases (<b>DMOs only</b>).</p> <p>4). <i>Being on-call as dangerous:</i>  <b>DMOs only:</b> leaving home at unsocial hours to go to unsafe areas and perhaps physical demands of some on-call duties. More intense for <b>women</b>.</p>	<p>1). <i>Being on-call as a non-issue:</i>  a. Better than it used to be due to transition from proximal to distal on-call &amp; from public to private institutions  b. Adaptation over-time  c. Preoccupation with their own careers.</p> <p>2). <i>Distractions and interruption:</i> Telephone interruptions and partners' lack of detachment from work during the on-call period.</p> <p>3). <i>Concerns about safety:</i> leaving home at unsocial hours to go to unsafe areas. SOs who were <b>men</b> particularly concerned about the safety of their <b>women</b> on-call partners.</p> <p><b>Only women</b> SOs felt lonely.</p>

<i>The meaning of being on-call for family and social life</i>	<b>On-call doctors</b>	<b>Significant others of on-call doctors</b>
<b>Managing interpersonal demands of being on-call</b>	<i>1). Navigating intimate relationships</i>	
	<p><b>Proximal:</b> lack of time with partner; decreased intimacy and changes in mood when on-call.</p> <p><b>Distal:</b> night disturbances but partners became understanding over-time and provided emotional and practical support.</p> <p>Overall, all divorced and separated participants were <b>men</b>. <b>Men</b> spoke more about sacrificing family including marriage for work. <b>Women</b> spoke about switching to lighter-weight specialties to accommodate family.</p>	<p>Generally, did not affect their relationships because they had matured over the course of their marriages and had adjusted to their partners' on-call commitments over-time (particularly now that their partners were on distal call or worked at private establishments and were pre-occupied with jobs of their own).</p> <p>SOs who are doctors themselves felt that they understood their partners' on-call demands more.</p>
	<i>2). Negotiating childcaring responsibilities and interactions</i>	
	<p><b>Proximal:</b> lack of time; missed events in children's lives.</p> <p><b>Distal:</b> disturbed their children's rest; made leaving to respond to call-outs difficult (<b>mothers with younger children</b>); led to feelings of guilt (<b>mothers</b>); made committing to spending time with their children during the on-call period difficult; influenced interactions with their children and caused children to adjust their behaviours.</p> <p>Overall, <b>mothers</b> spoke about the difficulty carrying out childcare duties amid on-call responsibilities (implied an unequal distribution of childcare between mothers and fathers). <b>Fathers</b> generally relied more on <b>women</b> partners and other family members. Only <b>mothers</b> expressed willingness to reduce on-call commitments for family, while there was a prioritisation of work over family by <b>fathers</b> and <b>men</b> generally.</p>	<p><b>Men and women</b> SOs provided childcare support when partners were on-call (except where SOs had to work themselves and relied on familial network and hired help), but <b>women</b> perceived that they had the ultimate responsibility for childcare.</p> <p><b>Men</b> sacrificed long work hours, leisure and social opportunities to be available for children. <b>Women</b> sacrificed career promotions; business expansion and entire careers which led to feelings of resentment.</p>

	On-call doctors	SOs of on-call doctors
Limits to engagement in non-work activities	<i>1). Participating in leisure and social activities</i>	
	<p><b>Proximal:</b> Reduced opportunity for socialisation due to the requirement to stay at hospital; difficult to maintain consistency; fatigue post-call and desynchronised schedules with family and friends.</p> <p><b>Distal:</b> Participation dependant on perceptions of being on-call as work or free time and thus, the willingness to participate in these activities within on-call restrictions. Also, dependant on the location and type of activity to be pursued.</p> <p>There might have been reduced opportunities for <b>mothers with young children</b> to participate in social life.</p>	<p>Leisure and social time defined more in terms of spending time with partners and children. On-call restrictions and unpredictability of the on-call period limited location and type of activities they could engage in. Having alternative transportation was key.</p> <p>Having children also limited how much they could participate in leisure and social life.</p>
	<i>2). Performing household duties</i>	
	<p><b>Proximal:</b> Too tired to perform these duties post-call and sometimes immediately before call.</p> <p><b>Distal:</b> Avoided performing these duties (especially intense chores) while waiting to respond to call-outs. Overall, while both <b>men</b> and <b>women</b> relied on their familial networks for support when on-call, <b>women</b> doctors held greater responsibility for domestic labour when compared with doctors who were <b>men</b>.</p>	<p>Both <b>men</b> and <b>women</b> SOs supported their partners in the performance of these duties when they were on-call, but there were gender differences in perceptions about the overall distribution of domestic labour between SOs and their partners.</p> <p><b>Men</b> SOs believed these were equally shared while <b>women</b> believed they had ultimate responsibility.</p>

## **Chapter 5: DISCUSSION**

### **5.1. Chapter overview**

This chapter provides an interpretation of the findings presented in chapter four and discusses the contributions such findings make to the on-call literature. It draws out the similarities and distinctions between distal doctors' experiences of waiting to be called and proximal doctors' experiences of working on-call including the implications being on-call have for their family and social lives. In the study's context, doctors on distal call were relatively senior doctors who were only required to work when called in. Being on proximal call, on the other hand, essentially meant that these doctors were always working since they were the first to respond to the constant flow of emergencies. The thesis explored the on-call experience from these two perspectives and from the perspective of significant others (SOs) of on-call doctors, highlighting overall gendered differences where they were applicable. Gender was also revisited in a separate section of the chapter in relation to the theoretical discussions in chapter two.



## **5.2. Comparing proximal and distal doctors' on-call evaluations**

This was the first known study to juxtapose proximal and distal doctors' evaluations of their lived experiences of being on-call within the same study. The results revealed that both categories of doctors tended to be ambivalent in their perceptions of being on-call, as was consistent with the perceptions of on-call workers in the literature (e.g. Imbernon et al., 1993; Smithers, 1995). However, some evaluations were only applicable to a particular category or sub-category of doctors or had different meanings attached to them based on the on-call category to which the doctor belonged. Other evaluations were more salient in the lives of one category of doctors than the other.

Firstly, the study found that there were some constructions which were only applicable to particular categories and sub-categories of doctors. For example, District Medical Officers (DMOs) and not distal hospital doctors experienced being on-call as dangerous. Responding to call-outs as a DMO entailed leaving home at unsocial hours and going into high-crime risk areas. However, while this was a concern among men and women DMOs, all DMOs spoke more about the vulnerability of women's safety as opposed to men when on-call. These findings echoed that of Cuddy et al. (2001), despite the low representation of women general practitioners in that study. Although the work of coroners or forensic pathologists can be considered as closely matching that of DMOs in T&T, no research on the evaluation of the on-call experience among this group was found. Nevertheless, the on-call experiences of general practitioners in past studies (e.g. Cuddy et al., 2001; Rout, 1996) can be used as a reference in the analysis of the experiences of DMOs in this study.

The findings above might also indicate the gendered nature of on-call work itself and its perceived suitability to men when compared with women (Turk et al., 2014). For example, besides safety concerns, one DMO spoke about the physical demands of being on-call which he believed made it relatively difficult for women to do. Turk's et al. (2014) description of the Turkish hospital as "the male workplace" because of its consistency with the male body, supports this view (p. 455).

Furthermore, only DMOs overall, identified the trauma they were exposed to as a source of stress because their on-call duties usually entailed examining the bodies of victims of murder, rape and incest. The point to note is that even within the same system, the on-call experience is not universal. To put differently, the current findings suggest that the distal on-call reality is not singular and thus, within that system there are different groups of distal doctors with different experiences. Therefore, the study sheds light on the nuances between and within on-call systems that might have been otherwise obscured.

Specifically, the study adds to research on distal call by emphasising the richness of the distal on-call experience facilitated by the use of a qualitative research approach. For example, the nuances in the distal doctors' on-call experiences in the current study did not match the primarily negative evaluation among distal participants in Ziebertz et al. (2015). The goal of such quantitative studies is to test hypotheses by reducing data (e.g. into pre-determined categories). The interpretive orientation adopted in this study provided some depth to the participants' experiences by allowing them to share their realities in their own terms and to share what those terms meant to them. The interpretive tradition adopted also assumed that the participants' responses would not

have been “the same in all circumstances” (Roberts et al., 2019, para. 23). Hence, while at times distal doctors felt fatigued, stressed and were concerned about their safety when responding to call-outs, they had accepted that being on-call was a necessary part of their jobs. The qualitative nature of the current study represented a departure from the quantitative methodologies used in the literature and thus, contributes to the body of qualitative on-call research. The results suggest that there may be other aspects to and thus, ways in which to define the on-call experience which might inform future quantitative research on the topic.

In some instances, although both proximal and distal doctors described their experiences in similar ways, the meanings they attached to these descriptions were different. For instance, current findings revealed that distal doctors attributed their on-call stress to the anxiety related to waiting to respond to a call-out; their lack of confidence in the competency of the proximal or junior doctors on-call with them and in the case of DMOs, the degree of trauma they were exposed to when called out. Proximal doctors, on the other hand, primarily attributed their on-call stress to the intensity of the on-call period which was characterised by the requirement to be in two places simultaneously, time constraints in attending to patients and poor organisational relationships and on-call facilities. Seniors’ expectations for proximal doctors to remain available was also identified as stressful for them.

As pointed out in chapter two, past studies have reported on the impact of being on-call on stress (e.g. French et al., 2001; Bamberg et al., 2012). However, they mainly followed quantitative methodologies which allowed for the examination of the strength of the relationships between being on-call and objective stress indicators. Thus, they

did not explore what participants meant when they evaluated their on-call experience as stressful. Other researchers were merely speculative in their claims of the underlying factors of on-call stress as these claims were not supported by their participants' accounts (e.g. Heponiemi et al., 2014; Lindfors et al., 2006). The interpretive nature of the current study sheds light on the taken for granted meanings behind proximal and distal on-call stress or how that stress was experienced by the doctors in their interactions with their co-workers, patients and families.

Finally, some perceptions were more salient in the narratives of one category of doctors than the other. For example, while both proximal and distal doctors benefitted from the clinical exposure that being on-call afforded them, this benefit was more prominent in the accounts of the former than the latter. Proximal doctors were essentially junior doctors and apart from preparing them for their future careers as senior doctors on distal call, clinical exposure provided them with opportunities to learn how to do their current jobs. For them, being on-call was an educational tool and method of training. These views were consistent with previous research which found that proximal on-call medical students and doctors rated their on-call experience positively primarily because of its educational value (Callaghan et al., 2005; Corriere et al., 2013).

The fatigue experienced on-call was also more prominent among proximal doctors and especially those in surgical specialties. Previous studies (e.g. Corriere et al., 2013; Tucker et al., 2010) on junior doctors and medical students on proximal call suggested that fatigue was related to the frequency of these shifts. Greater fatigue was reported among those with shorter intervals between on-call shifts and those with fewer rest days following consecutive nights on-call (Tucker et al., 2010). The length of the on-call

duty was also found in previous studies to have adverse impacts on the health and well-being of physicians including surgeons (Balch et al., 2010; Heponiemi et al., 2014). However, these studies lacked theoretical perspective and focused primarily on proximal doctors on night call. The current study was framed within Meijman and Mulder's (1998) Effort-Recovery (E-R) model which is the point of reflection in the next section.

### ***5.2.1. Revisiting Meijman and Mulder's (1998) E-R theory and the role of psychological detachment.***

In the current study, proximal on-call doctors who were on-call at nights, evenings and weekend days, were usually actively working during the on-call period. According to Meijman and Mulder (1998) E-R theory, prolonged exposure to work demands causes the psychobiological systems to remain activated thereby restricting recovery and promoting fatigue. Since their on-call shifts usually preceded or immediately followed their regular shifts, there was prolonged exposure to work demands and thus, hardly time for them to recover. At times, their on-call work even flowed into their regular shifts. For instance, surgeries surpassed expected durations leaving less or no time to recover before the subsequent shift. Thus, proximal doctors usually started their on-call shifts in a "suboptimal state" due to inadequate recovery from the previous work situation (Guerts & Sonnentag, 2006, p. 483). In such instances, they may have had to invest "compensatory effort" to meet their on-call work demands, placing an even higher demand on the recovery process post-call (Guerts & Sonnentag, 2006, p. 483). It may have been for this reason, as was discussed in the previous section, that the proximal on-call doctors in this study, framed their feelings of fatigue in terms of their lack of recovery. The contribution the current findings make to the on-call literature is

that it applies the E-R model to explore how proximal on-call doctors might arrive at their perceptions of their on-call experiences and in so doing provides a theoretical framework within which to situate their experiences.

Unlike being on proximal call, being on distal call did not always result in physical exposure to work. Therefore, distal doctors' perceptions of being on-call as tiring depended to a large extent on whether they were called out or not. Nevertheless, even when they were not called, current results indicated that distal doctors reported being tired when on-call. Their sense of tiredness stemmed from their rumination about whether they will be called out or not and their anxiety over missing a call during the inactive on-call period. Hence, they were unable to detach psychologically from work which was consistent with past research on distal workers across different occupations (Altomonte, 2016; Bamberg et al., 2012; Imbernon et al., 1993; Smithers, 1995). As was discussed in chapter two, the mental preoccupation or rumination with the likelihood of being called out draws upon the same resources used for work in a manner akin to the prolonged physical exposure to work demands (Sonnentag, 2001; Sonnentag & Bayer, 2005). Thus, according to the E-R model, besides physical exposure to work demands, mental exposure or a lack of psychological detachment restricts recovery (Sonnentag, 2001; Sonnentag & Bayer, 2005). The results were consistent with those in other studies (e.g. Smithers, 1995; van de Ven et al., 2012) where the negative preoccupation with being called out were related to reports of fatigue and a need for recovery among distal on-call participants.

What this study adds to the evidence base is that a lack of psychological detachment as a result of negative rumination about work was not only experienced during the inactive

on-call period but extended beyond being on-call. Evidence in the literature has only emphasised the lack of detachment among distal workers during the inactive on-call period. However, current results indicate a prolonged lack of detachment among distal doctors when off-call and on vacation due to concerns over critical patients who are left in the care of colleagues and the witnessing of traumatic cases.

Moreover, the majority of studies in the review and the wider literature discussed psychological detachment albeit only among distal on-call workers (e.g. Altomonte, 2016; Bamberg et al., 2012; van de Ven et al., 2015; Ziebertz et al., 2015). However, this study revealed that proximal on-call doctors might also find it difficult to detach from call during and post-call. As was previously stated, being on proximal call in Trinidad and Tobago (T&T) meant that these doctors would always be called as there was a constant flow of patients into the understaffed hospitals. In some cases, they were called while already attending to emergencies. It follows, therefore, that the lack of detachment experienced among proximal doctors in the study was not due to whether they will be called but was due to their rumination over the intended on-call workload and their patients' conditions. Furthermore, because they were enrolled in academic programs when off-duty, they were still mentally pre-occupied with work through study.

Apart from the demanding nature of a doctor's medical career evidenced by their high workload (especially in surgical fields), the role of other systemic factors in the work environment was recognised. For example, senior management's expectation that junior doctors on proximal call prove themselves worthy of being a doctor meant that they were always to remain in a state of availability. This was achieved through the constant

presence of work through study and the use of technology which made it difficult for the doctors to detach from work, drained their resources and prevented recovery. The role of factors in the non-work domain (such as the obligatory nature of household chores and opportunities for leisure and exercise) in the recovery process is discussed in later sections.

Nevertheless, the above indicates that difficulties in psychologically detaching from work apply to proximal and distal on-call doctors during and post-call. The criticism that difficulties detaching might extend beyond the on-call period, supports the reasoning that it is important to remain cognisant to how recovery should be conceptualised as a dynamic process when applying the E-R theory (Zijlstra et al., 2014). The implication of a prolonged lack of detachment however, is that it might suggest an accumulation of negative load effects and therefore, longer term difficulties for health and well-being.

It is worth noting that more men than women spoke about the difficulties of psychologically detaching from work during inactive on-call periods and post-call. The difficulties experienced by men relative to women might have been related to the relatively high prioritisation given to work (including being on-call) over activities and relationships in the non-work domain by men when compared to women. This assertion is supported by Cuddy et al. (2001) and Rout (1996) who found that the doctors in their samples who were men, detached from their families due to their disproportionate commitment to work (including being on-call) over their non-work lives. Women doctors, however, experienced role conflict and work overload because they attempted to balance on-call or work responsibilities and their families rather than



place one above the other (Rout, 1996) as men did. It follows, therefore, that men due to their difficulties detaching, experienced restricted recovery and reported that they or other men engaged in risky behaviours when off duty. Risky or maladaptive behaviour associated with heavy on-call burdens has been found in a previous study among Finnish doctors (Heponiemi et al., 2008).

### **5.3. SOs' evaluations of on-call**

The study also contributes a more up-to-date holistic perspective (i.e. the perspectives of on-call doctors and SOs of on-call doctors) of the experience of being on-call to the evidence base. The last known study to explore the on-call experiences of both doctors and SOs was conducted almost two decades ago (i.e. Cuddy et al., 2001) and a more recent study was carried out on SOs only and not their on-call partners (i.e. Emmett et al., 2013). Additionally, in both these studies, the majority of SOs were women. Thus, gendered differences in the perceptions of the on-call experience could not be observed. However, due to its deliberate recruitment of a more gender balanced sample, the current study contributes an understanding of the role of gendered ideologies in the construction of the on-call experiences of men and women SOs to the existing body of knowledge.

Results revealed that while both men and women SOs in the current study generally perceived their partners being on-call as no longer an issue for them (despite the distractions it caused and concerns over their partners' safety), only women SOs felt lonely at some point in their lives when their partners were on-call. Having grown children was conceptualised as a double-edged sword. That is, while it made mothers' experiences when their partners were absent or on-call less intense, grown children meant an empty house. Research by Stokes and Levin (1986) has shown that women evaluate loneliness on the basis of the quality of their relationship with someone close to them. On the contrary, most men explained that while their wives were on-call they kept busy with their own lives through study, by focusing on their careers and engaging in leisure activities. More substantial differences between men and women SOs were

related to what being on-call meant for their family and social lives. These were based on traditional gendered ideologies reinforced at work and at home and are discussed in the following sections of this chapter.

## **5.4. The meaning of being on-call for family and social life**

### ***5.4.1. Doctors' intimate relationships and childcare.***

The current findings were a testament to the relevance of the impact of being on-call on the family and social lives of not only distal but proximal on-call doctors and the role of gendered ideologies in the different ways in which men and women doctors lived out being on-call in the context of their family and social lives. Firstly, although their participation in family life was impossible during the on-call period, the study's findings emphasised the prolonged impact of being on-call on the familial relationships and activities of proximal doctors, post-call. For example, while proximal doctors did not have sufficient time with their family because they were required to stay at the hospital during their on-call shifts, when they were post-call, they were usually too tired to spend meaningful time with them.

Distal doctors, on the other hand, were primarily unhappy about the telephone disturbances to their families' rest when on-call. This finding matched Cuddy et al. (2001) and Rout (1996) who found that the constant telephone interruptions when on-call robbed GPs on distal call of quality time spent with their partners and disturbed their sleep. Nevertheless, because most distal doctors in this study worked on-call for more than 10 years, their partners were more understanding of their on-call requirements and had adjusted to its demands over time. Additionally, they explained that their partners were a great source of support to them when they were on-call (especially with regards to domestic duties and childcare), although primary responsibility for domestic duties and childcare rested with women on-call doctors.

The data also revealed that overall all divorced and separated doctors were men. While half of them did not attribute their failed marriages to the demands of being on-call, the other half believed that their on-call demands required them to prioritise those demands over their marriages which they admitted to doing. Women, on the other hand, expressed their desire to either not work on-call or at least reduce their on-call commitments within their fields so that they could spend more time with their partners and children. As was mentioned in chapter two, in countries such as the Netherlands, Norway and the UK, there is greater flexibility for employees (particularly women) wanting to reduce their working hours within their various fields, to do so. One of the ways this occurs is through part-time working. In T&T, however, there are fewer opportunities for working part-time especially within medicine and particularly within certain medical specialties. Moreover, within certain specialties, not working on-call, is not an option.

Other methods by which the on-call doctors may have had their on-call burden reduced were by transferring to relatively less hectic hospitals or if staff shortages were addressed. However, the feasibility of transfers was based on labour needs at those institutions and hiring staff to reduce the existing shortage was beyond the control of the participants. There was one notion that both men and women doctors had begun to switch to lighter-weight specialties (i.e. those with fewer or no on-call requirements) such as primary care to better balance being on-call and being available for their families. However, this notion was not validated by the other men in the study, including those who themselves were in primary care. This may have been due to the perceived inferiority and femininity of these specialties which made them unattractive to men.

Women on-call doctors, however, reported that they had considered switching to lighter-weight specialties. Those who had young children, in particular, struggled to reconcile their on-call demands with their familial responsibilities and experienced guilt when they could not and had to leave their children to respond to call-outs. This guilt was based on the belief that as mothers they were supposed to be there for their children which was in line with the centrality of motherhood within the wider Trinbagonian matrifocal culture (Reddock & Smith-Bobb, 2008).

The prevalence of conventional notions about the role of mothers as caretakers and homemakers was illustrated in the way in which they had to manage their childcaring and domestic responsibilities when on-call (Wharton, 2005). While fathers mainly spoke about the impact being on-call had on their ability to spend time with their children, mothers discussed being on-call in relation to the impact it had on their ability to fulfil their domestic and childcare duties. They felt for fathers this was not an issue because they had their children's mothers to depend on. These findings were consistent with the UK study by Sullivan and Smithson (2007). Those authors also found that women homeworkers constructed the advantage of the flexibility involved in homeworking in terms of being better able to care for their children and perform other domestic duties (Sullivan & Smithson, 2007).

This was not to say the on-call mothers in the current study did not receive domestic support from their partners when they had to be on-call. Instead, it meant that they felt that when compared to their on-call counterparts and non-medical partners who were men, the greater burden for domestic duties generally rested with them. This made their experience of being on-call more intense. If their non-medical partners who were men did

get involved, it was considered as 'helping'. In Sullivan and Smithson's (2007) homeworkers, who were men, also constructed their experiences of homeworking as affording them the flexibility to 'help' their wives with domestic tasks.

The "double-triple burden" (Lindfors et al., 2006, p. 863) of having to perform household duties, childcare and on-call duties might have been why the women on-call workers in the current study preferred to not work on-call or to lessen the on-call burden within their fields, if such options existed. This finding suggests that as in the UK and Europe, the difficulties associated with reconciling on-call demands with non-work lives among the Trinbagonian on-call doctors in this study were largely "women issues" (den Dulk et al., 2011, p. 313). This is because it was usually women who reported that they considered re-arranging their schedules to facilitate their non-work lives.

The possibility exists that gendered ideologies about the division of domestic labour between men and women on-call doctors may have also been related to ethnic ideologies. Previous research has shown that within African Caribbean immigrant families, perceptions about men and women roles are relatively more equalitarian (Roopnarine, Krishnakumar, & Xu, 2009) than within other groups. Other studies support findings of more equitable divisions of household labour between black couples or those of African ancestry (reflective of the equalitarian societies in which they now live) than between white and Latino couples (Bianchi, Milkie, Sayer, & Robinson, 2000; Glauber, 2008). These findings are contrasted with the retention of traditionally gendered ideologies by the East-Indian diaspora, even after migration to countries with more gendered equalitarian beliefs and practices such as the US (Roopnarine et al., 2009). Nevertheless, the intersection of the role of gender and ethnicity in the meaning

of being on-call for the family and social lives of on-call doctors including the performance of domestic labour, was beyond the scope of this thesis. Additionally, it was only featured in the narrative of one participant. Further research is needed in this area.

#### **5.4.2. *The cost of spousal support.***

Results showed that SOs believed that their partners being on-call had hardly any impact on their relationships because of their partners' transition to being on distal call and/or working at private institutions, their adaptation to their partners' on-call demands over time and their preoccupation with demanding careers of their own. Additionally, they believed that because they had personally matured over the years of their marriages, they were now more understanding of their partners' on-call commitments and capable of coping with their on-call moods. This was especially so among SOs who were also doctors themselves. These findings supported those in the literature as fewer on-call shifts, being on distal call and mature marriages were identified as improving spouses' on-call experiences and cushioning the impact of being on-call on their intimate relationships (Cuddy et al., 2001; Emmett et al., 2013).

What this study adds to the existing knowledge is an insight into how gender roles between SOs and their on-call partners were constructed during the on-call period. Results revealed that while men and women SOs were involved in childcare and other domestic duties in their on-call partners' absence (although at times they relied on extended familial networks), there were some marked gendered differences in terms of what childcare responsibilities as a result of their partners being on-call meant for their careers. Within this group, there were claims of the dismantling of the traditional male



breadwinner-female homemaker model. However, this was only to the extent that men were happy to cut back on their working hours or miss social events to look after their children while their wives were on-call.

For women SOs, on the other hand, supporting their on-call husbands meant passing up promotions or opportunities to expand their businesses to care for the children. In one case, a woman SO who was also a doctor, considered leaving her career entirely because of her husband's demanding on-call schedule and their decision to not have strangers look after their child. This finding supports Toyry's et al. (2004) claim that even in dual-physician marriages, husbands' medical careers seem to take priority over their wives. Previous research also suggested that it was usually wives who sacrificed their careers to facilitate their husbands' on-call which made them resentful (Emmett et al., 2013). In the current study, where women SOs did not already make career sacrifices, there was an expectation by their partners that they would if a child was born. The results, thus, serve to reinforce the prevalence of the traditional roles of women as caretakers and men as breadwinners, even where men and women share professional identities (Sullivan & Smithson, 2007; Wharton, 2005).

#### ***5.4.3. Doctors' engagement in leisure and social life and the conduct of non-work activities.***

Findings revealed that due to the requirement to stay on hospital premises and the fluctuating nature of their on-call rotas, proximal doctors found it difficult to commit to routine activities and attend special events and celebrations. While, internal strategies such as switching shifts or asking for cover were permitted, these were relatively impractical within the Trinbagonian medical setting given the staff shortages. The

findings also revealed that being on proximal call hindered social life post-call. Previous research cited that long working hours and nights on-call, which were characteristic of being on proximal call, were associated with greater work-life interference among American doctors (Balch et al., 2010; Heponiemi et al., 2014).

While these studies were criticised for their unrepresentative samples and low response rates, the current findings gave insight into the underlying issues behind the association between being on proximal call and work-life interference as argued by the authors above. Based on the limited resource concept of self-regulation (Muraven & Baumeister, 2000), the self-regulation required when on-call meant that there were less self-regulatory resources available post-call for socialisation. This might have explained why the proximal doctors in the current study expressed that they were often too tired to go out and socialise post-call. Instead, they preferred to rest or engage in other low-effort activities such as reading, listening to music and watching television.

Sonnentag (2001) argued that these “below-baseline activities” are deliberately pursued because they support psychological detachment from work and allow the functioning systems to return to their baseline levels, promoting recovery (p. 199). Nevertheless, even when they had the energy for socialisation, synchronising their schedules with that of their families and friends was difficult because proximal doctors were at the hospital on days and at times when most of society were not required to work. Hence, it was difficult to sustain social relationships, particularly friendships, outside of work.

Participation in non-work activities among distal doctors, on the other hand, was determined by their willingness to enjoy these activities within the restrictions that

accompanied being on-call, their perception of being on-call as work or free time and whether these activities were perceived as time-consuming and/or requiring a great deal of self-regulation. The current findings were in line with the study's literature review and findings from another review. The results from both reviews revealed that the requirement to stay within the vicinity of the workplace during the on-call period dictated the family and social activities that distal on-call workers and their families engaged in (Emmett et al., 2013; Nicol & Botterill, 2004). As was the case in Emmett et al. (2013), current findings revealed that even living decisions were influenced by the need to remain accessible.

Furthermore, while the majority of distal doctors in the study socialised within these on-call restrictions, perceptions of on-call time as work time motivated a few of them to put leisure and social activities on hold. The possibility that they may be interrupted at any point in time contributed to this concept of not feeling 'free' despite claims in other parts of the world that the inactive time spent on distal call cannot be regarded as work time (van de Ven et al., 2012; Ziebertz et al., 2015). A past study suggested that the expectation of interruption, associated with the unpredictability of being on distal call, demotivates distal on-call workers from socialising (Altomonte, 2016).

Despite the above, the applicability of the findings at least in Altomonte's (2016) study may have been limited by the fact that on-call work in that study was defined in the social context of care-work. Furthermore, this care-work was performed by relatives who were mainly women and for whom, when compared with men, there was unequal control and distribution of time between leisure and caregiving. As a result, the women in Altomonte's (2016) study may have spent less time participating in leisure and social

activities and more time caring for their elderly relatives merely because of their greater caregiving responsibilities. This reasoning was supported in the current study by the narrative of a doctor who attributed her inability to engage in leisure and social activities to the fact that she was a mother to young children. Thus, any ‘free’ time she had was spent caring for her children rather than going out. Roberts et al. (2019) commented that “the added domestic burden for women, in combination with the unpredictable on-call load, [...] leaves less time and scope for what might be considered ‘non-essential’ activities” (para 18).

The majority of distal doctors did not avoid participating in non-work activities altogether. Nevertheless, the results revealed that they usually avoided “effortful activities” such as intense exercise and household duties when on-call (Sonnentag & Jelden, 2009, p. 165). Since exercise and household duties required a great deal of self-regulatory resources to initiate and sustain, distal doctors in the current study deliberately avoided it when they were on-call (Sonnentag & Jelden, 2009). Current findings revealed that in some instances, proximal doctors also avoided household activities before on-call shifts to conserve energy resources. Self-regulation had only been previously discussed in the literature with regards to the distal on-call experience (e.g. Bamberg et al., 2012). Thus, this study adds to the body of knowledge, the application of the concept of self-regulation to the proximal on-call experience.

It is worth noting that the impact of being on-call on physical activity however, was not consistent in the literature nor was it here. Unlike distal doctors, proximal doctors seldom skipped exercise in the periods surrounding their on-call shifts. Instead, they engaged in it at those times to cope with the stress of being on-call. Men who were

general practitioners on distal call in Rout (1996), also used exercise to cope with the negative effects of being on-call.

Although they avoided effortful activities including exercise, in this study, distal doctors generally enjoyed some social life during the inactive on-call period. According to Sonnentag (2001), participating in social activities such as meeting friends is positively related to well-being. As was alluded to in chapter two, the difference between these results and those in Bamberg's et al. (2012) might have been due to the all-men sample in the latter. The authors suggested that planning and organising social gatherings would have been atypical to men and thus required relatively a great deal of self-regulation to conduct when on-call. Furthermore, Bamberg's et al. (2012) finding that fewer low-effort or relaxing activities are conducted when on-call was not supported in other studies (e.g. Sonnentag, 2001; Sonnentag & Jelden, 2009) nor was it supported here. Distal doctors in this study conducted low-effort leisure activities such as reading, gardening and meditation during the inactive on-call period. These results suggested that contrary to Bamberg's et al. (2012) argument, the recovery benefits of low-effort activities (Sonnentag, 2001; Sonnentag & Fritz, 2009) exceeds the self-regulation needed to initiate and sustain them. Hence, the study drew attention to the ways in which systemic factors in the non-work domain (e.g. the performance of household duties, low-effort activities and physical activity) were framed in terms of either contributing to or impeding recovery during and post-call and thus, meant that workers made active decisions about whether to engage in them or not.

#### ***5.4.4. The definition of leisure and social life for SOs.***

Social life for SOs was defined by the time spent with their partners and children. Since the majority of SOs had partners who provided distal call, participants in this sample had more opportunity to engage in social and recreational activity during the on-call period. However, there were restrictions to doing so pertaining to where they could go and what they could do. For instance, they could not go anywhere that would have affected their partners' ability to respond to call-outs in a reasonable manner. Living decisions were also largely influenced by proximity to their partners' workplace as it was in Emmett et al. (2013).

Furthermore, the mere possibility that their partners could be called out, dictated not only where they socialised, but what they did. The results suggested that some SOs simply did not engage in activities they did not want to be interrupted from (e.g. going to the movies), in the event their partners were called out. However, regardless of what they did, having to remain on guard or having "a sense of expectation" that their partners could be called out at any point in time was central in their narratives (Altomonte, 2016, p. 15). This was perhaps why organising secondary modes of transportation was important to them when they went out with their partners.

The two SOs whose partners were on proximal call lacked opportunities to socialise with them relative to those whose partners were on distal call. This was because proximal partners were always at work or were too fatigued post-call to go out with their SOs. As such, socialisation for these SOs was influenced by whether they did not mind socialising without their partners and whether they had young children.

## **5.5. Gender revisited in relation to theory**

As the preceding discussion revealed, the prevalence of conventional notions about the role of men and women was particularly illustrated in the way in which the participants organised their work and non-work lives. These gendered ideologies were reinforced by practices and beliefs held in the medical profession and in the family domain. This finding was consistent with the aspect of Wharton's (2004, 2005) institutional approach that speaks to the perpetuation of social constructions of gender within social systems.

Firstly, besides the physical dangers associated with being on-call, the masculinity inherent in this working arrangement and in the wider T&T medical profession, was illustrated in this notion of doctors having to be 'invincible' to prove their worth. There was an implicit expectation by senior managers that doctors were to remain in a state of availability (via telephones and other forms of technology), even when not on duty. A committed doctor was one who allowed medicine (including being on-call) to take priority over all aspects of their non-work lives. This finding matched Turk et al. (2014) who posited that "many of the implicit 'rules for success' in the workplace [such as commitment] are closely aligned with traditional images of masculinity" (p. 444). They argued that "in a majority of workplaces, the definition of commitment remains rooted in a traditional concept of the ideal worker as someone for whom work is primary, and the demands of family and community are secondary" (p. 444). This might explain why more men relative to women spoke about the difficulties they experienced in psychologically detaching from work and why overall all divorced and separated doctors were men. The prioritisation of work over family by the men who were doctors in the study was in line with their roles as breadwinners as argued by Wharton (2005).

However, it was not that women doctors thought of themselves as less committed to their careers than their counterparts who were men. Instead, they were expected to be more concerned about the fulfilment of their caretaker roles within the family domain (Wharton, 2005).

Hence, doing femininity and being a committed doctor on-call appeared to be mutually exclusive. The data revealed that for men, the level of commitment expected by managers for success as a doctor, was relatively easier to achieve because their wives were ultimately responsible for domestic and childcaring duties. Women doctors on the other hand, although they had support from their husbands, were still primarily responsible for the home and hence, struggled to reconcile their on-call responsibilities with their social role expectations as caretakers (Wharton, 2005). Consequently, they considered switching to lighter-weight specialties (perceived by men as 'lazy medicine') in order to be more available for their families. However, while women doctors spoke about wanting to switch, none of them did. Consequently, the feelings of guilt which ensued, may have been due to the inconsistency between continuing to work within their current on-call specialties and their internalisation of the normative view that they should be more available for their families (Wharton, 2005).

Secondly, apart from gender being sustained within the institutional practice of medicine, traditional gendered ideologies were also sustained within the institution of the family, and this was especially so among SOs. As was previously discussed, there was an expectation by their partners who were men, that women SOs would leave or restrain their careers to fulfil their caretaker roles and support their partner's medical career including on-call responsibilities. These expectations remained even in instances



where they and their partners were both doctors or were in careers of similar prestige and income. This suggests that women's social status as professionals was not relevant in guiding decisions about their work and home lives. The expectation within the family unit that they and not men should sacrifice career for family, therefore served to reproduce inequalities relating to the division of domestic labour between men and women (Wharton, 2005).

## 5.6. Chapter summary

The preceding study revealed that while there were some similarities in the ways in which proximal and distal doctors defined their experiences of being on-call, there were nuances relating to what these definitions meant to them. The study added more in-depth knowledge on the distal on-call experience in particular, through its qualitative (interpretive) inquiry by allowing the distal on-call doctors to define their experiences in their own terms and ways. As such, the findings highlighted; that the distal on-call experience is more complex than presented in at least one recent study (Ziebertz et al., 2015). Furthermore, it defined the negative aspects of the distal on-call experience in other ways besides being stressful. Finally, it revealed additional prominent sources of distal on-call stress besides the anxiety associated with the unpredictability of being on-call not mentioned in other studies in the literature (e.g. Bamberg et al., 2012; Rout, 1996).

Meijman and Mulder's (1998) E-R theory was used as a framework within which to situate the experiences of both distal and proximal on-call doctors. Few studies in the past have been explicit about their theoretical framework. Furthermore, discussions in the on-call literature regarding psychological detachment, a core component of recovery, have occurred only in the context of distal on-call systems and have mainly focused on difficulties detaching during the on-call period. In this study, psychological detachment has been found to be relevant not only to the distal but to the proximal on-call experience. Additionally, difficulties detaching have been found to extend beyond the on-call period for both proximal and distal doctors, implying longer term impacts for health and well-being.

The study also offered more current evidence on the experiences of both on-call doctors and SOs of on-call doctors. Sullivan and Smithson (2007) proposed that in the context of work-family research, it is important to explore the perspectives of the worker's family members. Therefore, while the current findings add to the body of knowledge on the impact of being on-call on family and social life, it does so from the perspective of on-call doctors and their SOs. The findings were also evident of how being on-call hinders the family and social lives of proximal doctors post-call. Thus, it contributes to the limited knowledge on the social aspect of the on-call experience among this group.

Finally, the purposeful recruitment of gender balanced samples contributed more conclusive evidence on the implications of social constructions about gender in the experience of being on-call especially with regards to family and social life. Furthermore, the current evidence demonstrated how these constructions were reproduced or reinforced within social structures and practices (Wharton, 2004, 2005). More specifically, traditional ideologies about men and women's roles as it relates to paid and unpaid work were reinforced within the T&T medical environment (through idealistic managerial notions about commitment and the physical dangers of on-call) and family unit (through expectations that women would sacrifice their careers to facilitate their caring and domestic responsibilities).

## **Chapter 6: CONCLUSION**

### **6.1. Reflections**

Prior to the increased national focus on the health and well-being of Trinidad and Tobago (T&T) doctors and calls by the local medical trade union for improvements in on-call working arrangements, I was motivated to conduct research on how being on-call is experienced by doctors in their everyday lives. This was because of my own experiences of having a mother whose professional duties sometimes required her to be on distal call. Due to the paucity of research on the experiences of distal on-call workers, including the impact this working arrangement had on their social well-being, I had initially sought to gain an understanding of the experiences within this group of doctors only.

However, after having had informal conversations with proximal doctors during one of my visits to a major hospital prior to the start of the study, it became apparent that the experience of being on-call held different meanings for proximal versus distal doctors. I realised that no research had explored the differences and/or commonalities between and among these groups. This led to the development of new research questions with the aim of isolating proximal and distal doctors' perceptions of being on-call and understanding the meaning being on-call had for their family and social lives. Furthermore, I believed that different individuals in the on-call workers' social network might have had different perspectives of what having a partner, parent or friend who worked on-call meant to them. There were a few studies which explored the realities of spouses of on-call workers and as argued in chapter two, of those which did, there were

several limitations. Therefore, an additional aim became to explore the experiences of SOs when their partners were on-call. The literature also suggested that the on-call experience might be different for men and women and thus, attention was given to how gender was constructed and perpetuated within systems.

Consistent with previous research, the study found that the on-call doctors and SOs of on-call doctors' experiences of being on-call were more ambivalent than definitive. Distal and proximal doctors had generally accepted that their on-call duties were a required component of their medical careers and welcomed the opportunity it afforded them to provide adequate patient care. However, where this study contributed to the existing literature was in the rich insights it offered into the multi-faceted nature of the on-call experience that was often hidden behind the statistical approaches of past research. Specifically, the results showed that in their evaluations of their experiences of being on-call, there were some nuances between and within proximal and distal on-call systems and between the realities of men and women doctors and SOs overall. The study also contributed to knowledge about the meaning being on-call had for the family and social lives of both proximal and distal doctors and their SOs. Specifically, the results showed that it impacted the quantity and quality of time participants spent with their partners, how they negotiated their childcare duties and the extent to which they engaged in non-work activities.

## **6.2. Strengths and limitations**

The study's strengths related to its contribution to; on-call research in the Caribbean, qualitative work in the area which could be used to inform future quantitative research, a cross-analysis of the experiences of proximal and distal on-call doctors, research on the family and social impact of being on-call and a gender-focused perspective of the on-call experience.

Notwithstanding the above strengths, one limitation of the study was that the composition of the distal on-call sample (i.e. mostly District Medical Officers [DMOs]), meant that the realities of this group might have been mostly applicable to DMOs and therefore, not reflective of the realities of distal hospital doctors. As stated in chapter four, the DMO on-call experience was perceived as less hectic than the distal hospital on-call experience. Therefore, it is not known if the recruitment of more distal hospital doctors might have revealed more intense lived experiences. Additionally, while the recruitment of SOs allowed access to another set of realities, a more ideal scenario would have been the recruitment of SOs who were matched to the doctors in the sample to allow for comparisons between the two groups. Future research should explore the experience of being on-call using dyads of on-call doctors and their SOs as more recent research is needed in this area. Furthermore, it is not known for certain if there might have been some degree of self-selection, since it seemed that the couples represented in the two samples either adjusted to having to manage their relationships around their partners' on-call or they did not and separated. Nevertheless, it was not the intent to generalise the participants' experiences to other on-call doctors and SOs.

### **6.3. Implications for practice**

It is unlikely that the requirement to be on-call within the medical field and especially within a doctor's junior years will cease. Thus, systemic and individual methods of coping with the challenges of being on-call are needed. Apart from the development of appropriate strategies to improve what on-call doctors and SOs perceive to be the favourable aspects of the on-call experience and to minimise the unfavourable, systemic or organisational on-call strategies should take into consideration where on-call doctors' needs diverge and converge per on-call category and within on-call categories.

Proximal on-call policies could entail the implementation of lengthier recovery periods between on-call shifts or between on-call shifts and regular working hours. Meanwhile, distal on-call policies could involve the recruitment of more middle-range doctors or registrars to reduce the likelihood that senior doctors would be called out. Counselling should be made more accessible to DMOs in particular, and they should be encouraged to access these services given the trauma they are exposed to in their line of work. The lack of psychological detachment outside the on-call period experienced by both proximal and distal on-call doctors could be addressed by training doctors to use individual strategies such as relaxation and meditation techniques at home. In essence, systemic methods should support individual approaches. While some of these recommendations may have been voiced, they have not all been adopted. It is hoped that the evidence provided in this study will serve as an impetus for implementation going forward.

The prioritisation of work over family by men on-call doctors, the desire by women on-call doctors to dedicate more time to their families and the sacrificing of careers by women SOs, imply that broader national ideological changes about the role of men and women in the home and at work are needed. However, while it is acknowledged that this is by no means an easy feat, more immediate and realistic strategies could begin with managerial attitudes which encourage a better balance between work and life among men and women doctors on-call. This would entail a redefinition of what it means to be an ideal or invincible doctor. Acknowledging the differences in the social role expectations of men and women and the need for greater equality as pertains to these roles, can contribute to the development of more appropriate strategies for each gender. For instance, opportunities for part-time working within various medical specialties, having a choice between compensatory days off-duty and on-call allowances and lengthier vacation and/or leave periods (particularly paternity leave where offered), may go a long way towards attracting and retaining women doctors and facilitating greater involvement by men doctors in the home.



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Appendix A: Mixed method appraisal tool (Hong et al. 2018)

Category of study designs	Methodological quality criteria	Responses			
		Yes	No	Can't tell	Comments
Screening questions (for all types)	S1. Are there clear research questions?				
	S2. Do the collected data allow to address the research questions?				
	<i>Further appraisal may not be feasible or appropriate when the answer is 'No' or 'Can't tell' to one or both screening questions.</i>				
1. Qualitative	1.1. Is the qualitative approach appropriate to answer the research question?				
	1.2. Are the qualitative data collection methods adequate to address the research question?				
	1.3. Are the findings adequately derived from the data?				
	1.4. Is the interpretation of results sufficiently substantiated by data?				
	1.5. Is there coherence between qualitative data sources, collection, analysis and interpretation?				
2. Quantitative randomized controlled trials	2.1. Is randomization appropriately performed?				
	2.2. Are the groups comparable at baseline?				
	2.3. Are there complete outcome data?				
	2.4. Are outcome assessors blinded to the intervention provided?				
	2.5. Did the participants adhere to the assigned intervention?				
3. Quantitative non-randomized	3.1. Are the participants representative of the target population?				
	3.2. Are measurements appropriate regarding both the outcome and intervention (or exposure)?				
	3.3. Are there complete outcome data?				
	3.4. Are the confounders accounted for in the design and analysis?				
	3.5. During the study period, is the intervention administered (or exposure occurred) as intended?				
4. Quantitative descriptive	4.1. Is the sampling strategy relevant to address the research question?				
	4.2. Is the sample representative of the target population?				
	4.3. Are the measurements appropriate?				
	4.4. Is the risk of nonresponse bias low?				
	4.5. Is the statistical analysis appropriate to answer the research question?				
5. Mixed methods	5.1. Is there an adequate rationale for using a mixed methods design to address the research question?				
	5.2. Are the different components of the study effectively integrated to answer the research question?				
	5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted?				
	5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed?				
	5.5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?				

**JBI QARI Data Extraction Form for Interpretive & Critical Research**

Reviewer ..... Date .....

Author ..... Year .....

Journal ..... Record Number .....

**Study Description**

Methodology

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Method

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Phenomena of interest

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Setting

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Geographical

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Cultural

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Participants

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Data analysis

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Authors Conclusions

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Comments

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Complete

Yes

No





**JBI Data Extraction Form for  
Experimental / Observational Studies**

Reviewer ..... Date .....

Author ..... Year .....

Journal ..... Record Number .....

**Study Method**

RCT                       Quasi-RCT                       Longitudinal

Retrospective                       Observational                       Other

**Participants**

Setting \_\_\_\_\_

Population \_\_\_\_\_

**Sample size**

Group A \_\_\_\_\_ Group B \_\_\_\_\_

**Interventions**

Intervention A \_\_\_\_\_

\_\_\_\_\_

Intervention B \_\_\_\_\_

\_\_\_\_\_

Authors Conclusions: \_\_\_\_\_

\_\_\_\_\_

Reviewers Conclusions: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Study results**

**Dichotomous data**

Outcome	Intervention ( ) number / total number	Intervention ( ) number / total number

**Continuous data**

Outcome	Intervention ( ) number / total number	Intervention ( ) number / total number

**Authors/yr.:** Imbernon et al. (1993)

**Study design:** Quantitative cross-sectional survey and weekly report forms

**Sample:** 340 male supervisors of an electricity and gas company - (145 exposed to distal call and 195 not exposed) and 282 who completed both the questionnaire and weekly self-assessment forms (115 exposed to distal call and 167 unexposed).

**Research aim:** To investigate the effect of being on-call on social and family life.

**Holistic inference of findings:** The study revealed that there were conflicting evaluations regarding on-call supervisors' perceptions of being on-call. That is, on-call supervisors were torn between their interest in their jobs and personal satisfaction they derived from it and the drawbacks they experienced in their social and family lives. In other words, while they experienced their work as highly fulfilling, the impact of on-call on family and social life was an issue for the majority of them in the on-call group. Being on-call impacted their regular participation in clubs and sporting activities and their relationships with their friends. Supervisors who were on-call also assumed less responsibility for activities outside work. The involvement of the family in answering telephones was also a problem. Although they were satisfied or very satisfied with their conjugal life and relationships with their children, they were less satisfied when compared with those who were not exposed to on-call duty. The frequency of on-call shifts exacerbated the family and social impact of on-call and feelings of tiredness among those in the on-call group.

Appendix E: Table 4 showing characteristics of included studies

Author, yr. geographical setting	Study design/method	Participants	Intervention/Phenomenon of interest	Outcomes/key findings	Critical appraisal
Bamberg et al. (2012), Germany	Quantitative, cross-sectional survey	31 (one woman, 30 men) IT professionals on distal call. 71% between 30 and 49 years old. 81% had been working at the same company for more than 2 years. 19% lived alone, and 81 % lived together with a partner; 45 % had children.	Participants well-being outcomes (cortisol levels, cognitive-emotional well-being, positive indicators, sleep and the performance of household, work-related, leisure and social activities, physical and low-effort activities) on the days of an on-call week were compared with days without on-call work. Additionally, that anxiety and a tendency to worry would enhance the effects of being on-call. Finally, that the effects of	“Being on call led to an increase in constraints but had no effect on positive indicators of well-being” (p.314). During on-call time, fewer household activities, social activities, and low-effort activities were conducted, compared to when off-call. “For employees with a higher tendency to worry, the effects of on-call work on irritation and on social activities were stronger. However, there were no	The sample was small and there were only a few employees who were called into work. Due to the given circumstances of the sample, they “could not expand on the role of gender” (p.315). The results concerning cortisol could have been as a consequence of the time cortisol levels were tested. “A further restriction concerns the

			<p>being on-call would be influenced by the evaluation of this kind of work schedule.</p>	<p>moderating effects of anxiety, nor were there moderating effects concerning the other dependent variables” (p.315).</p> <p>“The effects of being on call were rarely moderated by the evaluation of on-call work” (p.315). All in all, “the effects of on-call work on health constraints exist independently of the fact of whether work has to be done while being on call or not” (p.315).</p>	<p>participants’ appraisals of being on call. The reliability of this variable was rather low” (p.316).</p>
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Author, yr. geographical setting	Study design	Participants	Intervention/Phenomenon of interest	Outcomes/key findings	Critical appraisal
Callaghan et al. (2005), UK.	Quantitative, cross-sectional survey	24 senior house officers (SHOs) who were on proximal on-call “covering general practitioner referrals and the wards, and distal on-call SHOs, covering accident and emergency and liaison referrals, at a teaching hospital and SHOs on-call at a district general hospital” (p.60).	“SHOs experiences of psychiatric on-call work” and their attitudes towards “proposed changes to on-call working patterns following the implementation” of the EWTD (p.59).	“SHOs often felt that they were asked to undertake inappropriate tasks when on call” (p.60). Many viewed on-call work as isolating. However, in general, on-call periods were valued as a learning experience, and experience gained on-call was considered to be different from that gained “during conventional working hours” (p.60). “There were concerns about proposals to change working patterns from the traditional on-call system to a shift	Lack of transparency on representativeness of the sample and risk of non-response bias.

				<p>system. 29% felt that changing to a shift system would offer benefits to their personal life; 63% did not. 29% felt that shift working would offer better training opportunities; 67% did not” (p.61).</p>	
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Author, yr. geographical setting	Study design/method	Participants	Intervention/Phenomenon of interest	Outcomes/key findings	Critical appraisal
Heponiemi et al. (2014), Finland	Quantitative, longitudinal survey	1541 physicians. 60% women (more than in the eligible population), aged 24-67, half having on-call duties and most being employed in hospitals and primary care. 77% were specialists.	“4-year longitudinal effects of on-call work on distress, job satisfaction and work ability among Finnish physicians” and “whether sleeping problems or work interference with family (WIF) would act as mechanisms in the above-mentioned associations” (p.353).	“On-call was significantly associated with both mediators (sleeping problems and WIF). In addition, both mediators were significantly associated with all the outcomes distress, job satisfaction and work ability” (354). However, on-call did not have a significant direct effect on outcomes. “However, the analyses revealed that the total indirect effects of on-call duty on distress, job satisfaction and work ability	“Relied on self-reported measures, which may lead to problems associated with an inflation of the strength of relationships” (p.355). “Cannot rule out the possibility of residual confounding” (p.355). Also, lack of transparency concerning sample representativeness and non-response bias.



				<p>[...] through the two mediators were significant” (p.354). “This suggests that the two mediators together mediated the association between on-call duty and outcomes” (p.354). “The number of active on-call hours was associated with higher levels of WIF, but the number of total on-call hours was not related to WIF” (p.355).</p>	
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Author, yr. geographical setting	Study design/method	Participants	Intervention/Phenomenon of interest	Outcomes/key findings	Critical appraisal
Balch et al. (2010), US.	Quantitative cross-sectional survey	7905 American surgeons on proximal call	The effect of “hours worked and nights on call per week on various aspects of personal and professional distress” (p.609) (burnout, emotional health, medical errors, career satisfaction and work-home conflict).	“There was a highly significant correlation with increasing hours and increasing nights on call associated with a detrimental impact on surgeons in virtually every parameter surveyed: increased burnout rate, decreased quality of life, decreased career satisfaction, and increased work and home conflict” (p.615-6). “In this study, surgeons practicing trauma, cardiovascular surgery, transplantation surgery, and urology worked the longest	Low response rate.  The study is cross-sectional and thus “unable to determine if the associations between work hours and nights on call with measures of distress are causally related or the potential direction of the effects” (p.617).  Finally, cannot rule out the possibility of confounding factors.

				<p>hours and reported the most nights on call” (p.616) and overall “only one third believed their career left enough time for personal and family life” (p.616). “There was a highly significant correlation of increasing hours and nights on call with work home conflict incidence and an increased resolution of the conflict in favour of work” (p.617).</p>	
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Author, yr. geographical setting	Study design	Participants	Intervention/exposure	Outcomes/key findings	Critical appraisal
Ziebertz et al. (2015), Netherlands.	Cross-sectional survey	157 distal on-call social or service workers of which 70.7% were males, their mean age was 45 years with a range from 23-69 years, “77% were married or cohabiting and 44.6% had children living in their household” (p.3).	Exposure to off-site on-call duties and its relation to fatigue, work-home interference (WHI), and performance difficulties and how employees’ experiences of being on-call relate to these outcome measures.	“Differences in exposure to on-call work were not systematically related to any of the outcome variables” (p.7). “Many employees experienced their on-call duties as (somewhat) unfavourable. The experience of being on-call in turn was related to fatigue, strain-based and time-based WHI, and on-call performance difficulties. [However], not all experiences contributed significantly to the prediction. All in all, on-call	There were concerns with the validity of self-reports as duty of exposure measures. Secondly, the study “was cross-sectional, so no causal relations can be implied” (p.8). Representativeness of the sample is questionable.

				<p>stress (i.e., the experience of stress due to the unpredictability of being on-call) seemed to be the most important predictor as it was positively related to all “outcome” variables except for performance difficulties” (p.8).</p>	
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Author, yr. geographical setting	Study design/method	Participants	Intervention/Phenomenon of interest	Outcomes/key findings	Critical appraisal
Smithers (1995), UK	Quantitative cross-sectional survey	53 transplant co-ordinators (some on distal and some on proximal call). 43 were female, 10 were male. 36 were aged between 30-39 years, 4 were between 50-60, 7 were between 40-49 and 6 were between 20-29. 42 had been in the post between 1 and 14 years. 10 had been for less than a year and one did not say.	“The effects, as perceived by transplant co-ordinators, of on call work on performance, health issues relating to sleep, eating habits and period of absence as well as effect on off call time” (p.470).	“11% of participants said that on-call frequently affected their ability to perform their routine work. Of these 6, 4 reported that their performance was affected by tiredness and 3 identified the unpredictable nature of the work as having effect on their performance” (p.477). The expectation of a call or the knowledge that they will be called were reported as “preoccupying and tiring” (p.477). “Stress, not feeling so alert as well as intolerance and shortness of temper were	Predominantly female sample with no clear indication on whether gender was controlled for in the analyses, however the high response rate might suggest that the sample composition matched those in the population.

				<p>also noted” (p.477). Yet, despite this, “62% respondents said that if they had the option they would work on call while 32% that they would not work on call duties” (p.479). 2 respondents stated that “it was not possible to do the job without working on call” (p.479). “1 respondent answered, yes and no, preferring not to work on call but stating that the work was a required part of the post” (p.479). “4 respondents said they enjoyed the on-call work” (p.480), or that it was part of the job. “The</p>	
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				<p>disruptive nature was the commonest reason for not wishing to undertake on call duties” p.480).</p> <p>3”2% reported that their on-call did not affect their off-call time. 68% reported that on-call time did affect off-call time. Catching up on sleep and feeling too tired to undertake social and home activities were frequent comments as were the cancellation of social arrangements” (p.478-9).</p> <p>“Difficulty relaxing was a problem” (p.479). There were “occasional problems ‘winding down. Continuing</p>	
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				calls from the work place and thinking about work or worrying that the work is not being carried out were also noted” (p.479).	
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Author, yr. geographical setting	Study design/method	Participants	Intervention/Phenomenon of interest	Outcomes/key findings	Critical appraisal
McDonald et al. (2005), US and Canada.	Cross-sectional survey	134 chief residents on proximal call, 122 from US programs, 12 from Canadian programs. Of the 131 who designated their programs as either public or private, 53% were from public and 47% were from private.	“Residents' perceptions of their preparedness for call” (p.933), whether they were comfortable contacting the distal on-call radiologists for help and their perceptions regarding the compliance of their programs with the resident work rules of the ACGME.	85% “felt that the levels of work and responsibility [...] was appropriate to their levels of training” (p.935), 15% felt that it was excessive and 1% felt that it was below. 89% of residents answering this question felt that they were comfortable calling their distal seniors when on-call, 11% felt uncomfortable. 98% of respondents felt that their training program was in compliance with the ACGME's rules and 5% felt that it was not.	The authors made assumptions regarding the representativeness of the sample (i.e. they assumed that each questionnaire came from an individual organisation). Also, there are concerns regarding the generalisability of the sample to other residents in the program and in other programs.

Author, yr. geographical setting	Study design/method	Participants	Intervention/Phenomenon of interest	Outcomes/key findings	Critical appraisal
Imbernon et al., (1993), France	Quantitative cross-sectional survey and weekly report forms	340 male supervisors of an electricity and gas company who completed the questionnaire (145 exposed to distal call and 195 not exposed) and 282 who completed both the questionnaire and weekly self-assessment forms (115 exposed to distal call and 167 unexposed). Average age 43.6 years, most lived with a partner and 70% had at least one partner and average number of years in the post, 6.2. The wives of those on-call went out to	On-call shifts. The impact of on-call shifts on social and family life.	“On-call supervisors were less frequently involved in clubs (28% vs 42%) and had less responsibility outside work (21% vs 33%)” (p.1133). No significant differences found between the two groups with regard to the number of times they went out in the evening or the weekend “but 51% in the on-call group thought that their job prevented them from going out vs 3.6% in the other group” (p.1134). Although most were generally satisfied with	All-male sample with no justification given for it. Therefore, it is uncertain if the sample was truly representative of the population. Results may have been subject to a healthy worker effect.

		<p>work less frequently than those whose husbands were not on-call.</p>		<p>their intimate relationships and children, “83% of the on-call group thought that their job interfered with their family” (p.1134). Also, the impact of being on-call on social and family life were less favourable, the more frequently the subject was on-call. Tiredness in the morning was more frequent by those in the on-call group although it had no effect on the weeks before and after call. Also, tiredness was related to frequency of on-call.</p>	
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Author, yr. geographical setting	Study design/method	Participants	Intervention/Phenomenon of interest	Outcomes/key findings	Critical appraisal
Tucker et al. (2010), Wales	Cross-sectional survey	336 junior doctors on proximal call (46% response rate) of which the average age was 28.7 years, “50% were female, 59.5% were married/living with a partner” (p.460) and the majority had no dependants.	To determine the impact of different shift systems (i.e. “night shifts worked consecutively; length of night shifts; the number of scheduled rest days following a block of nights; the number of consecutive shifts [incl. on-call shifts] worked without a break; the frequency of weekend call; the frequency of daytime on-call shifts and the length of daytime on-call shifts)” (p.459) “on four dependent variables: fatigue, sleep duration, psychological	“Working 7 consecutive nights resulted in an accumulation of fatigue to levels substantially higher than experienced by those working just 3 or 4 nights in row” (p.462). “Working 7 consecutive nights was also associated with greater work–life interference” (p.462). “1 day of rest following a block of 3 or 4 nights resulted in the spill-over of fatigue effects into the first subsequent day shift. Fatigue on the return to day work was	Cross-sectional design meant that causal relationships could not be inferred. “Relied entirely on self-report measures and thus may have been affected by issues of common-method variance” (p.463). Risk of respondent bias due to inflation or deflation of effects. Limited to junior doctors working in acute medicine and

			<p>strain and work-life interference” (p.459).</p>	<p>higher among those working a sequence of 3 or 4 days followed by 1 rest day than it was among those that had more than 2 rest days after their block of night shifts” (p.463). Those who worked a weekend on-call between 2 successive work weeks, had more frequent weekends on-call and daytime on-call shifts and reported more WIF. Those with at least one “quick return” or one short inter-shift interval “reported shorter sleep and greater fatigue” (p.462) than those who had no quick return.</p>	<p>thus limits generalisability of the results.</p> <p>Different number of respondents in the two analyses might have led to varied results.</p>
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Author, yr. geographical setting	Study design/method	Participants	Intervention/Phenomenon of interest	Outcomes/key findings	Critical appraisal
Rout (1996), UK	Qualitative in-depth interviews	25 GPs (14 men, 11 women) providing distal call and 25 spouses. In 14 of the couples, both partners were employed, i.e. in 11 of the couples, both partners were not. Of the 14, 8 partners were both doctors. Ages ranged from 34-57 years.	The impact of stresses (of which night calls and being on-call were identified) on GPs and their spouses.	The important sources of stress for male GPs were “time pressure, lack of support and interruptions” (p.159) [which stemmed particularly from being on night call]. Men were more stressed and felt unhappy with the uncertainty of being on-call and its interruption to family life and spousal intimacy. “Women GPs also reported pressure caused by the conflict between their career and family, work overload and the inconsiderate attitude of	Lack of coherence between sampling strategy and research design/methodology.

				husbands and colleagues to their careers” (p.159). The wives of male GPs found communication problems, their husbands' excessive commitment to work and detachment from the family, and interruptions important sources stress and were willing to talk about it openly, indicating positive coping strategies. Both male and female GPs reported lack of support from their partners.	
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Author, yr. geographical setting	Study design/method	Participants	Intervention/Phenomenon of interest	Outcomes/key findings	Critical appraisal
Cuddy et al. (2001), Ireland	In-depth or unstructured interviews	10 rural GPs (8 males and 2 females) providing distal call and their spouses. Age ranged from under 45 - 58 years old. 6 worked alone, two had a partner and two had shared assistances. Average length of service was 15.7 years.	The perception of the experience of out-of-hours care.	GPs experiences of being on-call was that it was demanding as it was rewarding. They expressed that it was rewarding to provide care and comfort for the ill and continuity of care since they usually got to follow a patient from admission and explained that this brought them closer to their patients. Nevertheless, although they had accepted that this was part of their jobs, they described their experience as demanding or stressful,	Heavily male GP sample and female spouse sample might have influenced findings.

				<p>irritating and dangerous (female GPs were concerned about safety). The negative aspects however were mainly linked to the impact being on-call had on their family and social lives. Their perception of their experience was also linked to their specific on-call arrangements with those on one in two weekend rotas being more dissatisfied because of the impact such rotas had on family and social life. It restricted them and their families because it required that they remain available. The</p>	
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				<p>unpredictability of being on-call meant that they did not always know in advance if they could socialise and even if they did they had to stay in proximity to their homes. Also described as irritating because of the constant interruptions for example at meal times; patients intruding their private spaces and being unreasonable with their demands and expectations and sleep interruptions.</p> <p>Men reported that being on-call placed great strain on marital relationship and hindered spouse's own career</p>	
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				<p>and social lives when they had to pick up the burden of domestic and childcare duties. When compared to their male counterparts, female GPs were “constantly engaging in multiple roles” (p.289).</p> <p>“Some greatly regretted being unable to give enough time to their families and felt they were missing out on their children growing up” (p.288).</p> <p>Spouses of GPs social and career lives were also hindered and they had to tolerate their partners’ altered moods.</p>	
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Author, yr. geographical setting	Study design/method	Participants	Intervention/Phenomenon of interest	Outcomes/key findings	Critical appraisal
Emmett et al. (2013), New Zealand.	Qualitative unstructured interviews	10 spouses of practicing hospital paediatricians who work distal on-call. 9 female, 1 male who either had children or were currently pregnant. 2 worked full-time and 6 worked part time. "The only male worked full-time while his female paediatrician spouse worked part-time" (p.247).	The effects of being on-call on spouse and family.	Spouses' perceptions of their experience when partner was on-call: felt tired, stressed, depressed, frustrated and angry because of restrictions on their personal lives (including career sacrifices), lack of intimacy with their partners and their partners on-call moods. Also, felt sleep deprived due to disruptions from phone calls and pagers. Still saw benefits relating to the opportunity for their on-call partner to enhance skills and further career opportunities,	Gender imbalanced sample as it was mostly made up of female spouses who worked part-time might have been responsible for results. Also, the applicability or transferability of the results might be challenged in that those spouses who chose to participate might have been those in more stable marriages.

				<p>financial stability, and giving back to the community, “sense of satisfaction” (p.248) and that at least they didn’t have to be away from home. They compared their on-call experience now with a time when their partners had more on-call earlier on in their careers and reported that back then impact was more destructive. Also resulted in strained marital relationship; meant having to live in close proximity to hospital, had an impact on spouses’ career, leisure time and time with children.</p>	
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Author, yr. geographical setting	Study design/method	Participants	Intervention/Phenomenon of interest	Outcomes/key findings	Critical appraisal
Altomonte (2016), US.	Qualitative, in-depth interviews	19 family elder caregivers. Most are female, white and middle class. Ages ranged from 31-66.	The experience of contingency in care-work (i.e. being constantly on-call) in relation to how it shapes the caregiver's experiences of their temporalities.	Three themes emerged: 1. "Uncertain futures: They never knew for how long or under what arrangements they would have had to care for their elderly relative caregivers and often felt constrained in making plans and imagining their futures. Consequently, a significant sense of unpredictability emerges for them both in the short and long terms" (p.10). 2. Conflicting rhythms (i.e. the elderly care preferences versus their needs versus institutional policies relating	Gender imbalanced sample as it was mostly made up of female caregivers which might have influenced the results.

				<p>to admission, discharge and insurance coverage). “In sum, family caregivers must deal with the care receiver’s needs (both physical and in terms of claims to independence) and the paid care system’s regulations” (p.14).</p> <p>3. Flooded time: “Being on-call is a potential to perform an activity when needed. [Therefore], it logically makes any type of caregiver more exposed to being interrupted” (p.15).</p> <p>However, “elderly persons’ irregular evolution of health problems and family</p>
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				caregivers' awareness that they might have an emergency any moment makes expectations of interruptions" (p.15) more salient in their expressions, even more so than the actual emergency itself.	
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Author, yr. geographical setting	Study design/method	Participants	Intervention/exposure/phenomenon	Outcomes/key findings	Critical appraisal
Corriere et al. (2013), US.	“Mixed method study with retrospective cohort design for quantitative data and qualitative analysis” (p.65) for qualitative data. Surveys, Likert scale and free-text.	100 3rd year internal medical students divided into two cohorts: those who took overnight call and those who did not. 59 took overnight while, 41 did not.	“The content of overnight call activities for medical students during [...] internal medicine clerkship”; their perceptions of their time on-call and “their relationship with faculty and residents” when on-call; and assessment of “how participating in overnight call” affects their knowledge, skills and attitudes (p.65).	Many students commented that fatigue hindered post-call education, hampered decision making, and adversely affected quality of life. Some students, however, saw working through fatigue as a positive that prepared them for life as a physician. Students commented that overnight call led to different experiences with patients, both positive and negative. Students often wrote about increased patient ownership or that	Was conducted at a single institution with small sample size. Also, the risk of non-response bias was high, and authors utilised convenience sampling. Therefore, the generalisability of the results is challenged.

				<p>overnight call lets them know what life is like as a house staff. “51% of the overnight call cohort agreed or strongly agreed that “participating in overnight call allowed me to have more ownership of my patients during my clerkship,” whereas 22% responded neutrally and 27% disagreed or strongly disagreed.</p> <p>46% of the overnight call cohort agreed or strongly agreed with the statement, “Participating in overnight call improved my knowledge about my</p>	
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				<p>patients during my clerkship, whereas 25% responded neutrally and 29% disagreed or strongly disagreed” (p.66).</p> <p>“In responding yes or no to the statement “Taking overnight call is worth it,” the overnight call cohort (<i>n</i>=59) were more likely to answer “yes” than the non-overnight-call cohort (<i>n</i>=35). (58% overnight call cohort vs. 34% non-overnight-call cohort; <i>p</i>=.034, Fisher’s exact test)” (p.67).</p> <p>“Improved ward team relationships were reported</p>
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				<p>as a positive effect of overnight call” (p.68).</p> <p>“63% agreed or strongly agreed with the statement, “My relationship with my inpatient team during my clerkship was improved by participating in overnight call.” 27% responded neutrally, and 10% disagreed or strongly disagreed” (p.66).</p>	
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## Appendix F: Invitation e-mail/Access letter

Invitation to participate in on-call research - Microsoft Edge

https://outlook.office.com/owa/?viewmodel=IMailComposeViewModelFactory&wid=47&ispopout=1&path=

Send Attach Protect Discard

To Doctor1@google.com

Cc

Invitation to participate in on-call research

Dear Doctor,

I am writing on behalf of Lancaster University PhD. student Samantha Glasgow to invite you to be a participant in her research on the impacts of being on-call on family and social life. The study aims to fill the gap in the literature on the social effects of on-call working among doctors. It will provide an insight into what being on-call means to doctors as it relates to their personal lives. Ms. Glasgow intends to share the non-academic highlights of her findings with all participants.

Participation is voluntary and if you do not agree to take part your status as an employee will not be affected. However, should you decide to participate, you will be asked to attend an interview at a time and place convenient to you. You also have the option to be interviewed via telephone. Any personal data you provide will be kept confidential and the information from your interview will be anonymised to protect your identity.

For further information, please contact Samantha Glasgow at the following telephone number or email address respectively; 679-2366; [s.glasgow@lancaster.ac.uk](mailto:s.glasgow@lancaster.ac.uk) If you decide to participate, further information will also be provided in a participant information sheet which will be forwarded to your email address by Ms. Glasgow. To indicate willingness to participate, you are asked to email the researcher at the above address. Ms. Glasgow looks forward to welcoming you to the study and thanks you in advance for your participation.

Respectfully,  
MCS.

Send Discard Attach

Draft saved at 11:58 AM

## **Participant Information Sheet (*for doctors*)**

### ***Being on-call: Exploring the impacts on doctors' family and social lives***

My name is Samantha Glasgow and I am conducting this research as a student in the PhD Organisational Health and Well-Being programme at Lancaster University, Lancaster, United Kingdom.

#### **What is the study about?**

The purpose of this study is to investigate how being on-call affects the family and social lives of doctors. Being on-call refers to the period in which employees must remain available to work.

#### **Why have I been approached?**

You have been approached because you are a doctor and I am inviting you to share your experiences of being on-call.

#### **Do I have to take part?**

No. It's completely up to you to decide whether or not you take part since participation is voluntary.

#### **What will I be asked to do if I take part?**

If you decide you would like to take part, you would be asked to attend an interview at a time and place convenient to you to discuss your family and social life experiences when you are on-call. If you prefer, the interview may be conducted via telephone. You have the right to withdraw consent at any time before your interview, during your interview and up to two weeks after your interview, without giving explanation. Also, you can decline to answer any question or any particular set of questions. Your career or legal rights will not be affected by your refusal or withdrawal of consent. With your permission, the interview would be audio recorded and will generally last between 50-60 minutes.

#### **Will my data be identifiable?**

Interview recordings will be made into a written transcript and will be erased from the recorder as soon as is possible to preserve anonymity. Transcripts will be anonymised and all identifying data will be removed. Anonymised written transcripts will be archived on a Lancaster University research database for 10 years after the study has finished. Personal data will be confidential and will be kept separately from your interview response.

There are some limits to confidentiality: if what is said in the interview makes me think that you, or someone else, is at significant risk of harm, I will have to break confidentiality and speak to my supervisors about this and perhaps authorities. If possible, I will tell you if I have to do this.

**What will happen to the results?**

The results will be summarised and reported in a PHD thesis and may be: submitted for publication in an academic or professional journal and presented at local and international conferences. The District Health Agencies, the Trinidad and Tobago Ministry of Health and the Medical Association of Trinidad and Tobago will receive a summary report of the findings. The report will not include any identifying information or information of who took part and who didn't. You will also receive a copy of the report.

**Are there any risks?**

There are no physical risks anticipated with participating in this study. However, if you experience any psychological distress following participation you are encouraged to contact the resources provided at the end of this sheet.

**Are there any benefits to taking part?**

Although you may find participating interesting, there are no direct benefits in taking part.

**Who has reviewed the project?**

This study has been reviewed by the Faculty of Health and Medicine Research Ethics Committee and approved by the Lancaster University Research Ethics Committee. Approval has also been obtained from the Trinidad and Tobago Ministry of Health Ethics Committee and your District Health Agency Research Ethics Committee.

**Where can I obtain further information about the study if I need it?**

If you have any questions about the study, please contact me:

Samantha Glasgow (Research Student)

Email: [s.glasgow@lancaster.ac.uk](mailto:s.glasgow@lancaster.ac.uk)

Tel: 679-2366



## **Complaints**

If you wish to make a complaint or raise concerns about any aspect of this study and do not want to speak to the researcher, you can contact:

Professor Bruce Hollingsworth Tel: (01524) 594154; Email:  
b.hollingsworth@lancaster.ac.uk  
Professor of Health Economics  
Faculty of Health and Medicine  
Division of Health Research  
Lancaster University  
Lancaster LA1 4YG

If you wish to speak to someone outside of the Organisational Health and Well-Being Doctorate Programme, you may also contact:

Professor Roger Pickup Tel: +44 1524 593746; Email: r.pickup@lancaster.ac.uk  
Associate Dean for Research  
Division of Biomedical and Life Sciences  
Faculty of Health and Medicine  
Lancaster University  
Lancaster  
LA1 4YG

Thank you for taking the time to read this information sheet.

## **Resources in the event of concern**

Should you feel distressed either as a result of taking part, or in the future, the following resources in the Ministry of Social Development and Family Services, National Family Services Division may be of assistance:

St. Georges West  
ABMA Building  
55-57 St. Vincent Street  
Port of Spain  
Trinidad, West Indies  
Tel. (868) 624-821  
Counselling services are available on Mondays and Tuesdays.

Victoria  
Social Welfare Building  
Independence Avenue  
San Fernando  
Trinidad, West Indies  
Tel. (868) 653-0991  
Counselling services are available on Mondays, Tuesdays, Thursdays and Fridays.

Social Welfare Building

Delta Trading Building

Eleanore Street

Chaguanas

Trinidad, West Indies

Tel. (868) 671-3526

Counselling services are available on Mondays, Tuesdays, Thursdays and Fridays.

Alternatively, you may visit your District Health Agency for employee counselling in family and personal related matters.



## **Participant Information Sheet (*for significant others*)**

### ***Being on-call: Exploring the impacts on doctors' family and social lives***

My name is Samantha Glasgow and I am conducting this research as a student in the PhD Organisational Health and Well-Being programme at Lancaster University, Lancaster, United Kingdom.

#### **What is the study about?**

The purpose of this study is to investigate how being on-call affects the family and social lives of doctors. Being on-call refers to the period in which employees must remain available to work.

#### **Why have I been approached?**

You have been approached because you are the spouse or intimate partner of a doctor who works on-call and I am inviting you to share your experiences of family and social life when the doctor is on-call.

#### **Do I have to take part?**

No. It's completely up to you to decide whether or not you take part since participation is voluntary.

#### **What will I be asked to do if I take part?**

If you decide you would like to take part, you would be asked to attend an interview at a time and place convenient to you to discuss your family and social life experiences when your partner is on-call. If you prefer, the interview may be conducted via telephone. You have the right to withdraw consent at any time before your interview, during your interview and up to two weeks after your interview, without giving explanation. Also, you can decline to answer any question or any particular set of questions. Your legal rights will not be affected by your refusal or withdrawal of consent. With your permission, the interview would be audio recorded and will generally last between 50-60 minutes.

#### **Will my data be identifiable?**

Interview recordings will be made into a written transcript and will be erased from the recorder as soon as is possible to preserve anonymity. Transcripts will be anonymised and all identifying data will be removed. Anonymised written transcripts will be archived on a Lancaster University research database for 10 years after the study has finished. Personal data will be confidential and will be kept separately from your interview responses.

There are some limits to confidentiality: if what is said in the interview makes me think that you, or someone else, is at significant risk of harm, I will have to break confidentiality and speak to my supervisors about this and perhaps authorities. If possible, I will tell you if I have to do this.

**What will happen to the results?**

The results will be summarised and reported in a PHD thesis and may be: submitted for publication in an academic or professional journal and presented at local and international conferences. The District Health Agencies, the Trinidad and Tobago Ministry of Health and the Medical Association of Trinidad and Tobago will receive a summary report of the findings. The report will not include any identifying information or information of who took part and who didn't. You will also receive a copy of the report.

**Are there any risks?**

There are no physical risks anticipated with participating in this study. However, if you experience any psychological distress following participation you are encouraged to contact the resources provided at the end of this sheet.

**Are there any benefits to taking part?**

Although you may find participating interesting, there are no direct benefits in taking part.

**Who has reviewed the project?**

This study has been reviewed by the Faculty of Health and Medicine Research Ethics Committee and approved by the Lancaster University Research Ethics Committee.

**Where can I obtain further information about the study if I need it?**

If you have any questions about the study, please contact me:

Samantha Glasgow (Research Student)  
Email: [s.glasgow@lancaster.ac.uk](mailto:s.glasgow@lancaster.ac.uk)  
Tel: 679-2366

**Complaints**

If you wish to make a complaint or raise concerns about any aspect of this study and do not want to speak to the researcher, you can contact:

Professor Bruce Hollingsworth Tel: (01524) 594154; Email:  
[b.hollingsworth@lancaster.ac.uk](mailto:b.hollingsworth@lancaster.ac.uk)  
Professor of Health Economics  
Faculty of Health and Medicine  
Division of Health Research  
Lancaster University  
Lancaster LA1 4YG

If you wish to speak to someone outside of the Organisational Health and Well-Being Doctorate Programme, you may also contact:

Professor Roger Pickup Tel: +44 1524 593746; Email: r.pickup@lancaster.ac.uk

Associate Dean for Research

Division of Biomedical and Life Sciences

Faculty of Health and Medicine

Lancaster University

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Thank you for taking the time to read this information sheet.

### **Resources in the event of concern**

Should you feel distressed either as a result of taking part, or in the future, the following resources in the Ministry of Social Development and Family Services, National Family Services Division may be of assistance:

St. Georges West

ABMA Building

55-57 St. Vincent Street

Port of Spain

Trinidad, West Indies

Tel. (868) 624-821

Counselling services are available on Mondays and Tuesdays.

Victoria

Social Welfare Building

Independence Avenue

San Fernando

Trinidad, West Indies

Tel. (868) 653-0991

Counselling services are available on Mondays, Tuesdays, Thursdays and Fridays.

Social Welfare Building

Delta Trading Building

Eleanore Street

Chaguanas

Trinidad, West Indies

Tel. (868) 671-3526

Counselling services are available on Mondays, Tuesdays, Thursdays and Fridays.

**Consent Form**

**Study Title: Being on-call: Exploring the impacts on doctors' family and social lives.**

I am asking if you would like to take part in a research project on the effects of being on-call on the family and social lives of doctors. Before you consent to participating in the study, I ask that you read the participant information sheet and mark each box below with your initials if you agree. If you have any questions or queries before signing the consent form please speak to me.

- |  | Please initial<br>each statement |
|--|----------------------------------|
| 1. I confirm that I have read the information sheet and fully understand what is expected of me within this study  | <input type="checkbox"/>         |
| 2. I confirm that I have had the opportunity to ask any questions and to have them answered.   | <input type="checkbox"/>         |
| 3. I understand that my interview will be audio recorded and then made into an anonymised written transcript.  | <input type="checkbox"/>         |
| 4. I understand that the audio recordings will be kept until the research project has been examined.   | <input type="checkbox"/>         |
| 5. I understand that my participation is voluntary and that I am free to withdraw at any time up to two weeks after the interview without giving any reason, without my status as an employee being affected.              | <input type="checkbox"/>         |
| 6. I understand that once my data have been anonymised and incorporated into themes it might not be possible for it to be withdrawn, though every attempt will be made to extract my data, up to the point of publication. | <input type="checkbox"/>         |
| 7. I understand that the information from my interview will be pooled with other participants' responses (when necessary), anonymised and may be published.  | <input type="checkbox"/>         |
| 8. I consent to information and quotations from my interview being used in reports, conferences and training events.   | <input type="checkbox"/>         |

9. I understand that my data will be shared and discussed with the researcher's supervisor.

10. I understand that any information I provide will remain anonymous unless it is thought to involve a risk of harm to myself or others, in which case the principal investigator will need to share this information with her research supervisor and possibly relevant authorities.

11. I consent to Lancaster University keeping anonymised written transcriptions of the interview for 10 years after the study has finished.

12. I consent to take part in the above study.

Name of Participant \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

Name of Researcher \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

Appendix J: Interview protocol (doctors)

*Ice-breaker questions:*

- a). What type of doctor are you? To which specialty do you belong?
  
- b). How long have you worked on-call?
  
- c). Are you required to be at work or could you be away from work during the on-call period?
  
- d). What is your on-call rota?

*Interview questions:*

1. Can you describe for me what it is like being on-call? (Probes: describe a day or night in the life of an on-call doctor; what does an on-call shift entail; what happens in your mind and body while you are waiting to be called, when you receive a call-out and/or while you are working on-call?).
  
2. Are you able to mentally distance yourself from work when on-call? If no, why? If yes, how do you think you are able to achieve distance from work while on-call?
  
3. What does the hospital administration and/or your seniors expect from you when you are on-call?
  
4. Is being on-call different from working during your regular hours? If so, how? (Probes: what do you do differently when preparing for, during or after an on-call shift; how do you feel when you are on-call versus when you are not; describe your



mood and your interactions with family, friends and co-workers when on-call versus when not on-call?).

5. How would you evaluate your experience of being on-call? (Probe: would you work on-call if given a choice and why?).

6. What is your interaction with your partner like when you are on-call? (Probes: do you and your partner do anything differently when you are on-call relative to when you are not on-call and if so, what and how; what do you think your partner think of you being on-call; do you think you being on-call has impacted him/her and if so, how; do your on-call responsibilities impact your relationship with your partner in anyway and if so, how?).

7. What is your interaction with your children like when you are on-call? (Probes: How do you prepare them for your on-call duty; what happens when you have to leave; how are childcare duties organised during the on-call period; what roles do and your partner play in caring for your child during the on-call period; are these roles different when you are not on-call and if so, how; what do you think your children think of you being on-call; do you think it has impacted them and if so, how?).

8. How else (if at all) has being on-call impacted your interaction with your family and your familial relationships?

9. Do you perform household duties when on-call? If no, why? If yes, describe what is it like performing family duties when on-call?

10. Do you participate in non-work activities during or post-call? If no, why? If yes, what is it like participating in these activities when you are on-call or post-call? (Probes: what are the implications of participating in these activities during the on-call period or post-call; is participating in these activities when on-call or post-call beneficial to you and if so, how?)
11. Do any of these activities include physical activity or sport? What are the other activities you participate in when on-call or post-call?
12. Do you socialise with friends and/or family when you are on-call? (Probes: If no, why; if yes, describe how socialisation occurs when you are on-call; what is the experience like compared to when you are not on-call; where do you go and what do you do?).
13. Do you think that being on-call has impacted your relationships with friends and if so, how? (Probes: what do they think of you being on-call?).
14. How else (if at all) has being on-call impacted your social life (including opportunities for socialisation)?
15. Are you coping with being on-call? If so, how? (Probes: what strategies do you use; how do these work; how often do you use them?).
16. Would you change anything about being on-call? If no, why? If yes, what would you change and why?

Appendix K: Interview protocol (significant others)

*Ice-breaker questions:*

- a). For how long have you and your partner been together?
  
- b). For how much of your life together has your partner worked on-call?
  
- c). What type of doctor is your partner? To which specialty does he/she belong?
  
- d). Is your partner required to be at work or could he/she be away from work during the on-call period?
  
- e). What is your partner's on-call rota?

*Interview questions:*

1. Can you describe for me what it is like for you when your partner is on-call? (Probe: describe a day or night in the life of an on-call doctor's significant other when your partner is on-call; what happens in your mind and body while your partner is waiting to be called, when he/she receives a call-out and/or while he/she is working on-call?).
  
2. What does the hospital administration and/or seniors expect from your partner when he/she is on-call?
  
3. Is your life different when your partner is on-call compared to when he/she is not on-call? If so, how? (Probes: what do you do differently at home or at work when your partner is on-call; describe the mood in your home when your partner is on-call?).

4. How would you evaluate your experience when your partner is on-call? (Probe: would you prefer he/she work on-call if given the choice and why?).
5. What is your interaction with your partner like when you are on-call? (Probes: Do you and your partner do anything differently when he/she is on-call relative to when he/she is not on-call and if so, what and how; what do you think of your partner being on-call; has it impacted you and if so, how; does your partner's on-call responsibilities impact your relationship with your him/her in anyway and if so, how?).
6. How is childcare facilitated when your partner is on-call? (Probes: is the performance of childcare duties different when your partner is not on-call and if so, how; what happens in terms of childcare when you have to work and your partner is on-call; what do you think your child/children think of your partner being on-call; do you think it has impacted them and if so, how?).
7. How else (if at all) has your partner being on-call impacted your interaction with your family and your familial relationships?
8. How is the performance of household duties and other responsibilities facilitated when your partner is on-call? (Probes: Is the performance of these duties different when your partner is not on-call and if so, how; what role (if any) does your partner play in the performance of household duties when on-call or post-call?).
9. Do you participate in leisure and social activities when your partner is on-call? If no, why? If yes, what is it like participating in these activities during your partner's

on-call period? (Probes: what activities do you participate in when your partner is on-call; does your partner participate in these activities with you when he/she is on-call or post-call; what are the implications of participating in these activities with your partner when he/she is on-call or post-call; is participating in these activities when your partner is on-call or post-call beneficial to you and your partner and if so, how?).

10. Do you socialise with friends and/or family when your partner is on-call? (Probes: If no, why; if yes, describe how socialisation occurs when your partner is on-call or post-call; what is the experience like for you compared to when your partner is not on-call; where do you go and what do you do?).

11. Do you think that being on-call has impacted your opportunity to socialise and if so, how?

12. In what other ways (if any) is your social life affected when your partner is on-call?

13. How (if at all) has your partner being on-call impacted your career? (Probes: have you had to organise your career responsibilities differently to facilitate your partner's on-call demands and if so, how; would your career life be different if your partner did not work on-call and if so, how?).

14. Are you coping with your partner's on-call responsibilities? If so, how? (Probes: what strategies do you use; how do these work; how often do you use them?).

15. Would you change anything about your partner being on-call? If no, why? If yes, what would you change and why?

Appendix L: Table 5 showing transition from codes to themes (doctors)

Initial codes	Initial sub-themes and revised codes					
	<b>Background/ Context</b>	<b>Embodied experiences</b> (later spilt into four sub-themes: Accepting on-call duty; Being on-call as tiring; Being on-call as stressful and Being on-call as dangerous)	<b>Organisational interpersonal relations</b> (later discussed as a code under the sub-theme: Being on-call as stressful)	<b>Family relations</b> (later split into two sub-themes: Navigating intimate relationships; Negotiating childcaring responsibilities and interactions)	<b>Friendships</b> (deleted as a sub-theme but referred to under the new sub-theme: Participating in leisure and social activities)	<b>Recovery</b> (deleted as a sub-theme but discussed under other new sub-themes)
frequency of on-call (merged with no time to breathe)	the on-call rota	<i>Perceptions regarding being on-call discussed as follows:</i>	doctor-nurse interaction	it costs my partner too (discussed under the new sub-theme: Navigating intimate relationships)	our schedules don't mesh	no time to breathe (renamed insufficient recovery and discussed under the sub-theme: Being on-call as tiring)
on-call working hours	on-call working hours	Accepting on-call duty (it's part of the job; it's our duty; we provide continuous care) - turned into a sub-theme	seniors' expectations	spousal support (discussed under the new sub-theme: Navigating intimate relationships)	forming and maintaining friendships	switching off (renamed lack of psychological detachment and discussed under two sub-themes: Being on-call as

						tiring; Being on-call as stressful)
the unpredictability of the on-call roster (deleted because this was an exception rather than a norm).	on-call expectations	it's tiring (turned into a sub-theme)	peer relationships	children's behaviour (discussed under the new sub-theme: Negotiating childcaring responsibilities and interactions)		tied to the phone/ being contactable (referred to with lack of psychological detachment and discussed under the new sub-theme: Being on-call as tiring)
on-call expectations	on-call duties	being in two places (discussed under the new sub-theme: Being on-call as stressful)		parental support (discussed under the new sub-theme: Negotiating childcaring responsibilities and interactions)		conserving energy resources (discussed under the new sub-theme: Participating in leisure and social activities).
patient status (merged with switching off)		inflexibility (implied in other codes such as missed celebrations and events)		Being on-call as priority (discussed under the new		maximising sleep (merged into recovery enabling activities)



				sub-theme: Navigating intimate relationships)		
patient volume (deleted but captured under Being on-call as tiring)		poor facilities and equipment (discussed under new sub-theme: Being on-call as stressful)		on-call mood (discussed under the new sub-theme: Navigating intimate relationships)		exercise helps (merged into recovery enabling activities)
the unwritten contract (merged into on-call expectations).		patient aggravation (discussed under new sub-theme: Being on-call as stressful)		switching specialties (discussed under the new sub-theme: Negotiating childcaring responsibilities and interactions)		recovery-enabling activities (discussed under the new sub-theme: Participating in leisure and social activities)
unstructured work time (deleted and merged with the unpredictability of surgical emergencies).		time constraints (discussed under the new sub-theme: Being on-call as stressful)		maternal feelings of guilt (discussed under the new sub-theme: Negotiating childcaring responsibilities and interactions)		trauma (discussed under new sub-theme: Being on-call as stressful)

the unpredictability of surgical emergencies (merged with no time to breathe)		it's stressful (turned into a sub-theme)		children's behaviour (discussed under the new sub-theme: Negotiating childcaring responsibilities and interactions)		
doctor-nurse interaction		it's good for my career (discussed under the new sub-theme: Accepting on-call duty)				
seniors' expectations		it's a man's job (discussed under the new sub-theme: Being on-call as dangerous)				
peer relationships		extreme behaviours (discussed under the new sub-theme: Being on-call as tiring)				

internal arrangements		confidence in junior doctors (discussed under the new sub-theme: Being on-call as stressful)				
it costs my partner too		it's dangerous (turned into a sub-theme)				
transport logistics		<i>Practical limitations of being on-call discussed as follows:</i>				
living decisions		sleep disturbances (discussed under the new sub-themes: Navigating intimate relationships; Negotiating childcaring responsibilities and interactions)				
spousal support		living decisions (discussed within the new sub-theme:				

		Participating in leisure and social activities)				
daddies on duty (was considered under every theme)		being on-call as priority  (discussed within the new sub-theme: Navigating intimate relationships)				
being a mother (was considered under every theme)		I can't go far (discussed under the new sub-theme: Participating in leisure and social activities)				
maternal feelings of guilt		missed celebrations and special occasions  (discussed under the new sub-themes: Participating in leisure and social activities; Negotiating childcaring responsibilities and interactions)				

children's behaviour		it's hard to maintain consistency (discussed under the new sub-theme: Participating in leisure and social activities)				
family concern (deleted and merged with its dangerous)		internal arrangements (merged with missed celebrations and occasions and discussed under the new sub-theme: Participating in leisure and social activities)				
parental support		cleaning house and other family duties (turned into a sub-theme: Performing household duties)				
our schedules don't mesh		on-call time as work or free time (discussed under the new sub-theme:				

		Participating in leisure and social activities)				
forming and maintaining friendships		Transport logistics (discussed under the new sub-theme: Negotiating childcaring responsibilities and interactions)				
it's tiring		Life dictated by being on-call (discussed under the new sub-theme: Participating in leisure and social activities)				
no time to breathe						
being in two places						
inflexibility (merged with missed celebrations)						
switching off						

sleep disturbances						
I'm always on duty (deleted because did not relate specifically to being on-call)						
it's stressful						
to eat or not to eat (deleted and implied in discussing it's stressful)						
I can't escape (meant the same as switching off)						
tied to the phone - being contactable (merged with on- call expectations)						

and seniors' expectations)						
it's hard to maintain consistency						
medicine is the most unstable thing (deleted because it did not relate specifically to being on-call)						
confidence in junior doctors						
country climate (deleted and merged with on-call expectations).						
specialty and hospital jurisdiction (deleted and						



merged with on-call expectations)						
life dictated by being on-call						
I can't go too far						
difficult to make plans (merged with our schedules don't mesh and missed celebrations and events)						
conserving energy resources (added)						
it's our duty						
we provide continuous care						
it's part of the job						

it's our normal (merged with it's part of the job)						
being on-call as priority						
it's good for my career						
on-call mood						
on-call time as work or free time						
missed celebrations and special occasions						
it's dangerous						
it's a man's job						
extreme behaviours						
poor facilities and equipment						
patient aggravation						

time constraints						
it gets better with time (discussed with it costs my partner)						
maximising sleep (merged into conserving resources)						
exercise helps (merged into conserving resources)						
the price of being on-call (discussed among codes in family relations)						

the prestige of surgery/switching specialties						
cleaning house and other family duties						
other activities (renamed recovery enabling activities)						
trauma						

Appendix M: Table 6 showing transition from codes to themes (significant others)

Initial codes	Initial sub-themes and revised codes			
	<b>Background/Context</b>	<b>Embodied experiences</b> (spilt into three new sub-themes: Being on-call as a non-issue; Distractions and interruptions and Concerns about safety)	<b>Family relations</b> (spilt into new sub-themes: Navigating intimate relationships; Negotiating childcaring responsibilities and interactions)	<b>Recovery</b> (discussed under new sub-theme: Participating in leisure and social activities).
length of marriage	length of marriage	<i>Perceptions regarding partner being on-call discussed as follows:</i>	he's here but he's not with us (discussed under new sub-theme: Distractions and interruptions)	Maximising sleep (discussed under new sub-theme: Participating in leisure and social activities).

maturity in marriage	on-call frequency	It's better than it used to be (discussed under the new sub-theme: Being on-call as a non-issue).	the on-call mood (merged with maturity in marriage and discussed under new sub-theme: Navigating intimate relationships)	recovering with family (discussed under the new sub-theme: Participating in leisure and social activities).
I worry about safety	public versus private practice	I worry about safety (turned into a new sub-theme: Concerns about safety).	maturity in marriage (discussed under new sub-theme: Navigating intimate relationships)	
checking in (merged with safety)	senior doctor versus junior doctor on-call	I can't sleep (discussed under the new sub-theme: Concerns about safety).	the price families pay (discussed under the new	

			sub-theme: Negotiating childcaring responsibilities and interactions and implied under Participating in leisure and social activities).	
I understand because I work too	on-call expectations	I can't take the ringing phone (discussed under the new sub-theme: Distractions and interruptions).	Spousal and parental support (discussed under the new sub-theme: Negotiating childcaring responsibilities and interactions).	

at least he's here	on-call duration	I understand because I work too (discussed under new sub-theme: Being on-call as a non-issue).	Being there for the kids (discussed under the new sub-themes: Participating in leisure and social activities; Negotiating childcaring responsibilities and interactions).	
he's here but he's not with us	on-call duties and workload	it's disruptive (turned into a new sub-theme: Distractions and interruptions).		
I can't take the ringing phone		I've adjusted (discussed under new sub-theme: Being on-call as a non-issue)	hired help (discussed under the new sub-theme: Negotiating	



			childcaring responsibilities and interactions)	
I won't push at that time (merged with maturity in marriage)		it's lonely (discussed under new sub-theme: Being on-call as a non-issue)		
maximising sleep		<i>Practical and professional limitations of being on-call discussed as follows:</i>		
it's now my normal (merged with I've adjusted)		my career sacrifice (discussed under the sub-theme: Negotiating childcaring responsibilities and interactions).		
I've adjusted, I've accepted		we cannot go far (discussed under the new sub-theme: Participating in leisure and social activities		
my career sacrifice		at least he's here (discussed under the new sub-theme: Being on-call as a non-issue).		
feelings of resentment (merged with my career sacrifice)		my life is messed up too (implied under the new sub-themes: Distractions and interruptions; Concerns about safety).		

it's lonely		living decisions (discussed under the new sub-theme: Participating in leisure and social activities).		
recovery with family		organising household chores (turned into a new sub-theme: Performing household duties).		
I wanted a family (merged with my career sacrifice)		unpredictability (discussed under the new sub-themes: Distractions and interruptions; Participating in leisure and social activities).		
Unpredictability of being on-call				
we cannot go far				
my life is messed up too				
the price families pay (incorporated under several themes)				

being there for the kids (merged with my career sacrifice)				
the decision was made for me (merged with career sacrifice)				
the home came first (merged with my career sacrifice)				
being a woman (incorporated under other codes)				
my partner is committed to his/her work (merged with he's here but not here with us)				
public versus private practice				
senior doctor versus junior doctor on-call				
case severity (merged with suspense of unstable patients)				
I can't sleep				

he's undependable (merged with spousal support)				
the on-call mood				
the suspense of unstable patients (merged with he's here but not here with us)				
living decisions				
organising household chores				
on-call frequency				
on-call duration				
on-call duties and workload				
on-call expectation				
better than it used to be (added)				
hired help				

Appendix N: Table 7 showing transition from sub-themes to overarching themes (doctors and significant others)

<u>Overarching themes</u>	<u>Revised sub-themes and final codes</u>	
	On-call doctors	SOs of on-call doctors
<p><b>Ambivalent perceptions of being on-call</b></p>	<p><b><u>Accepting on-call duty:</u></b></p> <ul style="list-style-type: none"> <li>• Part of the job</li> <li>• It's our duty/continuous patient care</li> <li>• Increased clinical exposure (it's good for my career)</li> </ul> <p><b><u>Being on-call as tiring:</u></b></p> <ul style="list-style-type: none"> <li>• Insufficient recovery (no time to breathe, the unpredictability of surgery, extreme behaviours)</li> <li>• Lack of psychological detachment (I can't escape, tied to the phone, seniors' expectations)</li> </ul> <p><b><u>Being on-call as stressful:</u></b></p> <ul style="list-style-type: none"> <li>• On-call intensity (being in two places, patient aggravation, time constraints)</li> <li>• Organisational interpersonal relationships</li> </ul>	<p><b><u>Being on-call as a non-issue:</u></b></p> <ul style="list-style-type: none"> <li>• Better than it used to be: At least he's here and public vs. private practice</li> <li>• I understand because I work too</li> <li>• I've adjusted.</li> </ul> <p><b><u>Distractions and interruptions:</u></b></p> <ul style="list-style-type: none"> <li>• It's disruptive (I can't take the phone ringing; my life is messed up too; he's here but he's not with us; the suspense of unstable patients, unpredictability).</li> </ul> <p><b><u>Concerns about safety:</u></b></p> <ul style="list-style-type: none"> <li>• I can't sleep/my life is messed up to.</li> </ul>

	<p>(doctor-nurse interaction, seniors and peer interactions)</p> <ul style="list-style-type: none"> <li>Lack of psychological detachment (confidence in junior doctors, trauma).</li> </ul> <p><b><u>Being on-call as dangerous:</u></b></p> <ul style="list-style-type: none"> <li>It's a man's job.</li> </ul>	
<b><u>Navigating intimate relationships:</u></b>		
	<b>On-call doctors</b>	<b>SOs of on-call doctors</b>
<b>Managing interpersonal demands of being on-call</b>	<ul style="list-style-type: none"> <li>Interrupted sleep and disturbances (it costs my partner too)</li> <li>On-call mood</li> <li>Being on-call as priority</li> <li>Spousal support</li> <li>Switching specialties.</li> </ul>	<ul style="list-style-type: none"> <li>Maturity in marriage (the on-call mood).</li> </ul>
<b><u>Negotiating childcaring responsibilities and interactions:</u></b>		
	<ul style="list-style-type: none"> <li>Missed celebrations and events (transport logistics)</li> <li>Spousal support/Daddies on duty</li> <li>Parental support</li> <li>Children's behaviour</li> <li>Maternal feelings of guilt</li> <li>Switching specialties.</li> </ul>	<ul style="list-style-type: none"> <li>Spousal support</li> <li>Parental support</li> <li>Hired help</li> <li>My career sacrifice (the price families pay; the home came first; being there for the kids).</li> </ul>

<b><u>Participating in leisure and social activities:</u></b>		
	<b>On-call doctors</b>	<b>SOs of on-call doctors</b>
<b>Limits to engagement in non-work activities</b>	<ul style="list-style-type: none"> <li>• Life dictated by being on-call (perceptions about being on-call as work or free time, I can't go far, conserving energy resources and recovery-enabling activities).</li> <li>• Difficult to make plans (our schedules don't mesh, forming and maintain friendships; maximising sleep)</li> <li>• Difficult to maintain consistency</li> <li>• Missed celebrations and occasions (internal arrangements).</li> </ul>	<ul style="list-style-type: none"> <li>• Recovering with family</li> <li>• Maximising sleep</li> <li>• We cannot go far/unpredictability</li> <li>• Being there for the kids</li> <li>• Living decisions.</li> </ul>
<b><u>Performing household duties:</u></b>		
	<ul style="list-style-type: none"> <li>• Cleaning house and other family duties.</li> </ul>	<ul style="list-style-type: none"> <li>• Cleaning house and other family duties.</li> </ul>

Appendix O: Figure 5 showing mind map (developed in NVivo 11 Pro) of main themes from the analysis of the data

