

DETERMINANTS OF WORK-FAMILY CONFLICT AMONG  
THE HOSPITAL NURSES IN PENINSULAR MALAYSIA

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## PREFACE

In this research project, researchers would like to examine the relationship between emotional demands, workload, supervisor support and colleague support in work-family conflict among hospital nurses in Peninsular Malaysia. Work-family conflict is a mutual compatibility between the role of both work and family in order to balance both roles, researchers should study and understanding the influencers of the work-family conflict.

This research project is conducted as the work-family conflict has increased dramatically due to heavy workload and emotional demands among nurses. Work-family conflict is a big concern to nurses no matter in Malaysia or other part of the world. Therefore, this research project can assist Ministry of Health, Healthcare institution, Hospital management and nurses to understand the influencers of emotional demands, workload, supervisor support and colleague support in causing work-family conflict among hospital nurses.

In this research project, researchers outline more in depth and detailed information about the influence of emotional demands, workload, supervisor and colleague support on work-family conflict. These variables play the critical roles in reducing work-family conflict among hospital nurses.

ABSTRACT

This study is to reviews the influence of emotional demands, workload, supervisor support and colleague support in causing work-family conflict among hospital nurses. Whereby, data were collected from 143 hospital nurses in Peninsular Malaysia. Where, there are a total of 194 set of questionnaires distributed by using non-probability sampling technique to the nurses in the selected sampling location. The collected data from the respondents are analyzed using Statistical Analysis System Enterprise (SAS) software. In the nut shell, this study concludes that there is significant relationship between emotional demand, workload and work-family conflict. However, the supervisor and colleague are not significant with work-family conflict. The implication, limitation and recommendation are presented in the end of this study.

## **CHAPTER 1: RESEARCH OVERVIEW**

### **1. Introduction**

The purpose of the research is to examine the on the factors that affecting work-family conflict among nursing employees in hospital of Perak state in Malaysia. This study may help nursing employee to achieve a better work-family conflict and also enable them to deal with the issue of work-family conflict. The research will help the organisation to create new understanding and able to identify the problem which in turns help in decision making.

### **1. Research Background**

Work-family conflict is a forms of inter-role conflict that occur when the energy, time, or behavioural demands of the work role conflict with families (Ellyn & Khyung 2017,). The work-family conflict research also addressed the relationship between paid employment and commitment to kin (Drago & Khasian, 2003). In the other words, work-family conflict is of growing importance in society as it has important consequences for work, non-work, and personal outcomes such as productivity, turnover, family well-being and stress (Wang, Mei Ling, Tsai & Li Jane, 2014).

The study of relationship between work and family had been documented since the late of 19<sup>th</sup> century. While looking to the research of work and family conflict, there is a two-way research which is work-to-family and family-to-work conflict. In the definition, the work-to-family conflict is a form of inter-role conflict in which the general demands of work, the time devoted to work, and the strain that created by the job interfere with performing family-related responsibilities. The family-to-work which is a form of inter-role conflict in which the general demands of work, the time devoted to work, and the strain that created by the by the family interfere with performing (Richard, Robert & James, 2014). Furthermore, from the previous studies of Frone, Russell and Cooper, (1992), Geurts, Kompier, Roxburgh, and Houtman, (2003), Kinnunen and Mauno, (1998), the employees indicate that the work interference with their family life are greater than the other way around which is family life

interference with work life. From the research of Frone et al. (1992) found out that work-to-family conflict was reported three times more frequently than family-to-work conflict by both male and female employed adults with a spouse and or with children. In the work-family literatures, the term work-family, work-to-family, work-nonwork, work-home conflict has been used to reflect the interference between work-role demands and family or non-work roles demands (Greenhaus & Buetell, 1985; Kahn, 1964; Allen & Armstrong, 2006). In this project, the term work-family conflict is used to reflect the inter-role conflict that arises due to work and family demands.

Work-family conflict has become a significant human resources issue because these employees give adequate attention to the demands of work and family. The work-family conflict has increased significantly in the recent year is because of the traditional model of family structures had rapidly change in Malaysia and dual-earner families are currently in the norm. Study from Qinfen (2017), demonstrated that there are significant growing numbers of women in workforce has led to the changes in the structure of the family. The changes in the natures of workforce have resulted to the increases likelihood that individual have to cope with different demands of their roles as family's members and worker entail. These demands will also lead to conflict and stress that both parents bring towards the families. However, two-earner and single parent family structures mean that not only women but also men will suffer the stress from work-family conflict (Eagle, Icenogle, Males & Miles, 2002). However, the family structure is not the only reason that increased the work-family conflict in the recent year. According to Gutek, Searle, and Klepa (1991), work-family conflict may also due to the fact that work demands are easier to quantify, but it is also likely that employees' evaluations are coloured by what they feel is expected from a good employee : A good employees must focus on his job performance and not supposed to think and bring his family matter to the workplace and disturbing his job performance. On the other hand, a good employee must think about work matter in the home and thus, this will let them interference with their families when necessary.



Malaysia currently has a dichotomous public-private system of health care services. Our healthcare service has over the decades since (1980s) transformed from what was largely a government-led and funded public services to a buoyant dual-tiered parallel system, with a sizable and thriving private sector (David, 2014). In the healthcare industry, nurses are the largest groups among health care professionals and are legally liable and morally responsible for patient's care, thus their perspective on quality of nursing care is important (Gunther & Allgood, 2002). There are many studies from (Lankshear et al. 2005, Bolton et al. 2003) suggested that positive patient outcomes depend more on the quality of nursing than on the available technology provided for the patients. As such, work stress and conflicts that faced by the nurses that received at the work places will definitely affect the service quality of the nurses to the patients.

According to the United State (U.S.) Nursing workforce, there are a total 2,824,641 of Registered Nurses (RNs) in the U.S. but there are only 9.1% of them are male. While according to the World Health Organization that made the report of Human Resource for Health Country Profile: Malaysia in year 2011, there are only 1.8% of registered nurses are male and 98.2% of them are female in Malaysia healthcare sector.

Occupational categories/cadres	Year 2011	
	% Male	% Female
Doctors <sup>1</sup>	54.3	45.7
Dental practitioners <sup>2</sup>	36.8	63.2
Pharmacists <sup>2</sup>	30.2	69.8
Assistant medical officers <sup>2</sup>	96.4	3.6 <sup>a</sup>
Registered nurses, JM and AN <sup>2</sup>	1.8 <sup>b</sup>	98.2
Environmental health officers <sup>2</sup>	80%	20%

Note: <sup>a</sup> The first batch of female assistant medical officers was registered in August 2009.

<sup>b</sup> The first batch of male nurses was registered in January 2008.

Sources: <sup>1</sup> Malaysian Medical Council. APC issued (unpublished).

<sup>2</sup> Oral Health, Pharmaceutical Services, Allied Health and Nursing Divisions, Ministry of Health (unpublished).

Figure 1.0: Table of Human Resource Health Country Profile in Malaysia

Source: World Health Organization. (2011).

Due to pregnancy and childcare needs, the female nurses often leave their job or choose to work as a part time. According to (Chen, Yu, Chiang, Chen & Chang, 1992), suggested that it is only when the women have a good balance work and family between that, they may only continue to perform well in their job. To reduce the high turnover rate among nurses, the hospitals and managers must work together to minimize the nurses' work-family conflict. According to a study by National Healthcare Retention & RN Staffing Report (2017), the average hospital turnover rate in 2017 was 18.2%, which is the highest recorded turnover in the industry for almost a decade. Since 2013, the average hospital turned over 85.2% of its workforce (Megan, 2017). The figure below shows the total turnover rates in healthcare industries of United State.

REGION	TOTAL TURNOVER	FULL/PART TIME TURNOVER
<b>North East</b> – (CT, DC, DE, MA, MD, ME, NH, NJ, NY, PA, RI & VT)	17.8% (-0.6%)	16.6% (+0.1%)
<b>North Central</b> – (IA, ID, IL, IN, KS, MI, MN, MO, MT, ND, NE, OH, SD, WI & WY)	16.8% (+1.1%)	14.8% (+0.7%)
<b>South East</b> – (AL, FL, GA, KY, MS, NC, SC, TN, VA & WV)	18.4% (+1.9%)	16.2% (+1.2%)
<b>South Central</b> – (AR, AZ, CO, LA, NM, OK, TX & UT)	19.1% (+0.7%)	17.9% (-0.4%)
<b>West</b> – (AK, CA, HI, NV, OR & WA)	16.5% (+0.6%)	14.0% (+0.2%)
OWNERSHIP		
<b>For-Profit – Acute Care</b>	18.0% (-3.4%)	15.8% (-4.1%)
<b>Non-Government/Non-Profit – Acute Care</b>	18.3% (+2.3%)	16.7% (+1.9%)
<b>Government – Acute Care</b>	19.0% (+1.8%)	16.0% (+3.5%)
BED SIZE		
<b>&lt;200 Beds</b>	16.8% (+1.1%)	14.5% (+0.9%)
<b>200-349 Beds</b>	17.0% (+1.2%)	15.4% (+1.5%)
<b>350-500 Beds</b>	19.5% (+0.7%)	17.2% (+0.8%)
<b>&gt;500 Beds</b>	18.4% (+2.4%)	16.5% (+1.6%)
<b>NATIONAL AVERAGE</b>	18.2% (+2.0%)	16.3% (+1.5%)

Figure 1.1: Turnover rate in the healthcare industries in U.S. Source: Megan.W. (2018).  
Healthcare Turnover Rate in 2018.

While the nurses' turnover rate of in Malaysia has soared by more than 50% from the year 2005 which is 400 nurses to the year 2010 which is 1,049 nurses (Barnett, Namasivayam, & Narudin, 2010). In addition, Malaysia also faces the problem of nurse migration, with an attrition rate of 400 per year, especially to English-speaking countries such as the United Kingdom, the United States, and Australia (Siew, Chitpakdee & Chontawan, 2011). Besides, the study conducted by Roslan, Noor Hazilah, Nor Filzatun and Azahadi (2014) showed that 22 % of the medical staff, inclusive of nurses indicated their intention to resign before reaching pensionable age.

Moreover, there is also concern about shortage of nurses in the future year in Malaysia as the number of nurse students graduated each year is shrinking (Suzanna, 2017). According to the study of Christine and Linda (2014), the causes and the consequences of nursing shortage include the changing of the nursing workforce, the workload and unacceptable and unsafe work environment of the nurses, the organizations structures and the managing systems of hospitals and the impact on patient and staff safety.

In the healthcare industry, the aspects that increased acuity of patients and complexity of care set the stage for fatigue in nurses contributing to an increase in work-family conflict and stress in their work including the work environments among nurses include changing work patterns, lengthy shifts, workloads and added overtime (Faezah, Haruyah, Jati & Nurul, 2016). Some nurses prefer long work days which is 12 hours shift as a benefit by reducing the number of staff hand-offs and increasing continuity of care while some nurses also prefer fewer days at work and therefore less commute time and easier scheduling of home life responsibilities (Richardson, et al. 2007). Scott (2006), recommended that nurses who face with work family conflict and stress due to 12 hours shifts should be minimized and to not more than 12 hours. If the working shift is more than 12.5 hours, this will lead to increase the level of work family conflict and stress (Rogers, et al., 2004).

Furthermore, Rogers (2004), reported that the nurses only have half an hour of break during the shifts to take a rest or meals and this could also lead to higher level of stress and work-family conflict among the nurses. Moreover, the nurses who work in the night shift is reported that they may face mental exhaustion and high level of stress (Dorrian, et al., 2006).

## **1.2 Research Problem**

According to the World Health Organization (WHO), in this modern world, nurses and midwives play a very important role in the global health workforce as both job position occupied for nearly 50% of the global health workforce. The essential roles played by nurses include consultation, clinical nursing practices, follow-up treatment, illness prevention, promoting public health and patient education (Virpi, Kerttu & Hannele, 2012).

There is a problem in the global trend and it should be taken to the serious matters which is shortage in healthcare workers, especially nurses and midwives (World Health Organization, 2017). In the global context, the current shortage in nurses and midwives in health workers

indicate more than 50% (World Health Organization, 2017). The report by Ministry of Health Malaysia (2018) indicated the current nurse to patient population ratio is 1:302. Malaysia's healthcare sector is expecting to reach 1:200 nurse to patient population ratio by 2020 (Dzاهر, 2017). It is still a big gap between the current ratio and the target ratio. In 2017, the total numbers of nurses were 106289. There will be a high demand of nurses in the near future in order to reach this target. From the current situation, there are less than 3,000 nurses graduating yearly as compare to the period of 2005-2010, there are as many 10,000 nursing student's graduation annually. This means the number of graduating nurses have dropped more than 70% currently (Pillay, 2017). Among the contributing factors to massive declining number of nursing student include, the Malaysian Nursing Board has tightened the entry requirement from 3 credits to 5 credits in prior of Mathematics and Science subjects since August 2010 (Pillay, 2017). Next, the National Higher Education Fund Corporation (PTPTN) has reduced the amount of loans provided to the students (Pillay, 2017). The significant decline of the students graduating from the nursing schools means that the healthcare sector will face more serious shortage of qualified nurses and increase the burden of the existing registered nurses in their basic life and in workplace. Nurses experiencing the rise of workload without more qualified staff in the sector, in turn leads to high stress level when nurse in the situation of more patient have to be processed in the same working hour (Havlovic *et al.*, 1998; as cited in Burke & Greenglass, 2001). Nevertheless, the shortage of nurses cannot be countered by having more students enrol into nursing course itself, but to look at the existing issues faced by the nurses currently.

Nursing is perceived as a laborious job as it requires high and complicated demands to perform (Sarafis, Rousaki, Tsounis, Malliarou, Lahana, Bamidis, Niakas & Papastavrou, 2016). Hajra (2016) reported that nurses have long working hours and needed to multi-tasking to perform their job at a time. As a medical professional, nurses are facing issues of harsh working environment. First, the heavy workload needed to be handled by nurse. As mentioned above, workload increases as the low supply and high demand of nurse workforce and the effect of this issue are the nurses may need to handle more than usual workload in the normal working hours and might need stay overtime to get all the jobs done. This could be unhealthy to the existing nurse workforce as it will leads to high occupational stress, affecting the nurse's quality of life and work-family conflict. Sarafis (2016) revealed that nurses' exposure to stress-related factors can negatively affect their health-related quality. Besides, Atefi, Abdullah and Wong (2014) explained that heavy workload and the lack of nurse staff

were the major contributing factors of job dissatisfaction and the major stressors among nurses. The results of empirical study by Cortese, Colombo and Ghislieri (2010) showed that job demand and emotional charge can increase the level of work-family conflict while supportive management can reduce it. Furthermore, work-family conflict negatively affects job satisfaction (Cortese et al. 2010; Yildirim & Arycan, 2008), life satisfaction (Yildirim et al. 2008) and intention to leave (Ekici, Cerit & Mert, 2017).

Second, the nurses did not earn the respect they deserved in their workplace. At most of the time, they feel the lack of respect from patients and colleagues, when it compares to doctors (Hajra, 2016). This lack of respect may have caused the nurses to value themselves lesser in their workplace (Hajra, 2016). Without proper social support from co-worker, this may turn into frustration and loss their passion onto their work. Other than that, nurses do not get enough remuneration for their work (Hajra, 2016). Nurses should be paid well for their work and time they put in their work. These two factors may lead to emotional charge of nurses, as they do not get respect in their work and well remuneration. The nurses may feel having no value in the workplace and, their effort and time put in into their work is not mattering as much as they feel. Nurses without supervisory support can lead to high work-family conflict and lower job satisfaction (Yildirim et al. 2008). Moreover, Lembrechts, Dekocker, Zanoni, Pulignano (2015) found that nurses with organisational support (e.g. managerial, co-worker, supervisor support) experience lower work-family conflict.

The problems above provide the indicators that the evaluation in the influence of workload, emotional demand, supervisor support and colleague support on work-family conflict among nurses is crucial. Although there are numerous researches on work-family conflict, systematic examination on the influence of the above mentions factors among the nurses in both private and government hospital in the local context is still lacking. For example, Sabil, Abu, Kasuma and Lizzan (2016) only investigated work-family conflict among nurses who worked in Sarawak General Hospital. Besides, Sabil et al. (2016) focuses on the impact of job type, work time, role overload; family-related variables (e.g. presence of family, dual earner family, dependent care); and individual related factors (e.g. domestic responsibility, gender role orientation in their study. In particular, many studies have focuses on quantitative job demands, such as workload and working hour but not emotional demands. For example, Lembrechts, Dekocker, Zanoni, Pulignano (2015) study focuses on workload and working hours; Yildirim and Arycan (2008) study focuses on work overload, work hours, work schedule, overtime work and supervisory support in evaluating work-family conflict among

nurses in Belgium. On the other hand, Ekici et al. (2017) study aim on workload in evaluating work-family conflict among nurses in private hospital in Turkey. As such, there is a need to further understand the influence of qualitative work demands, such as emotional demands on work-family conflict among nurses who work in the local hospitals.

In view of the gap in this study, this study aims to examine the influence of workload, emotional demand, supervisor support and colleague support in predicting work-family conflict on nurses.

## **1.3 Research Objective**

### **1.3.1 General Objective**

To identify the factors that affecting the work-family conflict among nursing employees.

### **1.3.2 Specific Objective**

1. To determine the influence of emotional demand on work-family conflict among nursing employees.
2. To determine the influence of workload on work-family conflict among nursing employees.
3. To determine the influence of supervisor support on work-family conflict among nursing employees.
4. To determine the influence of colleague support on work-family conflict among nursing employees.

## **1.4 Research Question**

The main question of this research is to find out the relationship whether the factors will affect the work-family conflict among nursing employees.

1. What is the influence of emotional demand on work-family conflict among nursing employees?
2. What is the influence of workload on work-family conflict among nursing employees?
3. What is the influence of supervisor support on work-family conflict among nursing employees?
4. What is the influence of colleague support on work-family conflict among nursing employees?

## **1.5 Hypothesis of the Study**

H1: Emotional demand has a significant influence on work-family conflict of nursing employees.

H2: Workload has a significant influence on work-family conflict of nursing employees.

H3: Supervisor support has a significant influence on work-family conflict of nursing employees.

H4: Colleague support has a significant influence on work-family conflict of nursing employees.

## 1.6 Significant of Study

From the practical perspective, the findings from this study may provide assist and useful information to help the nurses resolving the work-family conflict. As defined, work-family conflict is a mutual compatibility between the role of both work and family (Nurnazirah, Samsiah, Zurwina & Fauziah, 2015). This study is relatively important to assist nursing employee in Malaysia to identify the factors affecting work-family conflict among the nursing employee in Malaysia. From this study, the nursing employees who are experiencing work-family conflict can discover the roots of the issue and have a better understanding on all variables, in turn figure out the ways to resolve or reduce the tension between work and family based on self-perception; for the nursing employees have not face this issue, they can learn and perceive the issue, in turn they can discern the importance on this issue and learn to prevent it from happening on themselves. Prevention is better than cure.

From the health care institution perspective, this study could help the organization of health care institution implementing a better management system and have a better understanding on how to help the nursing employee face the work-family conflict. Besides that, a well implemented management system can help in boosting the nursing employees' job performance and job satisfaction by reducing work-family conflict. With this outcome, it can turn into high customer service satisfaction from the customer, thus helping in establish strong brand name.

From the Ministry of Health Malaysia perspective, this research project can help in discovering the factors medical employee facing work-family conflict in their basic life. By having a better understanding on these factors, Ministry of Health Malaysia can help to resolve the issues faced by the nursing employee and increase the job satisfaction and reduce work stress of medical employee. The Ministry of Health Malaysia can regulate a family-friendly policy that actually helps the nursing employees such as flexible emergency leave and child or elder care. Besides that, the administration of the hospital can provide reward system by giving out extra allowance to praise the nurses for their effort. This can also help in breaking the misconception of the society on the work of medical employee (working for extremely long working hours), thus encourage the newcomers to enrol into this industry and solving the shortage issue faced in Malaysia.



## **1.7 Chapter Layout**

There are three major parts in this research paper which are introduction, literature review, and research methodology in chapter by chapter. In the Chapter 1, the introduction has provided the research background, problem statement, research objectives and the research questions, hypothesis and also the significant of study. Basically, it helps the readers or the researchers to grab and overall idea consisting of background information about the research problem, the objectives and also the significant of study. In order to understand the relationship whether the factors stated will affect the work-family conflict among nursing employees in hospitals of Perak State in Malaysia, there will be a further discussion on the review of others journals and articles in the next chapter.

In the Chapter 2, the Literature Review which has covered the review of literature and relevant theoretical models, proposed theoretical framework, and hypothesis development. This chapter includes the discussion and evaluation of the past journal and articles related studies in the factors that affect the work-family conflict of nursing employees in hospitals of Perak State in Malaysia. In addition, a purpose theoretical framework and methodology will be constructed and discussed based on the findings.

While in the Chapter 3, the Research Methodology, which will provide the research design, relevant methodology, data collection methods, sampling design, research instrument, construct measurement, data processing and data analysis. It is necessary to specify on qualitative and quantitative research design, primary or secondary data collection, and sampling design which include appropriate target population, sampling frame, location, elements, techniques and size.

## **1.8 Chapter Summary**

In this chapter, it included the research background, research problem, research objectives, research questions, hypothesis of this study, and the significance of the study followed by the organization of the research project. Readers should get a clear picture of the general understanding of this study.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.0 Introduction**

In this chapter, it consists of the literature review from the published information by the researcher. Furthermore, this chapter provides relevant information which related to the determinants of work-family conflict among the hospital nurses in Malaysia. We gain the information from journal and article that provided by the researchers. This chapter has consisted of underlying theories, review of literature, theoretical or conceptual framework and hypothesis development.

### **2.1 Underlying Theories**

There are different theories that can used to explain work-family conflict. In this study, role theory and Job Demands-Resources Model are used to understand work-family conflict while demands and resources approach is focused on the job level emphasis the dual processes of job demands and resources.

#### **2.1.1 Role Theory**

The role theory (Kahn, Wolfe, Quinn, Snoek & Rosenthal, 1964; Katz & Kahn, 1978) focuses on the subjective conflict role demands of work and family domains. Individuals and organizations cannot function without roles (Ashforth, 2001; Biddle, 1986; Katz & Kahn, 1978; Stryker & Burke, 2000). Nevertheless, organizational roles have an important impact towards an individual at work (Ashforth, 2001; Kreiner, Hollensbe, & Sheep, 2006; Sluss & Ashforth, 2007). Based on Katz and Kahn (1978) explanation, roles are created through the social process within an organization that are related to the role expectations of others. Role theory emphasizes the importance of role sending on affecting the establishment of roles (Currie & Procter, 2005; Katz & Kahn, 1978). According to Katz and Kahn (1978), role sending requires the role-holder to analyse the communication so that they know how to adjust their behaviour. An individual will adjust their role behaviour to achieve the favourable expectations

since roles are flexible (Katz & Kahn, 1978). The role theory is related to the scarcity theory (Goode, 1960) that assumes people have limited time and resources to be spent for multiple domains in their life.

Based on the theoretical perspective of the role theory, Greenhaus and Beutell (1985) explained that work-family conflict arise due to the incompatibility of role demands between work and family. An individual who participate in one role (e.g. work) face difficulties in fulfilling the demands of another role (e.g. family member). Greenhaus and Beutell (1985) explained three types of work-family conflict: time-based, strain-based or behaviour-based conflict. Time-based role conflict occurs when the time demands from work and family compete with each other (Greenhaus & Beutell, 1985). The example of work to family conflict is overtime takes away the time a parent can spend with their children. In addition, strain-based conflict occurs when strain in one role forces individuals' ability to perform another role (Greenhaus & Beutell, 1985). For example, work to family conflict will occurs when individual spill the exhaustion and anxiety from work to their family and this limit their role performance (Kinman & Jones, 2001). Besides that, behaviour-based conflict will occur when the behaviour patterns from work and family are incompatible (Greenhaus & Beutell, 1985). However, some researchers argue that behaviour-based work-family conflict may not be relevant to most occupations (Mauno, Kinnunen & Ruokolainen, 2006). Nevertheless, others commented that certain occupations, such as military (Britt, Adler & Castro, 2006) or prison guards (Kinman, Clements & Hart, 2017) may require aggressive and antagonistic interpersonal interactions and these may not be fitting in family interactions (Dierdorff & Ellington, 2008).

### **2.1.2 Job Demands-Resources Model**

The demands and resources approaches focus on the need to examine demands and resources to understand the job strain that contributing to work-family conflict (Bakker & Demerouti, 2007; Bakker, Demerouti, De Boer & Schaufeli, 2003; Voydanoff, 2005).

The Job Demand-Resources (JD-R) model (Bakker & Demerouti, 2007) are commonly been relate to employees' well-being, stress, burnout and work-family research. According to Bakker and Demerouti (2007) as well as Demerouti (2001), JD-R model assume that the job characteristic of every occupation can be categorise into two categories which are job demands and job resources. Job demands refers to those social, physical and organisational aspects of the job that require continuing physical or mental effort along with some physiological and psychological costs (Bakker & Demerouti, 2006). The example of job demand included emotionally demanding interactions with clients, unfavourable physical environment and high job stress. On the other hand, job resources refer to social, physical, psychological or organisational aspects of the job that are capable in achieving work goals, reduce job demands and stimulate personal growth and development (Bakker et al. 2006). Example of job resources are job opportunities, job security and pay wages.

According to Demerouti (2001), an individual will develop job stress when the job demands are high or when the job resources are limited. A high job demands will exhaust individuals' mental and physical resources and resulting to exhaustion and health problem. JD-R model assumes that negative individual and work outcomes will happens as the job demands may spend individuals' resources. On the other hand, job resources are more likely to motivate individuals to perform better and leading to positive individual and work outcomes. Besides that, the demands and resources approach (i.e. JD-R model) also suggest that certain job resources like social support, supervisor feedback and autonomy may act as a buffer between job demands and job strain (Bakker & Demerouti, 2007). Moreover, JD-R model proposed that the job resources may buffer the adverse implications of jobs demands on a person's wellbeing.

JD-R model often been used to explain burnout (Bakker, Demerouti, Taris, Schreurs, 2003) and work engagement (Bakker, Hakanen, Demerouti & Xanthopoulou, 2007; Hakanen, Bakker & Demerouti, 2005). Nevertheless, recently several researchers have extended JD-R model to explain work-family conflict (Bakker, ten Brummelhuis, Prins & van der Heijden, 2011; Gordon, Pruchno, Wilson-Genderson, Marcinkus Murphy & Rose, 2012). JD-R model described work-family conflict as a resources-depleting process (Tement & Korunka, 2015).

### **2.1.3 Conservation of Resources Theory**

Conservation of resources (COR) theory has been an influential theory for understanding stress and has been used widely in the organizational literature (Hobfoll, 1989; ten Brummelhuis & Bakker, 2012). The main objective of COR is that individuals strive “to retain, protect, and build resources” and “what is threatening to them is the potential or actual loss of these valued resources” (Hobfoll, 1989, p. 516). Based on Hobfoll (1989), psychological stress is a response of an individual when there is a threat or actual loss of resources. Hobfoll (1989, p. 516) conceptualized resources as “those objects, personal characteristics, conditions, or energies that are valued by the individual or that serve as a means for attainment of these objects, personal characteristics, conditions, or energies”. Many studies have adopted Hobfoll (1989) COR theory to observe and study the work–family conflict (Hoobler, Hu, & Wilson, 2010) and these studies showed that high levels of work-family conflict will cause stressful conditions that lead to resource drain. For example, according to Grandey and Cropanzano (1999), work-family conflict drained employees’ resources over time and cause job distress and lead to high turnover intentions, greater life distress and poorer physical health.

## **2.2 Review of Literature**

### **2.2.1 Work Family Conflict**

According to Greenhaus and Beutell (1985), work-family conflict refers to a condition where the demands and responsibilities from work and family roles are mutually incompatible in some respects. Moreover, work-family conflict is essential for the nurse in two ways includes the individual nurse’s worry over work to family conflict which may sharpen the shortage of nurses by urging withdrawal from the occupations (Greenhaus, Parasuraman, & Collins, 2001; Hammer, Bauer, & Grandey, 2003; Simon, Kummerling, & Hasselhorn, 2004; Wang, Lawler, Walumbwa, & Shi, 2004). Work to family conflict is among the reason that given by the nurses for leaving the occupation and this is also the students ‘reasons for not choosing the nursing profession (Grzywacz, Frone, Brewer & Kovner, 2006). Furthermore, nursing

is considered a complicated occupation which being a satisfying and fulfilling job (Duffield, Roche, O'Brien-Pallas, Catling-Paull & King, 2009). According to Yildirim (2006); Yildirim and Oktay (2005), a nurse needs to take care of 30 to 40 patients in day shifts and 60 to 80 patients in night shift. Moreover, nurses are not allowed to work or leave their job after certain time slot due to the safety problem such as kidnap or rape in Turkey (Yildirim & Aycan, 2008). There are three time slots for nurses which are 8am to 8pm (12 hours), 8am to 4pm/ 4pm to 8am (16 hours) or 24 hours a day (Yildirim & Oktay, 2005). The nurses sometimes required to work over 40 hours per week if there is a shortage of nurses or excessive workload (Aksayan, Oktay, Ulker, Kocaman, Atalay, Pektekin & Buldukoglu, 2001; Alcelik, Deniz, Yesildal, Mayda & Serefi, 2005; Yesildal, 2005 & Yildirim, 2006). The challenging work condition, job stress and irregular work hours caused the nurse to experience work-family conflict (Yildirim & Aycan, 2008).

Work-family conflict is the pressure that often occurs between work and family (Greenhaus & Beutell, 1985). They explained work-family conflict on three bases, which is then followed by researchers thereafter. Firstly, time-based conflict is associated with time spent in both roles at the same time, even more identified as increasing spends more time on the other roles. For instance; take spend more time for work, even taking the time to work on a holiday. Similarly, the time associated with the family can interfere with work. Second, strain-based conflict; its work-family conflict domain can result in tension, with symptoms indicate an impact on work performance and the presence of conflict. The third domain, behavior-based conflict related to the expectation of the role of women, family and work colleagues, expectations of family members and co-workers more expressive and sensitive (Greenhaus & Beutell, 1985).

Long working hours and lack of job security reported affected to the employee's commitment, while needs and lifestyle of women to be able to create a balance between work and family life (Blomme, Rheede & Tromp, 2010). The imbalance demands of work and home task disputed into a number of assumptions as the size of the cause of the lack of commitment to the organization, which resulted in job dissatisfaction, poor performance and high pressure (Achour & Boerhanuddin, 2011). Those who have a high commitment to the organization showing the high amount of pressure as compared to those have low commitment (Mathieu & Zajac, 1990).

According to Basami, Chizari and Abbasi (2013), organizational commitment protects the individual from negative consequences at work. Because those individuals who are committed to the organization have connected more closely to the others individuals at work or they have found the meaning on their work.

Besides that, the impact of work-family conflict is reduction of organizational commitment. The higher the work-family conflict, the lower the organization's commitment. Five respondents did job in the multinational company with profitable salary. After marriage, they quit the organization and join public university with one third salary. Work family conflict is lower among the unmarried respondents compared to married with children respondents. Furthermore, the impact of work-family conflict could be distress and depression. The Work-Family conflict produces dysfunctional consequences, both in the family and workplace, such as family distress and depression and job distress and depression.

On the other hand, Akkas, Hossain and Rhaman (2015) have identified that long working hours is among the important factors that lead to work-family conflict among respondents who work in different organisations in Bangladesh. Long working hours have negative impacts for families and employees who struggle to balance the demands of work and family roles and also cause job stress among the employees, especially female employees since family life is highly valued in Bangladesh (Akkas et al. 2015). According to Alam (2010), children are the worst victims of the happening of work-family conflict that caused by long working hours. Besides that, many married female employees do not like to work in the night shift and their work schedule is one of the reasons that caused work-family conflict. Other than that, work or job demand often been reported as the most constant predictor of work-family conflict because compulsory or unexpected overtime, job pressure, job hassle, shift work and others often limit a person's ability to devote time and energy in their family life or personal life (Akkas et al. 2015). The above situations caused work-family conflict as the employees do not have adequate time to dedicate to both domains.

### **2.2.2 Emotional Demand**

According to the study of Izard in 1971, 1977, 1991 (as cited in Izard, 2011), emotions is a thought of being a fundamental to human nature. A few emotions include interest, joy, sadness, anger, and fear was called 'basic' of emotion. Emotion is a mix of psychological feeling towards something (Pitcher, 1965). Emotions, is conceptualized as affective and physiological states, physiological and behavioural responses, temporal in nature and characterized by the intensity and positive or negative valence (Hayward & Tuckey, 2011). In the workplace, emotion is an integral part of the workplace (Miller, 2002).

Emotional demands are defined as those components of the job that needed constant emotional effort input to perform the job well due to interactional contact with clients (de Jonge & Dormann, 2003). Employee must create a pleasant facial expression when facing high emotional demand situation (Hochschild, 2012). For example, a waiter/waitress must be willingly to serve the customer and showing a pleasant facial or gesture in performing job even though he/her maybe very unhappy when doing so. In contrast, if a debt collector may be very happy to do his/her job, but still required to act tough to perform the job (Peng, Wong & Che, 2010). On the other hand, Enmerik and Peeters (2009) defined emotional demands as the affective aspects of one's work and the extent of emotional effort input into one's work in emotionally stressful situation.

Cortese, Colombo and Ghislieri (2010) explained that emotional charge has a strong positive relationship to work-family conflict among nurses. Besides, the empirical study of Vammen, Hansen, Bonde, Grynderup, Kolstad and Thomsen (2016) found out that patient-care worker has significantly high level of perceived emotional demands in the workplace. The results by Elfering, Grebner, Leitner, Hirschmüller, Kubosch and Baur (2016) showed that emotional demands are a special factor that lead to cognitive stress symptoms including concentration problems, difficulties to make decisions, to remember and have a clear mind think among the surgery nurses. Furthermore, employee experiencing high emotional demands can lead to several negative impacts include sleeping problem, exhaustion and impaired health (Halbesleben & Buckley, 2004). According to Johannessen, Tynes and Sterud (2013), individuals always reported to psychological distress when the emotional demand is



high and this will cause higher risk of mental health disorders and reduced productivity.

### **2.2.3 Workload**

Influence of workload on employee well-being can be explain by using the Scarcity Hypothesis (Goode, 1960) and the Job Demands-Resources (JD-R) model (Demerouti, Bakker, Nachreiner & Schaufeli, 2001). According to Akkas, Hossain and Rhaman (2015), work demands are perhaps the most consistent predictor of work-family conflict. Other work requirements that lead to work-family conflicts include forced or accidental overtime, work stress, shift work, overwork, work trouble, fast work or multiple interruptions. One of the major causes of work to family interference is individuals has no sufficient time to dedicate to both domains (Akkas, et al, 2015).

Nurses' work is often characterized by a number of role stress factors, such as night shifts and weekend work, irregular shifts and work overload (Simon, Kummerling & Hasselhorn, 2004; Kovner, Brewer, Wu, Cheng & Suzuki, 2006). Some research on the results of work-family conflicts in the nurse work dimension does indicate work overload (Yildirim & Aycan 2008), work variability, frequent stress events, work intensity (Simon et al, 2004), irregular work hours (Beigi, Ershadi & Shirmohammadi 2012) and being pressured to work overtime (Simon et al, 2004) increase work-to-family conflict.

High workload can make time, energy and attention insufficient, thus increasing the prevalence exhausted (Tayfur & Arslan, 2013). Besides that, high workload seems to drain employee's energy and lessen the time that is devoted to family life, thereby increase the prevalence of the conflict between work and family lives (Tayfur et al, 2013). WFC can express itself as exhaustion as well. From the propositions of Scarcity Hypothesis and JD-R model, workload is assumed to affect emotional exhaustion both directly and indirectly through its effects on WFC (Ozge Tayfur & Mahmut Arslan, 2013).

### **2.2.4 Supervisor Support**

Supervisor support refers to the extent to which the employees think their supervisor cares about their well-being and contribution in the workplace (Eisenberger, Stinglhamber, Vandenberghe, Sucharski & Rhoades, 2002). Researchers traditionally distinguish between organizational-level support (such as supportive organizational cognition) and support from specific individuals in the work environment (such as supervisors and colleagues) (French, Dumani, Allen & Shockley, 2018). Besides that, informal support resources such as supervisory support may be more useful due to the acceptance of the employee family, employees of the collectivist society responsibility outside of work (Lu, Kao, Copper, Allen, Lapierre, O'Driscoll, Poelmans, Sanchez & Spector, 2009).

Employees need supervisor support to deal with problems caused by work-family conflict (Ravangard, Yasami, Shokrpour, Sajjadnia & Farhadi, 2015). In addition, accepting supervisor support in the workplace can reduce WFC (Frese, 1999; Karatepe & Kilic, 2007; O'Driscoll, Poelmans, Spector, Khalliath, Allen, Cooper & Sanchez, 2003). Perceived social support can more consistently predict coping capacity and outcomes (Barnet, Martin & Garza, 2018).

In the presence of work-family conflict, the work and family support of supervisors and colleagues can also benefit temporary and permanent nurses (Mauno & Ruokolainen, 2017). The support of supervisors and colleagues has become the key to reducing work-family conflicts and has contributed positively to the well-being and health of employees. (Casper, Harris, Taylor-Bianco, & Wayne, 2011; Karatepe, 2010; Kossek, Pichler, Bodner & Hammer, 2011; Mauno & Rantanen, 2013; Michel, Michelson, Pichler & Cullen, 2010; Parasuraman, Greenhaus, & Granrose, 1992; Thomas & Ganster, 1995).

Previous studies mentioned that social support from spouse, family members, supervisors and co-workers, greatly affect the tension of married women working on work-family conflict (Greenhaus & Beutell, 1985).

### **2.2.5 Colleague Support**

Colleagues support for work may refer as co-workers assisting one another in their tasks when needed by sharing knowledge and expertise as well as providing encouragement and support to each other (Zhou & George, 2001). On the other hand, Vipra and Kamalanabhan (2017) defined colleague support as “the extent to which employees believe their co-workers are willing to provide them with work-related assistance to aid in the execution of their service based duties”. When an employee is facing a difficult task or a task which did not have any readily solution, colleagues may share their knowledge and expertise to each other and face the task together (Scott & Bruce, 1994). By supporting the colleagues, employees may also acquire task-relevant knowledge and expertise and make a new way that possible to solve the problem that they are facing together (Smith, 2006). In this way, working together with helpful and supportive colleagues will promote an environment where new ideas can be discussed more openly and freely to solve the problem together that they are facing in the workplace.

Bogo, Paterson, Tufford, and King, (2011) stated that colleague support is important for employees to overcome everyday hardship they encounter in the workplace. Support from co-worker can decrease employees' isolation and make them feel that they are not alone (Ismail et al., 2010).

From the previous study of Mesmer-Magnus and Viswesvaran (2009) about the role of co-worker in reducing the work-family conflict, co-workers may help by taking the time to listen, understand and sympathize to their fellow employee's problems when they are facing a difficult or not ready solution task. Besides, Ray and Miller (1994) explained that work-family conflict can be reduced through colleague support because colleagues are in an optimal position to offer support to employees who are struggling with work-family conflict as they have first-hand knowledge of the stressors associated with the workplace.

Furthermore, several researches have indicated about family-facilitative co-worker support is effective in reducing work-family conflict. The colleague or co-worker may provide emotional support, especially when an employee is facing with work-family conflict. Moreover, colleague often is the most immediately available to assist one another in accomplishing work demands in the face of work-family conflict. The

family-facilitative co-worker instrumental support may include providing missed materials or information to a co-worker attending to a family matter, or backing up a co-worker leaving work to attend to a sick child by swapping their job duties (Mesmer-Magnus et al., 2008). Support from a co-worker may help a person to complete unfinished task and not to frustrate the clients when he or she is having family-related obligation that will interfere the meeting with an important client or to meet a particular deadline. This action not only helps the employees to complete the unfinished tasks, but simultaneously benefits the organization in the end by maintaining client relations (Mesmer-Magnus & Viswesvaran, 2009).

### 2.3 Proposed Theoretical/ Conceptual Framework

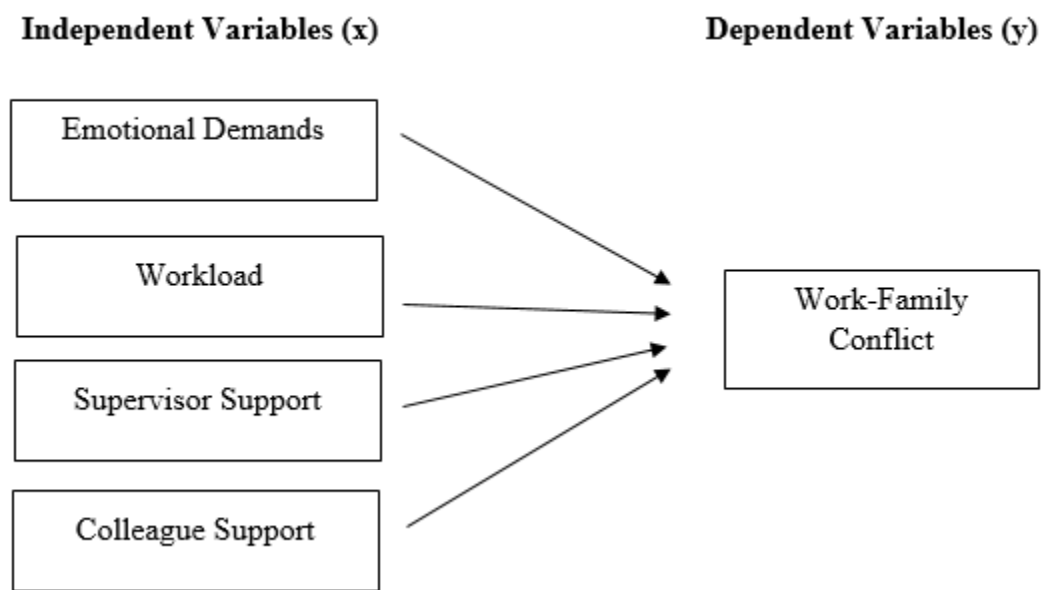


Figure 2.0: Conceptual framework model

Based on the past theoretical models as mentioned earlier, a conceptual framework model is proposed and illustrated in Figure 2, regarding the relationship between independent variables and dependent variable among the nursing employees. This theoretical framework consists of four independent variables, which are workload, emotional demands, management support and colleague support, and the dependent variable of work-family conflict. From the literature review, it is suggested that workload, emotional demands, management support and colleague support will affect work-family conflict. Thus, this study will analyse whether

workload, emotional demands, management support and colleague support will direct impact on work-family conflict.

## **2.4 Hypothesis Development**

### **2.4.1 Emotional Demand and Work-Family Conflict**

Emotional demand refers to an individual's felt emotionally stressful caused by his or her job. (Peeters, Montgomery, Bakker & Schaufeli, 2005). According to Buonocore and Russo (2013); Shacklock and Brunetto (2012), work-family conflict in nursing occupation is unavoidable because the nurses need to experience high level of physical, cognitive, and emotional demands. The home care nurses also experienced high emotional demand as they required to work alone in an uncontrolled environment (Phillips, 2016). Furthermore, the emotional demand on nurses will increase as they need to face the disrespectful patients with aggressive behaviour (Büssing, Glaser, & Höge, 2006). Nursing is a stressful occupation which can affect nurses' productivity, physical and mental health, satisfaction levels, turnover intentions, and patients' satisfaction (Khamisa, Peltzer, & Oldenburg, 2013). Many authors (Jansen, Kant, Ij, Kristensen & Nijhuis, 2003; Kinnunen & Mauno, 1998; Frone, Russell & Cooper, 1992) have list emotional demand as a work-related risk factors for work-family conflict. Based on Yanchus, Eby, Lance and Drollinger (2010), the emotional demand of work and family eventually affect work-family conflict. Based on the above reviews, the following hypothesis is formed:

H<sub>1</sub>: Emotional demand has a significant influence on work-family conflict of nursing employees.

### **2.4.2 Workload and Work-Family Conflict**

According to Goh and Ilies (2015), workload is a job demand or stress source, representing energy consumption in terms of time and psychological resources. This increase in demand convert into additional resources needed or consumed by the work area (Goh et al. 2015). The longer you work, the less time you have to meet your family needs (Thompson, Beauvais & Lyness, 1999). Because there are not enough

resources to meet the needs of the two roles, there is a conflict between the two domains (Goh et al. 2015).

In previous studies, there was a positive and strong relationship between work-family conflict and work requirements such as working hours, workload and abnormal working hours (Anafarta, 2011; Patel, Beekhan, Paruk & Ramgoon, 2008; Simunic & Gregov, 2012 & Yildirim & Aycan, 2008). According to Michel, Kotrba, Michelson, Clark and Baltes (2011), the antecedents of work–family conflict showed that stressful and emotionally. Work demands and heavy workloads will increase work-family conflict (Annor, 2016).

Nurses are facing high risks of work-family conflict and its negative consequences due to demanding work schedules (e.g, shift work, long hours and overtime) and various physical and psychosocial stress factors (Cortes, Colombo & Ghislieri, 2010). Heavy workloads and irregular work schedules are reported to be important factors of work-family conflicts, and will reduced job and life satisfaction among nurses (Yildirim & Aycan, 2008).

In previous researches workload is an important antecedent of work–family conflict with both primary (Ilies, Huth, Ryan, & Dimotakis, 2015; Ilies et al., 2007; Major, Klein, & Ehrhart, 2002; O’Driscoll, Ilgen, & Hildreth, 1992) and meta-analytic studies (Byron, 2005; Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011). Based on the review above, the following hypothesis is formed

H<sub>2</sub>: Workload has a significant influence on work-family conflict of nursing employees.

### **2.4.3 Supervisor Support and Work-Family Conflict**

Supervisor support refers to the extent to which the employees think their supervisor cares about their well-being and contribution in the workplace (Eisenberger, Stinglhamber, Vandenberghe, Sucharski & Rhoades, 2002). On the other hand, Kath, Ehrhart, Gates and Stichler (2012) defined supervisor support as the extent to which the employees think that their supervisor makes stress management a priority and cares about the employees’ stress level. Supervisor support has the most benefits for workplace adjustment (Beehr, 1985). This is because supervisors control the pay

increases, promotion and working conditions of the employees. Furthermore, Argyle and Furnham (1983) believed that the work-family conflict can be ease when the employees received compliments and encouragement from their supervisors. Beehr (1985) also claimed that supervisor support is very important to employees because supervisors have the power to offer help and support. A supportive supervisor helps an employee reduce his perception of workplace stress (House, 1981; Dunseath, Beehr & King, 1995) and reduce the pressures to balance work and family (Shinn, Wong, Simko & Torres, 1989). With the supervisor support, the employees will be perceived that their supervisors are able to meet their needs for work and family. A number of studies have associated supervisor support with lower levels of work-family conflict (Karimi & Nouri, 2009; Kossek, Pichler, Bodner & Hammer, 2011; Paustian-Underdahl & Halbesleben, 2014). Based on the above reviews, the following hypothesis is formed:

H<sub>3</sub>: Supervisor support has a significant influence on work-family conflict of nursing employees.

#### **2.4.4 Colleague Support and Work-Family Conflict**

Empirical studies consistently find that colleague support is indeed crucial to tackle the issue of work-to-family conflict (Lembrechts, Dekocker, Zanoni & Pulignano, 2015). Employees who experience supportive supervision, supportive co-workers and perceive work-family policies as accessible are less likely to experience work-to-family conflict (Allen 2001, Anderson, Coffey & Byerly, 2002, Behson 2005, Michel, Kotrba, Mitchelson, Clark & Baltes, 2011, Valcour, Ollier-Malaterre, Matz-Costan, Pitt- Catsouphe & Brown, 2011). A few studies that involved shown that organisational support, supportive co-workers and physicians reduce work-to-family conflict (Cortese 2007, Cortese, Colombo & Ghislieri, 2010, Beigi, Ershadi & Shirmohammadi, 2012). Based on the review above, the following hypothesis is formed:

H<sub>4</sub>: Colleague support has a significant influence on work-family conflict of nursing employees.

## **2.5 Chapter Summary**

In short, this study has provided a review of literature background of how emotional demand, workload, supervisor support and colleague support have significant influence on work-family conflict. The dimensions of independent variable and dependent variable have been explained clearly by referred to the journal articles by previous researchers. The proposed conceptual framework and hypothesis development are formed in this chapter.



## **CHAPTER 3: RESEARCH METHODOLOGY**

### **3.0 Introduction**

Chapter 3 discuss on the research methodology used to conduct this study and describe the research design, data collection methods, sampling design, research instrument, constructs measurement, data processing, data analysis, and lastly a conclusion.

### **3.1 Research Design**

Research design is a set of methods and procedures for collecting and analysing measures to study specific variables in problem studies (Khawaja, Haim & Dileep, 2012). The two common types of research design are quantitative and qualitative research method. The quantitative method is developed to obtain quantitative data for statistical testing of each of the hypothesis (Creswell, 2014). While the qualitative research is a type of research that collects and works with non-numerical data and that seeks to interpret meaning from these data that help us understand social life through the study of targeted populations or places (Ashely, 2019).

This study focuses on quantitative research design instead of qualitative because this study involves the testing of hypothesis that is supported by the grounded theory. Besides, the questionnaire is designed by using fixed alternative questions based. Hence, this study does not involve the qualitative research, such as interview, conversation and observation. All the data in this study will be collected from the target respondent by using self-administered questionnaire and the data will be analyse for verification of the hypothesis.

In addition, this study is conducted a causal research, which the purpose is to identify the extent and nature of cause-and-effect relationships between the independent and dependent variable (Zikmund, Babin & Griffin, 2012). This study also conducted cross-sectional design which data are gathered just once, perhaps over a period of days or weeks or months, in order to answer a research question (Sekaran & Bougie, 2016).

## 3.2 Data Collection Method

The data collection plays an important role in the statistical analysis. Data collection can be classified into two types which is primary data and secondary data to help on finding out the relevant information for all the variables which have the important relationship between dependent variables and independent variables (Douglas, 2015).

### 3.2.1 Primary Data

The primary data is **data that is collected by a researcher from first-hand sources** by using the methods like interviews or survey. It is collected with the research project in mind, directly from primary sources (Driscoll & Brizee, 2017). Primary data is better in addressing the specific research issues and interpreting the data than secondary data. In the initial phase of this study, the researchers have sought the permissions from different hospitals in Perak, such as Hospital Fatimah in Ipoh, Hospital KPJ in Ipoh and so on. However, the researchers could not get the permission from these hospitals to do the questionnaire survey. However, the researchers managed to obtain the formal permission from Hospital Pakar Metro in Sungai Petani and Penang Adventist Hospital for the distribution of the questionnaires, however only restricted assess was allowed, the researchers were only allowed to distribute 30 to 40 questionnaires in each respective hospital. On the other hand, the researchers also manage to obtain the responds from some nurses who work in Ipoh General Hospital and Batu Gajah General Hospital through the help of third party. Besides that, the researchers also manage to get about 60 questionnaires from the hospital nurses, which have been distributed thorough online Google form. Totaling 7 weeks used to collect all questionnaires.

Table 3.0:

*Distribution of Questionnaire*

Hospitals and location	Number of questionnaires distributed	Number of questionnaires collected
Hospital Pakar Metro, Sungai Petani, Kedah	30	30
Penang Adventist Hospital, Penang	40	40
Ipoh General Hospital	7	6
Batu Gajah General Hospital	17	17
Other nurses (Online google form)	100	60
Total	194	153

Table 3.1:

*Exclusion of Trainee Nurse*

Total questionnaires collected	153
Exclude trainee nurses	10
Total of registered nurses	143
Effective response rate	73%

A total of 194 questionnaires have been distributed, a total of 153 usable questionnaires have been returned, there are no missing data were found.

Nevertheless, out of 153 respondents, 10 of the questionnaires returned were from trainee nurses, which will be excluded from the data analysis. As such, the total effective response rate is 73%.

### **3.3 Sampling Design**

#### **3.3.1 Target Population**

It is fundamental to have a clear understanding on the target population of this research project. Resources will be wasted if the target population is not clear and well-understood (Murphy, 2016). There are 135 government hospitals and 200 private hospitals in Malaysia as recorded in 31 December 2017 (Ministry of Health, 2018). In this research project, the target population is the nursing employees of both government and private hospital in Peninsular Malaysia. There is total number of 106,289 nurses in both sectors (Ministry of Health, 2018).

#### **3.3.2 Sampling Frame and Sampling Location**

A sampling frame is any material or device used to draw the sample from the target population (Särndal, Swensson & Wretman, 2003). In this research project, there is no sampling frame due to the name list of nurse workforce in private and government hospital in Peninsular Malaysia is not available. In view of the time constraint and difficulties to obtain the co-operation from the authority of the hospitals, the sampling location of the present study were restricted to selected hospitals in Kedah, Penang, and Perak as the permissions was granted to conduct the survey in the selected hospitals.

#### **3.3.3 Sampling Elements**

In this study, the target respondents of this study are the nursing employees of private and government hospitals. The trainee nurses were excluded from this research since they are not holding a formal work position in the hospital as a nursing employee. Public nurse will also be excluded due to public nurse did not work in a hospital most of the time. Public nurse is referred as a type of nurse focus on promoting health-related information in community instead of working in hospital giving care to patient. Most of the public nurses work in school or health-related department to educate the public about health and safety information. Gender, age, income, working

experience, year of services, education level may be different from our target respondent.

### **3.3.4 Sampling Technique**

There are mainly two types of sampling techniques; probability sampling and nonprobability sampling. (Showkat & Parveen, 2017). In probability sampling, the sample is one in which each element of the population has a known non-zero probability of selection (Showkat et al, 2017). However, non-probability sampling technique uses nonrandomized methods to draw the sample (Showkat et al, 2017). In this study, convenience sampling is chosen because it is the easiest method of sampling, and the participants are selected based on availability and willingness to take part (Barat, 2009; Shantikumar, 2018). Convenience sampling is applied because most commonly used, less expensive and there is no need for a list of all the population elements (Anita S Acharya, Anupam Prakash, Pikee Saxena & Aruna Nigam, 2013).

### **3.3.5 Sample Size**

From the study of Roscoe (1975), a decent amount of sample size is mandatory to fulfill the rule of thumb by Roscoe (1975) which outline the component in determine an effective sample size as the following:

- Sample size larger than 30 and less than 500 are appropriate for most research.
- Where samples are to be broken into subsamples (males/females, juniors/seniors, etc.), a minimum sample size of 30 for each category is necessary).
- In multivariate research (including multiple regression analysis) the sample size should be several times (preferably 10 times or more) as large as the number of variables involved in this study.
- For simple experiment research with tight experimental controls (matched pair, etc.), successful research is possible with a small sample size as 10 to 20 in size.

To ensure a good decision model, the sample size of the present research project had determined by the G Power. From the G Power test, the effect size was set to 0.15 (medium) to avoid the sample size to be too low and lower the probability of a Type 2 error from occurring. The power of the test was set to 0.95 as the power was determined by subtracting the probability of Type 2 error ( $\beta$ ) from 1. At a given alpha level, the power of the test is increased by achieving a larger sample size (Cunningham & Gardner, 2007). The sample size determined by the G Power Test is 129.

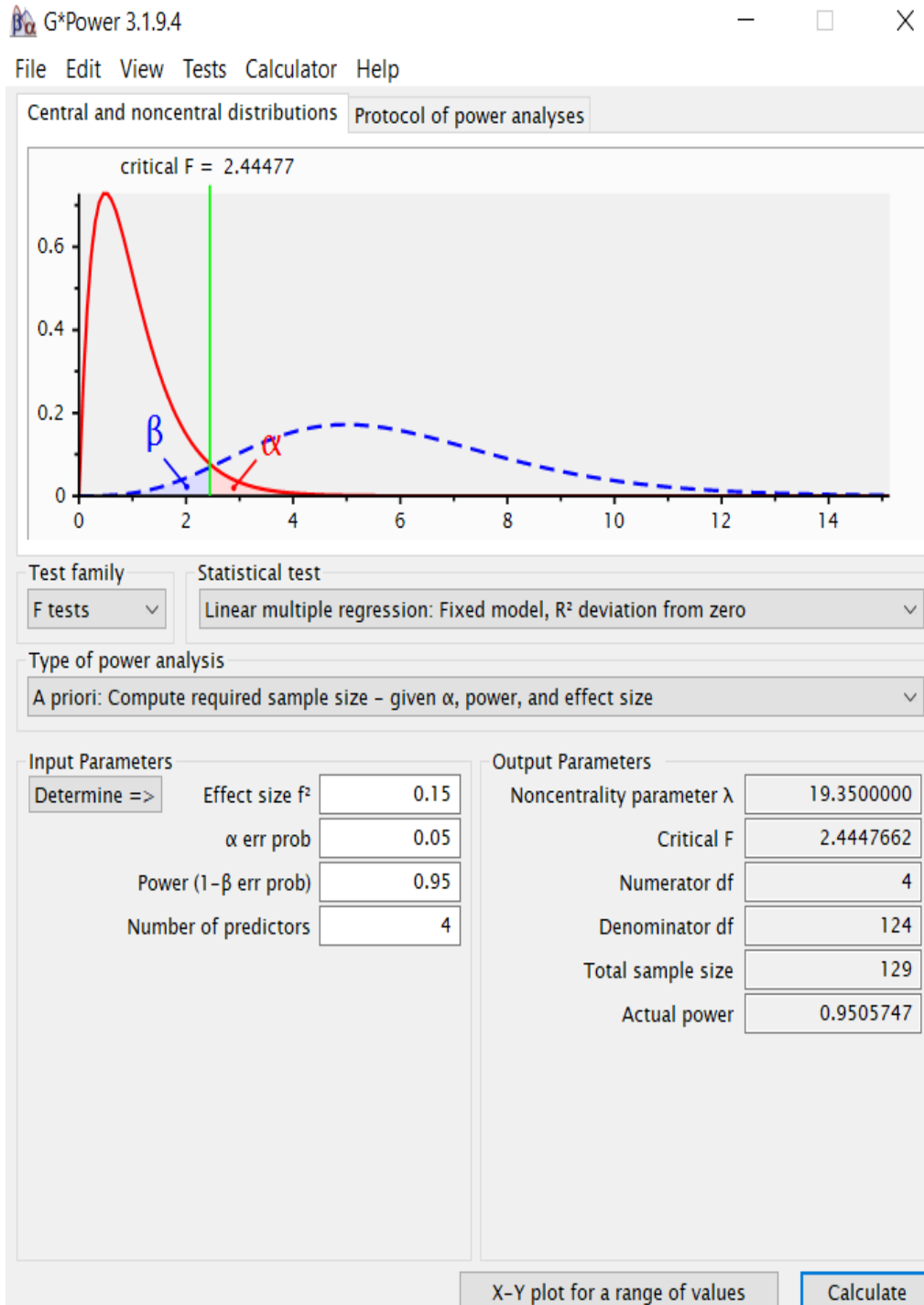


Figure 3.0: Determine Sample Size from G Power.

### **3.4 Research Instrument**

Research Instrument is the measuring tool that used to collect data and information. Many researchers use questionnaire as a research instrument to collect data efficiency from the target respondents (Wilkinson & Birmingham, 2003). The application of questionnaire in research is able to collect primary data from respondents in a short period of time since respondent only need to understand and complete the questionnaire in a few minutes.

#### **3.4.1 Questionnaire Design**

The questionnaire is divided into three parts which are Part A (general information), Part B (dependent variable) and Part C (independent variable). The questionnaire contains of thirty-seven questions. Part A is designed to collect the personal and demographic information from target respondents. It consists of ten questions which require the target respondents to disclose their personal information which are gender, ethnicity, age, length of service in current hospital, type of hospital, type of nurse, average working hours per week, qualification of study, marital status and number of children. Part B and Part C are designed in five points Likert Scale to determine respondents' answers from "strongly disagree, disagree, neutral, agree and strongly agree". Part B is designed to measure the dependent variable which is work-family conflict and it consist of nine questions. Part C is designed to measure the independent variables which are workload, emotional demand, supervisor support and colleague support. Workload consists of four questions; emotional demand consists of six questions and supervisor and colleague support consists of four questions each. In addition, the translation of the questionnaire has been reviewed by an expert in Bahasa Malaysia.

#### **3.4.2 Pre-test and Pilot test**

Pre-test involves small-scale simulation of formal data collection processes to identify practical issues with data collection tools, meetings and methods (Hurst, Arulogun, Owolabi, Akinyemi, Uvere, Warth & Ovbiagele, 2015). The value of pre-test can lead to detection of cross-cultural language relevance and errors in word ambiguity, as



well as the discovery of possible defects in survey measurement variables (Hurst et al. 2015). A pre-test has been conducted in this study. During the pre-test, the questionnaire has been given to expert in the field, such as academic staff to check the questionnaire in order to ensure good content validity. The questionnaire has been reviewed by an academic staff and had made some amendment in Part A which is add a question about nationality. Pilot test refers to the study of some or all of the future trials on a smaller scale which meant to evaluate the appropriateness of the survey instrument (Coleman, Leyrat & Eldridge, 2015). The purpose of conducting a pilot study is to examine the feasibility of an approach that is intended to be used in a larger scale study (Leon, Davis & Kraemer, 2011)

In the pilot test, 30 questionnaires were distributed to the nurses who worked in the hospital and all the questionnaires were collected back.

Table 3.2:

*Reliability test for pilot test*

No	Construct	Cronbach's Alpha
1.	Emotional Demands	0.93
2.	Workload	0.95
3.	Supervisor Support	0.89
4.	Colleague Support	0.88
5.	Work-Family Conflict	0.87

Source: Generated by SAS 7.1 system

From the table 3.2, all the independent variables, emotional demands, workload, supervisor support and colleague support and dependent variable work-family conflict are having very good reliability. This is because the Cronbach's alpha value is greater than 0.80 which are very good reliability.

## **3.5 Origins and Constructs Measurement**

### **3.5.1 Operational Definition**

This study mainly focuses on the conflicts that arise due to work interfering with family. Work-family conflict is adopted from Carlson, Kacmar and Williams (2000), Carlson et al. (2000) developed the work to family conflict measure based on Greenhaus and Beutell's (1985) definition of work-family conflict, which comprise of three sub-scale, namely time-based work interference with family (3 items), strain-based work interference with family (3 items) and behaviour-based work interference with family (3 items). Sample items for each dimension include "My work keeps me from my family activities more than I would like.", "When I get home from work I am often too frazzled to participate in family activities/responsibilities." and "The problem-solving behaviours I use in my job are not effective in resolving problems at home." Composite scale will be formed by averaging the score for the three forms of conflict as described above.

Workload is adopted from Kar and Suar (2014), which consists of four items. Sample item include "I have to look after too many patients at a time".

Emotional demand is adopted from Bakker, Demerouti and Schaufeli (2003), which consists of six items. Sample item include "is your work emotionally demanding?"

Supervisor support is adopted from Caplan, Cobb, French, Harrison and Pinneau (1975), which consists of four items. Sample item include "my supervisor is always willing to listen to my problems".

Colleague support is adopted from Caplan et al. (1975), which consists of four items. Sample item include "my colleague will go out of their way to support me in my work".

Table 3.3:

*Constructs Measurement of Dependent Variable and Independent Variable*

Item	Number of Question	Source	Scales
Work-family conflict		Carlson, Kacmar & Williams (2000)	Interval scale (5 Likert Scale)
<input type="checkbox"/> Time-based work interference with family	3		
<input type="checkbox"/> Strain-based work interference with family	3		
<input type="checkbox"/> Behaviour-based work interference with family	3		
Workload	4	Kar & Suar (2014)	Interval scale (5 Likert Scale)
Emotional Demand	6	Bakker, Demerouti & Schaufeli (2003)	Interval scale (5 Likert Scale)
Supervisor Support	4	Caplan, Cobb, French, Harrison & Pinneau (1975)	Interval scale (5 Likert Scale)
Colleague Support	4	Caplan, Cobb, French, Harrison & Pinneau (1975)	Interval scale (5 Likert Scale)

### 3.5.2 Scale of Measurement

In this research, the questionnaire is divided into three parts which are part A, B and C. All the questions are adopted from the previous research study.

**Nominal scale** represents the basic level of measurement that enables the researchers to assign individuals or objects into different classes. Nominal scale also known as categorical scales or dichotomous scales whereas dichotomous scale only has two categories for answer selection (Brown, 2011).

Gender:  <input type="checkbox"/> Male  <input type="checkbox"/> Female
---

**Ordinal scale** is similar to nominal scale but they also allow objects to be arranged based on the concept that they possess. Ordinal scale shows the order, but not the distances between the rankings (Brown, 2011). Ordinal scale also known as ranked scale.

Age:  <input type="checkbox"/> 20 years old and below  <input type="checkbox"/> 21 - 30 years old  <input type="checkbox"/> 31 - 40 years old  <input type="checkbox"/> 41 - 50 years old  <input type="checkbox"/> 51 years old and above
--

**Interval scale** has the characteristic of both nominal and ordinal scale, but they show the order of things, with equal intervals between the points on the scale (Brown, 2011). According to Brown (2011), scale based on Likert item also considered as interval scale. From the questionnaire, 5- points Likert scale is adopted in order to

show the degree of respondents' opinion. The questionnaire used column from 1 to 5 to determine whether the respondents feel agree or disagree to the related questions.

The 5- point scales are given as provided:

1=Strongly Disagree (SD) 2=Disagree (D) 3=Neutral (N) 4=Agree (A) 5=Strongly Agree (SA)

### **3.6 Data Processing**

It represents the data preparation program prior to data analysis to examine the design assumptions. The purpose of this process is to ensure that the collected data is well organized for future reference. In the process, the researcher must examine, edit, code, and finally transcribe the data obtained, and then analyse it through SAS software to test the hypothesis.

#### **3.6.1 Data Checking**

The first step is checking the collected data. After the data is collected, the researcher must perform a data check to ensure that the information obtained in the questionnaire is fully and accurately provided by the respondent. Data check can help us find any errors that appear in the questionnaire, such as incomplete questionnaires or distributed questionnaires, and respondents are free to answer, which may lead to unreliable responses.

#### **3.6.2 Data Editing**

The second step is editing the collected data. Data editing is primarily an interactive activity where all individual records are checked in order to correct all data in each detail (de Waal, 2009). If the response provided by the respondent is incomplete, or if the respondent may be unwilling to answer certain questions, the researcher will use the answer pattern to edit the data on behalf of the respondent to generate more accurate and consistent data.

### 3.6.3 Data Coding

The third step is coding the edited data. At this stage, the researchers assigned numeric or alphabetic symbols to previously revised data before typing into the database and analysing it through SAS software. The table 3.5 shows the coding sample for the questions in Part A of questionnaire.

Table 3.4:

*Labels and Coding for Demographic Profile*

Question No.	Label	Coding
DP 1	Gender	1= Male 2= Female

In part B and C, the responses for every question under six dimensions are coded as following:

- “Strongly Disagree” is coded as 1
- “Disagree” is coded as 2
- “Neutral” is coded as 3
- “Agree” is coded as 4
- “Strongly Agree” is coded as 5

However, for emotional demand in part C, the six dimensions are coded as following:

- “Never” is coded as 1
- “Sometimes” is coded as 2
- “Regularly” is coded as 3
- “Usually” is coded as 4
- “Always” is coded as 5

### **3.6.4 Data Transcribing**

This is the final step of data processing, transcribing the coded data. In this step, all encoded data is transmitted and analysed by SAS software. Researchers use transcription data for pre-analysis to study and test research hypotheses.

## **3.7 Data Analysis**

In this research project, a computer program Statistical Analysis System (SAS) was chosen to analyse the data collected. SAS is an integrated program able to perform various statistical analyses.

### **3.7.1 Descriptive Analysis**

Descriptive analysis is a technique used to summarize and simplify the raw data collected about a sample and population. It helps in simplify the sophisticated raw data to the simplest form to help the researchers to have a better understanding and provide a clearer view of the sample. In this study, descriptive analysis was used to categorize the demographic characteristics of the respondent.

In the questionnaire designed, Section A comprises of 9 questions which is related to the respondent's personal details or demographic information. Descriptive statistics is used to summarize and depict a given data in a simplest and clear way. In Section A, pie chart is the best to describe the data collected from the respondents because pie chart can depict the data clearly and understandable.

### **3.7.2 Reliability Analysis**

According to Sekaran and Bougie (2016), the reliability of a measure is referred to the degree which consistency and stability is tested.

### 3.7.2.1 Reliability Test

Cronbach's Alpha is suitable in this research project to assess both consistency and reliability of the four independent variables (workload, emotional demands, colleague support and supervisor support) and dependent variable (work-family conflict).

Table 3.5:

*The Rule of Thumb of Cronbach Coefficient Alpha*

Coefficient alpha ( $\alpha$ ) value	Reliability
Below 0.60	Poor
0.60 – 0.70	Fair
0.70 – 0.80	Good
0.80 – 0.95	Excellent

Source: Sekaran & Bougie (2013). *Research Methods for Business. (6<sup>th</sup> Edition)*. Italy: John Wiley & Sons Ltd.

From the table 3.5, if the coefficient alpha value is lower than 0.60, it is considered as poor reliability. Meanwhile, fair reliability can be concluded if the coefficient alpha value is among 0.60 to 0.70. Next, if the coefficient alpha value is between 0.70 to 0.80 is considered good reliability while the coefficient alpha value is at 0.80 to 0.985 is the most excellent.

### 3.7.3 Inferential Analysis

Inferential analysis is the process of analysis that follows the description of data to provide conclusive results.



### 3.7.3.1 Pearson's Correlation Analysis

Pearson's correlation analysis will illustrate the direction, strength, and significance of the bivariate relationships among all the variables that were measured at an interval or ratio level (Sekaran & Bougie, 2016). It is used to measure the strength and direction of the relationship between dependent and independent variables. The correlation coefficient of Pearson's correlation analysis ranges from -1.0 to +1.0. The coefficient value of +1.0 indicates a perfect positive correlated between two variables; coefficient value of -1.0 indicates a perfect negative correlated between two variables.

Table 3.6:

#### *The Rule of Thumb of Pearson Correlation Coefficient*

Coefficient Range	Strength
$\pm 0.91$ to $\pm 1.00$	Very Strong
$\pm 0.71$ to $\pm 0.90$	High
$\pm 0.41$ to $\pm 0.70$	Moderate
$\pm 0.21$ to $\pm 0.40$	Small but definite relationship
0.00 to $\pm 0.20$	Slight, almost negligible

Source: Hair, Money, Samouel & Page (2007).

### 3.7.3.2 Multiple Regression Analysis

Multiple regression analysis is a multivariate technique that explains the variance in the dependent variable using more than one independent variable (Sekaran & Bougie, 2016). The degree of the relationship between independent variables and dependent variables can be determined through this statistical technique. The multiple regression analysis is appropriate for hypothesis testing as this research project has 4

independent variables which are workload, emotional demands, colleague support and supervisor support on the dependent variable which is work-family conflict.

Below is the linear equation,

$$\hat{Y} = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4$$

From the formula,  $\hat{Y}$  = dependent variable (Work-family conflict)

$\alpha$  = fix and constant

$\beta$  = coefficients of each independent variables

$X_1$  = Independent variable 1 (Workload)

$X_2$  = Independent variable 2 (Emotional demands)

$X_3$  = Independent variable 3 (Colleague support)

$X_4$  = Independent variable 4 (Supervisor support)

### **3.8 Chapter Summary**

This study used causal and cross-sectional as the research design. While the data collection methods, sampling design and research instrument are identified with justification provided. The three types of data analyses which are descriptive analysis, reliability analysis and inferential analysis were used to measure and study the relationship between the emotional demands, work overload, supervisor and colleague support and the dependent variable among nurse employees in healthcare industry.

## **CHAPTER 4: DATA ANALYSIS**

### **4.0 Introduction**

This chapter presents the findings of this study, which were obtained from the various analyses. The chapter starts with the respondents' profile and is supported by demographic data. In the other hand, two inferential analyses were performed, Pearson's correlation and multiple regression. Last, the multiple regression analysis provides an indication of its predictor and criterion.

### **4.1 Descriptive Analysis**

#### **4.1.1 Respondent Demographic Profile**

The questionnaires are made into two forms which included printed and online questionnaires form. There were 143 questionnaires collected from the respondents of the nursing workers in Peninsular Malaysia. All the questionnaires were collected as soon as the nurses had completed their responses.

Table 4.0:

*Demographic of Respondents*

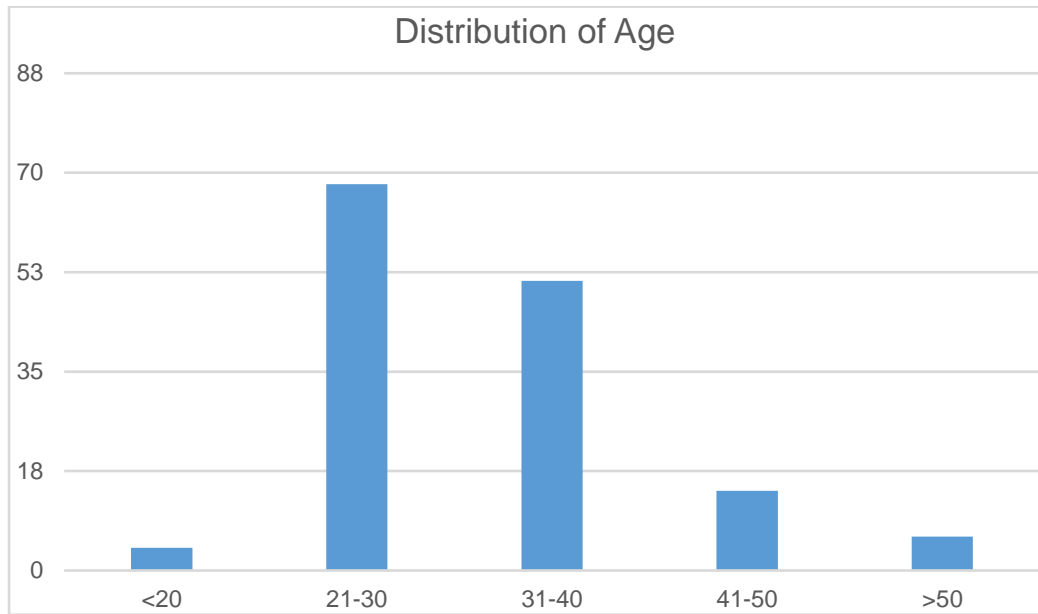
Demographic Variables		Frequency	Percent
Age	≤ 20	4	2.80
	21-30	68	47.55
	31-40	51	35.66
	41-50	14	9.79
	≥ 50	6	4.20
Gender	Male	28	19.58
	Female	115	80.42
Marital Status	Single	54	37.76
	Married	88	61.54
	Others	1	0.70
Number of Children	0	67	46.85
	1-2	43	30.07
	3-4	29	20.28
	5-6	4	2.80
Nationality	Malaysian	139	97.20
	Non-Malaysian	4	2.80

Determinants of Work-Family Conflict Among the Hospital Nurses in Peninsular Malaysia

Ethnicity	Chinese	44	30.77
	Malays	66	46.15
	Indians	28	19.58
	Others	5	3.50
Qualification	Diploma	78	54.55
	Degree	35	24.48
	Masters	17	11.89
	Others	13	9.09
Type of hospital	Public	42	29.37
	Private	101	70.63
Category	Registered	130	90.91
	Others	13	9.09
Length of service (years)	≤ 1	31	21.68
	2-4	32	22.38
	5-7	30	20.98
	8-9	17	11.89
	≥ 10	33	23.08
Average working hours (weeks)	≤ 40	18	12.59
	41-50	73	51.05
	51-60	45	31.47
	≥ 61	7	4.90

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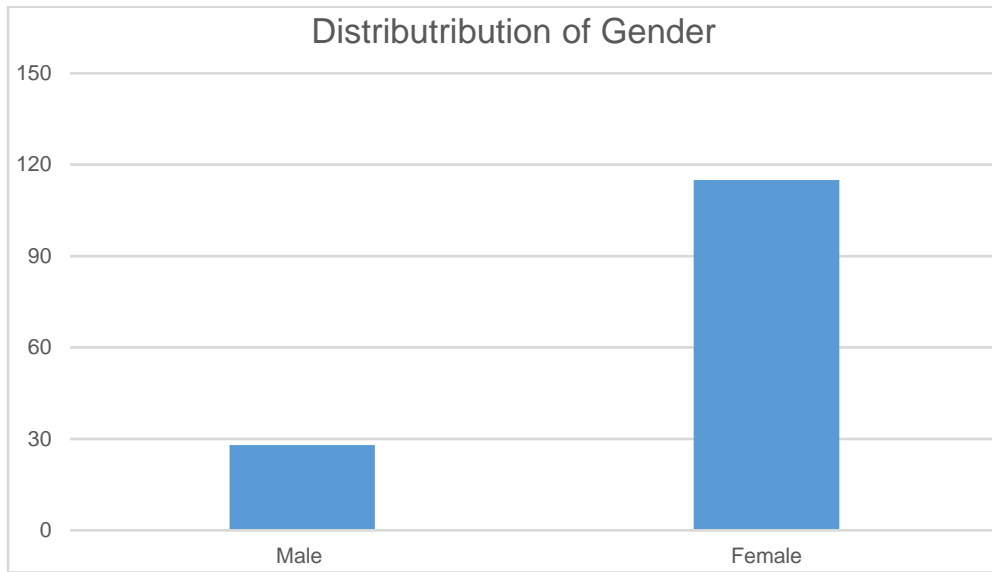
**4.1.1.1 Age**



*Figure 4.0: Age Distribution Respondents*

Table 4.0 shows the age group of the respondents. Majority of the respondents are between 21 to 30 years old. They occupy the highest percentage which is 47.55 percent with the amount of 68 respondents. Age group from 31 to 40 are the second highest group of respondents which occupied 35.66 percent with the amount 51 respondents. However, the least respondents are the age group that is 50 years old or more which are only consists 4.2 percent with the amount of 6 respondents.

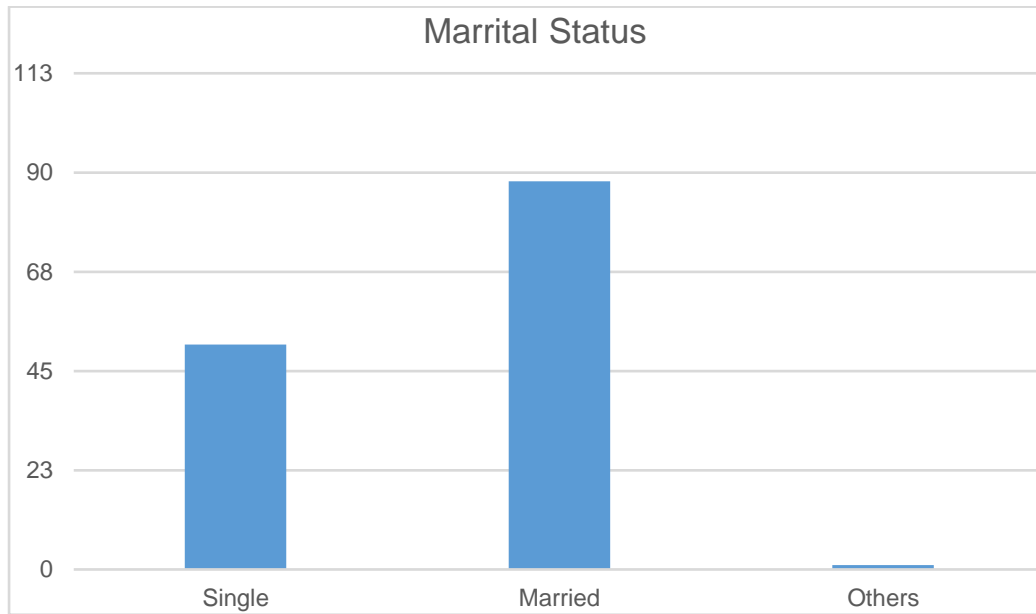
#### 4.1.1.2 Gender



*Figure 4.1: Gender Distribution Respondents*

Table 4.0 shows the gender of the respondents which has contributed in this study. There have 28 males and 115 female respondents with the percentage of 19.58 and 80.41 percent that contributed in the survey. In this study most of the respondents are female.

#### 4.1.1.3 Marital Status

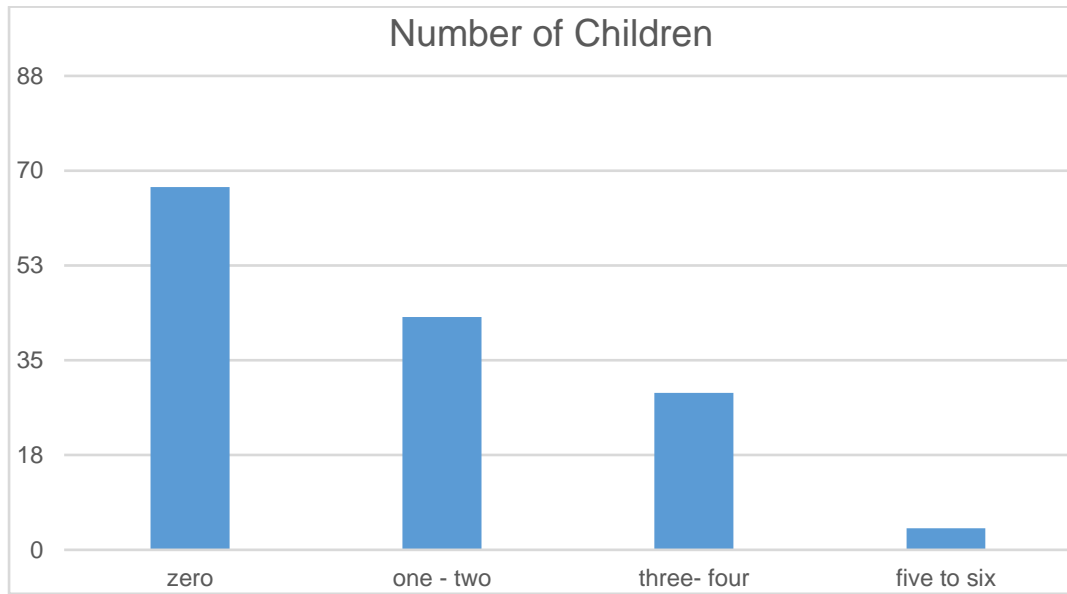


*Figure 4.2: Marital Status Distribution Respondents*

Table 4.0 shows the marital status that had contributed in this research. Most of the respondents in this study are married which occupied 61.54 percent with the amount of 88 respondents, while the single respondents occupied 37.76 percent of the total respondents with the amount of 54 respondents. However, there is still has 1 respondent which is in others status and that only occupied 0.70 percent in this research.



#### 4.1.1.4 Number of children



*Figure 4.3:* Number of Children Distribution Respondents

Table 4.0 show the number of children that had contributed in this research. The highest frequency of the respondents is they did not have any child which consists of 67 respondents and occupied 46.85 percent. While the least frequency of the respondents is having 5-6 children that only consists of 4 respondents and occupied 2.8 percent in this study.

#### 4.1.1.5 Nationality

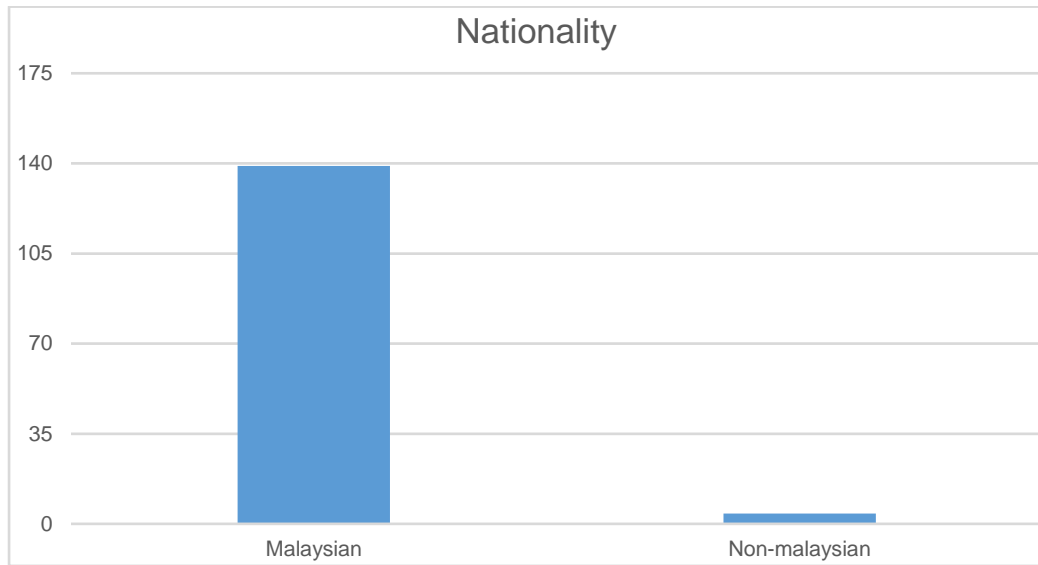


Figure 4.4: Nationality Distribution Respondents

Table 4.0 shows the nationality of the respondents in this research. There are two types of nationality in this study which is Malaysian and non-Malaysian. Most of the respondents in this study are Malaysian which consists of 139 respondents and occupied 97.20 percent. While the rest of the respondents are non-Malaysian, which are 4 respondents and occupied 2.80 percent.

#### 4.1.1.6 Ethnicity

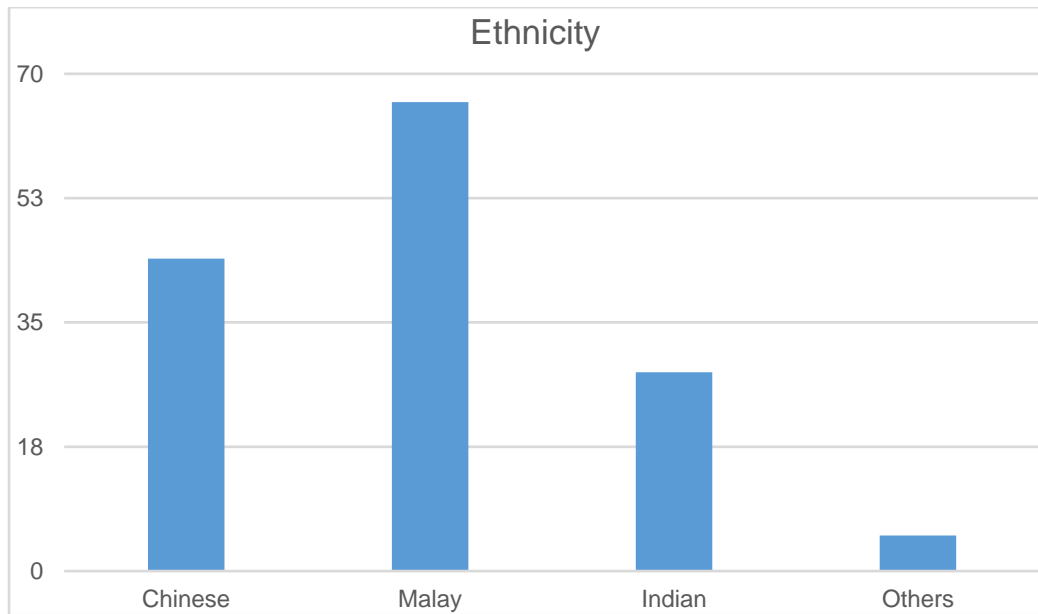


Figure 4.5: Ethnicity Distribution Respondents

Table 4.0 shows the ethnicity of the respondents in this research. There are four types of ethnics in this study which is Malay, Chinese, Indian and others. The most respondents in this study are Malays which consists 66 respondents and occupied 46.15 percent in this study, it continues with Chinese ethnic and then Indian. Moreover, there are still has 5 respondents which is others ethnic in this study which only occupied 3.50 percent.

#### 4.1.1.7 Qualification

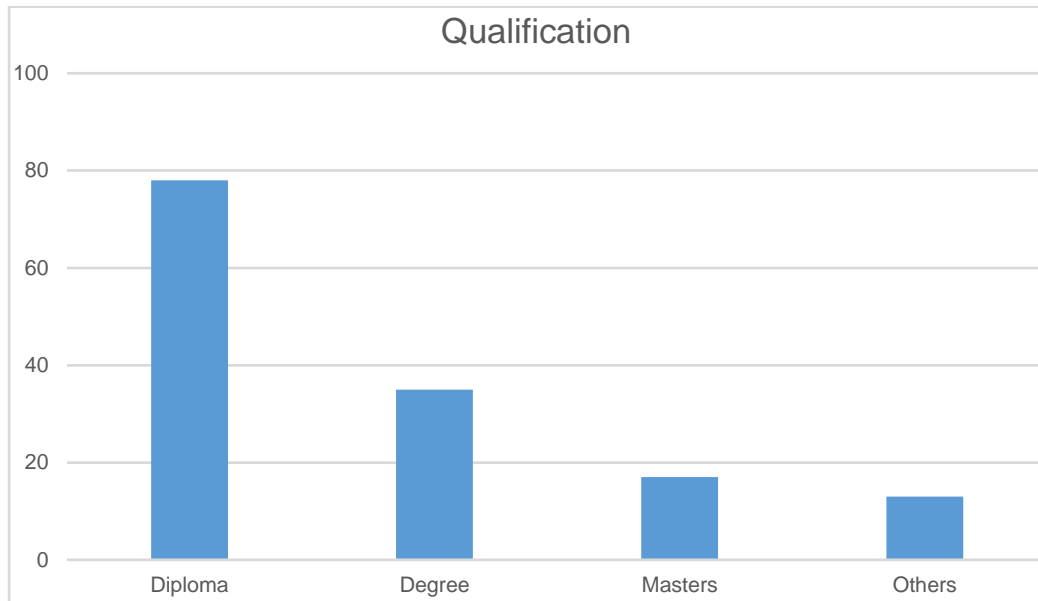


Figure 4.6: Qualification Distribution Respondents

Table 4.0 shows the qualification of the respondents in this research which is diploma, degree, masters and others. There are more than half of the respondents in this study are having a diploma qualification in this study which consists 78 respondents and occupied 54.55 percent. Meanwhile, the least category of qualification in this study falls in the others category which only consists of 13 respondents and occupied 9.09 percent.

#### 4.1.1.8 Type of hospitals

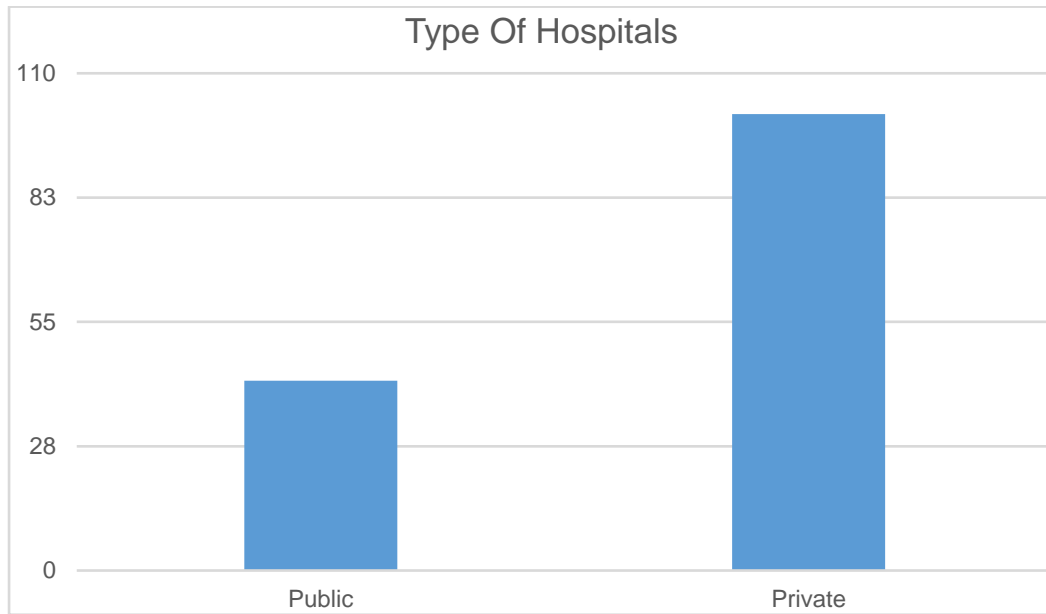


Figure 4.7: Type of Hospital Distribution Respondents

Table 4.0 shows the type of hospital that the respondent works. In this research, there are two types of hospital that the respondents work in, which are public and private hospitals. Most of the respondents are working in private hospital it consists of 101 respondents and occupied 70.63 percent in this study. Meanwhile the rest are working in the public hospitals.

#### 4.1.1.9 Category of nurses

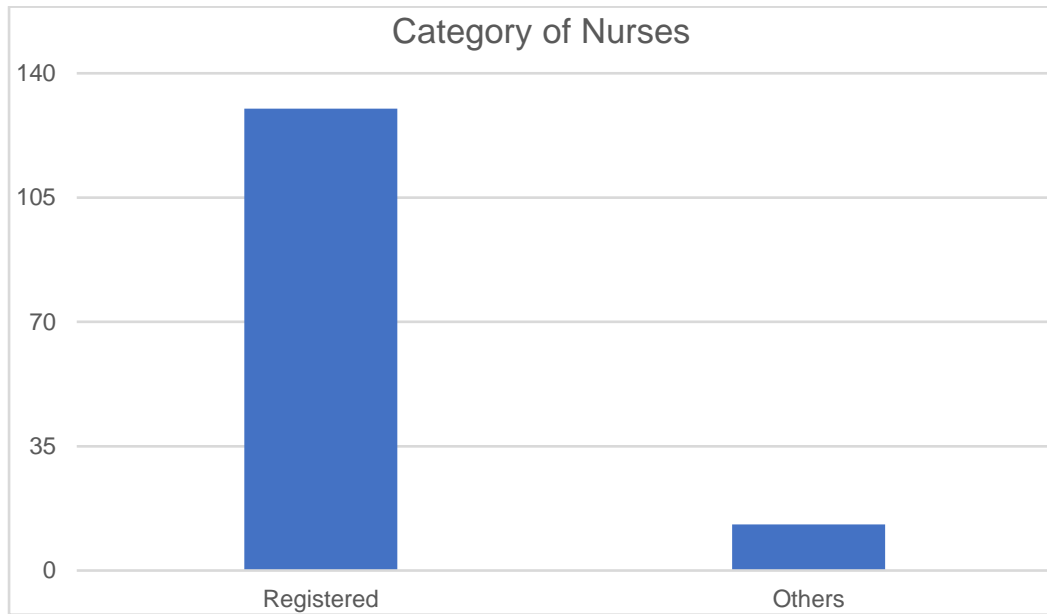
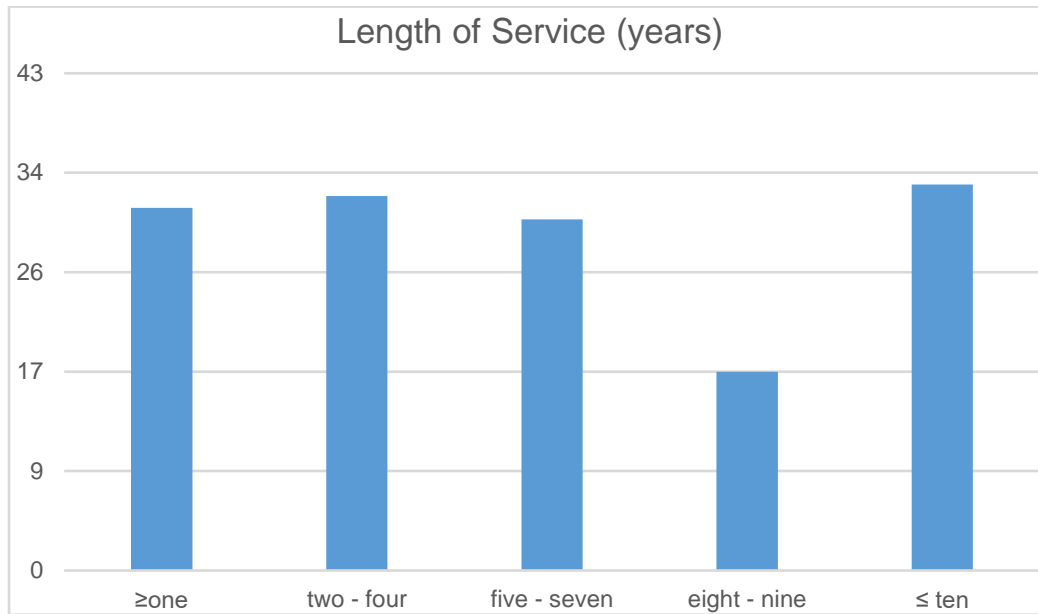


Figure 4.8: Category of Nurses Distribution Respondents

Table 4.0 shows the category of the respondents which are registered and trainee nurses in this study. Most of the respondents are registered nurses. The registered nurses category consists of 130 respondents and occupied 90.91 percent in this study. The rest of all respondent fall in others category consists of 13 respondent and occupied 9.09% in this study.

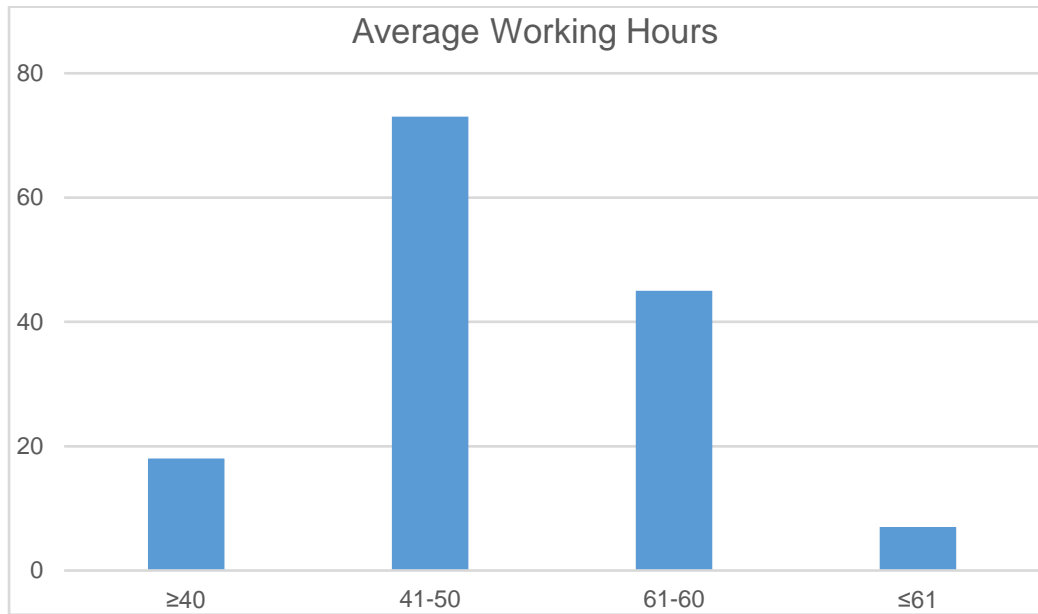
**4.1.1.10 Length of service**



*Figure 4.9:* Length of Service Distribution Respondents

Table 4.0 shows the length of services in years of the respondents in this study. The highest rank of length of service falls in 2 to 4 years which consists 32 respondents and occupied 22.38 percent. The second rank of the length of service which is less than 1 year and it is just slightly different with the highest rank which having 31 respondents and occupied 21.68 percent. While the least respondents fall in 8 to 9 years which consists of 17 respondents only and occupied 11.89 percent.

**4.1.1.11 Average working hours**



*Figure 4.10: Average Working Hours Distribution Respondents*

Table 4.0 shows the average working hours in a week of the respondents in this study. There are more than half of the respondents which have 73 respondents choose to work between 41 to 50 hours in a week which is an average working hour in a week and occupied 51.05 percent. Moreover, there are still have 7 respondents choose to work overtime in a week which is more than 61 hours and that occupied 4.90 percent in this study.



### 4.1.2 Central Tendencies Measurement of Constructs

Statistical Analysis System (SAS) was used to measure the mean and standard deviation for all the dependent and independent variables in the project.

#### 4.1.2.1 Work-Family Conflict

Table 4.1:

*Central Tendency of Measurement of Work-Family Conflict*

Label	Statement	Sample Size, N	Mean	Standard Deviation	Ranking (Mean)	Ranking (Standard Deviation)
DV1	My work keeps me from my family activities more than I would like.	143	3.482	0.998	4	9
DV2	The time I must assign to my job keeps me from participating equally in household responsibilities and activities.	143	3.489	1.033	3	7
DV3	I have to miss family activities due to the amount of time I must spend on work responsibilities.	143	3.727	1.008	1	3

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DV4	When I get home from work, I am often too exhausted to participate in family activities / responsibilities.	143	3.713	1.032	2	8
DV5	I am often so emotionally drained when I get home from work that it prevents me from contributing to my family.	143	3.391	1.041	6	6
DV6	Due to all the pressures at work, sometimes when I come home, I am too stressed to do the things I enjoy.	143	3.412	1.043	5	5
DV7	The problem-solving behaviours I use in my job are not effective in resolving problems at home.	143	1.108	1.108	8	1
DV8	Behaviour that is effective and necessary for me at work would be counterproductive at home.	143	1.080	1.080	7	4

DV9	The behaviours I perform that make me effective at work do not help me to be a better parent and spouse.	143	1.104	1.104	9	2
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Source: Data Generated by SAS Enterprise Guide 7.1.

Table 4.1 shows the rankings of the mean and standard deviation for the questions about the work-family conflict designed in the questionnaire. By referring to the table, question DV3 has the highest mean with the value of 3.727. In contrast, question DV9 has the lowest mean with 2.797. Next, the question with the highest standard deviation is question DV7 with the value of 1.108 while the question with the lowest standard deviation is question DV1 with the value of 0.998.

#### 4.1.2.2 Workload

Table 4.2:

##### *Central Tendency of Measurement of Workload*

Label	Statement	Sample Size, N	Mean	Standard Deviation	Ranking (Mean)	Ranking (Standard Deviation)
Workload 1	I have to look after so many patients at a time.	143	3.643	0.974	3	2
Workload 2	I have not enough time to get the job done.	143	3.545	1.005	4	1
Workload 3	I often have too much work to do.	143	3.762	0.941	2	3
Workload 4	My job requires working very fast.	143	4.307	0.733	1	4

Source: Data Generated by SAS Enterprise Guide 7.1.

Table 4.2 shows the mean and standard deviation for the question of workload part in the designed questionnaire. By referring to Table 4.2, question Workload 4 has the highest mean value with 4.307 and lowest standard deviation with the value of 0.733. In contrast, question Workload 2 has the lowest mean value with 3.545, and the highest standard deviation with the value of 1.005.

### 4.1.2.3 Supervisor Support

Table 4.3:

#### *Central Tendency of Measurement of Supervisor Support*

Label	Statement	Sample Size, N	Mean	Standard Deviation	Ranking (Mean)	Ranking (Standard Deviation)
Supervisor 1	When things get tough at work, I can always rely on my supervisor to help me to solve the problem.	143	2.916	1.017	4	1
Supervisor 2	My supervisor will go out of his/her way to support me in my work.	143	3.119	0.938	3	3
Supervisor 3	It is easy for me to talk to my supervisor when I need help.	143	3.154	0.922	2	4
Supervisor 4	My supervisor is always willing to listen to my problems.	143	3.189	0.956	1	2

Source: Data Generated by SAS Enterprise Guide 7.1.

Table 4.3 shows the mean and standard deviation for the question of supervisor support part in the designed questionnaire. By referring to the table, question Supervisor 4 has the highest mean value with 3.188112 while question Supervisor 1

has the lowest mean value with 2.9160839 and highest standard deviation with the value of 1.0174291.

#### 4.1.2.4 Colleague Support

Table 4.4:

*Central Tendency of Measurement of Colleague Support*

Label	Statement	Sample Size, N	Mean	Standard Deviation	Ranking (Mean)	Ranking (Standard Deviation)
Colleague 1	When things get tough at work, I can always rely on my colleagues to help me to solve the problem.	143	3.664	0.740	4	2
Colleague 2	My colleagues will go out of their way to support me in my work.	143	3.671	0.739	3	3
Colleague 3	It is easy for me to talk to my colleagues when I need help.	143	3.748	0.754	2	1
Colleague 4	My colleague is always willing to listen to my problems.	143	3.818	0.728	1	4

Source: Data Generated by SAS Enterprise Guide 7.1.

Table 4.4 shows the mean and standard deviation for the question of colleague support part in the designed questionnaire. By referring to the table, question Colleague 4 has the highest mean value with 3.818 and lowest standard deviation value with 0.728. In addition, question Colleague 1 has the lowest mean value with 3.664. Equally important, question Colleague 3 has the highest standard deviation with the value of 0.754.

**4.1.2.5 Emotional Demand**

Table 4.5:

*Central Tendency of Measurement of Emotional Demand*

Label	Statement	Sample Size, N	Mean	Standard Deviation	Ranking (Mean)	Ranking (Standard Deviation)
ED 1	Is your work emotionally demanding?	143	3.552	1.154	1	4
ED 2	Are you confronted with things that personally touch you?	143	3.265	1.138	5	5
ED 3	Do you face emotionally charged (emotionally intense) situations in your work?	143	3.384	1.087	2	6

ED 4	Do you deal with patients who keep complaining, although you always do everything to help them?	143	3.293	1.309	4	1
ED 5	Do you have to deal with demanding patients?	143	3.363	1.275	3	3
ED 6	Do you have to deal with patients who do not treat you with the appropriate respect and politeness?	143	3.0489	1.301	6	2

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Source: Data Generated by SAS Enterprise Guide 7.1

Table 4.5 shows the mean and standard deviation of emotional demand for the question of emotional demand part in the designed questionnaire. By referring to the table, question ED1 has the highest mean value with 3.552 while question ED6 has the lowest mean value with 3.048. In addition, question ED4 has the highest standard deviation with value of 1.309; in contrast, question ED3 has the lowest standard deviation value of 1.087.



#### 4.1.2.6 Central Tendency of Measurement for All Variables

Table 4.6:

##### *Central Tendency of Measurement for All Variables*

Variable	Sample Size, N	Mean	Standard Deviation	Ranking (Mean)	Ranking (Standard Deviation)
Work-Family Conflict	143	3.341	0.764	3	3
Workload	143	3.814	0.760	1	4
Supervisor Support	143	3.094	0.826	5	2
Colleague Support	143	3.725	0.624	2	5
Emotional Demand	143	3.318	0.981	4	1

Source: Data Generated by SAS Enterprise Guide 7.1.

Based on the Table 4.6, among the variables, Workload has the highest mean value with 3.814 while Supervisor Support has the lowest mean value with 3.094. In addition, Emotional Demand has the highest standard deviation with the value of 0.918 and Colleague Support has the lowest standard deviation with the value of 0.624.

## 4.2 Scale Measurement

### 4.2.1 Reliability Test

Table 4.7:

*Reliability Test for Actual Study*

No	Variables	Cronbach's Alpha
1.	Emotional Demands	0.894
2.	Workload	0.846
3.	Supervisor Support	0.885
4.	Colleague Support	0.865
5.	Work-Family Conflict	0.889

Source: Data Generated by SAS Enterprise Guide 7.1

From the Table 4.7, the Cronbach alpha value is stable for all the variables. For Emotional demands it has the highest alpha value which is 0.894, followed by Work-family conflict which is 0.889. Supervisor Support with the value of 0.886, Colleague Support with 0.865. Workload has the lowest alpha value which is 0.846.

From the result of reliability test, it can be concluded that all the variables are constant and stable as overall Cronbach's alpha value is within 0.80 to 0.95 which have very good reliability.

## 4.3 Inferential Analysis

### 4.3.1 Pearson Correlation Analysis

#### 4.3.1.1 Correlation between Emotional Demands and Work-Family Conflict

Table 4.8:

*Correlation between Emotional Demands and Work-Family Conflict*

	Work-family conflict	Emotional Demand
Work-family conflict	1.0000	0.43237 <0.0001
Emotional Demands	0.43237 <0.0001	1.0000

Note. n = 143

Based on the table 4.8, the results indicate that emotional demand has a significant influence on work-family conflict among nursing employees. ( $r = 0.432$ ,  $p < 0.001$ ). This shows that when the level of emotional demand is high, the employees' work-family conflict is high. The value of correlation coefficient is 0.432 which fall under the coefficient range of 0.41 to 0.70. Hence the correlation between work-family conflict and emotional demand is moderate. Besides, the emotional demand has significantly correlation with work-family conflict due to the p-value is less than 0.001.

### 4.3.1.2 Correlation between Workload and Work-Family Conflict

Table 4.9:

#### *Correlation between Workload and Work-Family Conflict*

	Work-family conflict	Workload
Work-family conflict	1.0000	0.47960
		<0.0001
Workload	0.47960	1.0000
	<0.0001	

Note. n = 143

Table 4.9 shows that Workload has a significant correlation with work-family among nursing employees. ( $r = 0.480$ ,  $p < 0.001$ ). Hence, when the level of workload is high, the employees' work-family conflict is high. The value of correlation coefficient is 0.480 which fall under the coefficient range of 0.41 to 0.70. Hence the correlation between work-family conflict and workload is moderate. Next, p-value that smaller than 0.001 means that the workload has a significantly correlated with work-family conflict.

### 4.3.1.3 Correlation between Supervisor Support and Work-Family Conflict

Table 4.10:

#### *Correlation between Supervisor Support and Work-Family Conflict*

	Work-family conflict	Supervisor support
Work-family conflict	1.0000	-0.13651
		0.1040
Supervisor support	-0.13651	1.0000
	0.1040	

Note. n = 143

Based on the table 4.10, the supervisor support does not have significant correlation with work-family conflict among nursing employees. ( $r = -0.136$ ,  $p = 0.104$ ). The p-value is 0.104 that is greater than 0.05 means that the supervisor support did not significantly correlated with work-family conflict. Hence, the higher the level of supervisor support did not lower the employee work-family conflict.

#### 4.3.1.4 Correlation between Colleague Support and Work-Family Conflict

Table 4.11:

*Correlation between Colleague Support and Work-Family Conflict*

	Work-family conflict	Colleague support
Work-family conflict	1.0000	0.05369
		0.524
Colleague support	0.05369	1.0000
	0.524	

Note. n = 143

Based on the table 4.11 indicate that colleague support did not has a significant correlation with work-family conflict among nursing employees ( $r = 0.054$ ,  $p = 0.524$ ). The p-value is 0.524 that is bigger than 0.05 means that the colleague support did not significantly correlated with work-family conflict. It also means that the higher level of the colleague support among employees did not reduce employees' work-family conflict.

### 4.3.2 Multicollinearity

Pearson correlation analysis was performed prior to multiple regression analysis in order to examine the correlation between the variables. Besides, correlation matrix (Table 4.12) can be computed to evaluate whether multicollinearity problem exists. Multicollinearity is a statistical occurrence in which two or more independent variables in a multiple regression model are highly correlated (Sekaran & Bougie, 2013). The occurrence of multicollinearity may affect the accuracy of the regression coefficient estimation result.

Table 4.12:

#### *Correlation Matrix for key variables*

	Work-Family Conflict	Workload	Supervisor Support	Colleague Support	Emotional Demand
Work-Family Conflict					
Workload	0.479**				
Supervisor Support	-0.136	-0.078			
Colleague Support	0.524	0.070	0.282**		
Emotional Demand	0.432**	0.449**	-0.051	0.0154	

Notes: \*\* $p < 0.01$ , \* $p < 0.05$

Source: Data Generated by SAS Enterprise Guide.

Based on the table 4.12, the correlation between all independent variables (Workload, Supervisor Support, Colleague Support and Emotional Demand) are below 0.7, this shows that all independent variables are not highly correlated to each other.

### 4.3.3 Multiple Regression Analysis

This study aims to examine the influence of four independent variables (emotion demands, workload, supervisor support and colleague supports) on work-family conflict. Multiple regression analysis was performed to examine the impacts of the independent variables and dependent variable in this study.

- H<sub>1</sub> Emotional demand has a significant influence on work-family conflict of nursing employees.
- H<sub>2</sub> Workload has a significant influence on work-family conflict of nursing employees.
- H<sub>3</sub> Supervisor support has a significant influence on work-family conflict of nursing employees.
- H<sub>4</sub> Colleague support has a significant influence on work-family conflict of nursing employees.

Multiple regression analysis for hypothesis testing (Hypothesis 1 to Hypothesis 4) as this study uses more than one independent variable to explain variance in a dependent variable.

Table 4.13:

*Analysis of Variance*

Analysis of Variance					
Source	DF	Sum of Squares	Mean square	F Value	Pr > F
Model	4	24.73615	6.18404	14.65	<0.0001
Error	138	58.25340	0.42213		
Corrected total	142	82.98955			

Based on table 4.13, the relationship between the F-statistic is significant because the value is  $<0.0001$ , which is less than alpha value 0.05. The result indicates that the proposed model of this study is good contributor to the study of the relation between the independent variables (emotional demand, workload, supervisor support, colleague support) and dependent variable (work-family conflict).

Table 4.14:

*Model Summary*

Root MSE	0.64971	R-Square	0.2981
Dependent Mean	3.34188	Adj R-square	0.2777
Coeff Var	19.44152		

The amount of R-square value indicates the effectiveness of independent variables to explain the dependent variable. According to table 4.14, the model has 29.81% of impact to the dependent variable while there is another 70.19% of area which is unidentified by the current model with the existing independent variables of emotional demand, workload, supervisor support and colleague support. Therefore, there will be other variables that are important in explaining work-family conflict have yet to be considered in this research.



Table 4.15:

*The Estimate of Parameter*

Variable	DF	Parameter Estimate	Standard Error	t- value	Pr > t	Standardized Estimate	Tolerance
Intercept	1	1.52270	0.43988	3.46	0.0007	0	
Workload	1	0.35211	0.08041	4.38	<0.0001	0.35046	0.79413
Supervisor support	1	-0.09230	0.06922	-1.33	0.1846	-0.09984	0.90723
Colleague Support	1	0.01912	0.09245	0.21	0.8365	0.01562	0.89121
Emotional Demand	1	0.20807	0.06291	3.31	0.0012	0.26717	0.77944

Table 4.15 shows the significance of explanation of each independent variable towards the dependent variable by comparing the p-value of each independent variable with the alpha value, which is 0.05. Workload is significant influence employee's work-family conflict because of its p-value of >0.0001 is less than the alpha value 0.05. Emotional demand is also significantly influence employee's work-family conflict because of its p-value of 0.0012 which is less than the alpha value of 0.05. While the other two independent variable both has no significant influence in employee's work-family conflict because of their p-value that exceed 0.05 respectively, which are supervisor support (p-value = 0.1846) and colleague support (p-value = 0.8365). The results showed that hypothesis 1 and hypothesis 2 are supported, but hypothesis 3 and hypothesis 4 are not supported.

### Regression Equation

The multiple linear regression equation is represented as below:

$$Y = a + b_1(X_1) + b_2(X_2) + b_3(X_3) + b_4(X_4)$$

From the formula,  $\hat{Y}$  = dependent variable (Work-family conflict)

$\alpha$  = fix and constant

$\beta$  = coefficients of each independent variables

$X_1$  = Independent variable 1 (Workload)

$X_2$  = Independent variable 2 (Emotional demands)

$X_3$  = Independent variable 3 (Colleague support)

$X_4$  = Independent variable 4 (Supervisor support)

$$\text{Work-family conflict} = 1.5227 + 0.20807 (\text{ED}) + 0.35211 (\text{WL}) + -0.0923 (\text{SS}) + 0.01912 (\text{CS})$$

The highest influence for the model is workload as it has the highest parameter estimate of 0.35211 and bring the most impact to employees' work-family conflict, followed by the second highest variable, emotional demand with parameter estimate of 0.20807, and third highest belongs to colleague support with parameter estimate of 0.01912 and lastly supervisor support with parameter estimate of -0.0923.

## 4.4 Conclusion

Table 4.16:

### *Result of Hypothesis*

Hypothesis	Statement	Result
H <sub>1</sub>	Emotional demand has a significant influence on work-family conflict of nursing employees.	Supported
H <sub>2</sub>	Workload has a significant influence on work-family conflict of nursing employees.	Supported
H <sub>3</sub>	Supervisor support has a significant influence on work-family conflict of nursing employees.	Not Supported
H <sub>4</sub>	Colleague support has a significant influence on work-family conflict of nursing employees.	Not Supported

As a conclusion, Table 4.16 summarises the hypothesis testing results from multiple regression analysis. Table 4.16 shows that all proposed hypotheses are supported as the p-value between emotional demands and work-family conflict as well as between workload and work-family conflict were below alpha value of 0.005. For the supervisor support and colleague support-were not supported as p-value was above alpha value 0.05.

## **CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATION**

### **5.0 Introduction**

In this chapter, it consists of the discussion of major findings, which is the way independent variables (emotional demand, workload, supervisor support and colleague support) affect the dependent variable (work-family conflict). Furthermore, this chapter also provide the limitation of the research and the recommendation on limitation. Lastly, the conclusion of this research also will be provided.

### **5.1 Discussion of Major Findings**

#### **5.1.1 Emotional Demand and Work-Family Conflict**

##### **Hypothesis 1**

H<sub>1</sub>: Emotional demand has a significant influence on work-family conflict of nursing employees.

From the Multiple Regression analysis, a significant relationship between emotional demand and work-family conflict was identified. To conclude, an increase in emotional demand will result in an increase of work-family conflict of nursing employees and vice versa.

This result further coincides with the research done by Peeters, Montgemory, Bakker and Schaufeli (2005), who conclude that job demands (emotional, quantitative and mental) is significant influence on work-family conflict. Futhermore, the result also supports by the research done by Simon Kummerling and Hasselhorn (2004), stated that the relationship between emotional demand and work-family conflict is significant influence, however the correlation is lower than quantitative demands.

Last but not least, the result also supported by the researcher through their empirical studies ascertained that emotional demand can increase work-family conflict among Italian nurses (Camerino, Sandri, Sartori, Conway, Campanini & Costa, 2010).

Based on the study, most the Malaysia nurse usually have encounter emotional demands in the hospital. This will cause them to have a poor job performance and facing work-family conflict. This result is same with the predicted hypothesis.

### **5.1.2 Workload and Work-Family Conflict**

#### **Hypothesis 2**

H<sub>2</sub>: Workload has a significant influence on work-family conflict of nursing employees.

From the Multiple Regression analysis, a significant relationship between workload and work-family conflict was identified. To sum up all the things, an increase in workload will result in an increase of work-family conflict of nursing employees and vice versa.

The result further coincides with the research done by Lu, Gilmour, Kao and Huang (2006) that showed that workload is positively correlated with work-family conflict among Taiwanese and British. Moreover, the study of Voydanoff (2005) identified that workload is related to work-family conflict.

Previous studies have demonstrated that high workload (Yildirim & Aycan, 2008) and irregular work schedules (Camerino, Sandri, Sartori, Conway, Campanini & Costa, 2010; Fujimoto, Kotani, & Suzuki, 2008; Yildirim & Aycan, 2008) have a significant influence to work-family conflict and less life satisfaction among nurses (Yildirim & Aycan, 2008). Based on the study of Goh, Ilies and Wilson (2015), workload increase the work-family conflict and decrease life satisfaction indirectly. Nützi, Koch, Baur and Elfering (2015) reported that workload, flexible work schedule and high job status are strongly related to work-family conflict.

Based on the study, most the Malaysia nurse usually have encounter workload in the hospital. This will cause them to have stress and anxiety that leading them to face work-family conflict. This result is same with the predicted hypothesis.

### **5.1.3 Supervisor Support and Work-Family Conflict**

#### **Hypothesis 3**

H<sub>3</sub>: Supervisor support has no significant influence on work-family conflict on nursing employees.

From the Multiple Regression analysis, there is not significant relationship between supervisor support and work-family conflict. This signifies that supervisor support will not reduce the work-family conflict of nursing employees.

Despite the result was inconsistent with some earlier findings, such as Barnet, Martin and Garza (2018) that perceived social support can more consistently predict coping capacity and outcomes. Moreover, Lu, Kao, Copper et al. (2009) identified that supervisory support may be more useful due to the acceptance of the employee family, employees of the collectivist society responsibility outside of work. But, studies by Luk and Shaffer (2005) showed that there is no significant effect between supervisor support and work-family conflict among 248 Hong Kong employees. Moreover, Karatepe (2009) also concluded that there is no significant influence between supervisor support and work-family conflict. This is because supervisor support alone might be insufficient to lighten the work-family conflict that faced by nurses. Based on the study of Ng, Kuar and Lai (2013), supervisor support has no significant relationship with work-family conflict among the employed workers. Besides that, the study of Hsu, Chen, Wang and Lin (2010) also did not find the significant relationship between supervisor support and work-family conflict among China and Taiwan employees. The research of Fox and Dwyer (1999) showed that there was no significant association between supervisor support and work-family conflict among registered nurses in private hospital in Midwest.

### **5.1.4 Colleague Support and Work-Family Conflict**

#### **Hypothesis 4**

H<sub>4</sub>: Colleague support has no significant influence on work-family conflict of nursing employees.

From the Multiple Regression analysis, there is no significant relationship between colleague support and work-family conflict was identified. This means colleague support will not reduce work-family conflict among nursing employees.

The result was contradicted with the earlier findings that envisaged significant effect between colleague support and work-family conflict, such as Mesmer-Magnus and Viswesvaran (2009), about the role of co-worker in reducing the work-family conflict. Besides, Ray and Miller (1994) also explained that work-family conflict can be reduced through colleague support. The result also contradicted with study done by Lembrechts, Dekocker, Zaroni and Pulignano (2015), their empirical studies has consistently found that colleagues support is really crucial for solving work and family conflicts. However, Cortese, Colombo and Ghislieri (2010) reported that the relationship between work-family conflict and colleague support was no significant among nurses in their study. Besides, the similar result also done by Namayandeh, Yaacob and Juhari (2010), in their result indicated that there is no significant relationship between colleague support and work-family conflict among married female nurse in Shiraz-Iran. One possible explanation for this result may be due to the difficult working conditions in the hospital, and the support of colleagues is not common among nurses in these hospitals. According to Adibhajbagheri, Mehnosh and Fazlallah (2004) the lack of cohesiveness among nurses creates an atmosphere of lack of support and mutual trust between them.

## **5.2 Implication of Study**

### **5.2.1 Practical Implication**

Academically, this study may provide useful information to help the medical employee resolving the work-family conflict from the factors of emotional demand, workload, supervisor support and colleague support.

This study draws several practical implications. The hospital management should understand the status of their staff. If hospital's management team found out that their staff who are facing work-family conflict, they need to take action to solve the staff problem either lower down or balance between work and family roles.

From the previous chapter, work-family conflict is a mutual compatibility between the role of both work and family (Nurnazirah, Samsiah, Zurwina & Fauziah, 2015). The stress is huge for the people who are having heavy workload and emotional demands.

In order to reduce workload, hospital management can equip Smart Sense in the hospital. SmartSense offers a range of tools and services to proactively prevent common clustering issues. With SmartSense, nurse can quickly capture the diagnostic information they need to solve problems and generate proactive recommendations that improve cluster performance, security and operations (Yong, 2017). SmartSense helps nurses perform repetitive tasks and enables them to focus on the core responsibility of caring for patients. Save a lot of time by reducing calls or finding patients' medications, testing or meal times.

Furthermore, workloads seem to increase work-family conflicts, leading to poor mental health and negative attitudes towards work. Thus, supervisors should be provided with training programs to strengthen their sympathy and help in dealing with nurse work - family issues (Yildirim & Aycan, 2008).

Moreover, the health care institutions and Ministry of Health can work together to find ways to reduce workload and emotional demands among nurses as these factors not only result to stress, but also lead to work-family conflict among nursing employees, such as registered nurse. By having a better understanding on these factors, Ministry of Health can help minimize the issues faced by the nursing employees and increase the job satisfaction and reduce emotional demands of nursing employees. Ministry of Health can add a training program that helps the nursing employee to practice and increase nurse's Emotional Intelligence (EQ) in any situation. For example, before the students graduate, send them to training program to learn some technique on how to control their emotional in any situation. This will help them to reduce some stress when they facing the situation in the hospital. In addition, in the hospital, supervisor can play a role to have a counselling session or talk with the staff that is high in emotional demands.

In order to solve the shortage of nurse issue in Malaysia, health care institution or Ministry of Health encouraged to invest money in nursing education so the student may not bear much burden when taking nursing course. Besides, Ministry of Health



also can give full of the National Higher Education Fund (PTPTN) for nursing education. Thus, this will help to encourage the newcomers to enrol into this industry and solving the shortage issue faced in Malaysia, which eventually can reduce the high workload encountered by the nurses.

For individual nurse perspective, the hospital can provide counseling so they can look for counselling when they feeling stressful. Besides, nurses can make their own timetable. For example, make a list of everything that must get done today. Then, make a note of how long it will take and rank the jobs in order of importance. Start looking at tasks and seeing when will have time in the day to get one or two items done. When have a few minutes, complete a task that you can get done in that time. They will also feel better knowing that they are not forgetting anything.

### **5.3 Limitation of Study**

There are some limitations during the research process. First of all, the geographical area coverage in this research is small as this research only randomly selected a few hospitals in one state. Hence, this research only has small sample size from a single state for data collection, thus, it limits the generalizability of the findings. The second limitation is the difficulties to seek the cooperation from the hospitals for conducting surveys at the hospitals. Besides that, the result of the  $R^2$  value is only about 30% which shows that the four independent variables of this research are only contributed 30% of the variance in work-family conflict.

Furthermore, the sampling method used in this research is convenience sampling. The main objective of convenience sampling is to collect data from respondents who are easily accessible (Etikan, Musa & Alkassim, 2015). However, the convenience sampling is likely to be biased (Mackey & Gass, 2005) and should not be taken as representative of the population (Etikan et. al, 2015). Moreover, this research is a cross-sectional study which is difficult to make causal inference and it can only be a snapshot because the time frame will affect the result (Levin, 2006).

## **5.4 Recommendations for Future Research**

In order to prevent similar situation happen in future research, some recommendations have been done. First of all, future researchers should include the nurses from different hospitals across different states in Peninsular Malaysia to ensure the sample size is large in data collection and the results can be generalised. Besides, the future researches also will acquire a better implication of the research with the wider geographical area coverage and the result will be more reliable.

Furthermore, future researchers should apply longitudinal study to investigate the progress and change of the research overtime. The longitudinal study is needed to verify causality and extend the research (Kinnunen, Feldt, Siltaloppi & Sonnentag, 2011). The researcher will need longitudinal study to measure change and make stronger causal interpretations (Rajulton, 2001).

Moreover, in order to increase the value of  $R^2$ , the future researchers should examine others independent variable such as burnout. Burnout also conceptualized as emotional exhaustion which is caused by continuing job stress from role conflict and ambiguity (Cinamon & Rich, 2010). Many studies on burnout have investigated the occupation that need to work directly with people in need (e.g. nurses, teacher, and police officers) (Shirom, 2003). Based on the research of Ádám, Györffy and Susánszky (2008), high levels of burnout caused higher work-family conflict.

## **5.5 Conclusion**

In short, this chapter has emphasized the major findings, implication of study, limitation of study and recommendation of the future study. Suggestions or recommendation of the future study is also emphasized in chapter 5.

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APPENDICES

Appendix 1: Survey Questionnaire



**UNIVERSITI TUNKU ABDUL RAHMAN**

**FACULTY OF BUSINESS AND FINANCE**

**BACHELOR OF BUSINESS ADMINISTRATION (HONS)**

Dear respondents,

We are students of Bachelor of Business Administration (Hons) from Universiti Tunku Abdul Rahman (UTAR). We are currently doing our final year project titled 'Determinants of work-family conflict among the hospital nurses in Peninsular Malaysia'.

This final year project is important to us as a partial fulfilment of our bachelor degree program.

Your participation represents a valuable contribution to this study and your responses will be kept private and confidential and used solely for academic purposes.

If you have any enquiries, please do not hesitate to contact:

<u>Name</u>	<u>Student ID</u>	<u>Contact Number</u>
Celine Ng Jingning	14ABB03179	016-7736112
Lim Chiew Thong	17ABB04988	019-7786135
Lim Jia Yong	17ABB04986	012-5827379
Tan Wei Gen	14ABB05674	016-4989742

**Instruction:**

- 1) There are 3 parts in this questionnaire. Please answer ALL questions.
- 2) Please be informed that in accordance with Personal Data Protection Act 2010("PDPA) which came into force on 15 November 2013, Universiti Tunku Abdul Rahman is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal information.

**Acknowledgement of Notice:**

- (     ) I have been notified by you and I hereby understood, consented and agreed per UTAR notice.
- (     ) I disagree and my personal data will not be processed.

**Part A: General Information**

The following questions refer to the general information of the respondents. Please tick the appropriate box to represent your answer. Your answer will be kept confidential.

1. Gender:

*Jantina:*

- Male                       Female

*Lelaki                      Wanita*

2. Nationality:

*Kewarganegaraan:*

- Malaysian                       Non-Malaysian

*Warganegara                      Bukan warganegara*

3. Ethnicity:

*Etnik:*

- Chinese                       Malay                       Indian                       Others (Please specify):

*Cina                      Melayu                      India                      Lain-lain (Sila nyatakan):*

4. Type of hospital:

*Jenis hospital:*

- Public hospital                       Private hospital

*Hospital awam                      Hospital swasta*

5. Which category of nurse you are? :

*Kategori jururawat anda:*

- Registered nurse                       Trainee nurse                       Others (Please specify):

*Jururawat berdaftar                      Jururawat pelatih                      Lain-lain (Sila nyatakan):*

6. Qualification of study:

*Kelayakan pengajian:*

- Diploma       Bachelor Degree       Master Degree      (Please specify)  
*Ijazah sarjana muda      Ijazah sarjana      'Sila nyatakan):*

7. Marital status:

*Status perkahwinan:*

- Single       Married       Others  
*Tunggal      Berkahwin      Lain-lain*

8. Number of children (If got):

*Bilangan anak (Jika ada):*

- 0       1 – 2       3 – 4       5 – 6        $\geq 7$

9. Age:

*Umur:*

- $\leq 20$  years old       21- 30 years old       31 – 40 years old       41 – 50 years old  
 *$\leq 20$  tahun      21- 30 tahun      31 – 40 tahun      41 – 50 tahun*
- $\geq 51$  years old  
 *$\geq 51$  tahun*

10. Length of service in current hospital:

*Tempoh perkhidmatan di hospital kini:*

- $\leq 1$  year       2 – 4 years       5 – 7 years       8 – 9 years        $\geq 10$  years  
 *$\leq 1$  tahun      2 – 4 tahun      5 – 7 tahun      8 – 9 tahun       $\geq 10$  tahun*

11. Average working hours per week:

*Purata jam kerja setiap minggu:*

- $\leq 40$  hours       41 – 50 hours       51 – 60 hours        $\geq 61$  hours  
 *$\leq 40$  jam      41 – 50 jam      51 – 60 jam       $\geq 61$  jam*

**Part B: Dependent Variable**

The statement in this part is related to work-family conflict. Please circle the number that best reflects your opinion about the statement using 5 Likert scale which [(1) = Strongly Disagree, (2) = Disagree, (3) = Neutral, (4) = Agree and (5) = Strongly Agree]

**Work-family conflict/ Konflik antara kerja dan keluarga**

No.	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	My work keeps me from my family activities more than I would like. <i>Kerja saya menyebabkan saya tidak dapat melibatkan diri dalam aktiviti keluarga sebagaimana yang saya inginkan.</i>	1	2	3	4	5
2.	The time I must assign to my job keeps me from participating equally in household responsibilities and activities. <i>Masa yang saya peruntukkan untuk tugas saya menyebabkan saya tidak dapat melibatkan diri dalam tanggungjawab dan aktiviti keluarga secara sama rata.</i>	1	2	3	4	5
3.	I have to miss family activities due to the amount of time I must spend on work responsibilities. <i>Saya terlepas daripada menyertai aktiviti keluarga disebabkan oleh jumlah masa yang perlu diperuntukkan untuk tanggungjawab kerja.</i>	1	2	3	4	5
4.	When I get home from work I am often too exhausted to participate in family activities / responsibilities. <i>Apabila saya pulang ke rumah dari tempat kerja, saya sering terlalu letih untuk mengambil bahagian dalam aktiviti/tanggungjawab keluarga.</i>	1	2	3	4	5



5.	I am often so emotionally drained when I get home from work that it prevents me from contributing to my family. <i>Apabila saya pulang ke rumah dari tempat kerja, saya sering mengalami keletihan emosi dan ini menghalang saya daripada memberi sumbangan kepada keluarga saya.</i>	1	2	3	4	5
6.	Due to all the pressures at work, sometimes when I come home I am too stressed to do the things I enjoy. <i>Kadang-kala saya rasa terlalu stress untuk melakukan perkara-perkara yang saya suka disebabkan oleh semua tekanan di tempat kerja.</i>	1	2	3	4	5
7.	The problem-solving behaviours I use in my job are not effective in resolving problems at home. <i>Gelagat/ tingkah-laku untuk menyelesaikan masalah yang saya gunakan dalam tugas saya tidak berkesan dalam menyelesaikan masalah di rumah.</i>	1	2	3	4	5
8.	Behaviour that is effective and necessary for me at work would be counterproductive at home. <i>Gelagat/ tingkah-laku yang dianggap berkesan dan perlu di tempat kerja akan menjadi tidak produktif di rumah.</i>	1	2	3	4	5
9.	The behaviours I perform that make me effective at work do not help me to be a better parent and spouse. <i>Gelagat/ tingkah-laku yang membolehkan saya bekerja dengan berkesan di tempat kerja tidak dapat membantu saya menjadi ibu/ bapa dan pasangan yang lebih baik.</i>	1	2	3	4	5

### Part C: Independent Variables

The statement in this part is related to the workload, supervisor support and colleague support. According to your experience, please circle the number that best reflects your opinion about the statement using 5 Likert scale which [(1) = Strongly Disagree, (2) = Disagree, (3) = Neutral, (4) = Agree and (5) = Strongly Agree]

#### Workload/Beban kerja

No.	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	I have to look after so many patients at a time. <i>Saya perlu menjaga ramai pesakit pada masa yang sama.</i>	1	2	3	4	5
2.	I have not enough time to get the job done. <i>Saya tidak mempunyai masa yang cukup untuk menghabiskan tugas.</i>	1	2	3	4	5
3.	I often have too much work to do. <i>Saya sering mempunyai banyak kerja.</i>	1	2	3	4	5
4.	My job requires working very fast. <i>Kerja saya memerlukan saya membuat kerja dengan cepat.</i>	1	2	3	4	5

**Supervisor Support/Sokongan penyelia**

No.	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	When things get tough at work, I can always rely on my supervisor to help me to solve the problem. <i>Apabila keadaan menjadi sukar di tempat kerja, saya boleh sentiasa bergantung kepada penyelia saya untuk membantu saya menyelesaikan masalah ini.</i>	1	2	3	4	5

2.	My supervisor will go out of his/her way to support me in my work. <i>Penyelia saya akan menyokong saya dalam kerja saya.</i>	1	2	3	4	5
3.	It is easy for me to talk to my supervisor when I need help. <i>Apabila saya memerlukan bantuan, ia sangat mudah bagi saya untuk berbincang dengan penyelia saya.</i>	1	2	3	4	5
4.	My supervisor is always willing to listen to my problems. <i>Penyelia saya sentaisa bersedia untuk mendengar masalah saya.</i>	1	2	3	4	5

**Colleague Support/Sokongan rakan sekerja**

No.	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	When things get tough at work, I can always rely on my colleagues to help me to solve the problem. <i>Apabila keadaan menjadi sukar di tempat kerja, saya boleh sentiasa bergantung kepada rakan sekerja saya untuk membantu saya menyelesaikan masalah ini.</i>	1	2	3	4	5
2.	My colleagues will go out of their way to support me in my work. <i>Rakan sekerja saya akan menyokong saya dalam kerja saya.</i>	1	2	3	4	5
3.	It is easy for me to talk to my colleagues when I need help. <i>Apabila saya memerlukan bantuan, ia sangat mudah bagi saya untuk berbincang dengan rakan sekerja saya.</i>	1	2	3	4	5

4.	My colleagues is always willing to listen to my problems. <i>Rakan sekerja saya sentaisa bersedia untuk mendengar masalah saya.</i>	1	2	3	4	5
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The following statements are related to emotional demand that you may face in your job. According to your experience, please circle the number that best reflects your opinion about the statement using the scale from (1) = Never, (2) = Sometimes, (3) = Regularly, (4) = Usually and (5) = Always

**Emotional Demand/Permintaan emosi**

Notes: Emotional Demand refers to an individual's felt emotionally stressful caused by his or her job.

*Nota: Permintaan emosi merujuk kepada tekanan emosi yang dialami oleh seseorang akibat daripada pekerjaannya. .*


No.	Statement	Never	Sometimes	Regularly	Usually	Always
1.	Is your work emotionally demanding? <i>Adakah pekerjaan anda melibatkan permintaan emosi/tekanan emosi?</i>	1	2	3	4	5
2.	Are you confronted with things that personally touch you? <i>Adakah anda menghadapi keadaan yang menyentuh hati anda?</i>	1	2	3	4	5
3.	Do you face emotionally charged (emotionally intense) situations in your work? <i>Adakah anda menghadapi situasi tekanan emosi yang tinggi dalam pekerjaan anda?</i>	1	2	3	4	5
4.	Do you deal with patients who keep complaining, although you always do everything to help them? <i>Adakah anda perlu menghadapi pesakit yang selalu membuat aduan, walaupun anda sentiasa melakukan</i>	1	2	3	4	5

	<i>segalanya untuk membantu mereka?</i>					
5.	Do you have to deal with demanding patients? <i>Adakah anda perlu menghadapi pesakit yang mempunyai banyak permintaan?</i>	1	2	3	4	5
6.	Do you have to deal with patients who do not treat you with the appropriate respect and politeness? <i>Adakah anda perlu menghadapi pesakit yang tidak sopan dan tidak menghormati anda?</i>	1	2	3	4	5

**End of questionnaire.**

**Thank you for your participation.**

Appendix 2: Permission Letter for Survey

 **UNIVERSITI TUNKU ABDUL RAHMAN**  
Wholly Owned by UTAR Education Foundation (Company No. 578227-M)

**To Whom It May Concern**

Dear Sir/Madam,

**Permission to Conduct Survey**

This is to confirm that the following students are currently pursuing their *Bachelor of Business Administration (Hons)* program at the Faculty of Business and Finance, Universiti Tunku Abdul Rahman (UTAR) Perak Campus.

I would be most grateful if you could assist them by allowing them to conduct their research at your institution. All information collected will be kept confidential and used only for academic purposes.

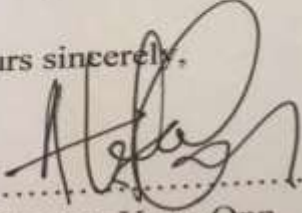
The students are as follows:

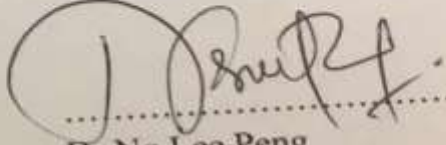
<u>Name of Student</u>	<u>Student ID</u>
Lim Chiew Thong	17ABB04988
Lim Jia Yong	17ABB04986
Celine Ng Jing Ning	14ABB03179
Tan Wei Gen	14ABB05674

If you need further verification, please do not hesitate to contact me.

Thank you.

Yours sincerely,

  
.....  
Dr Choong Yuen Onn  
Head of Department,  
Faculty of Business and Finance  
Email: choongyo@utar.edu.my

  
.....  
Dr Ng Lee Peng  
Supervisor,  
Faculty of Business and Finance  
Email: nglp@utar.edu.my

**Kampar Campus** : Jalan Universiti, Bandar Barat, 31900 Kampar, Perak Darul Ridzuan, Malaysia  
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**Sungai Long Campus** : Jalan Sungai Long, Bandar Sungai Long, Cheras, 43000 Kajang, Selangor Darul  
Tel: (603) 9086 0288 Fax: (603) 9019 8868  
**Postal Address** : PO Box 11384, 50744 Kuala Lumpur, Malaysia

Appendix 3: Inferential analysis data from SAS Software

Reliability of Emotional Demand

Correlation Analysis  
The CORR Procedure

6 Variables: ED 1 ED 2 ED 3 ED 4 ED 5 ED 6

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
ED 1	30	4.26667	0.73968	128.00000	2.00000	5.00000	1=Never, 2=Sometimes, 3=Regularly, 4=Usually, 5=Always, 99=Missing Data
ED 2	30	4.16667	0.83391	125.00000	2.00000	5.00000	1=Never, 2=Sometimes, 3=Regularly, 4=Usually, 5=Always, 99=Missing Data
ED 3	30	4.13333	0.88145	124.00000	2.00000	5.00000	1=Never, 2=Sometimes, 3=Regularly, 4=Usually, 5=Always, 99=Missing Data
ED 4	30	4.10000	0.88301	122.00000	2.00000	5.00000	1=Never, 2=Sometimes, 3=Regularly, 4=Usually, 5=Always, 99=Missing Data
ED 5	30	4.20000	0.88516	126.00000	2.00000	5.00000	1=Never, 2=Sometimes, 3=Regularly, 4=Usually, 5=Always, 99=Missing Data
ED 6	30	4.30000	0.78221	129.00000	2.00000	5.00000	1=Never, 2=Sometimes, 3=Regularly, 4=Usually, 5=Always, 99=Missing Data

Variables	Alpha
Raw	0.927546
Standardized	0.928876

Deleted Variable	Raw Variables Correlation with Total	Alpha	Standardized Variables Correlation with Total	Alpha Label
ED 1	0.609325	0.936532	0.609049	0.938860 1=Never, 2=Sometimes, 3=Regularly, 4=Usually, 5=Always, 99=Missing Data
ED 2	0.784458	0.914183	0.790850	0.913368 1=Never, 2=Sometimes, 3=Regularly, 4=Usually, 5=Always, 99=Missing Data
ED 3	0.880710	0.903618	0.880284	0.903643 1=Never, 2=Sometimes, 3=Regularly, 4=Usually, 5=Always, 99=Missing Data
ED 4	0.835836	0.907962	0.836812	0.908872 1=Never, 2=Sometimes, 3=Regularly, 4=Usually, 5=Always, 99=Missing Data
ED 5	0.840193	0.907354	0.843362	0.908007 1=Never, 2=Sometimes, 3=Regularly, 4=Usually, 5=Always, 99=Missing Data
ED 6	0.786023	0.913798	0.793788	0.915638 1=Never, 2=Sometimes, 3=Regularly, 4=Usually, 5=Always, 99=Missing Data

Reliability of Workload

Correlation Analysis  
The CORR Procedure

4 Variables: Workload 1 Workload 2 Workload 3 Workload 4

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
Workload 1	30	4.33333	0.71116	130.00000	3.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
Workload 2	30	4.26667	0.89149	128.00000	3.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
Workload 3	30	4.36667	0.88868	131.00000	3.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
Workload 4	30	4.36667	0.71840	131.00000	3.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data

Variables	Alpha
Raw	0.934362
Standardized	0.934916

Deleted Variable	Raw Variables Correlation with Total	Alpha	Standardized Variables Correlation with Total	Alpha Label
Workload 1	0.921170	0.930050	0.921432	0.931143 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
Workload 2	0.892557	0.938817	0.893953	0.939462 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
Workload 3	0.919887	0.932444	0.916645	0.932600 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
Workload 4	0.828483	0.958330	0.827823	0.958011 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data

Reliability of Supervisor Support

Correlation Analysis  
The CORR Procedure

4 Variables: Supervisor 1 Supervisor 2 Supervisor 3 Supervisor 4

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
Supervisor 1	30	3.96667	0.96027	92.00000	2.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
Supervisor 2	30	3.93333	0.99481	93.00000	2.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
Supervisor 3	30	3.33333	0.84418	100.00000	2.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
Supervisor 4	30	3.43333	0.91720	103.00000	1.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data

Variables	Alpha
Raw	0.899351
Standardized	0.891088

Deleted Variable	Raw Variables Correlation with Total	Alpha	Standardized Variables Correlation with Total	Alpha Label
Supervisor 1	0.728955	0.860290	0.712029	0.877580 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
Supervisor 2	0.845400	0.821754	0.831447	0.832477 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
Supervisor 3	0.889828	0.870275	0.715191	0.876421 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
Supervisor 4	0.771706	0.854598	0.784105	0.850580 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data

Reliability of Colleague Support

**Correlation Analysis**  
The CORR Procedure

4 Variables: Colleague 1 Colleague 2 Colleague 3 Colleague 4

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
Colleague 1	30	3.96667	0.88145	116.00000	2.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
Colleague 2	30	3.83333	0.74854	115.00000	2.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
Colleague 3	30	3.53333	0.83968	119.00000	2.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
Colleague 4	30	3.86667	0.77608	116.00000	2.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data

Variables	Cronbach Coefficient Alpha
Raw	0.98175
Standardized	0.98488

Deleted Variable	Raw Variables		Standardized Variables	
	Correlation with Total	Alpha	Correlation with Total	Alpha Label
Colleague 1	0.836372	0.810774	0.830922	0.871195 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
Colleague 2	0.980551	0.985202	0.987090	0.919754 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
Colleague 3	0.795619	0.829484	0.791949	0.834876 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
Colleague 4	0.792530	0.830405	0.794304	0.833713 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data

Reliability of Work-family Conflict

**Correlation Analysis**  
The CORR Procedure

9 Variables: DV 1 DV 2 DV 3 DV 4 DV 5 DV 6 DV 7 DV 8 DV 9

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
DV 1	30	4.03333	0.88952	121.00000	2.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
DV 2	30	4.10000	0.88474	123.00000	2.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
DV 3	30	4.26567	0.73968	126.00000	2.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
DV 4	30	4.06567	0.82768	122.00000	1.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
DV 5	30	3.86667	0.88145	116.00000	1.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
DV 6	30	3.76667	0.81720	113.00000	1.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
DV 7	30	3.96667	0.85836	107.00000	1.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
DV 8	30	3.60000	0.89443	106.00000	1.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
DV 9	30	3.63333	0.85029	105.00000	1.00000	5.00000	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data

Variables	Cronbach Coefficient Alpha
Raw	0.98170
Standardized	0.98805

Deleted Variable	Raw Variables		Standardized Variables	
	Correlation with Total	Alpha	Correlation with Total	Alpha Label
DV 1	0.889522	0.887292	0.884228	0.886911 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
DV 2	0.461980	0.886606	0.452943	0.885465 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
DV 3	0.472945	0.886602	0.463081	0.886211 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
DV 4	0.770395	0.862648	0.784296	0.862154 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
DV 5	0.568894	0.879972	0.571367	0.880008 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data
DV 6	0.682399	0.870662	0.682913	0.869952 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data

Appendix 4: Inferential analysis of Central Tendency data from SAS Software

Central Tendency of measurement of Work-Family Conflict

**Summary Statistics**  
**Results**  
The MEANS Procedure

Variable	Label	Mean	Std Dev	Minimum	Maximum	Mode	N	N Miss
DV 1	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	3.4825175	0.9989653	1.0000000	5.0000000	4.0000000	143	0
DV 2	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	3.4885105	1.0337075	1.0000000	5.0000000	4.0000000	143	0
DV 3	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	3.7272727	1.0082883	1.0000000	5.0000000	4.0000000	143	0
DV 4	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	3.7132667	1.0320387	1.0000000	5.0000000	4.0000000	143	0
DV 5	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	3.3916084	1.0416331	1.0000000	5.0000000	4.0000000	143	0
DV 6	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	3.4125874	1.0436169	1.0000000	5.0000000	4.0000000	143	0
DV 7	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	2.9370629	1.1083345	1.0000000	5.0000000	2.0000000	143	0
DV 8	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	3.1258741	1.0803438	1.0000000	5.0000000	4.0000000	143	0
DV 9	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	2.7972028	1.1041499	1.0000000	5.0000000	2.0000000	143	0

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Central Tendency of measurement of Emotional Demand



## Determinants of Work-Family Conflict Among the Hospital Nurses in Peninsular Malaysia

### Summary Statistics

#### Results

##### The MEANS Procedure

Variable	Label	Mean	Std Dev	Minimum	Maximum	Mode	N	N Miss
ED 1	1=Never, 2=Sometimes, 3=Regularly, 4=Usually, 5=Always, 99=Missing Data	3.5524476	1.1547716	1.0000000	5.0000000	4.0000000	143	0
ED 2	1=Never, 2=Sometimes, 3=Regularly, 4=Usually, 5=Always, 99=Missing Data	3.2657343	1.1380181	1.0000000	5.0000000	2.0000000	143	0
ED 3	1=Never, 2=Sometimes, 3=Regularly, 4=Usually, 5=Always, 99=Missing Data	3.3846154	1.0872052	1.0000000	5.0000000	4.0000000	143	0
ED 4	1=Never, 2=Sometimes, 3=Regularly, 4=Usually, 5=Always, 99=Missing Data	3.2937063	1.3099412	1.0000000	5.0000000	2.0000000	143	0
ED 5	1=Never, 2=Sometimes, 3=Regularly, 4=Usually, 5=Always, 99=Missing Data	3.3636364	1.2756962	1.0000000	5.0000000	2.0000000	143	0
ED 6	1=Never, 2=Sometimes, 3=Regularly, 4=Usually, 5=Always, 99=Missing Data	3.0489510	1.3018333	1.0000000	5.0000000	2.0000000	143	0

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### Central Tendency of measurement of Workload

### Summary Statistics

#### Results

##### The MEANS Procedure

Variable	Label	Mean	Std Dev	Minimum	Maximum	Mode	N	N Miss
Workload 1	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	3.6433566	0.9743585	1.0000000	5.0000000	4.0000000	143	0
Workload 2	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	3.5454545	1.0051086	1.0000000	5.0000000	4.0000000	143	0
Workload 3	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	3.7622378	0.9416650	2.0000000	5.0000000	4.0000000	143	0
Workload 4	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	4.3076923	0.7337994	2.0000000	5.0000000	5.0000000	143	0

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### Central Tendency of measurement of Supervisor Support

### Summary Statistics

#### Results

##### The MEANS Procedure

Variable	Label	Mean	Std Dev	Minimum	Maximum	Mode	N	N Miss
Supervisor 1	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	2.9160839	1.0174291	1.0000000	5.0000000	3.0000000	143	0
Supervisor 2	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	3.1188811	0.9381545	1.0000000	5.0000000	3.0000000	143	0
Supervisor 3	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	3.1538462	0.9216312	1.0000000	5.0000000	3.0000000	143	0
Supervisor 4	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	3.1888112	0.9564536	1.0000000	5.0000000	3.0000000	143	0

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### Central Tendency of measurement of Colleague Support

### Summary Statistics

#### Results

##### The MEANS Procedure

Variable	Label	Mean	Std Dev	Minimum	Maximum	Mode	N	N Miss
Colleague 1	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	3.6643357	0.7406131	2.0000000	5.0000000	4.0000000	143	0
Colleague 2	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	3.6713287	0.7390156	2.0000000	5.0000000	4.0000000	143	0
Colleague 3	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	3.7482517	0.7549697	1.0000000	5.0000000	4.0000000	143	0
Colleague 4	1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree, 99=Missing Data	3.8181818	0.7280725	2.0000000	5.0000000	4.0000000	143	0

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Page Break

### Central Tendency of measurement of All Variables

### Summary Statistics

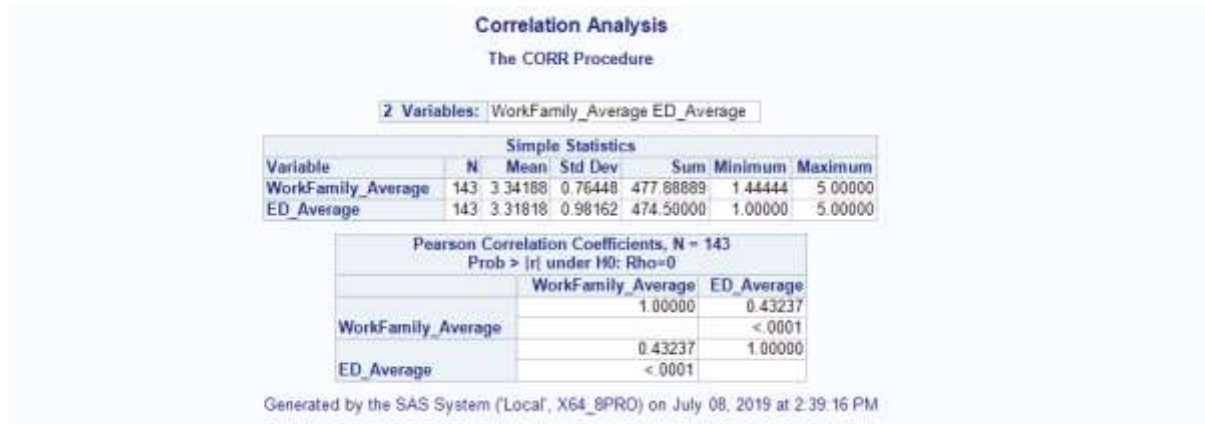
#### Results

##### The MEANS Procedure

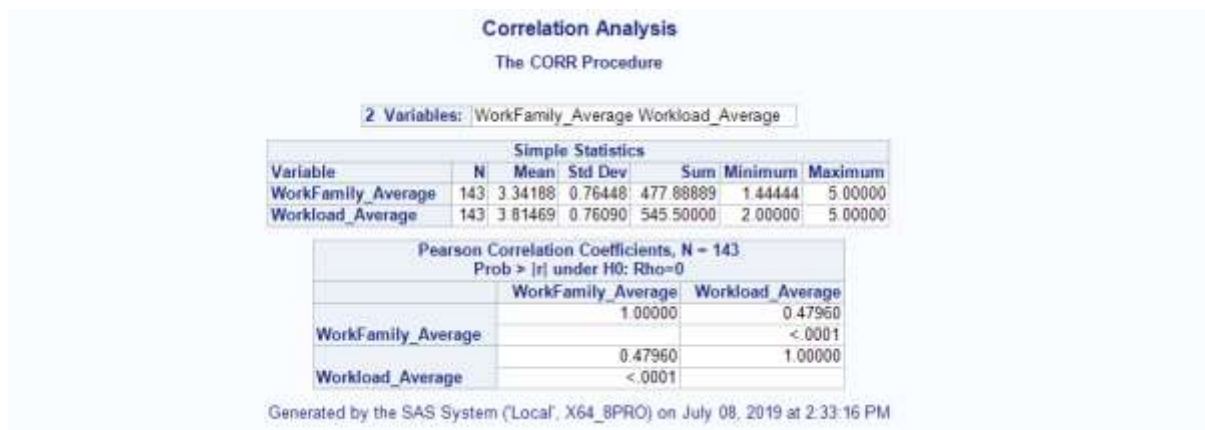
Variable	Mean	Std Dev	Minimum	Maximum	Mode	N	N Miss
WorkFamily_Average	3.3418803	0.7644825	1.4444444	5.0000000	3.0000000	143	0
Workload_Average	3.8146853	0.7609027	2.0000000	5.0000000	4.0000000	143	0
Supervisor_Average	3.0944056	0.8269259	1.0000000	5.0000000	3.0000000	143	0
Colleagues_Average	3.7255245	0.6246934	1.7500000	5.0000000	4.0000000	143	0
ED_Average	3.3181818	0.9816208	1.0000000	5.0000000	2.6666667	143	0

Appendix 5: Inferential analysis of Pearson Correlation Coefficient data from SAS Software

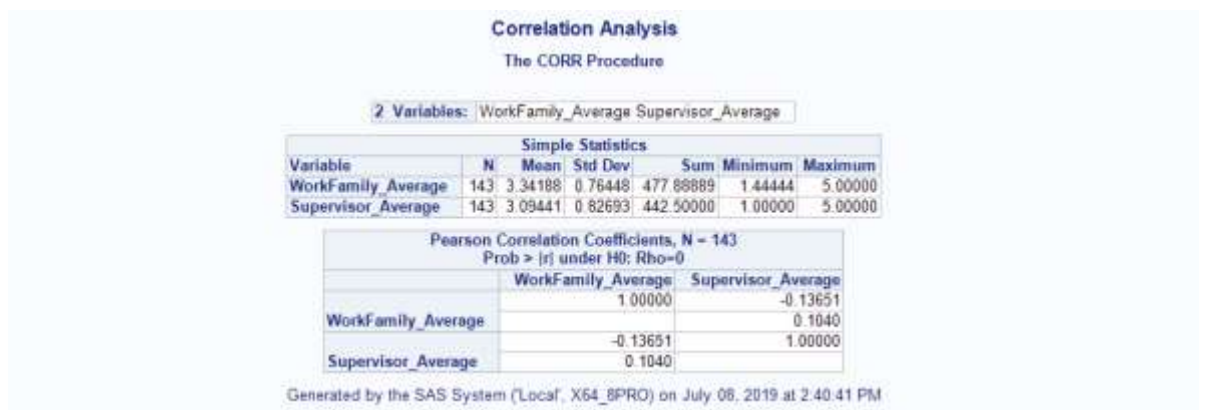
Correlation between Emotional Demand and Work-Family Conflict



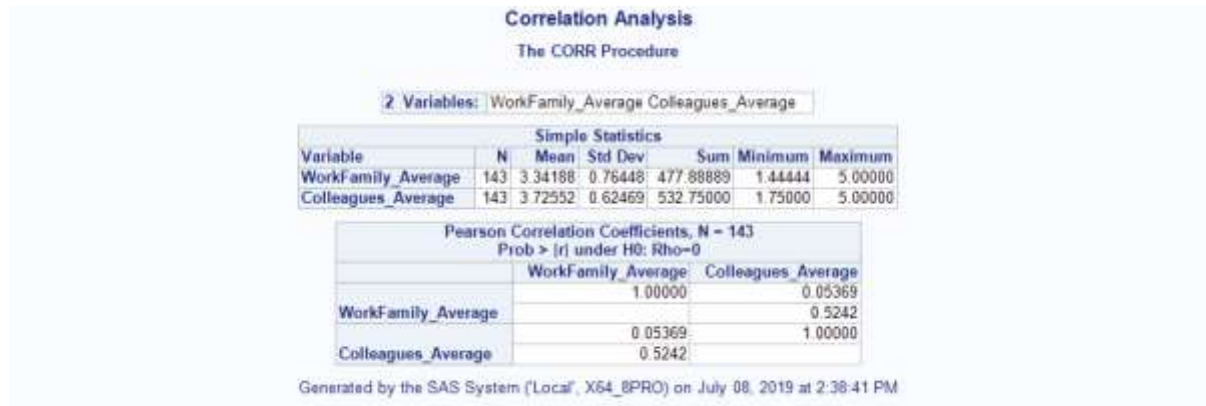
Correlation between Workload and Work-Family Conflict



Correlation between Supervisor Support and Work-Family Conflict



Correlation between Colleague Support and Work-Family Conflict



Appendix 6: Inferential analysis of Multicollinearity data from SAS Software

Correlation Matrix for all variables

Pearson Correlation Coefficients, N = 143 Prob >  r  under H0: Rho=0			
	WorkFamily_Average	Workload_Average	Supervisor_Average
WorkFamily_Average	1.00000	0.47960	-0.13651
Workload_Average	0.47960	1.00000	-0.07833
Supervisor_Average	-0.13651	-0.07833	1.00000
Colleagues_Average	0.05369	0.07095	0.28227
ED_Average	0.5242	0.3998	0.0006
	0.43237	0.44996	-0.05100
	<.0001	<.0001	0.5452

WorkFamily_Average	Workload_Average	Supervisor_Average	Colleagues_Average	ED_Average
--------------------	------------------	--------------------	--------------------	------------

Pearson Correlation Coefficients, N = 143 Prob >  r  under H0: Rho=0	
Colleagues_Average	ED_Average
0.05369	0.43237
0.5242	<.0001
0.07095	0.44996
0.28227	-0.05100
0.0006	0.5452
1.00000	0.15491
	0.0647
0.15491	1.00000
0.0647	

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Appendix 7: Inferential analysis of Multiple Linear Regression data from SAS Software

Multiple Regression Analysis

**Linear Regression Results**  
 The REG Procedure  
 Model: Linear\_Regression\_Model  
 Dependent Variable: WorkFamily\_Average

Number of Observations Read	143
Number of Observations Used	143

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	24.73615	6.18404	14.65	< .0001
Error	138	58.25340	0.42213		
Corrected Total	142	82.98955			

Root MSE	0.64971	R-Square	0.2981
Dependent Mean	3.34188	Adj R-Sq	0.2777
Coeff Var	19.44152		

Parameter Estimates							
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Standardized Estimate	Variance Inflation
Intercept	1	1.52270	0.43988	3.46	0.0007	0	0
Workload_Average	1	0.35211	0.08041	4.38	< .0001	0.35046	0.79413
Supervisor_Average	1	-0.09230	0.06922	-1.33	0.1846	-0.09984	0.90723
Colleagues_Average	1	0.01912	0.09245	0.21	0.8365	0.01562	0.89121
ED_Average	1	0.20807	0.06291	3.31	0.0012	0.26717	0.77944

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