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THE RELATIONSHIP BETWEEN RESILIENCE, PERCEIVED ORGANIZATIONAL SUPPORT AND MENTAL HEALTH AMONG NURSES

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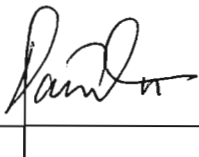**MASTER OF HUMAN RESOURCE MANAGEMENT**

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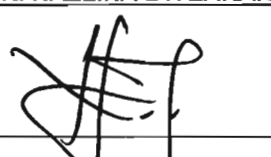AND MENTAL HEALTH AMONG NURSES**

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ABSTRACT

The issue of mental health at workplace had recently highlighted after seeing a visible increase in the number of workplace related mental health cases in Malaysia. Nurses are not been excluded to be one of the group of employees who are having mental health issues since their play an important role in the health care system. Therefore, this study was conducted to investigate the possible variables that could better explain the level of mental health among nurses by investigating the relationship between resilience, perceived organization support (POS) and mental health. Affective Event Theory (AET) was used to explain the possible relationship between the variables to support the research framework. A total of 321 of nurses at Hospital Pulau Pinang were participated in this study. Data was collected via self-administered questionnaires and SPSS was used to analyse the data and test hypothesis. Result show that resilience and POS are positively related to mental health. Moreover, the level of mental health among nurses at HPP is at medium level and highly being influence by POS. Finally, the implication for managerial, individual and academic and some recommendation for future research are discussed.

Keywords: Mental health, resilience, perceived organization support, Hospital Pulau Pinang.

ABSTRAK

Sejak kebelakangan ini, isu kesihatan mental di tempat kerja menunjukkan jumlah peningkatan kes yang tinggi berkaitan dengan kesihatan mental di tempat kerja terutama di Malaysia. Jururawat tidak terkecuali sebagai salah satu daripada kumpulan pekerja yang mengalami masalah kesihatan mental kerana mereka memainkan peranan yang penting di dalam sistem penjagaan kesihatan. Justeru, kajian ini dijalankan untuk mengkaji pemboleh ubah-pemboleh ubah yang lebih baik dalam menjelaskan tahap kesihatan mental jururawat dengan mengkaji hubungan di antara daya tahan, sokongan organisasi yang diperolehi dan kesihatan mental.Teori acara afektif (AET) telah digunakan untuk menerangkan kemungkinan hubungan antara pembolehubah untuk menyokong rangka penyelidikan. Seramai 321 jururawat di Hospital Pulau Pinang telah menyertai kajian ini. Data telah dikumpulkan melalui kaedah soal selidik yang ditadbir sendiri dan SPSS digunakan untuk menganalisis data dan menguji hipotesis. Keputusan statistik menunjukkan bahawa daya tahan dan sokongan organisasi yang diperolehi berkait secara positif dengan kesihatan mental. Selain itu, tahap kesihatan mental di kalangan jururawat di HPP adalah pada tahap sederhana dan sangat dipengaruhi oleh sokongan organisasi yang diperolehi. Akhir sekali, implikasi terhadap pengurusan, individu dan akademik dan beberapa cadangan untuk kajian akan datang juga telah dibincangkan.

Kata kunci: Kesihatan mental, daya tahan, sokongan organisasi yang diperolehi, Hospital Pulau Pinang.

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AET	Affective Event Theory
ICT	Information and Communication Technology
CD-RISC	Connor– Davidson Resilience Scale
CRC	Clinical Research Centre
EAP	Employee Assistant Program
GDP	Gross Domestic Product
GHQ	General Health Questionnaire
ICU	Intensive Care Unit
IR	Industrial Revolution
HPP	Hospital Pulau Pinang
MOH	Ministry of Health
MEF	Malaysian Employer Federation
MHLS	Mental Health Literacy Scales
NIOSH	National Institute of Occupational Safety and Health
NHS	National Health Service
NMMR	National Medical Research Registered
POS	Perceived Organization Support
SPSS	Statistical Package For Social Science
UUM	Universiti Utara Malaysia
WEMWBS	Warwick-Edinburgh Mental Well-Being Scales
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1   Background of Study

Nowadays, the service sector has becomes an important engine of the global economy development and it continuous growth rapidly. The impact of globalization, government liberalization, rapid advancement of information and communication technology (ICT) with the upcoming of Industrial revolution 4.0 (IR 4.0) contributes to the acceleration development of this sector. Since the service sector is one of the economic builders to many economies throughout the world, most government in all countries are concern about service sectors in their economic planning. Service sectors in the United States (US), Japan, Brazil, Singapore and India are becoming the leading sectors for the growth of their economy (Lo & Ooi, 2007).

In Malaysia, the service sector has been accounted to be the largest share of the Malaysian Gross Domestic Product (GDP) in 2016 which contributed 53.8 % from RM 1106.1 billion (Economic Planning Unit, 2016). In 2018, the service sector is expected to continue as the main driver of economic growth as its share of GDP was 54.5% in 2017 and is set to expand to 54.8% in 2018 (Economic Report, 2017). Even there is a moderate growth expected for Malaysia in 2018, the economy of Malaysia remain its increasing momentum with 5.8% with the value RM 287.2 billion at

constant price and this sector will continue to grow up to 56.5% in 2020 (Economic Planning Unit, 2016).

The service sector continues as a key contributor to the economy of Malaysia. These includes agriculture, construction, tourism, wholesale and retail trade, communication, education and other sectors (New Straits Time, 2015). Another important service sector in Malaysia is the healthcare services. Malaysia health care system is divided into public and private sectors. The Public sector is accessible to all Malaysia citizens and is funded by the government of Malaysia. The Ministry of Health (MOH) is a government agency that is responsible for the delivery of healthcare for the country. Indeed, private health care sector also has become a major player and plays an important role in delivering the best health care service to the patient alongside with public health care sector (Ministry of Health Malaysia, 2008).

Public health care sector in Malaysia is continuing in improving their health care infrastructures and services by building new hospitals and clinics. Since the Independence in 1957, Malaysia has experienced fundamental changes and development in the health care system (Merican, Rohaizat, & Haniza, 2004). Malaysian government is very committed in providing high-quality health care to everyone in Malaysia, which is provided through clinics and hospitals nationwide. According to the Ministry of Health (2013), there are 139 government hospitals, 1089 health clinics and 1821 community clinics in Malaysia. Even though private hospitals have been proliferating in these recent years, hospital care in Malaysia is still dominated by the public sector with 71% of total hospital admissions.

Health care sector is not simply an institute which only delivery health care but is also the workplace for over 59 million workers throughout the world. In the context of hospital, the workers consists of medical officers, pharmacists, radiographers, psychiatrists, dentists and other positions related to the delivering of health care. However, nurses are considered as the backbone of the hospitals due to the largest population of occupation in hospitals. There are a few categories of nurses such as registered nurses, public health nurses, community nurses, midwives nurses and dental nurses (Lundy, Janes, & Dubuisson, 2009). In Malaysia, nurses are largest proportion of the healthcare workforces with the total number of nurses in 2016 is 102,564 including nurses in public and private hospitals with the ratio of nurse to patient is 1:309 (Department of Statistics Malaysia, 2016). With that total number of nurses, Malaysia would need 130,000 by 2020 as recommended by World Health Organization (Goh, 2017).
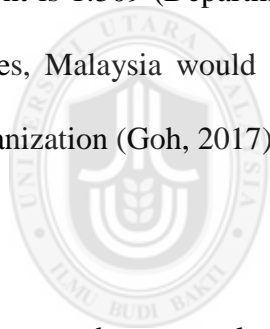
Nurses are the most valued profession which affect human lives by the nature of their profession and is the backbone in health care industry (World Health Organization, 2004) .One of the most important roles of a nurse is helping the patient and fulfilling their needs. This includes communicate with patient, care of patient safety, a caregiver, a teacher and acts as the patient advocate. Nurses are responsible in providing emotional and physical support to the patient and their families while maintaining harmonious environment in hospitals. Nurses are also term as the ears and eyes of the hospital because nurses know their patients well rather than doctors. Another responsibility of nurses is assisting doctors during surgery in operation room includes preparing the room, decontaminating equipment and instruments for the

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operation. Most of the senior nurses involve in management such as regular checking the stocks on regular basis and placing orders if required. They also are responsible in improving nurse's practices and healthcare outcomes by conducting research.

However, in order to delivery good health care service to patient, nurses are possible to face injuries or illness at workplace. During the period of working, nurses are exposed to numerous workers related risk which results from chemical, physical, mental, mechanical, biologic, ergonomic and psycho-social factors which trigger the illness and work related accidents. Some of the examples of infectious diseases are Tuberculosis (TB), Influenza, Acquired Immunodeficiency Syndrome (AIDS), Measles and Dengue (Global & Network, 2005). Another health problem that is common among nurses is the mental health problem. For example anxiety, depression, bipolar disorder, schizophrenia was a crucial topic to be discussed. It is very important to ensure nurses health and safety is in good condition because they provide more care for patients than for themselves.

1.2   Problem Statement

Poor mental health became one of the biggest issues in the workplace today which causes 70 million working days to be at lost each year (Harnois & Gabriel, 2000). The problem begins with common symptoms such as stress and anxiety which later turns to be more complex and leads to mental health problems such as depression and bipolar disorders. This issues will give a huge impact on individual employees include increased staff turnover, absenteeism, burnout and exhaustion, reduced motivation and loss of productivity.

Mental health problem have been existence in Malaysia for a long time. According to the National health and morbidity survey done in 2006, people suffered from major and minor mental health problems such as stress, anxiety, burnout, excessive worries, depressions and psychosis. This problem is to be expected to increase in the coming years (Institute for Public Health, 2008). Most of this problem takes place among adults at workplace and be said no workplace is immune to mental health problem. Due to this problem, the chairman of the National Institute of Occupational Safety and Health (NIOSH), Tan Sri Lee lam Thye urge an action need to be taken to solve the mental health issue at workplace, not just focusing on employers, but including employees. He said by neglecting the mental health issue a workplace will directly affect the efficiency, effectiveness and the output of organization. In addition, the productivity of employees is also depending on their mental health condition (Star, 2016).

Mental health is similar to physical health, which could be fluctuate from good to poor and vice versa. Employees will be happier and perform better when their mental health is in a good status and poor mental health will cause employees facing difficulties to concentrate when doing job, takes longer time to complete the task given and find most things are difficult to be completed. Poor mental health employees prefer to escape from challenging work, being less patient with customer or patient, difficult in making decision and always having conflict with other people (Public Health England, 2016).

According to latest Mental Health at Work Report 2017, three out of every five employees have experienced mental health issues in the past year because of work and 31% of the workforce has been formally diagnosed with mental health issue in 2016. Many young people entering the workforce are having mental health problems due to stressful working conditions (Milner, Kavanagh, Krnjacki, Bentley & Lamontagne, 2014). Research show that mental health among young people is worth if they join the 'blue collar' industries such as construction, manufacturing, mining and agriculture. These industries are categorized as having high rates of psychological distress including poor working conditions, psycho-social factor and work stress (Battams et al., 2014).

In Malaysia, Yeap and Low (2009) performed a study regarding the mental health status at the workplace and found 62.3% of employees would not let others know their mental health status, 51.7 % believed people with poor mental health are often

dangerous and violent and 76.5% did not believe that everyone can suffer from mental health problems. The result of the study on mental health found the reasons for this situation to happen among people which is the refusal to acknowledge their problem and being reluctant to seek for help and treatment. Factors associated with poor mental health issue are lower educational and job achievements, substance abuse such as alcohol and drugs, violence and poor reproductive and sexual health (Chisholm et al., 2007).

National Health Morbidity Survey (2015) reveals from the Institute for Public Health, shows that 4.2 million Malaysian were struggling with mental health issues. The prevalence of mental health problem among adult had increased from 10.7% in 1996 to 11.2 % in 2006 and continued to increase to 29.2% in 2015. By 2020, mental illness is expected to become the second biggest health problem affecting Malaysian after Heart Disease (NIOSH). Datuk Shamsuddin Bardan as the Executive Director of Malaysian Employer Federation (MEF) had recently highlighted this issue after seeing a visible increase in the number of workplace related depression and mental health cases in Malaysia (Star, 2016).

Nurses are not been excluded to be one of the group of employees who are having mental health issues since their play an important role in the health care system of a country. They are considered as the main team in the hospitals in preserving and promoting the quality of care to a standard level. Nursing profession has been associated with high workload, irregular working hour or shift, high job demand and

also emotional complexity. Varies studies had proved that nurses show more mental health problem than individual from other occupation (Pisaniello, Winefield, & Delfabbro, 2012). In addition, nurses are experiences a stress that affects their mood, health and also their performances (Waugh, Lethem, Sherring & Henderson, 2017).

In Malaysia, according to National health and Morbidity Survey (2015), 29% of the total Malaysian adults suffer from mental distress in 2015 and it is triple increasing as compared to 1996 (Yeoh et al., 2017). There are many factors that become cause of mental distress or poor mental health includes occupational stress. Occupational stress exists in all professions, however the nursing profession appears to experience more stress at work compared to other profession and this stressful conditions may lead to burnout and poor mental health among nurses (Sharifah Zainiyah, Afiq, Chow, & Siti Sara, 2011).
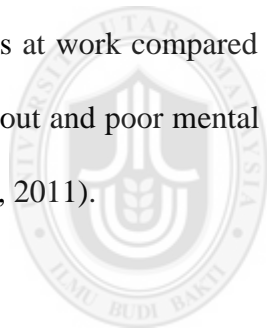
Mental health will be affected by some factors such as anxiety, depression, rotational shift work and long working hours (Tito, Baptista, da Silva, & Felli, 2017). Another factors includes occupational stress (Tajvar et al., 2015), burnout and job satisfaction (Khamisa, Oldenburg, Peltzer, & Ilic, 2015). In addition, generalized workplace harassment and sexual harassment were also be significant linked to mental health problem (Alwi, 2010). By referring to management system, the amount of workload, fiscal constraint and nurse's shortage will affect the level of mental health among nurses (Daly et al., 2014). However, not many studies have focused on resilience and Perceived Organizational Support as factors towards mental health.

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Enhancing the resilience will promoting good mental health of individual and vice versa. Mental health is the core element of the resilience, health assets, capability in adaption that enable people to cope with adversity they are facing in daily to reach their humanity (Friedli, 2009). In addition, an adult with resilient can avoid strong, frequent or prolong stress with the supportive relationship. Resilience can be viewed as an ability to handle stress positively in the context of mental health. This relationship was supported by WHO (2004), there is relationship between resilience and mental health by states that, individual with good mental health can cope with normal stress of life, work productively and fruitfully.

Meanwhile, perceived organizational support (POS) has been previously related to good mental health outcomes and positives moods, perception of organizational fairness and the changes to be recognized or being promoted (Eisenberger et al., 1986). Furtherrmore, POS will create comfortable working conditions and lead to good in in physical, mental, emotional and spiritual (Yaghoubi & Pourghaz, 2014). In addition, perceived organization support will create identification with the organization and psychological well-being of employees and generate willingness of to be more involved in the successful of the company (Kurtessis et al., 2017).

Hospital Pulau Pinang is the main public hospital in the city of Georgetown in Penang, Malaysia. As the largest public hospital in Penang, it also serves as the reference hospital within northern Malaysia. The people of Penang, Kedah and Perlis

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will gain benefit as Penang Hospital is the reference hospital in the northern region" (New Straits Time, 2016). Lee (2008) found that more than 70% of the hospitals in Malaysia including Hospital Pulau Pinang do not have enough nursing staff. The high demand and shortage of nursing staff have increased stress and depression that will affect the mental health of nurses. In 2018, the number of nurses at the Pulau Pinang Hospital is 1633 which is considered low (Nursing Division HPP, 2018).

As the reference of hospital, the employees of Hospital Pulau Pinang experience overcrowding, lack of parking space, busy work environment, staffing shortage and stressful conditions. Furthermore, most nurses are overworked and many are forced to leave the profession early mainly due to stress or health problems related to the difficult work. As nursing care is a 24-hour service, an adequate number of nursing staff on duty is needed (Borneo Post Online, 2011). It is no surprise then that many in the healthcare industry consider nursing one of the most stressful occupations.

The studies of mental health was widely conducted throughout the world (Roelen et al., 2017, Mangalam, 2016, Tajvar et al., 2015 and Taghinejad et al., 2014) but not too many studies have focus on resilience and POS. Thus, the purpose of the present study was to address certain aspects of mental health among nurses working in Hospital Pulau Pinang. This study aims to discover the relationship between resilience, perceived organizational support and mental health.

1.3   Research Questions

1.   What is level of mental health among nurses in Hospital Pulau Pinang (HPP)?

2.   What is the association between resilience and mental health among nurses in HPP?

3.   What is the association between perceived organization support (POS) and mental health among nurses in HPP?

4.   Does mental health of nurses in Hospital Pulau Pinang is influence by the resilience and POS?
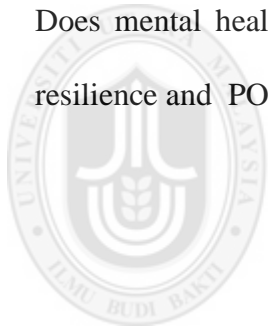
1.4   Research Objectives

1.   To determine the level of mental health among nurses in Hospital Pulau Pinang (HPP).

2.   To study the association between resilience and mental health among nurses in HPP.

3.   To study the association between perceived organization support (POS) and mental health among nurses in HPP.

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4.   To examine the influence of POS and resilience towards mental health among nurses at Hospital Pulau Pinang.

1.5   Significance of the Study

This study was conducted to examine the relationship between resilience, perceived organization support and mental health of nurses. It is believed that the findings of this study are able to provide information to the public, researchers and management about the level of mental health among nurses in Malaysia, especially in the Hospital Pulau Pinang. Good mental health is important as it contributes to the overall success of the organization.
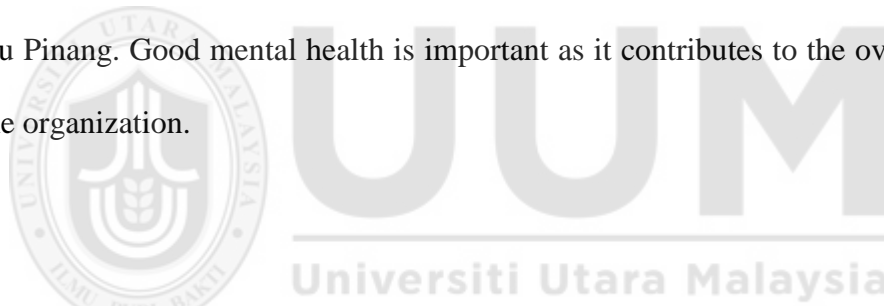
In the context of theoretical contribution, this study provides knowledge on mental health as this study assessed the relationship between resilience and mental health as well as the relationship between perceived organization support and mental health. Whereas in terms of practical contribution, the results of this study provide an important information to the hospital management on how resilience and perceived organization support can affect the level of mental health among nurses in the Hospital Pulau Pinang. Besides contributing to the success of the organization, the findings of this study can greatly improve the organization's and nurses' performances, efficiency and effectiveness and reduce problems related to poor mental health such as stress, burnout, absenteeism and turnover among nurses.

1.6   Definition of Key Terms

1.6.1   Mental Health

Mental health is a state of well-being in which a person realize their abilities, able to cope with normal stress of life, can work effectively and productively and able to make some contribution within the community (World Health Organization, 2004).

1.6.2   Resilience

Resilience is defined as a measure of stress-coping ability of an individual that includes the personal quality that allows individual and community to bounce back and grow, especially when facing adversity or difficulties (Connor & Davidson, 2003).

1.6.3   Perceived Organization Support

Perceived Organization Support (POS) is defined as the extent to which the organization values the contribution of employees together with the concern in their employee's well-being (Eisenberger, Huntington, Hutchison, & Sowa, 1986).

1.7   Organization of Thesis

This thesis consists of chapter one, two, three, four and five. Chapter one has provided an overview of research background, research problem, research question, research objectives, significance of the study and definition of key terms related to the topic. Chapter two provides a review of previous literature conducted from the year 2000 until 2017 that is related to mental health throughout the world. In this chapter, the relationship between resilience, Perceived Organization Support (POS) and mental health are discussed. In addition, the underpinning theory, theoretical framework and hypotheses of this study are also included.

Chapter three discusses the research design which includes the overall information from various aspects of research methodology. This chapter also consists of information regarding population and sampling, data collection and analytical method. Chapter four explains the results of data analysis and chapter five discusses the results, implication, limitations for this study and further recommendations and finally the conclusion to summarize the whole study.

CHAPTER TWO

LITERATURE REVIEW

2.0   Introduction

This chapter is a literature review on the concept of mental health, resilience and POS and includes examples from previous studies. In addition, this chapter also explains the underpinning theory that supports the proposed research framework. At the end of this chapter, the researcher explained the relationship of all variables together with the hypothesis.

2.1   Mental Health

2.1.1   Definition and Conceptualization of Mental health

The World Health Organization (WHO) defines mental health as "Health is a complete state of physical, mental and social well-being" (Sturgeon S & Grigg, 2005). Then, a few years later, WHO (2004) also defined mental health as "a state of well-being in which individuals realized his or her own abilities, can cope and adapt with normal stress of life, can work effectively, productively and fruitfully and can contribute to their community" (Bebbington, 2001). By referring to this definition, a positive mental health state is the foundation for well-being and effective functioning for an individual and the community.

The European Commission (2005) defined mental health as an indivisible component of general health, reflecting the balance between the individual and environment and it is influenced by the individual's biological and psychological factors, social interaction with others, society structure and resources and cultural values. In 2007, the WHO elaborated in detail on mental health issues by highlighting that it is an intrinsic factor to health. It is more than the absence of mental illness but is also connected with physical health and behavior of an individual. Thus, it is a state of complete physical, mental and social well-being and not simply being categorized by the absence of the disease or weakness (World Health Organization, 2007).

Historically, the mental health concept has been viewed as the absence of mental illness and state of well-being (Haque, 2005). Another term which is related to mental health is 'mental health problems'. Mental health problems include anxiety and depression and these problems are more common in the workplace compared to other mental health problems. Outside of the workplace, mental health also has a strong influence on daily activities, including how a person thinks, behaves, feels and the relationships with other people. Furthermore, it involves the individual's emotional, psychological and social well-being.

Mental health can be controlled and shaped by several factors such as biological, life experiences and environmental factors (Miresco & Kirmayer, 2006). For example, gene and brain chemistry will determine the status of mental health of someone due to biological factors whereas life experience such as traumatic events may impact mental

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health. Therefore, an individual's mental health is not fixed and static and can change throughout their life and affect their working lives and experience.

In a workplace setting, line managers face difficult and challenging situations to handle the mental health conditions of their employees (Maria, 2016). Furthermore, mental health at the workplace is influenced by social, economic and environmental factors. The context at the workplace includes economic pressure, organizational change and works restructuring that disrupt the mental health of employees (Mcdaid, Curran, & Knapp, 2005). In certain cases, such factors will lead to mental health problems due to prolonged exposure and these problems could be permanent or temporary depending on how the employer tries to solve this problem and promote positive mental health at the workplace.
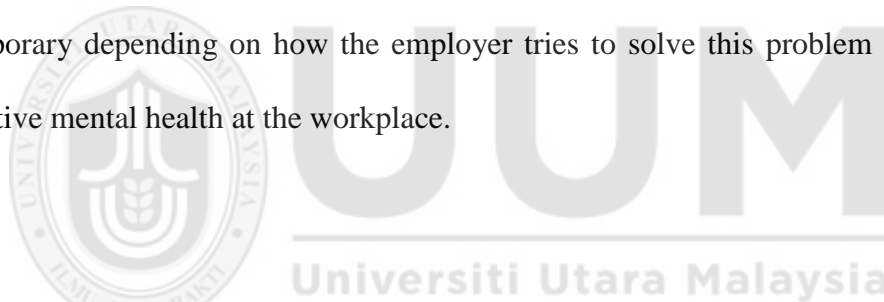
The World Health Organization (2004) conceptualized mental health with positive emotions such as feeling happiness and resilience. The WHO also categorized mental health with two dimensions: positive and negative mental health. Positive mental health can be described as when an individual values him or herself, feeling well about their self, ability to perceive, comprehend and interpret the surrounding, adapt to changes easily and have good communication with each other. Meanwhile, negative mental health is known as mental ill-health and is related or associated with mental disorders, symptoms and also problems.

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In addition, another concept of mental health is about having enough money to live, having a job and also enjoying the relationship with others and building friendships within communities (Wainer & Chesters, 2000). In other words, mental health is a positive concept that is related to the social and emotional well-being of an individual and communities. This positive concept is influenced by culture and is related to the enjoyment of life, the ability to cope with stress situations or sadness and sense of connection to others. Social and emotional well-being is preferred to describe mental health and is suitable to be used by people from diverse backgrounds and cultures who may have different concepts of mental health and mental illness.

Poor mental health on the other hand is not defined as an illness but is associated with emotional distress and psycho-social impairment (Drapeau, Marchand, & Beaulieu-Prevost, 2012). The three most significant factors to determine mental health status are social inclusion, freedom from discrimination and violence and also the access to economic resources. Mental health is not static at a certain moment; it changes over time depending on the many factors. The mental health continuum suggested that optimal mental health is rarely associated with mental illness but conversely, poor mental health is associated with mental illnesses such as bipolar disorder or schizophrenia (Mental Health Foundation, 2016).

Basically mental health is a concept that is related to individuals. However, many researchers had widened the concept and relate mental health to groups such as families and organizations, communities and the society. There are also common misunderstandings about the concept of mental health. The general public frequently

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stigmatize mental health issues and believes that a person with mental health problems cannot be promoted and mental disorders cannot be treated or prevented. Sadly, issues related to mental health are still facing a strong stigma with negative attitudes being common and difficult to change within the society (Lehtinen, 2008).

The definition of mental health varies according to different cultures, contexts, and sensitivities in a community. This is due to differences in political, economic and social settings. However, the core concept of mental health is the same even with the wide interpretation across cultures (Sturgeon S & Grigg, 2005). This study conceptualized mental health as a state of well-being in which a person realize their abilities, able to cope with normal stresses of life, can work effectively and productively and able to make contribute within community in which individuals are measured based on three main domains: social dysfunction, anxiety and depression and loss of confidence (Goldberg, 1970).

2.1.2 Measurements of Mental health

In measuring mental health of individuals, previous researches used various methods including Mental Health Literacy Scales (MHLS) which considers anxiety disorder, major depressive disorder, dysthymia and agoraphobia (O'Connor & Casey, 2015). Furthermore, the mental health continuum is also being used as an instrument to assess mental health and it includes symptoms of positive affection, self-development and social connectivity (Machado, Bandeira, Machado, & Bandeira, 2015). Another

measurement is the 12-item General Health Questionnaire (GHQ-12) and is extensively used in various settings to determine mental health as a self-administered screening tool to detect current mental health disorders and disturbances (Kim et al., 2013). In addition, a previous researcher developed scales based on positive items in determining the mental health of individuals known as the Warwick-Edinburgh Mental Well-Being Scales (WEMWBS). This scale covers positive affect, satisfying interpersonal relationships and positive functioning such as clear thinking and energy (Tennant et al., 2007).

In this study, the General Health Questionnaire (GHQ-12) was chosen as a measurement of mental health because it is a method to identify the risk of developing minor psychiatric disorders related to mental health. GHQ-12 was reported to having a range of 0.82 to 0.86 Cronbach alpha coefficient, which is a good level of reliability (Sekaran, 2013). This instrument has been globally used and was translated into 38 different languages (Quek et al., 2002).

2.1.3   Determinants of Mental health

In the study of mental health, some determinant factors such as anxiety, depression, rotational shift work and long working hours are associated with mental health (Tito, Baptista, da Silva, & Felli, 2017). In addition, resilience (Chow et al., 2017), occupational stress (Mangalam, 2016), workload (Swapnil, Harshali, & Snehal 2016), perceived organization support (Hao, Wang, Liu, Wu, & Wu, 2016), burnout (Khamisa, Oldenburg, Peltzer, & Ilic, 2015) and sexual harassment are also factors

related to mental health (Mushtaq, Sultana, & Imtiaz 2015). In this study, resilience and POS were chosen as determinants of mental health.

2.1.4 Previous Study on Mental Health

There were many studies previously conducted to investigate the mental health issue at the workplace in all occupations including nursing. In Malaysia, a study found that the prevalence of poor mental health was higher among females and non-Malays. Furthermore, by occupation, a few possible factors affecting teachers' mental health included lack of professional attitude, occupational hazard and the amount of workload (Yaacob, 2000).

In addition, many researches were conducted at the international level on mental health issues at the workplace by using various independent variables and occupations. A study among 92 nurses in a pediatric cardiac intensive care unit (PCICU) in a public university Hospital in Brazil has indicated that anxiety, depression, rotational shift work and long working hours are associated with mental health (Tito, Baptista, da Silva, & Felli, 2017). The finding of this study found 45% of nurses are having mental health problems. Another study conducted by Roelen et al. (2017) found that among 2059 nurses who were working at a Hospital in Norway indicated that job demand and job resources are among the factors that contributes to mental health condition among nurses. Examples of job demand includes psychological demand, roles conflict and harassment while job resource includes

social support, role clarity and fair leadership. The finding concluded only 103 of them were having poor mental health and was related to job demand.

In India, several studies were conducted on mental health and one of the studies focused on 209 nurses who were working in a private Hospital in Tamil Nadu, India. Research by Mangalam (2016) found that there is a significant relationship between occupational stress and mental health. In addition, Swapnil, Harshali and Snehal (2016) conducted a study among 68 female Intensive Care Unit (ICU) nurses working in private Hospital in Amravati City, India and reported that there was a high prevalence of low mental health among nurses that was related to workload, job factors and organizational factors.

In Iran, a study on 86 nurses who were working at a hospital in Illam City found that 12.3 % were having physical symptoms of mental health, 16% of anxiety symptoms, 42% of social dysfunction and 6.2% were having symptoms of depression (Taghinejad, Suhrabi, Kikhavani, Jaafarpour, & Azadi, 2014). Another research conducted in Iran involving 72 nurses working at an ICU at the Shahid Mohammadi Hospital located in Bandar Abbas found that there was a high prevalence (83.9%) of occupational stress associated with mental health (Tajvar et al., 2015).

Furthermore, Mushtaq, Sultana and Imtiaz (2015) conducted a study among 200 nurses in a Public Sector Hospital in Lahore, Pakistan and they found sexual harassment was a predictor of negative mental health which involved depression,

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anxiety and stress among nurses. In addition, Yang, Pan and Yang (2004) who conducted a study among 907 registered nurses from hospitals in Kaohsiung, Taiwan found 24.5% of the nurses were having strain and 48.8% were identified as having mental health problems such as minor psychiatric disorders.

Besides nursing, there also several research being conducted for other occupations. A research was conducted among 313 respondents who were working for the Royal Malaysian Customs in the Federal Territory with the purpose to study the impact of workplace harassment. This includes generalized harassment and sexual harassment. The researcher found that generalized workplace harassment was more prevalent than sexual harassment but both harassments were significantly linked to mental health problems (Alwi, 2010). In addition, Su, Weng, Tsang and Wu (2009) conducted a research among 719 employees of Taiwan Regional General Hospital which included doctors, pharmacists, computer technicians, medical technologists and others. They found that half of the staff were having either minor psychiatric disorders or depressive disorders. However, nurses and pharmacists were among the highest prevalence of having mental health issues.

Table 2.1

Summarize of mental health in previous studies.

Author/ s / years	Country	Variables	Sample	Findings
Tito, R. S., Baptista, P. C. P., da Silva, F. J., & Felli, V. E. A. (2017)	Brazil	**Dependent variable** Mental health **Independent variable** Anxiety, depression, overload, rotational shift work, and long working hours.	92 nursing workers in a paediatric cardiac intensive care unit in public university hospital in the city of Brazil.	- The analysis of the results revealed the occurrence of mental health problems in 45% (41) of the workers related to anxiety, depression, overload, rotational shift work, and long working hours.
Roelen, C. A. M., van Hoffen, M. F. A., Waage, S., Schaufeli, W. B., Twisk, J. W. R., Bjorvatn, B. Pallesen, S. (2017).	Norway	**Dependent variable** Mental health **Independent variable** Job demand (Psychological demand, role conflict, harassment) Job resource (Social support at work, role clarity, fair leadership)	The data of 2059 nurses were obtained from the Norwegian survey of Shift work, Sleep and Health.	- 103 (7%) of them had mental health -Harassment and social support were associated with mental health. -Harassment was positively related. -Social support was negatively related to mental health.
Mangalam, S. S. P. and S. C. K. (2016)	India	**Dependent variable** Mental health **Independent variable** Occupational stress	209 nurses working in private hospitals in Coimbatore Region of Tamil Nadu, India.	-There are significant relationship between occupational stress and mental health among nurses in Coimbatore.

Author/ s / years	Country	Variables	Sample	Findings
Swapnil, Rankhambe Harshali, Chaware Snehal (2016)	India	**Dependent variable** Mental health problem (somatic symptoms, anxiety, social dysfunction, and depression) **Independent variable** Work environment (workloads, job and organizational factor)	68 female ICU nurses working in the intensive care units in various private hospitals in Amravati city.	-High prevalence of low mental health among ICU nurses. -There was a significant relationship between workloads, job factors, and organizational factors and mental health.
Abdolhamid Tajvar, Gebraeil Nasl Saraji, Amin Ghanbarnejad, Leila Omidi, Seyed Sodabeh Seyed Hosseini, Ali Salehi Sahl Abadi. (2015)	Iran	**Dependent variable** Mental health **Independent variable** Occupational stress	72 nurses working in ICU at Shahid Mohammadi Hospital located in Bandar Abbas, Iran.	There was a high prevalence of occupational stress among ICU nurses (83.9%) The prevalence of mental disorders, somatic symptoms, anxiety, social dysfunction, and depression were 58.9, 60.7, 62.5, 71.4, and 10.7%, respectively. There was a significant relationship between occupational stress and mental health.

Author/ s / years	Country	Variables	Sample	Findings
Teris Cheung and Paul S.F. Yip. (2016)	Hong Kong Africa	**Dependent variable** Mental health **Independent variable** Depression Anxiety Stress	A total of 850 nurses registered with the Association of Hong Kong Nursing Staff (AHKNS)	- Positive relationship between depression, anxiety, stress and mental health
Natasha Khamisa, Brian Oldenburg , Karl Peltzer and Dragan Ilic (2015)		**Dependent variable** General health (mental health) **Independent variable** Work related stress, burnout, job satisfaction.	A total of 1200 nurses from four hospitals in Africa.	Burnout have highest percentage of mental health problem compared with job satisfaction and work related stress.
Hamid Taghinejad, Zainab Suhrabi, Sattar kikhavani ,Molouk Jaafarpour Arman Azadi (2014)	Iran	**Dependent variable** Mental health status **Independent variable** Physical, anxiety, social-function and depression	86 nurses working at three hospitals, affiliated to Iranian health ministry, in Ilam city.	- 12.3% were supposed to have physical symptoms, 16% anxiety symptoms, 42% social dysfunction, and 6.2% symptoms of depression - High prevalence of physical, anxiety, social-function and depression correlate with mental health status among nurses.

Author/ s / years	Country	Variables	Sample	Findings
Arvina alwi (2010)	Malaysia	**Dependent variable** Mental health **Independent variable** Workplace harassment (generalized workplace harassment and sexual harassment)	313 respondents from royal Malaysia custom in one federal territory and two states: Putrajaya, Perak and Selangor.	- Generalized workplace harassment was more prevalent than sexual harassment And both were significantly linked to mental health problem.
Jian-An Su, Hsu-Huei Weng, Hin-Yeung Tsang, and Jhen-Long Wu (2009)	Taiwan	**Dependent variable** Mental health **Independent variable** Minor psychiatric disorder, depressive disorder and quality of life.	719 respondents including doctors, nurses, administrators, pharmacists, computer technicians, medical technologists and other ancillary staff in a Taiwanese regional general hospital.	- Half of the staff had either a minor psychiatric disorder or depressive disorder. -Nurses and pharmacists had the highest prevalence of mental health.
Mei-Sang Yang, Shung-Mei Pan, Ming-Jen Yang, (2004)	Taiwan	**Dependent variable** Mental health (minor psychiatric) **Independent variable** Job strain, poor social support, and poor self-perceived health	A total of 907 registered nurses from hospitals in Kaohsiung, Taiwan.	24.5% of the nurses were in the high strain group. 48.8% respondents were identified as having minor psychiatric disorder.

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2.2   Resilience

2.2.1   Definition and Conceptualization of Resilience

Resilience has several definitions and many researchers differ in opinion, meaning and concept of the term. In addition, the numerous studies and definitions on resilience have been inconsistent, incomplete, not clearly defined and currently there is no single agreed definition of resilience in clinical or scientific research. In a review article on risk, vulnerability, resistance and resilience, Jackson, Firtko and Edenborough (2007) stated that though there is a lack of precision of terms and numerous terminologies are being used, the general concept is still similar. Seaman, McNeice, Yates and McLean (2014) provided some definitions regarding the term such as resilience is the ability of individuals to be strong, healthy and successful again after facing bad situations.

The term resilience is normally associated with a person's ability to adjust or to carry-on regardless. Resilience is the ability of an individual to bounce back or to successfully cope in certain circumstances (Smith et al., 2010). In addition, Newman (2005) in American Psychological Association defines resilience as the process of being well adapted when facing some difficulties, adversity, trauma, threat or tragedy (Southwick, Bonanno, Masten, Panter-Brick, & Yehuda, 2014). Another definition of resilience is a multidimensional characteristic that varies with age, gender and culture of origin (Connor & Davidson, 2003).

In addition, resilience has been defined as the ability of a person to recover, rebound and bounce back, adjusting to the misfortune, change or adversity and it is widely identified as a complex, dynamic and multidimensional phenomenon (Waugh, Koster, & Salem, 2014). Furthermore, resilience involves positive psychological abilities that help an individual to return to a normal state after being disappointed, undergone conflicts, hard times and failures (Luthans, 2002). The concept of resilience is a complex, multidimensional and dynamic process. It is important to clearly understand the concept of resilience. Humans are associated with resilience when facing crisis, trauma, disabilities, losses of something or someone, and on-going adversities (Luthar, Cicchetti, & Becker, 2000).

In psychology, the concept of resilience are associated with the bounce back from negative experience in life such as stress, adversity, trauma, threat and tragic phenomena (Southwick, Litz, Charney, & Friedman, 2011). In medicine, resilience is referred to as the ability of an individual to recover when having an illness or disease (Schetter & Dolbier, 2015). Resilience could be one of the factor which mediate the relationship between stressful events and physical or mental health in general, well-being and quality of life. It can be considered as a dynamic and continuous process that develops through the lifespan of a person's life.

Every individual has different adaptations of resilience which means that they might be resilient once but not all the time or they may be resilient in one domain but not in others. Another concept of resilience consists of the intrapersonal and interpersonal. Intrapersonal is how individuals relate to their own thought, feeling and behavior

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whereas in interpersonal, it is how an individual relates to others (Davey, Eaker & Walters, 2003).

A model was developed which identified the key concept in understanding resilience among health care professionals at the workplace based on self-efficiency, coping and mindfulness (Rees, Breen, Cusack, & Hegney, 2015). Self-efficiency is an individual's belief on his or her ability to perform a specific given task. The concept involves confidence in knowledge, skills, decision making and the ability to deal with changes and problem solving (Gillespie, Chaboyer, Wallis, & Grimbeek, 2007). To explain coping, Shin et al., (2014) classified coping into emotions and problem focussed coping. Emotion focussed coping can reduce stressful emotions whereas problem focussed coping is to change the thing that is causing distress. Mindfulness is a tendency of someone to fully focus on experiences occurring at the present and accepting without being judgmental. Being mindfulness in the workplace can reduce emotional exhaustion and improve job satisfaction (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006).

In addition, in order to evaluate and understand resilience, there should be a theoretical framework and concept. For example, a comprehensive conceptualization of resilience includes three main components which are the presence of significant stress that produce negative outcomes, the individual and environment resources that help the positive adaption, and lastly the positive adjustment related to the stages of life development (Windle, 2011). In this study, resilience is defined as a measure of

stress-coping ability of an individual that includes the personal quality that allows individuals and the community to bounce back and grow especially when facing adversity or difficulties (Connor & Davidson, 2003).

2.2.2 Previous Study on Resilience

Several past researches have been conducted to show the relationship between psychological resilience and mental health outcomes such as burnout, depression and anxiety (Lu, Wang, Liu, & Zhang, 2014; Mak, Ng, & Wong, 2011; Mcgarry et al., 2013; Mealer et al., 2012). In a previous study among 678 nursing students in a university in Hong Kong, it was found that nursing students with a high level of resilience have a good mental health condition in terms of well-being (Chow et al., 2017).

In Pakistan, a study among 129 employees from public and private sectors showed positive correlation between perceive organizational support and employee's resilience (Haider & Abid, 2017). In addition, another study found there was an association of burnout and resilience among 1061 nurses in six hospitals in China. Burnout among nurses is a critical issue and leads to a shortage of nurses. Thus, resilience is expected to be one of the predictors of nurses burnout (Guo et al., 2018). A study at the National Health Service (NHS) in United Kingdom involving 845 staff measured their resilience by using a resilience scale and found that female staff, older employees and long working hours of employees have a high level of resilience but there is no correlation between the rate of absenteeism and resilience (Sull, Harland,

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& Moore, 2015).

Table 2.2
Summarize of resilience in previous studies.

Author/ s / years	Country	Variables	Sample	Findings
Chow, K. M., Tang, W. K. F., Chan, W. H. C., Sit, W. H. J., Choi, K. C., & Chan, S (2017).	Hong Kong	**Independent variable** Resilience **Dependent variable** Mental health well- being.	678 nursing students in university in Hong Kong	Nursing students with a high level of resilience have better perceived mental well-being.
Haider and Abid, (2017)	Pakistan	**Independent variable** Organization support. **Dependent variable** Resilience	129 employees from private and public sectors in Pakistan	Results showed positive correlation between the organizational support and employee resilience.
Yu-fang Guo, Yuan-hui Luo, Louisa Lam, Wendy Cross, and Jing-ping Zhang (2017)	China	**Independent variable** Personal resilience **Dependent variable** Burn out	1,061 nurses from six separate hospitals in Hunan Province, China.	Nurses experienced severe burnout symptoms and show a moderate level of resilience
Andeep Sull, Nicholas Harland and Andrew Moore (2015)	United Kingdom	**Independent variable** Gender, age,working hours, abseeinteism	845 staff of National Health service (NHS)	-Females scoring are high in resilience. -Older employees display high level of resilience.

Author/ s / years	Country	Variables	Sample	Findings
		Dependent variable Resilience		-Long working hours have high level of resilience -No correlation between absence rate and resilience.

2.2.3   Relationship between Resilience and Mental Health

Building resilience can prevent an individual from developing mental illnesses such as anxiety disorder or depression (Saxena, 2002). For those people who live with mental illness, resilience is one of the key factors that can help them be cured from the illness. By having resilience, it can allow a person with mental health problems to survive and focus on their strengths rather than feeling down by any perceived limitations. This process is done with the help of supportive friends, family and society.

Several studies carried out on various occupational groups have found that an individual's level of resilience is significantly and positively related to mental health outcomes. Individuals with high resilience scores are more well-functioning on the measures of psychology (Mcgarry et al., 2013). A previous study among 678 nursing students in a university in Hong Kong found nursing students with a high level of resilience have a good mental health condition in terms of well-being (Chow et al., 2017).

Another research found that work stressors, ways of coping, resilience and demographic characteristics are predictors of physical and mental health among 1554 nurses in hospital from Japan, South Korea, Thailand, and Hawaii (Lambert, Lambert, & Ito, 2004). However, another study among 382 nurses in New South Wales and 190 nurses in New Zealand at acute care hospitals found that problems in resilience among nurses were only mildly related to good mental health (Chang et al., 2007).

Besides studies among nurses, resilience also has impact on mental health on other groups of people. Research was conducted among older American Indians and it was found that higher levels of resilience were associated with lower levels of depressive symptoms and chronic pain and higher level of mental and physical health (Schure, Odden, & Goins, 2013). In addition, a study was conducted among two groups of 150 athletes and 150 non-athletes in Iran and it was found that the two groups were significantly different in terms of resilience, hardiness and mental health. As expected, athletes were found to have a higher rate of resilience, hardiness and mental health compared to the non-athlete group (Karamipour, Hejazi, & Yekta, 2015). The hypothesis of this study is there is a significant association and influence of resilience and mental health. Thus, this hypothesis was supported by previous research.

2.3 Perceived Organizational Support

2.3.1 Definition and Conceptualization of POS

There are a several definitions of POS from previous studies. POS is a transaction between employees who provide loyalty and effort to the organization and at the same time will be receiving socioeconomic support from the organization (Aselage, 2003). POS is an expression by employees in which they belief that the organization values their contribution and provides welfare to them (Blackmore, Recruitment, & Kuntz, 2011).

POS could also be defined by using the organizational support theory by Eisenberg et al., (1986) which suggested that socio-emotional needs of employees can be meet by assessing the organization's readiness to reward the efforts of employees, values their contribution and being concerned about their well-being. Furthermore, POS is noted as a whole response in an organization and is influenced by organizational procedures and policies that relates to employees (Shore & Tetrick, 1991).

According to Allen, Armstrong, Reid, and Riemenschneider (2008), POS defines how much the organization values employees' contributions and being concerned about employees. A similar definition of POS refers to the level of belief that the organization cares, values and provide support to their employees (Erdogan & Enders, 2007). In other words, POS focuses on the organization's responsibilities and commitment towards their employees when defining POS as a concern about the

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employee's outcomes and performances, well-being and respect. In addition, POS is regarded as an organization-based resource that produces positive work attitudes and outcomes and positively affects peoples' mental health (Muse & Stamper, 2007).

The concept of POS in this study is a crucial part in determining the employer-employee relationship and the impact towards mental health among nurses. Organization support in this study refers to the management of the hospital or association which functions to protect the nurses. Perceived organization support (POS) is a key concept of organizational support theory which describes employees believes that the organizations has positive or negative orientation to their employees and sometimes provide recognitions and concern on the welfare of their employees (Rhoades, 2002).
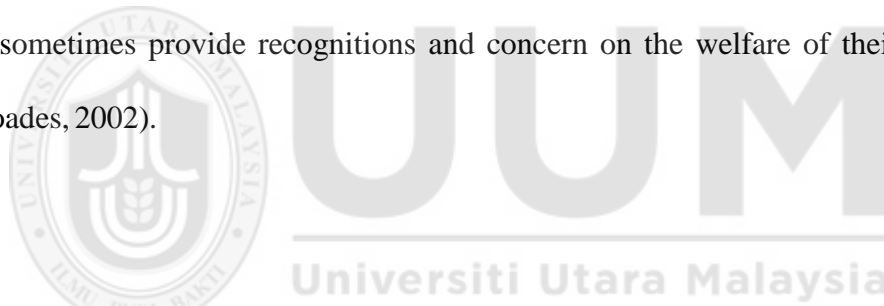
There are three categories of POS which consist of personified support, organizational policies and support in personal life (Krishnan & Mary, 2012).Personified or personification support is referred to the support in the sense of human or natural human characteristics while providing support to others. This includes support from the supervisors, managers, cliques, work community and peers. Meanwhile, organizational policies are created by organizations which include providing of support for mistakes, rewards, giving flexibility and equality in job division and creating a favorable working environment to the employees. Organizational policies provides the opportunity for employees to take part in decision making and create open communication between employer and employees. Finally, support in personal life means that the organization respects the private life of employees, giving career
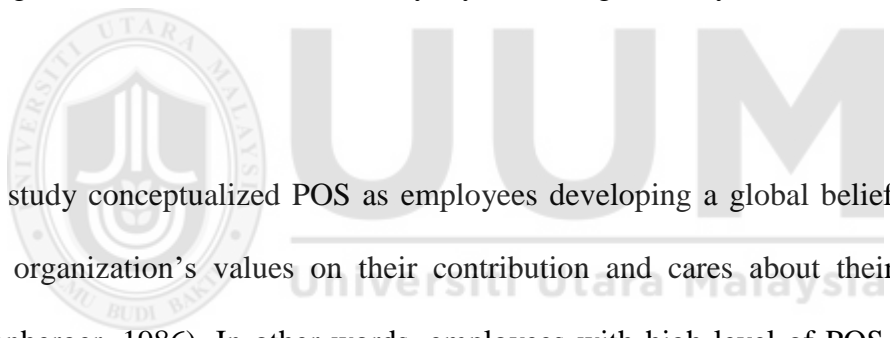
growth opportunities and improving work-life balance of employees by monitoring the amount of working hours or work load given by the organization.

Another concept of POS proposed by Rhoades (2002), there are three types of POS by management and institution which are fairness, supervisory support and reward. Fairness is referring to the procedural justice in a certain situation, for example, if employees were blamed by other people regarding certain issues, the organization will investigate the source of the problem and find a solution. Supervisory support is when employees develop good perception on supervisors in providing assistance and being concerned if employees are having any problems and difficulties and cares for their well-being. Lastly, reward is provided by the organization either tangibly or intangibly. Employees will be feel valued by the organization if they are rewarded for their work and performances.

The expatriate study was conducted POS was divided into three dimensions, support towards employees adjustment, for example, allowing the employees to adjust their working life by transferring into another department or branch, support towards the employee career by giving the opportunity in career development such as furthering studies in order to hold a higher position level and support towards the financial of employees in terms of compensation and benefits (Kraimer & Wayne, 2004). From an employee's point of view, they see POS as a concept based on humanized qualities of the organization in terms of providing a good system of work, reward, benefit and payment to their employees. When employees are aware on the attention, admiration, support, and respect by their organization, they will show a positive return to the

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organization (Jing-zhou, Xiao-xue, & Xia-qing, 2010).

To clearly understand the concept of POS, employees must first understand that it is an assistance provided by the organization to their employees to carry out daily routine job activities and to cope with stressful situations. Thus, POS is a condition which the employees believe to a certain extent to which the organization values their contribution and care of their well-being. In the scope of nurses, they believed organizational support and care of nurses well-being will allow them to perform effectively and deal with their stressful environment and indirectly be committed to the organization and have sense of loyalty (Laschinger, Purdy, Cho, & Almost, 2006).

This study conceptualized POS as employees developing a global belief concerning their organization's values on their contribution and cares about their well-being (Eisenberger, 1986). In other words, employees with high level of POS believe that their organization cares about them, appreciates their work and will help them whenever they have a problem.

2.3.2 Previous Study on POS

In Iran, 108 staff from Economic Affairs and Finance Organization of Golestan found that perceived organizational support and job burnout have negative significant correlation (Yaghoubi & Pourghaz, 2014). In addition, a study among 931 doctors in Shenyang, China found that POS had positive effect on mental health (Hao, Wang, Liu, Wu, & Wu, 2016). Another study in Chile involving 190 employees working in a prison and found that there were positive and significant relations between job satisfaction, psychological well-being and POS (Bravo et al., 2011).

In addition, a study among 345 Maori employees in New Zealand found that perceived organizational support for culture (POSC) was significantly related to Perceived organization support (POS) but negatively affect mental health outcomes (Haar & Brougham, 2010). A study in Iran that involved 324 employees of the Zahedan municipality found POS plays an important role towards mental health of municipal employees in achieving employees' organizational commitment (Mehdibeigi, 2017).

Table 2.3
Summarize of POS in previous studies.

Author/ s / years	Country	variables	Sample	Finding
Yaghoubi, N. M., & Pourghaz, A. (2014).	Iran	**Independent variable** POS **Dependent variables** Job burnout	108 staff from Economic Affairs and Finance Organization of Golestan.	Results showed that perceived organizational support and job burnout have negative significant correlation.
N. Mehdibeigi (2017)	Iran	**Independent variable** POS **Dependent variables** Organizational Commitment **Mediator** Mental health	324 employees of Zahedan municipality.	Perceived organizational support plays an important role toward mental health of Municipal employees in Zahedan in achieving employees organizational commitment.
Junhui Hao, Jiana Wang, Li Liu and Hui Wu (2016)	China	**Independent variable** POS **Dependent variables** Mental health	931 doctors in Shenyang, China.	POS has positive effects on peoples mental health.
C Bravo-Yanez, A Jimenez-Figueroa, (2011)	Chile	**Independent variable** Job satisfaction POS **Dependent variables** Psychological well-being	190 employees working in prison.	Positive and significant connection between job satisfaction, psychological well-being and perceived organizational support.

Author/ s / years	Country	variables	Sample	Finding
Haar, J. M., & Brougham, D. (2010).	New Zealand	**Independent variable** -Perceived organizational support for culture (POSC) -Perceived organization support (POS) **Dependent variables** Mental health outcomes	345 Maori Employees.	POSC and POS are correlated significantly and negatively affect toward mental health outcomes. Both have positive indirect effects towards mental health.

2.3.3   Relationship between POS and Mental Health

Various studies on POS have found that it is able to reduce the level of stress among employees and this will affect the mental health status of individuals (Liu Hu, S., Wang, L., Sui, G. & Ma, L., 2013). Employees who are supported by the organization feel being cared for and are able to adapt to stressful situations. Thus, this will promote good mental health well-being of employees. Moreover, most of the time spent during adulthood was spent on working. Therefore, the activities at the workplace is considered to be important, impacting on both the physical and mental health state of the individual. For example, long working hours, working in a group to complete tasks given within the time line and also an increasing workload require employees to manage each and every task well.

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In addition, POS will affect all organization policies by creating comfortable working conditions, supervisor's support, appropriate rewards and fairness in the workplace which will lead to the enhancement of self-esteem, hope and personal growth off employees. As a result, the employees will have better physical, mental, emotional and spiritual (Yaghoubi & Pourghaz, 2014). Conversely, another study found that employees who were treated as an instrument by their supervisor and organization reported of having an increasing level of job burnout and leads to poor mental health (Hamaideh, 2011). Motivation, morale and retention of nurses have become a pressing issue in the healthcare industry. Nowadays, nurses' tasks are physically, mentally and emotionally demanding and depends on situational requirements rather than the rules that has been standardized (Khatri, Halbesleben, Petroski, & Meyer, 2007). Thus, POS will encourage nurses to be deeply engaged with their work roles and better perform their duties (Salanova, Lorente, Chambel, & Martínez, 2011).

International studies were conducted to relate POS and mental health. In Iran, 108 staff from Economic Affairs and Finance Organization of Golestan found that perceived organizational support and job burnout have negative significant correlation (Yaghoubi & Pourghaz, 2014). However, a study among 931 doctors in Shenyang, China found POS has positive effect on mental health (Hao, Wang, Liu, Wu, & Wu, 2016). In addition, a study at Chile was conducted which involved 190 employees working in prison and found there are positive and significant relation between job satisfaction, psychological well-being and perceived organizational support (Bravo et al., 2011). The hypothesis of this study is there is a significant association and influence of POS and mental health. Thus, this hypothesis was supported by previous research.

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2.4 Underpinning Theory

Affective events theory (AET) is a theory developed by psychologists Howard M. Weiss from Georgia Institute of Technology together with Rusell Cropanzo from University of Colarado in 1996 (Thompson & Phua, 2012). This psychological theory was designed to explain the connection between emotions, mood and feeling at the workplace and it includes the cognition, behavior and attitudes of employees to explain job behavior and performance. In addition, this theory describes the linkage between employee's internal influences (mental health, emotions, cognition) and their reaction to events that occur in their work environment (Wegge, Van Dick, Fisher, West, & Dawson, 2006).
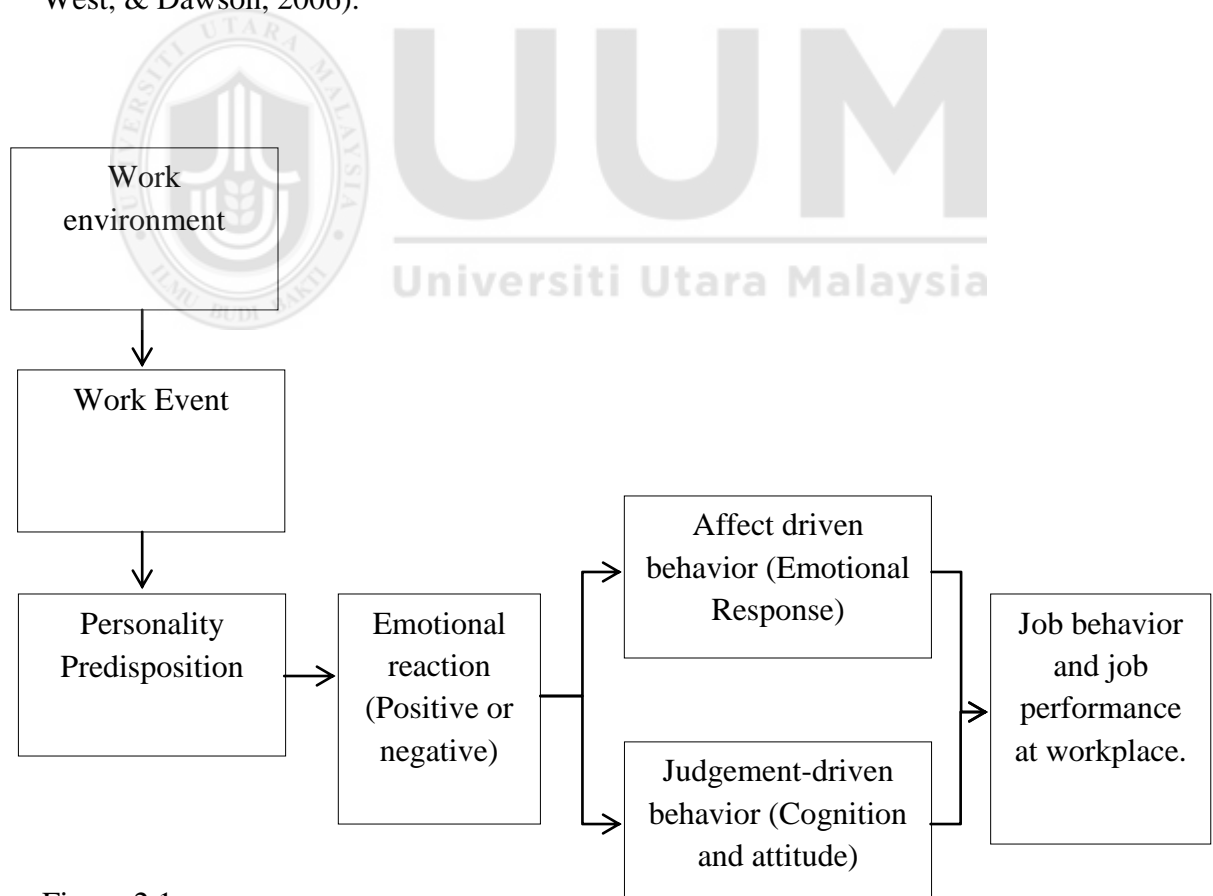
Figure 2.1

Affective events theory (Weiss & Cropanzano, 1996).

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AET explains several assumptions about the workplace and people's reactions to the events that happen in their surroundings. It includes events happening over time which continuously change and influence a person's affective state. Some events will cause a positive reaction to the person while others may cause a negative reaction. Due to the continuously changing individuals, these events will influence the emotional response, cognition and attitude of a person (Weiss & Cropanzano, 1996).

The structure of AET explains how the events in the workplace change the individual personality by producing behaviors at work over time. The behavior of an individual can be affected directly (affect-driven behavior) or indirectly (judgment-driven behavior) (Weiss et al., 1996). Affect driven behavior or direct behavior will lead to automatic emotional response to an event whereas indirect or judgement driven behavior is influenced by cognition and attitudes of the individual. Thus the behavior of an individual will determine the job performance and job behavior of workers in the organization.

Affect-driven behaviour is instantaneous reaction of individual towards events. It happens immediately after an event occurs. For example when a workers being yelled by the boss, he or she quits the job without any thought. On the other hand, Judgement-driven behaviour will go through cognitive evaluation before making any decision. The employee did not quit immediately but think about his or her decision and reinterpreted the event. In simple words, affect-driven behaviour is influence by immediate emotional reactions whereas judgement driven behaviour is influences by

both cognition and attitudes (Grandey, Tam, & Brauburger, 2002).

In this research, AET is used to explain that the environment at a workplace will create affective events that causes emotional reactions among employees and will affect employees attitude and behavior which is related to the cognitive processes (Ashton-James & Ashkanasy, 2008). This is supported by another researcher who stated that employees' cognitive, affective and physical experience at workplace will have an effect on their health and career development (Mark, Czerwinski, Iqbal, & Johns, 2016).

In AET, POS is an event in the workplace that influences the emotional response, cognition and attitude of person. In other words, organizational support will affect employees' feelings with the consequences for attitude, cognition and behavior (Weiss & Cropanzano, 1996). Resilience is a personality predisposition of employees in order to react to certain events and produce positive reactions but it varies according to the individuals. Employees with high resilience will cause a positive reaction whereas low resilience will cause a negative reaction. These reactions will influence the emotional response, cognition and attitudes of a person. AET emphasize the role of the emotion which is being influenced by resilience that will impact the individual cognition and behavior. Cognition is a mental process or action of employees resulting from the event experience, feeling, thought or senses. This research explore how cognition will affect nurses when receiving the POS and having resilience within themselves. Overall, AET shows the relationship between POS, resilience and mental health.

2.5   Hypotheses of Study

Table 2.4
Hypotheses of Study

Hypotheses
Hypothesis 1 There is a significant association of resilience and mental health. Hypothesis 2 There is a significant association of POS and mental health. Hypothesis 3a There is a significance influence of resilience towards mental health among nurses at Hospital Pulau Pinang. Hypothesis 3b There is a significance influence of POS towards mental health among nurses at Hospital Pulau Pinang

2.6   Research Framework

Independent Variables (IV)   **Dependent Variable (DV)**
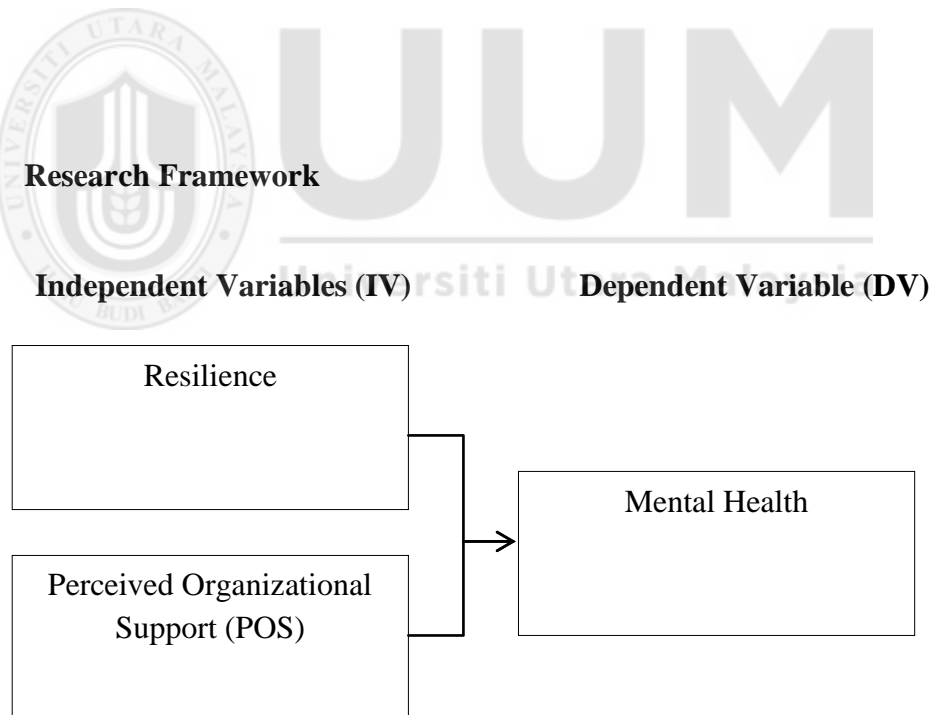
Figure 2.2
Research framework

2.7 Summary

Overall, this chapter described the previous literature related to the variables of the present study. Furthermore, the underpinning theory of this study was discussed to support the research framework. The relationship of variables was also discussed together with the hypothesis.

3.0   Introduction

Chapter three describes the research methodology that was used for the data collection and analysis in this study. The selection of appropriate methodology is important in order to produce reliable results and influence the interpretation of the findings in the research. The topic outline in this chapter covers the research design, population and sampling, sampling procedure, data collection procedure, research instrument, operational definition, translation of questionnaires and data analysis strategy.

3.1   Research Design

Research design is a framework or blue print that is required before conducting the research which means it is the first step that is required to gain information to solve the research question (Broadhurst, Holt, & Doherty, 2012). For this study, a survey using questionnaires was used to collect the data. The survey method is popular and is mostly being used by researchers to collect descriptive data in a quantitative research. A quantitative research involves statistical, mathematical or numerical analysis of data collected. This type of research focuses on gathering numerical data and generalizing it across different groups of people to explain certain phenomena or situations. In addition, quantitative research is also being used to evaluate the research

hypothesis and validate the relationship and influence of all the variables in the study (Williams, 2007).

In this research, survey data were obtained from the distributed questionnaire and the quantitative method was used to analyze the data. Data was analyzed by using the Statistical package for Social Science (SPSS) software version 22.0. Pearson's correlation coefficient is also used to study the relationship between variables and the influences of variables are tested by using multiple regression analysis.

3.2   Population and Sample

3.2.1   Sample size determination

Researchers need to decide the correct sample size to ensure the results from the sample of population can be generalized (Krejcie & Morgan, 1970). In this research, the sample size determination was determined by referring to the table provided by Krejcie and Morgan (1970) which stated that the sample size for a population of 1633 nurses in Hospital Pulau Pinang is 310. Therefore, there are 620 sets of questionnaires was being distributed. The distribution of more questionnaires to the respondents is a common practice to address the problem of unusable responses and low response rate. Thus, to address the issues of unusable cases and low response rate, the number of questionnaires for distribution was double increased.

3.2.2 Sampling procedure

The sampling procedure used in the present study was disproportionate stratified random sampling. At the Hospital Pulau Pinang, there were four levels of nurses with different job grades who were selected as respondents, starting from grade U29 to U42. Disproportionate stratified random sampling allows the researcher to give a large representation to all levels of nurses to avoid underrepresentation of any level. Furthermore, disproportionate stratified sampling will give an equal chance to all levels of nurses to be selected. Thus, this procedure will maximize the precision of population and minimize the bias (Garson, 2012).

Table 3.1
Participating nurses based on job grade.

Job Grade In Organization	Total number of nurses.	Sample Identified	Returned Questionnaires	Usable Questionnaires
U41/42	10	10	2	2
U36	18	18	7	7
U32	133	133	33	33
U29	1472	459	298	279
TOTAL	1633	620	340	321

In addition, simple random sampling also has been used in order to select the respondents among U29 nurses in HPP. Simple random sampling is the most suitable technique because it is impartial in choosing the sample from large population and the finding can be easily generalized with the minimum error and most simple method. For this study, Hospital Pulau Pinang have 1633 nurses from more than 30 department and simple random sampling is the preferable technique in determine number of sampling.

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In this study, a total of 620 questionnaires were distributed to the head of nurses in Hospital Pulau Pinang. Of the 620 questionnaires distributed, only 340 were returned. However, only 321 of questionnaires were used for the data analysis. The sampling procedures begin with disproportionate stratified random sampling for the nurses grade U32-U42. All the 42 numbers of returned questionnaires from these grades are usable. Since the majority of nurses are from grade U29, simple random sampling is most suitable technique used in choosing the sample from large population. 279 out of 298 numbers of nurses in grade U29 are chosen and total usable questionnaires was 321.

3.2.3 Unit of analysis

The unit of analysis for this study was nurses in Hospital Pulau Pinang. This study focused on the mental health of registered nurses and involves individual nurses in the hospital. Therefore, data collection process was collected from each individual. Nursing is defined as a profession involving taking care of ill or injured persons and providing preventive health care to healthy persons. The role of a nurse is to help the patient and fulfilling their needs. This includes communicating with patients, care of patient's safety, as a caregiver, a teacher and acting as the patient's advocate. Nurses are responsible in providing emotional and physical support to the patient and their families while maintaining a harmonious environment in hospitals. There are several categories of nurses which include assistant nurses, dental nurses, midwives, practical nurses and clinical nurse specialists (Scott, Matthews, & Kirwan, 2014).

3.2.4 Population Frame

A population frame is the general sample that was involved in the study which is registered nurses working in Hospital Pulau Pinang. 321 nurses were involved including all job grades in the hospital, gender, year of service, age, marital status, race and educational level.

3.3 Data Collection Procedure

Before distributing of the questionnaire, an approval and permission letter were obtained from University Utara Malaysia (UUM) also from the Clinical Research Centre (CRC). Hospital Pulau Pinang is a government Institution Health Care System in Malaysia, thus, this study was registered with the National Medical Research Register (NMRR) before conducting the research. The documents needed for NMRR approval included personal information, curriculum vitae (CV), study protocol or research proposal, one complete set of questionnaire, Participation Information Sheet (PIS) and Informed Consent Form, Researcher Agreement, Head of Department approval (Radiology Department), Institution Approval (Deputy Director of Hospital Pulau Pinang) and lastly a letter of request for permission to conduct research from UUM.

After obtaining all approvals and getting the permission, the Head of Nurses (Matron) verified the content of the questionnaires and helped in distributing the questionnaires to all registered nurses randomly. The verification of content in questionnaires is

important to ensure there were no issues arising which may harm the organization and the nurses' interest. Respondents were given two weeks to complete the questionnaires. Within the period of time, the researcher kept in contact with the matron to ensure that the progress of distributing the questionnaires was going well. 620 sets of questionnaires were distributed but only 340 sets were returned. All of the information obtained is strictly private and confidential to be used for the completion of the master thesis and will not be exposed to other parties.

3.4 Research Instruments

Questionnaire is one of the appropriate instruments used by researchers in order to collect data from respondents (Zohrabi, 2013). The design of the questionnaire should be simple so that the respondents can easily understand all of the items given to them (Brancato et al., 2004). The items in the questionnaire are created as closed ended question to prevent confusion during interpretation of the respondent's answers. Closed-ended questionnaires are more preferable because they are simpler and can be answered quickly when compared to open-ended questionnaires.

In this study, the questionnaire comprised of 38 questions and it was divided into four sections which were section A, B, C, and D. Section A consisted of the demographic background of respondents which included gender, race, age, marital status, years of service in the organization, highest educational level, job grade in organization and number of leave taken by the respondents within the last six month. Section B is

related to resilience among nurses followed by section C regarding POS as indirect variables. Direct variable was design in Section D which is mental health among nurses. In addition, the cover page of the questionnaire gave an overview of the research to the respondents which included the title, purpose of research and the name of the researcher and supervisor. The summary of items in each variable is shown in Table 3.2.

Table 3.2
Measures of the study

Variables	No of items	Originality	Reported Reliability
Section A: Demographic background	8	Gender, race, age, marital status, year of service, highest Educational, job grade in organization, number of leave taken.	
Section B: Resilience	10	Connor–Davidson Resilience Scale (CD- RISC) by Connor and Davidson (2003)	0.852
Section C: Perceived Organization Support	8	Eisenberger et al. (1986)	0.787
Section D: Mental health	12	General Health Questionnaire-12 (GHQ-12) by (D. Goldberg, 1970)	0.723

3.5   Measurement of Variables

Measurement is important to ensure the validity and reliability of a research. It also influences the effectiveness and accuracy of the finding from the research. Thus, by having a scale of measurement, it can help the researcher to classify the variables or numbers into different categories.

3.5.1 Mental health

Mental health is the dependent variable in this study and was defined as a condition in which individuals are measured based on three main domains: social dysfunction (including items 1, 3, 4, 7, 8 and 12), Anxiety and depression (items 2, 5, 6, and 9) and loss of confidence (items 10 and 11) (Graetz, 1991). Mental health is measured by using 5-point Likert scales with the range of measure from "1" (never) to "5" (always). In this section, there was a total of 12 items adapted from the General Health Questionnaire-12 (GHQ-12) by Goldberg (1970). Table 3.3 shows the items in the mental health variable.

Table 3.3
List of items of Mental Health

Mental Health
1. I am able to concentrate on whatever I am doing recently.
2. I have lost much sleep over worry recently.
3. I felt that I was playing a useful part in things recently.
4. I felt capable in making decisions about things recently.
5. I felt constantly under strain recently.
6. I felt I could not overcome the difficulties recently.
7. I am able to enjoy my normal day-to-day activities recently.
8. I am being able to face up to the problems recently.
9. I have been feeling unhappy or depressed recently.
10. I am losing confidence in myself recently.
11. I have been thinking of myself as a worthless person recently.
12. I am recently feeling reasonably happy with all things considered.

Source: D. Goldberg (1970)

3.5.2 Resilience

Resilience is the personal qualities that enable individuals to thrive in the face of adversity and is viewed as a stress-coping ability (Connor and Davidson, 2003). In this study, the resilience is focused on the following five factors: personal competence, tolerance of negative affect, positive acceptance of changes, control and spiritual influences. Resilience is one of the independent variables for this study and was measured by 5-point Likert scales with the range "1" (Strongly Disagree) to "5" (Strongly Agree). There were a total of 10 items of resilience adopted from the Connor–Davidson Resilience Scale (CD-RISC) by Connor and Davidson (2003). Table 3.4 shows the items for resilience.

Table 3.4
List of the Items of Resilience

Resilience
1. I am able to adapt according to changes
2. I can cope with whatever job given.
3. I try to look at the humorous side of things when I am faced with problem.
4. Having to cope with stress make me stronger.
5. I tend to build up after illness, injury or other hardship
6. I believe I can achieve my goals even though there are obstacles.
7. Under stress, I can still stay focus and think clearly.
8. I am not easily discouraged by failure.
9. I think of myself as a strong person when dealing with life's challenges and difficulties.
10. I am able to handle unpleasant or painful feelings like anger, fear and sadness.

Source: Connor and Davidson (2003)

3.5.3   Perceived Organization Support (POS)

Perceived organization support (POS) is when employees develop a global belief concerning their organization valuing employee's contributions and being caring about the employees' well-being (Eisenberger, 1986). POS is one of the independent variables and was measured by using 5-point Likert scales with the range "1" (Strongly Disagree) to "5" (Strongly Agree). There were total of 8 items of POS adopted from Eisenberger et al. (1986). Table 3.5 shows the items for POS.

Table 3.5
List of the items of Perceived organization Support (POS)

Perceived Organization Support (POS)
1. My organization considers my goals and values.
2. My organization really cares about my well-being.
3. My organization show very little concern for me.
4. My organization would forgive an honest mistake explain from my part.
5. My organization values my opinions.
6. If given an opportunity, my organization would take advantage of me
7. Help is available from my organization when I have a problem.
8. My organization will provide special favors whenever I need it.

Source: Eisenberger et al. (1986)

3.6 Translation of Questionnaires

Questions used in this research were originally developed in the English language. This questionnaire was translated into the Malay language by a senior lecturer from Universiti Utara Malaysia (UUM) who has twenty years of experience in doing research. Next, the translated questions were submitted to the head of nurses in the Hospital Pulau Pinang who is proficient in both Malay and English languages. The senior lecturer was requested to translate back into the English language also known as back-translated. Finally, the English and Malay versions of the questionnaires were compared to ensure the consistency.

3.7 Method of Statistical Data Analysis

The Statistical Package for the Social Science version 22.0 (SPSS) software was used to analyze the descriptive data from the respondents. SPSS was chosen because it is the most popular statistical package which can perform highly complex data manipulation by selecting the data from all types of files and use them to generate reports, charts and plots of distribution and others. In order to validate descriptive statistics which focused on frequency, percentage, mean, median and standard deviation, SPSS is the preferred method. Pearson's correlation coefficient was used to study the relationship between variables and the influence of variables was tested by using Multiple Regression analysis.

Table 3.6
Analysis used in testing hypothesis.

Hypothesis	Analysis
Hypothesis 1 There is a significant association of resilience and mental health.	Pearson correlation analysis
Hypothesis 2 There is a significant association of POS and mental health.	Pearson correlation analysis
Hypothesis 3a There is a significance influence of resilience towards mental health among nurses at Hospital Pulau Pinang.	Multiple regression analysis
Hypothesis 3b There is a significance influence of POS towards mental health among nurses at Hospital Pulau Pinang	Multiple regression analysis

3.8 Summary

In conclusion, this chapter has discussed the methodology used in this study which included research design, population and sampling, questionnaire design, measurement of the study, validity of instruments, data collection procedure as well as statistical design and analysis.

CHAPTER 4

FINDINGS

4.0 Introduction

This chapter will present the results of data analysis according to the research methodology that was discussed in Chapter 3. Data analysis is important as it is the process used in evaluating data by using analytical tools. Normality test, reliability test, mean and standard deviation, correlation analysis and multiple regression analysis was used in analysing all of the data.

4.1 Response Rate

For this study, 620 questionnaires were distributed to nurses at Hospital Pulau Pinang. A total of 340 or 54.83% questionnaires were returned and only 321 or 51.77% could be used for analysis. Table 4.1 shows the response rate of this study.

Table 4.1
Response Rate

	No. of Questionnaires	Percentage (%)
Distributed	620	100
Returned	340	54.83
Usable	321	51.77

4.2   Descriptive Analysis

Descriptive statistics are the statistics which describes the phenomena of interest (Loeb et al., 2017). Thus, the demographic background of respondents (nurses) were analysed throughout this study by using descriptive statistics. From the data analysis, the researcher was able to understand the differences among respondent such as gender, race, age, marital status, year of service, highest educational level, job grade in organization and the number of leave taken including medical annual leave.

Table 4.2

Demographic backgrounds of respondent

Demographic Variable	Category	Frequency	Percentage (%)
Gender	Male	18	5.6
	Female	303	94.4
Race	Malay	277	86.3
	Chinese	8	2.5
	Indian	27	8.4
	Others	9	2.8
Age	20 - 29 Years Old	178	55.5
	30 - 39 Years Old	117	36.4
	40 - 49 Years Old	18	5.6
	Above 50 Years Old	8	2.5
Marital status	Single	95	29.6
	Married	225	70.1
	Others	1	0.3

Table 4.2 (Continued)

Demographic Variable	Category	Frequency	Percentage (%)
Years of Services	185	57.6	185
	69	21.5	69
	42	13.1	42
	12	3.7	12
	13	4.0	13
Highest education	Nursing Certificate	23	7.2
	Diploma	279	86.9
	Degree	17	5.3
	Masters	2	0.6
Job Grade	U29	279	86.9
	U32	33	10.3
	U36	7	2.2
	U41/42	2	0.6
Leave taken	Yes	310	96.6
	No	11	3.4
Annual Leave	0-4 Days	144	44.9
	5-9 Days	113	35.2
	10-14 Days	37	11.5
	15- 19 Days	18	5.6
	20 Days and above	9	2.8
Medical Leave	0-9 Days	310	96.6
	10-19 Days	5	1.6
	20-29 Days	2	0.6
	30-39 Days	0	0
	40 days and above	4	1.2

The gender of respondent is shown in Table 4.2. The result demonstrated that majority of respondents were female which was 303 respondents or 94.4% of the total number of repondents. The remaining respondents were 18 males or 5.6%. The majority of respondents were Malay (277 respondents or 86.3%) followed by Indians (27 respondents or 8.4%), others (9 respondents or 2.8%) and lastly Chinese (8 respondents or 2.5%).

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The majority of respondent's age were among the age group of 20-29 years old (178 respondents or 55.5%). The next largest age group was 30-39 years old (117 respondents or 36.4%). 18 respondents or 5.6% were of 40-49 years old and 8 respondents or 2.5% were above 50 years old. Most of the respondents were married (225 respondents or 70.1%) but 95 respondents were single (29.6%) and followed by others with only one respondent or 0.3%.

The nurses' years of service in the organization is shown in Table 4.2. The majority of respondents had been working between 1-5 years (185 respondents or 57.6%) followed by 69 respondents or 21.5% of respondents had been working for 6-10 years. Additionally, 42 respondents or 13.1% had been working between 11-15 years and 12 respondents or 3.7% had been working for 16-20 years. 13 respondent or 4% had more than 20 years of service. The biggest group by level of education among respondents was at the diploma level (279 respondents or 86.9%), followed by nursing certificate (23 respondents or 7.2%). Only 17 respondents or 5.3% had a degree in nursing and only 2 respondents or 0.6% had masters for their educational level.

Regarding the job grade of the nurses who participated in the study, the majority of the respondents were from grade U29 (279 respondent or 86.9%), while 33 respondents or 10.3% of respondents were from grade U32. In addition, 7 respondents or 2.2% were of grade U36 and only 2 respondents or 0.6% of respondents were of grade U41/U42. Lastly, respondents were asked to state whether she or he have taken

any leave within the last six months. 310 of respondents or 96.6% had taken leave within the last six months and 11 respondents or 3.4% had never taken any leave. The researcher had divided the leaves taken among nurses into annual leaves or medical leaves. The total number of leaves given annually for nurses working in the government sector is 25 days. 144 respondents or 44.9% used 0-4 days of their annual leave which indicates the largest group. This is followed by 113 respondents or 35.2% who took annual leave between 5-9 days. 37 respondents or 11.5% had taken leave between 10-14 days and 18 respondents or 5.6% took between 15-19 days of leave. Only 9 respondents or 2.8% took leave more than 20 days within the last six months.

This study also involved medical leaves taken by nurses within the last six months. The highest number of medical leaves taken by a nurse was 93 days per year. However, for this study, most of the respondents took between 0-9 days of medical leaves (310 respondents or 96.6%), followed by 5 respondents or 1.6% taken medical leave between 10-19 days and only 2 respondents or 0.6% taken leave within 20-29 days but no respondents or 0% had taken leave between 30-39 days. Lastly, there were 4 respondents or 1.2% had taken leave more than 40 days within the last six months.

4.3 Normality Test

Normality test is defined as the shape of data distribution for a single variable and can be assessed graphically or numerically. For this study, the graphical Quantile-Quantile probability plot (Q-Q plot) has been used in order to test for data normality. The data is considered normal if all points were closely situated to the reference line or diagonal line in the graph. However, if the points in the graph are located far from diagonal line, the data are considered as not normal. For this study, all variables were found to have a normal distribution as all points are closely situated to the reference line.

4.4   Reliability Test

The purpose of reliability test in a research is to ensure that the study is conducted without bias and achieved the consistency of variables to measure a certain concept (Sekaran, 2013). Cronbach's coefficient alpha was used to test the inter-item consistency for this study. Table 4.3 shows the value of Cronbach's Alpha together with the internal consistency. If the value of Cronbach's alpha is more than 0.7, the consistency is considered as strong.

Table 4.3
Internal Consistency Measurement

Cronbach Alpha	Internal Consistency
$\alpha = 0.9$	Excellent
$\alpha = 0.8 < 0.9$	Good
$\alpha = 0.7 < 0.8$	Acceptable
$\alpha = 0.6 < 0.7$	Questionable
$\alpha = 0.5 < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

Source: Sekaran (2013)

Based on the result shown in Table 4.3, the total number of items measured in this study was 30. Each variable was measured with several numbers of items. The result showed that Perceived Organization Support (POS) had achieved the highest Cronbach's Alpha value at 0.852 followed by resilience ($\alpha = 0.787$) and the lowest value was mental health ($\alpha = 0.723$).

Table 4.4
Reliability Test Result

Variables	No of items	Cronbach's Alpha
Mental health	12	0.723
Resilience	10	0.852
Perceived Organization Support(POS)	8	0.787

4.5   Mean and Standard Deviation of Data Collection

The means and standard deviations of the dependent variables and independent variables are shown in Table 4.5. For this study, the dependent variable is mental health and independent variables are resilience and POS. The resilience variable had the highest mean value of 3.919 and the mental health had the lowest mean value of 3.071.

Table 4.5
Mean and standard deviation of variables

Construct	Dimension	Mean	Standard Deviation
Independent Variables	Perceived Organization Support	3.299	0.545
	Resilience	3.919	0.427
Dependent Variables	Mental health	3.071	0.485

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4.5.1 Mean and Standard Deviation of Resilience

The mean and standard deviation of the independent variable of resilience is shown in Table 4.6. The most dominant factor in measuring the resilience value was the item "I try to look at the humorous side of things when I am faced with problem" which has the mean value of 4.118. However, the items "Under stress, I can still stay focus and think clearly" had the lowest mean value which was 3.710.

Table 4.6
Mean and standard deviation (Resilience)

Items	Mean	Std. Deviation
I am able to adapt according to changes	3.947	0.581
I can cope with whatever job given.	3.919	0.553
I try to look at the humorous side of things when I am faced with problem.	4.118	0.655
Having to cope with stress make me stronger.	3.810	0.744
I tend to build up after illness, injury or other hardship.	3.984	0.634
I believe I can achieve my goals even though there are obstacles.	3.984	0.567
Under stress, I can still stay focus and think clearly.	3.710	0.762
I am not easily discouraged by failure.	3.968	0.636
I think of myself as a strong person when dealing with Life's challenges and difficulties	3.928	0.683
I am able to handle unpleasant or painful feelings like anger, fear, sadness.	3.825	0.647

4.5.2 Mean and Standard Deviation of POS

Means and standard deviation of items which used to measure POS is shown in Table 4.7. The items "Help is available from my organization when I have a problem" had the highest mean value of 3.604. Meanwhile, the item "My organization show very little concern for me" scored the lowest mean value which was 2.884.

Table 4.7
Mean and Standard Deviation (POS)

Items	Mean	Std. Deviation
My organization considers my goals and values.	3.560	0.834
My organization really cares about my well-being.	3.383	0.840
My organization show very little concern for me.	2.884	0.902
My organization would forgive an honest mistake explain from my part.	3.324	0.799
My organization values my opinions.	3.311	0.856
If given an opportunity, my organization would take advantage of me	2.919	0.955
Help is available from my organization when I have a problem.	3.604	0.823
My organization will provide special favors whenever I need it.	3.408	0.857

4.5.3 Mean and standard deviation of Mental Health

Mean and standard deviation of items that examined mental health are shown in Table 4.8. The highest mean value was 3.8505 which was for the item "I am able to concentrate on whatever I am doing recently". The lowest mean value was the item "I have been thinking of myself as a worthless person recently" which indicated the value as 1.8474.

Table 4.8
Mean and Standard Deviation (Mental health)

Items	Mean	Std. Deviation
I am able to concentrate on whatever I am doing recently.	3.850	0.734
I have lost much sleep over worry recently.	2.903	1.095
I felt that I was playing a useful part in things recently.	3.495	0.818
I felt capable in making decisions about things recently.	3.697	0.719
I felt constantly under strain recently.	2.953	1.121
I felt I could not overcome the difficulties recently.	2.672	0.997
I am able to enjoy my normal day-to-day activities recently.	3.716	0.889
I am being able to face up to the problems recently.	3.514	0.880
I have been feeling unhappy or depressed recently.	2.464	1.100
I am losing confidence in myself recently.	2.046	1.137
I have been thinking of myself as a worthless person recently.	1.847	1.150
I am recently feeling reasonably happy with all things considered.	3.685	0.934

4.6 Research Objectives

This section describes the test used to achieve all of the objectives of this study. The result of each hypothesis will be explained in this section.
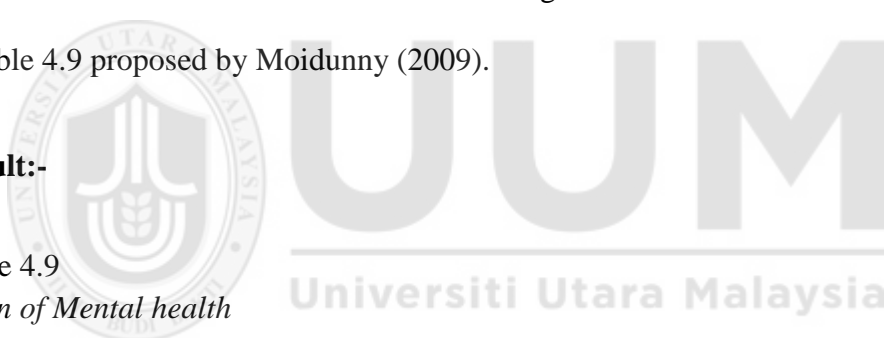
4.6.1 Objective 1

Objective 1: **To determine the level of mental health among nurses in Hospital Pulau Pinang.**

The level of mental health was determined by the value of means obtained from the respondent's answers. Based on table below, the mean value is 3.070. This can be concluded that the level of mental health among nurses is at a medium level according to table 4.9 proposed by Moidunny (2009).

Result:-

Table 4.9
Mean of Mental health

Mean	Std. Deviation
3.070	0.485

Table 4.10
Measurement of level

Mean score	Interpretation
1.00-1.80	Very Low
1.81-2.60	Low
2.61-3.20	Medium
3.21-4.20	High
4.21-5.00	Very High

Source: Moidunny (2009)

4.6.2 Objective 2

Objective 2: To study the association between resilience and mental health.

**Hypothesis 1: There is a significant association of resilience and mental
health.**

Pearson correlation analysis is used to reveal the strength and significance of the
variables and also measure the association between two variables (Sekaran, 2013). In
addition, correlation coefficient can be explained in term of positive or negative
association. Positive correlation will cause an increasing in one variable and impact
another factor to increase. The correlation coefficient also was named as 'r' to show
the strength of association between resilience, POS and mental health. The values +1
indicates positive association and -1 indicates negative association. If the value is 0,
this means there is no association between variables.

Table 4.11
Strength of Pearson correlation coefficient

Correlation Indices Size	Interpretation
< 0.20	Very low correlation
0.2-0.4	Low correlation
0.4-0.6	Moderate correlation
0.6 – 0.8	High correlation
0.8-1.0	Very high correlation

Source: Guildford (1973)

Result:-

Table 4.12
Correlation between Resilience and Mental health

		Resilience
Mental health	Pearson Correlation (r)	0.149**
	Sig. (2-tailed)	0.007
	N	321

** Correlation is significant at the 0.01 level (2-tailed)

Table 4.12 showed the result of Pearson Correlation between resilience and mental health among nurses at Hospital Pulau Pinang. There is a positive and significant association between resilience and mental health (r = 0.149, p < 0.01). Therefore Hypothesis 1 is supported.

4.6.3   Objective 3

Objective 3: To study the association between POS and mental health.

Hypothesis 2: There is a significant association of POS and mental health.

Result:-

Table 4.13
Correlation between POS and Mental Health

		POS
Mental health	Pearson Correlation	0.299**
	Sig. (2-tailed)	0.000
	N	321

** Correlation is significant at the 0.01 level (2-tailed)

Table 4.13 showed the result of Pearson Correlation between POS and mental health among nurses at Hospital Pulau Pinang. There is a positive and significant association between POS and mental health (r = 0.299, p < 0.01). Therefore Hypothesis 2 is supported.

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4.6.4   Objective 4

Objective 4: To examine the influence of resilience and POS towards mental

health among nurses at Hospital Pulau Pinang.

Hypothesis 3:-

H3a: There is a significance influence of resilience towards mental health among

nurses at Hospital Pulau Pinang.

H3b: There is a significance influence of POS towards mental health among

nurses at Hospital Pulau Pinang.

Table 4.14
Result of regression (Resilience, POS with Mental Health)

Variable	Standardized Beta	T	Sig.
Constant		7.784	0.000
Resilience	0.060	1.056	0.292
POS	0.280	4.972	0.000
Sig	0.000		
F	16.275		
R Square	0.093		
Adjusted R Square	0.087		

The coefficient of determination (R2) is a statistical technique which was used to measure and elaborates how a variable can predict the association with other variables. The main focus of R2 is explaining the changes of independent variables (resilience and POS). The result show resilience and POS had 9.3% of influence to

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mental health among nurses at Hospital Pulau Pinang ($R^2 = 0.093$).

In ANOVA, the higher the F-value, the higher the significant effect (Winter, 2011). This means if the F-value is large, it indicates more variance in the dependent variables (mental health). The ANOVA result shows significant relationship between resilience, POS and mental health ($p < 0.05$). It is important to examine the coefficient between resilience, POS and mental health. Beta shows that the higher the Beta value, the higher the influences towards dependent variables. Thus, POS had a high influence towards mental health among nurses at Hospital Pulau Pinang (B = 0.280, t =4.972, $p < 0.05$).

4.7 Hypotheses Summary

Table 4.15
Summarize of Hypothesis

Hypothesis	Analysis	Result	Supported/ Not Supported
Hypothesis 1 There is a significant association resilience and mental health.	Pearson correlation analysis	P<0.01 (Significant)	Supported
Hypothesis 2 There is a significant association POS and mental health.	Pearson correlation analysis	P<0.01 (Significant)	Supported
Hypothesis 3a There is a significance influence of resilience towards mental health among nurses at Hospital Pulau Pinang.	Multiple regression analysis	P>0.05 (Not significant)	Not Supported
Hypothesis 3b There is a significance influence of POS towards mental health among nurses at Hospital Pulau Pinang.	Multiple regression analysis	P<0.05 (Significant)	Supported

4.8 Summary

This chapter has presented the result of the study for data analysis from the collected data. Specifically a few data analytical tool has being used includes Normality test, Reliability test, Mean and standard deviation, Correlation analysis and Regression analysis. Then analysis was made to ensure the objective of the study either achievable or not achievable. Lastly, this chapter concludes the supported and not supported of hypothesis.

CHAPTER FIVE

DISCUSSION AND CONCLUSION

5.0   Introduction

For the last chapter, the researcher gives an overview and summarized the findings which was obtained from Chapter 4 and relates it with Chapter 2. The section below includes the discussion on the findings, implication of the study, recommendations, limitation of the study and suggestions for future research and the conclusion from this study.

5.1   Discussion of Finding

The following section discussed in detail the factors that contribute to the mental health among nurses in Hospital Pulau Pinang. The explanation on the relationship and influences between mental health, resilience and perceived organization support were also included. However, the discussion between non-significant results will not be included due to the insufficient evidence to be discussed.

5.1.1 The Level of Mental Health among Nurses

One of the objectives of the study is to determine the level of mental health among nurses in Hospital Pulau Pinang (HPP). The mean score for mental health was 3.07. Therefore, it can be concluded that the level of mental health among nurses is at a medium level according to Table 4.19, which was proposed by Moidunny (2009). This score indicated that nurses at the Hospital Pulau Pinang were not having a good mental health level associated with resilience and perceived organizational support.

It is important for the organization to ensure that employees have good mental health which will lead to a better relationship, pro-social attitude and behavior, increase in social cohesion and engagement and the reduction in criminal cases such as suicide (Commission, Ministry, & Presidency, 2004). Conversely, having employees with low levels of mental health will lead to poor job performance, reduction of productivity, loss of motivation and commitment, increasing disciplinary problems, poor relationship with others and depression or burnout.

In addition, poor mental health can contribute to distress and disability of individuals which becomes serious if untreated. This problem will give impact on many aspects of an individual, families and communities by disrupting the employment, association with anti-social behavior, consuming drugs and alcohol and sometimes will lead to anger, depression and anxiety.

5.1.2   The association between Resilience and Mental Health.

Resilience is generally conceptualized as the personal qualities that enables individual to thrive in the face of adversity and being viewed as a stress-coping ability (Connor and Davidson, 2003) while mental health is a state of well-being in which individuals realized his or her own abilities, able to cope and adapt with the normal stress of life, work effectively, being productive and fruitfully and possess the ability to contribute to their community (WHO, 2001). In the present study, the Pearson correlation analysis confirmed that there was a significant association between resilience and mental health with a sig value of 0.007 ($p < 0.01$, Sig. 2-tailed). In addition, the positive value of Pearson correlation with r = 0.149** also indicate a positive relationship between resilience and mental health.

Therefore, this study found that resilience has a relationship with mental health among nurses. This is consistent with previous studies done on various occupational groups that found individual level of resilience is significantly and positively related to mental health outcomes (Chow et al., 2017, Lu et al., 2014 , McGarry et al., 2013, Mealer et al., 2012 and Mak et al., 2011). In addition, this is supported by the World Health Organization (2014), there is relationship between resilience and mental health by states that, individual with good mental health can cope with normal stress of life, work productively and fruitfully.

Nurses work in a highly stressful workplace compared to other professions and are exposed to the risks such as anxiety, depression, and secondary traumatic stress if

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they are having low resilience within themselves. With low levels of resilience, nurses will face compassion, fatigue, stress and burnout which lead to poor mental health. Nurses are constantly dealing with patients, family members of patients and sometimes conflict with cliques or supervisors at the hospital, thus, low resilience will reduce their work performance and reduces patient care (Tan et al., 2014).

5.1.3 The Association and Influence between Perceived Organization Support and Mental Health.

POS is defined as when employees develop a global belief concerning their organization valuing employee's contributions and being caring about employee's well-being (Eisenberger et al, 1986). The Pearson correlation analysis confirmed that a significant association between POS and mental health exists, with a sig value of 0.000 (p < 0.01, Sig. 2-tailed). In addition, the Pearson correlation had a positive value of r = 0.299** which indicated there is a relationship between POS and mental health.

In determining the influence of POS and mental health, there is significance influence between POS towards mental health among nurses at Hospital Pulau Pinang. The result of the regression analysis of coefficient test demonstrated that POS has high value of Beta coefficient of 0.280 and the p value was less than 0.05 (p = 0.000) which indicated that POS had a significant influence towards mental health among nurses. Therefore, this study had found that POS influenced the mental health among nurses.

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These results are consistent with previous studies that showed POS had positive effects on people's mental health (Hao, Wang, Liu, Wu, & Wu, 2016) and POS plays a vital role in determining people mental health (Mehdibeigi, 2017). In addition, POS is also highly effective in organizations based on results that caused a positive effect on people's mental health (Rhoades et al., 2002). Another study found that POS is able to reduce the level of stress among employees and this will affect the mental health status of individuals (Liu el., 2013).

Employees with high POS tend to have good relationship with others, giving commitment and obligation towards their organization (Kalidass & Bahron, 2015). Employees will be more committed in doing their job and increase their obligation which will help the organization to achieve the objectives and targets. In addition, employees with POS will reduce withdrawal behaviors such as absenteeism and disciplinary problems at the workplace.

5.2   Implication of the Study

There were three implications obtained from this study which are managerial, individual and theoretical implications.

5.2.1 Managerial Implication

The results from this study are important for the management of hospitals as this study will allow them to know the relationship of Perceived Organization Support (POS), resilience and mental health level among nurses. Based on the result generated, POS had a big impact towards mental health of nurses and the management of hospitals will be able to improve from time to time to ensure all nurses in the hospitals have good mental health as it contributes to the overall success of an organization.

Specifically, this study found that it is important for the management to notice this issue in an early stage to prevent low level of mental health among nurses or employees as it could lead to poor job performance, reduction of productivity, loss of motivation and commitment, increasing in disciplinary problems, poor relationship with others and depression or burnout. All these problems will affect not only to the management but will also impact the quality of service delivered to patients.

5.2.2 Individual Implication

The implication at the individual level for nurses is that there is a significant relationship between resilience and their mental health. Resilience is important to ensure nurses remain calm and be steady in all situations and conditions especially during difficulties and hardships. Being a nurse is not an easy job and needs resilience as they are dealing patients, the family members, society and other domestic issues. Therefore, the results highlighted that the resilience issue is vital for the nurses in

order to face difficult situations at workplace. It is necessary for them to develop resilience in order to have good mental health. Having the support from peers, family and society will indirectly increase the level of resilience among nurses. Furthermore, in order to have resilience, nurses should be positive when facing problems and view the problem as a challenge and a process of learning to be more resilient. Nurturing positive self-perception will enhance the resilience by assuming everything is well and good.

5.2.3   Theoretical Implication

In general, this study contributed to expand existing knowledge, especially when it is related to mental health. The findings from this study could be used as a reference and could be applied to future research of the same topic and be helpful in strengthening the validity of the literature.

5.3   Recommendations

As the result from this study showed that there are relationships between resilience, POS and mental health, a few recommendations and suggestions have been made to help the management of hospital and nurses themselves to ensure good mental health. For the management of hospitals, the organization itself should provide more support for the nurses as they are the largest group of employees and the backbone of hospitals.

The management should also provide a professional team to handle and address nurses such as the occupational health service team, a counselor, or human resources team in order to manage all aspects of the mental and physical health among nurses. By having these teams, they will be available to look in detail the effects of work-related problems that might impact on the nurses' mental health status and job performance. In addition, these teams can also promote good mental health through education, screening and programs.

The management team could create a mentally healthy workplace to show support from the organization. Smarter work designs such as providing flexibility in working roles and working hours or by having flexible leave arrangement could increase the performance of the nurses. In addition, the organization should also show some recognition, appreciations or congratulate the nurses in order for them to realize that the organization does care for them. For example, the organization could provide gifts during birthday celebrations, anniversaries or weddings to the nurses in order to build a good relationship between the organization and employees.

In addition, organizations could also show their support by providing the Employee Assistant Program (EAP). EAPs such as child care in the organization will allow nurses who have children to perform better and cope with stress. By creating a good environment at the workplace, organizations could improve the mental health of nurses. Organization should also provide a restroom, pantry and chairs for nurses to relax after feeling tired when dealing with patients.

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5.4   Limitations and Suggestions

There were several limitations found in this study. This happened due to the inability of the researcher to control external factors during the conduct of the research. For this reason, some limitations had been listed and several initiatives could be taken to solve the problems which might arise for future research in the area concerned.

Firstly, the data in this study was collected solely from a public Hospital in Malaysia which was the Hospital Pulau Pinang. This limits the researcher in generalizing the results of the study. Thus, future studies may consider collecting data from all public hospitals in Malaysia or focus on hospitals within the northern region of Malaysia which covers Perlis, Kedah, Perak and Penang.

Secondly, another limitation identified was that the data was only collected in a public hospital. This may lead to biases and inaccuracy when interpreting the results. Future researchers are suggested to collect data both in public and private hospitals in order to reduce any potential biases. The level of mental health among nurses might differ between public and private hospitals.

Thirdly, this study only focused on the mental health of nurses in the health care industries. Future researchers should widen the scope of study which includes all categories in the health care system such as pharmacists, radiologist, physiotherapist, medical assistants, medical officers and others. Future researchers are also suggested

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to study the level of mental health in other service industries such as transportation, banking or construction in order to confirm the findings of this study.

The fourth limitation was in using the statistical analysis package to analyze the results. In this study, SPSS was used to analyze all of the collected data. Future researchers should consider using the partial least squares path modeling (PLS-PM) to estimate the cause-effect relationship models between variables . SPSS had its own limitations to analyze very large data sets and there are many different versions of SPSS, making it difficult to determine and learn about each different versions.

The fifth limitation was related to the respondent's demography in questionnaires. Some of the respondents did not provide and state the numbers of leave taken within the last six months. This could be due to forgetting the number of leave taken or the unwillingness to state the number of leave in the questionnaire. Thus, future researchers are suggested to use ranking scales rather than directly stating the amount

The final identified limitation was related to the variables in this study. Future research could explore and include more variables regarding this topic other than resilience and POS such as personality, burnout or stress which are related to mental health. Moderators and mediators such as emotional intelligence are also suggested to be added in the research framework for future research.

5.5 Conclusion

This study attempted to provide a theoretical explanation regarding the factors influencing and related to mental health among nurses at the hospital. From this study, the independent variables were resilience and Perceived Organizational Support (POS) and the dependent variable was mental health. The objective was mainly focused on the level of mental health among nurses together with the relationship of all variables. In addition, the objective was also to identify whether resilience or POS had a strong influence towards the mental health of nurses. The population of this study was the registered nurses in the Hospital Pulau Pinang. Disproportionate stratified random sampling and simple random sampling procedure was used and the sample size determination was determined based on the table provided by Krejcie and Morgan (1970). The sample size for a population of 1633 nurses in the Pulau Pinang Hospital was 310. Thus, 321 usable questionnaires were analyzed by using Statistical package for Social Science (SPSS) version 22.0

In this study, it was found that the mental health level among nurses was at a medium level. There were very low relationship between resilience and mental health and low relationship between POS and mental health. In addition, the POS variable had a strong influence towards the mental health of nurses compared to resilience. A high level of mental health is important in the success of an organization. Based on the results from this study, support from the nursing department needs to be improved in order to obtain a good level of mental health among nurses. Specifically, the Head of nurses or the Matron should ensure that all nurses are satisfied and happy with their job in order to have a good level of mental health.

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Overall, although there are many researches that examined the level of mental health, the present research still contributed to the organization, individual and the future academic research especially in the Malaysian context. Furthermore, the research results do provide some practical implication to the management of hospitals. Last but not least, this study added to the present knowledge in mental health and will be beneficial in ensuring a good level of mental health.

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APPENDIX A- Questionnaires

SCHOOL OF BUSINESS MANAGEMENT
UNIVERSITI UTARA MALAYSIA
MASTER OF HUMAN RESOURCE MANAGEMENT

THE RELATIONSHIP BETWEEN RESILIENCE, PERCEIVED ORGANIZATIONAL SUPPORT AND MENTAL HEALTH AMONG NURSES.

Dear Value Respondents,

This questionnaire is designed to study the relationship between resilience, perceived organizational support and mental health status among nurses in Hospital Pulau Pinang. This survey is conducted for the purpose of the preparation of project for the completion of my master in HRM.

I sincerely hope you could spend some times to answer this survey. The result from this survey will be used in aggregate, without referring to any one individual, and will be used solely for academic research purposes. Your response will be kept confidential and there is no right or wrong answer.

Thank you for your time and kind cooperation.

Responden Yang Dihormati,

Soal selidik ini dilakukan untuk mengkaji hubungan antara daya tahan, sokongan organisasi yang dirasakan dan kesihatan mental di kalangan jururawat di Hospital Pulau Pinang. Kajian ini dijalankan dengan tujuan penyediaan projek untuk pengajian Sarjana Pengurusan Sumber Manusia.

Saya berharap anda boleh meluangkan masa untuk menjawab soalan yang berkaitan dengan kajian ini. Hasil dari kaji selidik ini akan digunakan secara keseluruhan tanpa merujuk kepada mana-mana individu dan akan digunakan hanya untuk tujuan penyelidikan akademik. Jawapan anda akan dirahsiakan dan tidak ada jawapan yang betul atau salah.

Terima kasih di atas masa dan kerjasama anda.

Muhamad Yusof bin Ghazali   Dr Hanissah Bt A.Razak
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SECTION A: Demographic Background of Respondent
Bahagian A, Latar Belakang Demografi Responden

This section is to obtain information of the respondent background. Please mark √ in the appropriate selection.
Bahagian ini adalah untuk mendapatkan maklumat mengenai latar belakang responden. Sila tandakan √ dalam pemilihan yang sesuai

A1. Gender/*Jantina*

□ Male/*Lelaki.*

□ Female/*Perempuan.*

A2. Race/*Bangsa*

□ Malay/*Melayu*

□ Chinese/*Cina*

□ Indian/*India*

□ Others/*Lain-lain*_____

A3. Age/*Umur*

□ 20-29 years old/*20-29 tahun*

□ 30-39 years old/*30-39 tahun*

□ 40-49 years old/*40-49 tahun*

□ Above 50 years old/*50 tahun keatas*

A4. Marital status/*Status perkahwinan*

□ Single/*Bujang*

□ Married/Berkahwin

□ Others/ *Lain-lain*_____(please state/*sila nyatakan*)

A5. Years of service in organization/*tempoh perkhidmatan dalam organisasi.*

Please state/*sila nyatakan* (_____) years/*tahun*.

A6. Highest educational level/*tahap pendidikan tertinggi*

☐ Nursing certificate/*Sijil kejururawatan*

☐ Diploma/*Diploma*

☐ Degree/*Ijazah*

☐ Masters/*Sarjana*

A7. Job grade in organization/*Gred kerja dalam organisasi*

U29   U36

U32   U41/42

A8.

a) Within the last six months, have you taken any leave?
   Dalam tempoh enam bulan yang lalu, pernahkah anda mengambil cuti?

   Yes/*Ya*   No/*Tidak*

b) If yes, what type of leave and number of days were taken? (Tick on applicable and specify number of days)
Jika Ya, apakah jenis cuti dan bilangan hari yang diambi?(tandakan pada yang berkenaan dan nyatakan bilangan hari)

   Annual leave/ *Cuti rehat*   Days*/ hari*

   Medical leave /*Cuti sakit*   Days*/ hari*

SECTION B: This section is related to resilience among nurses. Please circle your response according to the scale below.

BahagianB: Bahagian ini berkaitan dengan daya tahan di kalangan jururawat. Sila bulatkan jawapan anda mengikut skala di bawah.

1	2	3	4	5
Strongly disagree *Sangat tidak setuju.*	Disagree *Tidak setuju*	Not sure *Tidak pasti*	Agree *Setuju*	Strongly agree *Sangat setuju*

No	Question/*Soalan*					
B1	I am able to adapt according to changes *Saya dapat menyesuaikan diri kepada perubahan.*	1	2	3	4	5
B2	I can cope with whatever job given. *Saya boleh mengendalikan apa sahaja tugasan yang diberikan.*	1	2	3	4	5
B3	I try to look at the humorous side of things when I am faced with problem. *Saya cuba melihat perkara yang menghiburkan apabila saya menghadapi masalah.*	1	2	3	4	5
B4	Having to cope with stress make me stronger. *Menyesuaikan diri dengan tekanan membuatkan saya lebih kuat.*	1	2	3	4	5
B5	I tend to build up after illness, injury or other hardship. *Saya mampu untuk bangkit semula selepas sakit, mengalami kecederaan atau kesusahan lain.*	1	2	3	4	5
B6	I believe I can achieve my goals even though there are obstacles. *Saya percaya saya dapat mencapai matlamat saya walaupun terdapat halangan.*	1	2	3	4	5
B7	Under stress, I can still stay focus and think clearly. *Apabila menghadapi tekanan, saya tetap boleh fokus dan berfikir dengan jelas.*	1	2	3	4	5
B8	I am not easily discouraged by failure. *Saya tidak mudah berputus asa disebabkan kegagalan.*	1	2	3	4	5
B9	I think of myself as a strong person when dealing with life's challenges and difficulties *Saya merasakan diri saya seorang yang kuat apabila menghadapi cabaran dan kesukaran hidup.*	1	2	3	4	5

B10	I am able to handle unpleasant or painful feelings like anger,fear,sadness *Saya boleh mengendalikan perasaan yang tidak menyenangkan atau menyakitkan seperti kemarahan, ketakutan dan kesedihan.*	1	2	3	4	5

SECTION C: This section is related to Perceived Organizational Support (POS).
BAHAGIAN C: Bahagian ini berkaitan dengan Sokongan Organisasi yang Diperolehi (POS)

1	2	3	4	5
Strongly disagree *Sangat tidak setuju.*	Disagree *Tidak setuju*	Not sure *Tidak pasti*	Agree *Setuju*	Strongly agree *Sangat setuju*

No	Question/*Soalan*					
C1	My organization considers my goals and values. *Matlamat dan nilai-nilai diri diambil berat oleh organisasi saya.*	1	2	3	4	5
C2	My organization really cares about my well-being. *Organisasi saya benar-benar mengambil berat tentang keadaan saya.*	1	2	3	4	5
C3	My organization show very little concern for me. *Kurang perhatian diberikan oleh organisasi terhadap saya.*	1	2	3	4	5
C4	My organization would forgive an honest mistake explain from my part. *Sebarang kesilapan saya akan dimaafkan oleh pihak organisasi.*	1	2	3	4	5
C5	My organization values my opinions. *Pendapat saya dititikberatkan oleh organisasi.*	1	2	3	4	5
C6	If given an opportunity, my organization would take advantage of me *Jika terdapat peluang, organisasi saya akan mengambil kesempatan ke atas saya.*	1	2	3	4	5
C7	Help is available from my organization when I have a problem. *Organisasi saya sedia memberi bantuan sekiranya saya menghadapi masalah.*	1	2	3	4	5

C8	My organization will provide special favors whenever I need it. *Organisasi saya sedia memberi perrtolongan sekiranya saya memerlukan bantuan khas.*	1	2	3	4	5

SECTION D: This section is related to mental health among nurses. Please circle your response based on the following scales.

Bahagian D*: Bahagian ini berkaitan dengan kesihatan mental antara jururawat. Sila bulatkan jawapan anda mengikut skala yang berikut.*

1	2	3	4	5
Never *Tidak pernah*	Rarely *Jarang-jarang*	Sometimes *Kadang-kadang*	Most of the time *Selalu*	Always *Sentiasa*

No	Question/*Soalan*					
D1	I am able to concentrate on whatever I am doing recently. *Saya mampu memberi tumpuan kepada perkara yang saya lakukan dalam masa yang terdekat.*	1	2	3	4	5
D2	I have lost much sleep over worry recently. *Saya mengalami kekurangan tidur disebabkan kerisauan yang melampau baru-baru ini.*	1	2	3	4	5
D3	I felt that I was playing a useful part in things recently. *Saya merasakan bahawa saya memainkan peranan yang sangat berguna dalam sesuatu perkara dalam masa yang terdekat.*	1	2	3	4	5
D4	I felt capable in making decisions about things recently. *Saya merasakan mampu membuat keputusan tentang sesuatu perkar dalam masa yang terdekat.*	1	2	3	4	5
D5	I felt constantly under strain recently. *Saya rasa terbeban yang berpanjangan baru-baru ini.*	1	2	3	4	5

D6	I felt I could not overcome the difficulties recently. *Saya merasakan tidak mampu menyelesaikan masalah dalam masa yang terdekat.*	1	2	3	4	5
D7	I am able to enjoy my normal day-to-day activities recently. *Saya dapat menikmati kehidupan seharian saya seperti biasa baru-baru ini*	1	2	3	4	5
D8	I am being able to face up to the problems recently. *Saya mampu menghadapi masalah dalam masa yang terdekat.*	1	2	3	4	5
D9	I have been feeling unhappy or depressed recently. *Saya berasa tidak gembira atau murung dalam masa yang terdekat.*	1	2	3	4	5
D10	I am losing confidence in myself recently. *Saya hilang kepercayaan kepada diri saya baru-baru ini.*	1	2	3	4	5
D11	I have been thinking of myself as a worthless person recently. *Saya memikirkan diri saya sebagai orang yang tidak berguna baru-baru ini.*	1	2	3	4	5
D12	I am recently feeling reasonably happy with all things considered. *Saya berasa gembira dengan sebab/alasan terhadap semua perkara yang saya lakukan dalam masa yang terdekat.*	1	2	3	4	5

Thank You for Your Precious Time and Cooperation
Terima kasih di atas masa dan kerjasama yang anda berikan.

APPENDIX B- Respondents Profile

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	18	5.6	5.6	5.6
	Female	303	94.4	94.4	100.0
	Total	321	100.0	100.0	

Race

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	277	86.3	86.3	86.3
	Chinese	8	2.5	2.5	88.8
	Indian	27	8.4	8.4	97.2
	Others	9	2.8	2.8	100.0
	Total	321	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20 - 29 Years Old	178	55.5	55.5	55.5
	30 - 39 Years Old	117	36.4	36.4	91.9
	40 - 49 Years Old	18	5.6	5.6	97.5
	Above 50 Years Old	8	2.5	2.5	100.0
	Total	321	100.0	100.0	

Maritalstatus

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	95	29.6	29.6	29.6
	Married	225	70.1	70.1	99.7
	Others	1	.3	.3	100.0
	Total	321	100.0	100.0	

Years of service

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5	185	57.6	57.6	57.6
	6-10	69	21.5	21.5	79.1
	11-15	42	13.1	13.1	92.2
	16-20	12	3.7	3.7	96.0
	more than 20	13	4.0	4.0	100.0
	Total	321	100.0	100.0	

HighestEducation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nursing Certificate	23	7.2	7.2	7.2
	Diploma	279	86.9	86.9	94.1
	Degree	17	5.3	5.3	99.4
	Masters	2	.6	.6	100.0
	Total	321	100.0	100.0	

JobGrade

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	U29	279	86.9	86.9	86.9
	U32	33	10.3	10.3	97.2
	U36	7	2.2	2.2	99.4
	U41/42	2	.6	.6	100.0
	Total	321	100.0	100.0	

Leave

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	310	96.6	96.6	96.6
	No	11	3.4	3.4	100.0
	Total	321	100.0	100.0	

anualleave

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-4 Days	144	44.9	44.9	44.9
	5-9 Days	113	35.2	35.2	80.1
	10-14 Days	37	11.5	11.5	91.6
	15- 19 Days	18	5.6	5.6	97.2
	20 Days and above	9	2.8	2.8	100.0
	Total	321	100.0	100.0	

Medicalleave

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-9 Days	310	96.6	96.6	96.6
	10-19 Days	5	1.6	1.6	98.1
	20-29 Days	2	.6	.6	98.8
	40 Days and Above	4	1.2	1.2	100.0
	Total	321	100.0	100.0	

APPENDIX C-Test of Normality
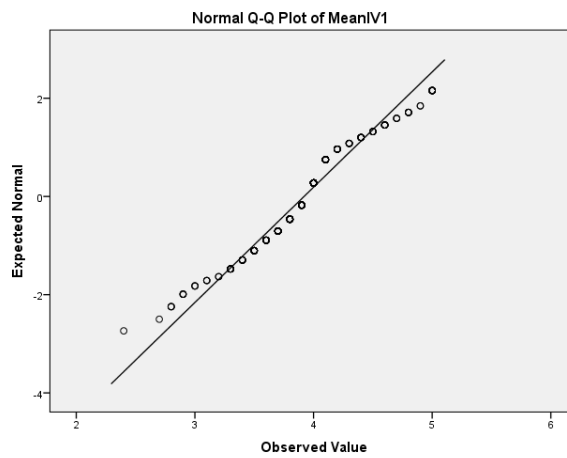
Normality test for Resilience
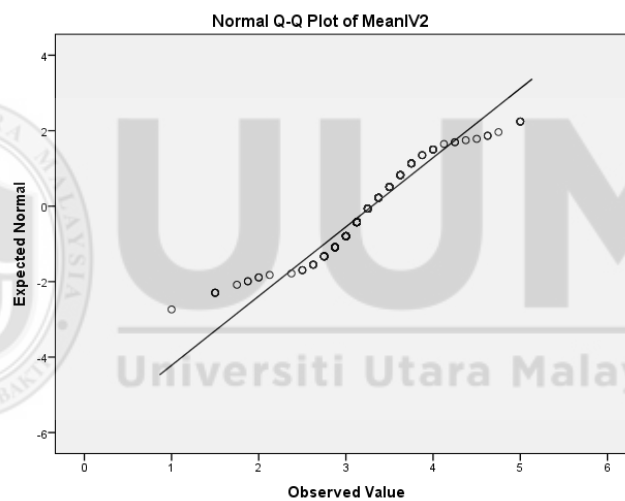
Normality test for POS
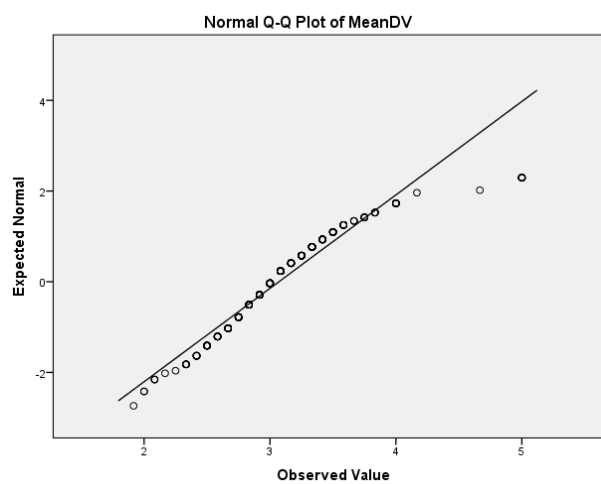
Normality test for Mental health

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APPENDIX D-Result of Descriptive Statistics

a) Mean of resilience, POS and mental health.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Mean Resilience	321	2.40	5.00	3.9196	.42605
Mean POS	321	1.00	5.00	3.2995	.54516
Mean Mental Health	321	1.92	5.00	3.0706	.48541
Valid N (listwise)	321				

b) Descriptive statics of mental health

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I am able to concentrate on whatever I am doing recently.	321	1.00	5.00	3.8505	.73489
I have lost much sleep over worry recently.	321	1.00	5.00	2.9034	1.09545
I felt that I was playing a useful part in things recently.	321	1.00	5.00	3.4953	.81824
I felt capable in making decisions about things recently.	321	2.00	5.00	3.6978	.71957
I felt constantly under strain recently.	321	1.00	5.00	2.9533	1.12124
I felt I could not overcome the difficulties recently.	321	1.00	5.00	2.6729	.99789
I am able to enjoy my normal day-to-day activities recently.	321	1.00	5.00	3.7165	.88953
I am being able to face up to the problems recently.	321	1.00	5.00	3.5140	.88067
I have been feeling unhappy or depressed recently.	321	1.00	5.00	2.4642	1.10091
I am losing confidence in myself recently.	321	1.00	5.00	2.0467	1.13784

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	N	Minimum	Maximum	Mean	Std. Deviation
I have been thinking of myself as a worthless person recently.	321	1.00	5.00	1.8474	1.15044
I am recently feeling reasonably happy with all things considered.	321	1.00	5.00	3.6854	.93411
Valid N (listwise)	321				

C) Descriptive statistics of resilience

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I am able to adapt according to changes	321	2.00	5.00	3.9470	.58122
I can cope with whatever job given.	321	1.00	5.00	3.9190	.55310
I try to look at the humorous side of things when I am faced with problem.	321	2.00	5.00	4.1184	.65551
Having to cope with stress make me stronger.	321	1.00	5.00	3.8100	.74458
I tend to build up after illness, injury or other hardship.	321	1.00	5.00	3.9844	.63473
I believe I can achieve my goals even though there are obstacles.	321	2.00	5.00	3.9844	.56713
Under stress, I can still stay focus and think clearly.	321	1.00	5.00	3.7103	.76251
I am not easily discouraged by failure.	321	1.00	5.00	3.9688	.63661
I think of myself as a strong person when dealing with life's challenges and difficulties	321	1.00	5.00	3.9283	.68317
I am able to handle unpleasant or painful feelings like anger,fear,sadness	321	1.00	5.00	3.8255	.64767
Valid N (listwise)	321				

d) Descriptive statistics of POS

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
My organization considers my goals and values.	321	1.00	5.00	3.5607	.83491
My organization really cares about my well-being.	321	1.00	5.00	3.3832	.84014
My organization show very little concern for me.	321	1.00	5.00	2.8847	.90266
My organization would forgive an honest mistake explain from my part.	321	1.00	5.00	3.3240	.79903
My organization values my opinions.	321	1.00	5.00	3.3115	.85668
If given an opportunity, my organization would take advantage of me	321	1.00	5.00	2.9190	.95508
Help is available from my organization when I have a problem.	321	1.00	5.00	3.6044	.82302
My organization will provide special favors whenever I need it.	321	1.00	5.00	3.4081	.85794
Valid N (listwise)	321				

APPENDIX E-Result of Reliability Test

a) Reliability result of mental health

Case Processing Summary

		N	%
Cases	Valid	321	100.0
	Excluded[a]	0	.0
	Total	321	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.723	.711	12

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I am able to concentrate on whatever I am doing recently.	32.9969	31.616	.215	.317	.720
I have lost much sleep over worry recently.	33.9439	27.122	.491	.451	.684
I felt that I was playing a useful part in things recently.	33.3520	31.210	.224	.371	.720
I felt capable in making decisions about things recently.	33.1495	30.734	.336	.377	.709
I felt constantly under strain recently.	33.8941	26.814	.505	.527	.682

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I felt I could not overcome the difficulties recently.	34.1745	27.194	.551	.524	.677
I am able to enjoy my normal day-to-day activities recently.	33.1308	32.989	.015	.454	.745
I am being able to face up to the problems recently.	33.3333	30.704	.251	.302	.718
I have been feeling unhappy or depressed recently.	34.3832	26.781	.521	.648	.679
I am losing confidence in myself recently.	34.8006	26.491	.525	.725	.678
I have been thinking of myself as a worthless person recently.	35.0000	26.869	.481	.648	.685
I am recently feeling reasonably happy with all things considered.	33.1620	32.224	.079	.428	.739
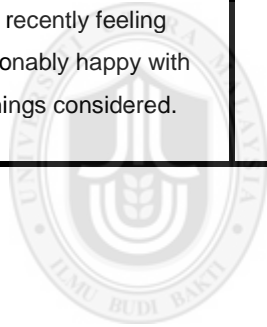
b) Reliability result of Resilience

Case Processing Summary

		N	%
Cases	Valid	321	100.0
	Excluded[a]	0	.0
	Total	321	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.852	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I am able to adapt according to changes	35.2492	15.525	.500	.843
I can cope with whatever job given.	35.2773	15.664	.499	.844
I try to look at the humorous side of things when I am faced with problem.	35.0779	15.766	.376	.854
Having to cope with stress make me stronger.	35.3863	14.838	.481	.847
I tend to build up after illness, injury or other hardship.	35.2118	14.492	.674	.828
I believe I can achieve my goals even though there are obstacles.	35.2118	15.024	.638	.833
Under stress, I can still stay focus and think clearly.	35.4860	14.407	.547	.840
I am not easily discouraged by failure.	35.2274	14.795	.603	.835

I think of myself as a strong person when dealing with life's challenges and difficulties	35.2679	14.084	.702	.825
I am able to handle unpleasant or painful feelings like anger,fear,sadness	35.3707	14.847	.578	.837

c) Reliability result of POS

Case Processing Summary

		N	%
Cases	Valid	321	100.0
	Excluded[a]	0	.0
	Total	321	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.787	.798	8

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
My organization considers my goals and values.	22.8349	14.451	.610	.596	.745
My organization really cares about my well-being.	23.0125	13.950	.696	.705	.731
My organization show very little concern for me.	23.5109	16.876	.179	.258	.814

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	Mean	Variance	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
My organization would forgive an honest mistake explain from my part.	23.0717	14.342	.668	.476	.737
My organization values my opinions.	23.0841	14.377	.602	.469	.746
If given an opportunity, my organization would take advantage of me	23.4766	17.331	.098	.251	.830
Help is available from my organization when I have a problem.	22.7913	14.472	.618	.576	.744
My organization will provide special favors whenever I need it.	22.9875	14.244	.624	.515	.742

APPENDIX F - Result of Pearson Correlation

Correlations

		MeanIV1	MeanIV2	MeanDV
Mean Resilience	Pearson Correlation	1	.321[**]	.149[**]
	Sig. (2-tailed)		.000	.007
	N	321	321	321
Mean POS	Pearson Correlation	.321[**]	1	.299[**]
	Sig. (2-tailed)	.000		.000
	N	321	321	321
Mean Mental health	Pearson Correlation	.149[**]	.299[**]	1
	Sig. (2-tailed)	.007	.000	
	N	321	321	321

**. Correlation is significant at the 0.01 level (2-tailed).

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APPENDIX G-Multiple regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Mean POS, Mean Resilience	.	Enter

a. Dependent Variable: MeanMental Health

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.305[a]	.093	.087	.46378

a. Predictors: (Constant), MeanPOS, Meanresilience

b. Dependent Variable: Meanmentalhealth

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.001	2	3.501	16.275	.000[b]
	Residual	68.398	318	.215		
	Total	75.399	320			

a. Dependent Variable: Meanmentalhealth

b. Predictors: (Constant), MeanPOS, Meanresilience

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.981	.255		7.784	.000
	Mean Resilience	.068	.064	.060	1.056	.292
	Mean POS	.250	.050	.280	4.972	.000

a. Dependent Variable: Mean Mental health

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APPENDIX H-Data Collection Approval Letter