

**THE RELATIONSHIP BETWEEN NURSES'  
PROFESSIONAL COMMITMENT AND PATIENT  
SAFETY WITH PATIENTS' PERCEIVED CARE  
QUALITY AT HOSPITAL UNIVERSITI SAINS  
MALAYSIA**

**SANAA MOHAMMAD KHALAF AL-SHLOOL**

**UNIVERSITI SAINS MALAYSIA**

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MALAYSIA**

**By**

**SANAA MOHAMMAD KHALAF AL-SHLOOL**

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## LIST OF ABBREVIATIONS

PS	- Patient Safety
WHO	- World Health Organizational
PC	- Professional Commitment
PPCQ	- Patient-Perceived Care Quality
USM	- Universiti Sains Malaysia
AC	- Affective Commitment
CC	- Continuance Commitment
NC	- Normative Commitment
TCM	- Three Components Model
QSEN	- Quality and Safety Education for Nurses
JCI	- Joint Commission International
IOM	- Institute of Medicine
SERVQUAL	- Service Quality
HSOPSC	- Hospital Survey on Patient Safety Culture
ICU	- Intensive Care Unit
COVID 19	- Coronavirus Disease Of 2019
HREC	- Human Research Ethics Committee
IRB	- Institutional Review Board
SPSS	- Statistical Package of Social Science
M	- Mean
SD	- Standard Deviation
TCAB	- Transforming Care at the Bedside
ANOVA	- Analysis of Variance

**HUBUNGKAIT ANTARA KOMITMEN PROFESIONAL JURURAWAT,  
KESELAMATAN PESAKIT DAN PANDANGAN PESAKIT TERHADAP  
KUALITI PENJAGAAN DI HOSPITAL UNIVERSITI SAINS MALAYSIA**

**ABSTRAK**

Keselamatan dan kualiti rawatan pesakit dianggap penting dalam sistem penjagaan kesihatan. Terdapat keperluan untuk meningkatkan hasil rawatan kesihatan; terutamanya apabila jururawat menghabiskan lebih banyak masa untuk memberikan rawatan klinikal kepada pesakit daripada yang dilakukan oleh profesional lain. Oleh itu, jururawat mempunyai peranan penting dalam meningkatkan keselamatan dan kualiti rawatan pesakit. Objektif utama kajian ini adalah untuk mengkaji hubungan antara komitmen profesional jururawat, keselamatan pesakit dan pandangan pesakit terhadap kualiti penjagaan di Hospital USM, Malaysia. Reka bentuk rentas deskriptif digunakan untuk menjawab persoalan kajian. Dengan menggunakan kaedah tinjauan dalam talian, 170 respons yang lengkap dikumpulkan daripada jururawat. Di samping itu, 170 borang soal selidik dikumpulkan sepenuhnya daripada pesakit dengan kadar tindak balas 92% untuk kedua-dua kumpulan responden. *Independent-sample t-test and one-way ANOVA* digunakan untuk menilai hubungan antara data sosiodemografi jururawat dan pesakit dengan komitmen profesional jururawat, keselamatan pesakit dan pandangan pesakit terhadap kualiti penjagaan. Hasil kajian menunjukkan bahawa tahap komitmen profesional berbeza apabila tahap pendidikan jururawat berubah. Di samping itu, keselamatan pesakit mempunyai kaitan dengan bidang kerja khusus jururawat di mana tahap keselamatan pesakit lebih tinggi di kalangan jururawat di wad obstetrik dan ginekologi. Selain itu, hasil kajian menunjukkan bahawa pesakit di wad kebidanan dan ginekologi lebih berpuas hati dengan kualiti penjagaan jururawat daripada pesakit lain yang dimasukkan ke wad perubatan dan pembedahan. Akhirnya,

hasil korelasi Pearson menunjukkan bahawa komitmen profesional jururawat mempunyai kaitan positif dengan kualiti rawatan yang dirasakan pesakit sementara tidak ada hubungan yang signifikan dengan keselamatan pesakit.

**Kata kunci:** Komitmen profesional jururawat, Keselamatan pesakit, Pandangan pesakit terhadap kualiti penjagaan, Jururawat.

**THE RELATIONSHIP BETWEEN NURSES' PROFESSIONAL  
COMMITMENT AND PATIENT SAFETY WITH PATIENTS' PERCEIVED  
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**ABSTRACT**

There is a need to enhance health care outcomes; particularly when nurses expend more time delivering clinical treatment for patients than other professionals do. Nurses thus have an important role in improving patient safety and quality of care. The primary objective of this study was to examine the relationship between nurses' professional commitment, patient safety and patient-perceived care quality at Hospital USM, Malaysia. A descriptive, cross-sectional design was used to answer the research questions. Using the online survey method, 170 completed responses were collected from nurses. In addition, 170 questionnaires were collected completely from the patients with a response rate of 92% for both groups of respondents. Independent-sample t-test and one-way ANOVA were used to assess the relationship between sociodemographic data of nurses and patients with nurses' professional commitment, patient safety and patient-perceived care quality. The result showed that the professional commitment level differs as the educational level of nurses altered. In addition, patient safety has a relationship with the specialty working area of nurses where the patient safety level was higher among nurses at obstetrics and gynecology wards. Moreover, the results revealed that patients at obstetrics and gynecology wards were satisfied more with nursing care quality than other patients who were admitted to the medical and surgical wards. Finally, the Pearson correlation results showed that nurses' professional commitment has a positive relationship with patient-perceived care quality while no significant relationship with patient safety was found.

**Keywords:** Nurses' professional commitment, Patient safety, Patient-perceived care quality, Nurses.

## CHAPTER 1

### INTRODUCTION

#### 1.1 Background of the study

Patient safety (PS) is one of the most important factors that reflect the quality of care for the patients. Nurses constitute the largest professional group of caregivers who are dealing with patients. Hence, many studies focus on improving PS by increasing the nurses' level of knowledge and training them according to professional nursing criteria (AbdAlla, 2017). Also, the role of nurses in improving PS reduces the mortality rate among patients (Amiri, Solankallio-Vahteri, & Tuomi, 2019).

The concept of professional commitment (PC) which has a global interest, offers insights to improve the nursing profession. PC is a foundational element of career success that complements other professional values, ethics, and principles. Nurses who are committed to their profession can give a better, clearer view of the nursing profession and the image of their hospitals. Nursing PC is reflected through the quality care provided to patients and their families (Chen et al., 2009). Nurses with high PC are usually confident in their abilities, deliver optimum work performance, and build trusting relationships with their patients.

Nurses' PC plays a positive role in their job performance and promotes favorable patients' outcomes (J. Sharma & R. Dhar, 2016). Among factors affecting nurses' PC are demographic variables such as age, gender, monthly salary, years of experience and educational level (Honyenuga & Adzoyi, 2012).

Quality of nursing care is assessed through patients' perception of the provided care quality. As reported by Havens et al. (2010), many indicators for the quality of patient care exist. These indicators can be measured or assessed based on PS (Robson et al., 2013) and patients' perception of care quality (Teng et al., 2009).

No reported study in Malaysia has assessed the relationship between nurses' PC, PS and patient-perceived care quality (PPCQ). Therefore, this study will give the nurses' managers and administrators a baseline data to enhance their PC and promote the outcomes of patient and PS. Quality of care can be improved and maintained by developing and clarifying PC strategies programs and involving nurses in decision making for PS and patient care.

## **1.2 Problem statement**

Millions of people are harmed in low- and middle-income countries every year due to unsafe health care worldwide, causing 2,6 million deaths annually. The psychological, social, and economic effect of patient injury contributes to worldwide damages of trillions of US dollars (WHO, 2019). Nearly 14% of Medicare patients had adverse events during their hospitalization. Less than half of those were preventable (44 %) as they were related to the presence of medical errors, reduced quality care and lack of patient monitoring (Levinson & General, 2010).

A study conducted by Almutairi (2012) in Saudi Arabia revealed that practice areas were unsafe from the perception of nurses working in an environment of a multicultural nursing workforce. Difficulties in maintaining patient care were created due to the inability to meet patients' spiritual and cultural needs, which in turn, increases errors in care performance and thus affects PS (Almutairi, 2012). A cross-sectional survey aimed at the PS culture of two educational hospitals in Iran used a sample of 302 nurses who were selected randomly from different units; nurses revealed that the PS culture was weak in Iranian educational hospitals and this may increase the rate of occurrences for error (Bahrami et al., 2014).

In Jordan, Mrayyan (2012) revealed that, among a sample of 212 nurses working at teaching hospitals in Jordan, 35% of reported incidents were related to

medication errors; most of these errors were made by nurses who administer medication to patients in an ICU; these errors were mainly caused by damaging or scratching the label of the medication and/or due to nurses feel tired or interrupted during administering medications. There was underreporting for incidents by nurses especially medication errors, due to their fear of punishment (Mrayyan, 2012). These errors threatened PS that considered one of the care outcomes related to nurses' performance.

In Malaysia, a cross-sectional survey aimed to reveal the causes of medication errors among 48 nurses in a subspecialist government hospital (Johari et al., 2013). The study found that heavy workload and complicated orders were the main contributory causes of medication errors, followed by new staff errors and finally, staff negligence (Johari et al., 2013). Similarly, a Malaysian study conducted by Samsiah et al. (2016) indicated that the primary contributing factors of medication error were peak hours, incompetent personnel and inability to comply with the working environment.

In Malaysia, about ten Malaysian hospitals received Joint Commission International (JCI) certification for fulfilling PS requirement standards (JCIA, 2019). Such accreditation plays a major role in improving PS through international benchmarks (JCIA, 2019).

There was no reported study in Malaysia have assessed the relationship between nurses' PC, PS and PPCQ, nor was there any research to give a better understanding related to PS from the perception of nurses to enhance PS within Malaysian hospitals. This study an important research gap by being the first Malaysian study to explore the relationship of nurses' PC, PS and PPCQ.



### **1.3 Research questions**

- i. What is the level of PC and PS among nurses at Hospital USM?
- ii. What is the level of PPCQ among patients at Hospital USM?
- iii. What are the socio-demographic factors associated with PC, PS and PPCQ at Hospital USM?
- iv. Is there any relationship between nurses' PC and PS at Hospital USM?
- v. Is there any relationship between nurses' PC and PPCQ at Hospital USM?

### **1.4 Objectives**

#### **1.4.1 General objective**

The general objective is to examine the relationship between nurses' PC, PS and PPCQ at Hospital USM.

#### **1.4.2 Specific objectives**

- i. To determine the level of PC and PS among nurses at Hospital USM.
- ii. To determine the level of PPCQ among patients at Hospital USM.
- iii. To determine the socio-demographic factors associated with nurses' PC, PS and PPCQ at Hospital USM.
- iv. To determine the relationship of nurses' PC with PS at Hospital USM.
- v. To determine the relationship of nurses' PC with PPCQ at Hospital USM.

### **1.5 Research hypothesis**

Based on the study problem statement, the hypothesis will be as following:

#### **Hypothesis 1:**

- (**H<sub>0</sub>**) There is no significant relationship between nurses' PC and PS.
- (**H<sub>A</sub>**) There is a significant relationship between nurses' PC and PS.

## **Hypothesis 2:**

- (H<sub>0</sub>) There is no significant relationship between nurses' PC and PPCQ.
- (H<sub>A</sub>) There is a significant relationship between nurses' PC and PPCQ.

## **1.6 Conceptual and operational definitions**

### **1.6.1 Professional commitment**

#### **Conceptual definition**

PC has been defined in different ways by diverse researchers. The commitment was defined by Allen and Meyer (1990) as "the relative levels of affective commitment (AC), continuance commitment (CC) and normative commitment (NC), for each employee". AC refers to the emotional attachment of employees to an organization; CC refers to the cost of leaving an organization (Meyer & Allen, 1991), while NC refers to an employees' responsibility to stay in an organization (Allen & Meyer, 1996). The three commitment elements; AC, CC, and NC can be used for organizational and or professional commitment (Meyer, Allen, & Smith, 1993).

The term PC was used interchangeably with occupational commitment, career commitment and organizational commitment (Meyer et al., 2002). Of these interchangeable concepts, PC will be used throughout this study. The concept of PC has also been defined as (a) belief in professional goals and values, (b) willingness to make significant efforts on behalf of the profession, and (c) desire to remain a part of the profession (Lachman & Aranya, 1986).

## **Operational definition**

PC was operationalized using PC scales; namely three valid scales (affective, normative and continuance commitment scales). Each scale has 6 items developed and designed by Meyer and Allen (2004).

### **1.6.2 Patient safety**

#### **Conceptual definition**

Safety means preventing errors (Sherwood & Zomorodi, 2014). Cronenwett et al. (2007) defined safety as "Minimizing the risk of harm to patients and providers through both system effectiveness and individual performance". WHO (2004) defined PS as the absence of preventable harm to a patient and reduce the risk of unnecessary harm associated with health care to an acceptable minimum.

#### **Operational definition**

The PS scale of six items with 9-point was used as a measurement tool in this study. Scale items are related to six adverse events that nurses are aware of through answering the occurrence frequency regarding these adverse events. Occurrences of the adverse events are either related to nurses themselves or their in-patients throughout the last year, as used in a similar study by Teng et al. (2009).

### **1.6.3 Patient-perceived care quality**

#### **Conceptual definition**

Quality of care can be as defined as "doing the right thing, at the right time, in the right way, for the right person, and having the best possible results (Wolfe, 2001). PPCQ is defined as a patient's evaluation and feelings for the quality of their health providers' care, including their performance and/or excellence (A. Parasuraman,

Zeithaml, & Berry, 1985). PPCQ has also been defined as a patient's evaluation for the received care that is provided by health care members, structure, process, and outcome from the patient's perspective (Rademakers, Delnoij, & de Boer, 2011).

### **Operational definition**

The service quality scale (SERVQUAL) was used to measure PPCQ. The SERVQUAL questionnaire was developed by Parasuraman, Zeithaml, and Berry (1994). The questionnaire measures five dimensions of quality care: (1) reliability, (2) responsiveness, (3) assurance, (4) empathy and (5) tangibles, using 22 items on a 5-point Likert scale (Teng et al., 2009; Teng, Hsiao, & Chou, 2010). However, in this study only 20 items were used, as two items were not applicable. The omitted items assess a hospital's environment rather than nurses (Teng et al., 2009; Teng et al., 2010).

### **1.7 Significance of the study**

Globally, PC, PS and the quality of care have been studied separately. There is only one Taiwanese study that investigated the relationship between the PC of nurses, PS and PPCQ (Teng et al., 2009).

PS is one of the most important factors reflecting the quality of care for patients. PS can be achieved based on the following factors: analyzing the root cause of the problem; activating incident reporting and placing culture-free blame; basing safety on PS laws; and improving communication between health care providers and patients (Nygren et al., 2013).

A study conducted in Saudi Arabia by El-Jardali et al. (2014) revealed that hospital accreditation has the benefit of improving the quality of care and increasing the satisfaction of both nurses and patients. Thus, hospital accreditation builds of PS

culture by establishing many educational and training programs aimed at preventing errors and harm when applying nursing care to patients.

The significance of this study is that, although there are many studies regarding organizational commitment, few studies were conducted in Malaysia regarding PC. One study in Malaysia aimed to provide a conceptual analysis of goal orientation and PC of nurses in Malaysia. The study concluded that PC is vital in enhancing nursing professionalism and at the same time retaining nursing professionals to achieve the targeted ratio (Hee, 2014).

Quality of care can be represented through two aspects: PS, which is measured through the frequencies of incident reports and adverse events; and PPCQ. One study conducted in Malaysia about the influence of service quality on patient satisfaction by Tan et al. (2019) showed that staff service quality seems to be the central element monitored when influencing PS.

Building upon previous research, the results of this study can be used to guide nurses, managers, and administrators to make them aware of the importance of developing strategies, policies and training programs that aim to improve a nurse's satisfaction and commitment to nursing as a profession. That awareness may enhance PS and improve the quality of care for patients and increase nursing staff retention. Therefore, there was a need to study the relationship between PC, PS and PPCQ among Malaysian nurses and patients.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Introduction

This chapter addresses the following investigated variables; (1) PC, (2) PS and (3) PPCQ. Furthermore, this review discusses the association between nurses' PC with PS and PPCQ, and the conceptualization of the study variables.

#### 2.2 Nurses' professional commitment

Employee PC has been studied widely and linked with many healthcare variables. The variables that influence the PC of nurses include their demographic variables such as gender, age and monthly salary (Honyenuga & Adzoyi, 2012), educational level and years of experience (Nogueras, 2006).

Nurses who have higher educational degrees and more years of experience have been found to be more committed to the nursing profession (Nogueras, 2006). In their cross-sectional study, Poorchangizi et al. (2019) aimed to evaluate nursing professional values among nursing students and experienced nurses. It was found that nursing students were characterized by high levels of adherence to professional values and principles (Poorchangizi et al., 2019).

Professional values can be communicated to nurses through implementing policies and procedures, integration into job descriptions, continuous evaluation of nursing competencies and professional development through education and training programs (Poorchangizi et al., 2019). These strategies were useful in preparing nurses and thus minimizes the gap between their education and practice. The research demonstrated that the strategies enhanced the integration of both professional and organizational values and improved commitment to the nursing profession (Grealish & Smale, 2011).

To improve the nursing profession's future, the Institution of Medicine (IOM) recommends strategies focused on the idea that nurses have to maintain high educational and training levels. It is necessary to improve the educational curriculum in nursing colleges, by establishing preceptorship and residency programs needed during the transition of newly graduated nurses to the practice area. On the other hand, intent to stay in the nursing profession can be enhanced through the provision of incentives (IOM, 2011). Nurses should have a keen understanding of their roles and responsibilities, and should also be involved in setting policies, problem-solving and decision making at the professional and organizational level. Besides, gaining leadership skills through organizational participation; nurses should work in a multidisciplinary team with other health care professionals in developing health care (IOM, 2011).

Nursing literature indicates that the work environment is another factor that can positively or negatively affect the PC of nurses (Seruya & Hinojosa, 2010; Yang et al., 2013). In their study, Guerrero, Chenevert, and Kilroy (2017) showed that a nurse's practice setting has an impact on both PC and organizational commitment. The study revealed that nurses who worked in medically-based settings were more committed to their profession and organization compared to nurses working in school-based settings.

According to the findings of Yang et al. (2013), a positive work environment and enhancement of professional nursing practice can empower hospital nurses and improve their PC. The study by Yang et al. (2013) measured the relationship between structural empowerment, professional practice environments, and organizational commitment. The results showed a positive relationship between structural empowerment and organizational commitment which was partially mediated by

professional nursing practice environments; and professional nursing practice environments correlated directly and positively with organizational commitment (Yang et al., 2013).

Workplace empowerment can be enhanced by creating a positive work environment which, in turn, improves the organizational commitment of nurses. This workplace empowerment approach to improve job satisfaction of nurses is commonly practiced in Magnet Hospitals (Breau & Rheume, 2014). A positive work environment is also reported to improve nursing care outcomes, nurses' perception of quality care and PS (Neff & Harman, 2013).

Professional development is very important in making the nursing profession more attractive and dynamic (Shrestha, 2010; L Wang et al., 2012). Further, Price and Reichert (2017) pointed to the factors that enhance professional development in their study which include: continuing professional development, supportive management, nursing leadership, recognition, respect, and professional networking. Conversely, lack of nurse commitment, lack of female gender in the profession and lack of autonomy are considered as major barriers to professional development (Shrestha, 2010).

A qualitative study conducted in Australia by Grealish and Smale (2011) among a sample of 14 nursing staff who reflect their feedback during a standard clinical evaluation that was taken after completion of the educational program that applied for the newly graduated nurses in the practice area. Nurses revealed that implementing education and preparation training for newly graduated nurses regarding their professional role is essential during their transition from being a student to the practice area as this enhances their commitment to the nursing profession (Grealish & Smale, 2011).



Nevertheless, Coogle et al. (2007) conducted a study aimed to assess the effect of recruiting nurses to educational and training programs on their satisfaction and commitment to the nursing profession. These programs were provided within two semesters through two years: in the first-year video-conferencing training among a sample of 108 nurses, and the second-year videotaped sessions among a sample of 122 nurses. The results revealed no statistical differences in nurses' commitment during the two years. Indeed, education and training programs will reinforce nurses' positive attitudes towards their professional development and success, which in turn will improve their clinical skills, knowledge and experience, and positively influence their self-esteem to create more professional satisfaction (Coogle et al., 2007).

Improving the PC of nurses requires various factors; in a study conducted in Ghana, Honyenuga and Adzoyi (2012) stated that there was a high level of commitment to the nursing profession among a sample of 250 nurses who mostly were female aged more than 50 years old; the majority of these nurses (68%) were committed to their profession because of their love for the nursing profession, whatever their salaries they receive; nearly 5% of nurses were committed to the nursing profession and their organization for financial reasons. They also found that about 19% of nurses were not committed to the nursing profession or their organization, whereas 8% were uncertain regarding their commitment to either profession or organization (Honyenuga & Adzoyi, 2012).

In their study, L Wang et al. (2012) showed that there were seven predictors of hospital nurses' intent to stay; normative commitment, economic costs commitment, age, limited alternatives commitment, praise/recognition, professional advancement opportunities, and the hospital classification. Most predictors of a nurse's intent to stay

were explained by normative commitment, economic cost commitment and their age (L Wang et al., 2012).

Professional turnover will develop where nurses had a deep desire to quit the profession (Lee et al., 2017), showing the significance of reducing the intention of professional turnover. The researchers found that the affective PC (psychological attachment) is considered to be adversely related to the intention of professional turnover (Guerrero et al., 2017). The explanation for this psychological commitment may be that nurses are strongly committed to the nursing profession, decreasing their feeling of leaving and thereby decreasing their professional turnover (H. Chang et al., 2019).

Normative PC is the presumed obligation to belong to the profession (H. Chang et al., 2017). Such obligation offers the best energies that attach nurses to the profession or decrease their intention for professional turnover (Guerrero et al., 2017). Continuance PC reflects the effects of changing if nurses were to migrate to other professions (H. Chang et al., 2017). Such changing expenses discourage nurses from leaving the nursing profession (H. Chang et al., 2015).

Besides, PC has added up to positive outcomes such as an increased attraction of new graduate nurses into the nursing profession (LeDuc & Kotzer, 2009), improvement of job satisfaction, quality care (Vivienne Wu et al., 2012), increased nurse intent to stay in both nursing profession and/or organization (L Wang et al., 2012), improvement of organizational commitment (J. Chang & Choi, 2007), enhancement of competency level for nurses (Numminen et al., 2013) and improvement in job performance by nurses (Mrayyan & Al-Faouri, 2008).

Job satisfaction and the quality of care are influenced by the PC of nurses which corresponds with the results of a study conducted by Vivienne Wu et al. (2012) who showed that there was a significant positive relationship between self-efficacy and PC, as there was a positive relationship between Self-efficacy and job satisfaction, which illustrates that an employee's self-efficacy and PC can enhance job satisfaction and. as a result, improve the quality of their provided care (Vivienne Wu et al., 2012).

Previous studies showed that PC of nurses has been described as a predictor for their satisfaction and their intent to stay in the nursing profession and organization (Lin Wang et al., 2012), which in turn, influences a nurse's job performance (J. Sharma & R. L. Dhar, 2016). Job satisfaction of hospital nurses and their intent to stay can be improved through the following strategies: continuing education programs, financial rewards and support for their performance, increased salaries, positive feedback and acknowledgment of any achievements; as well as creating open opportunities for the professional development of nurses (Lin Wang et al., 2012).

Regarding nurses' attitudes, nurses who were normatively committed do their work effectively and continue in their work or organization due to their way of thinking toward their nursing profession or organization; as they feel loyal to their nursing profession and organization that make them more energized, which in turn protect them from burnout (Hudek-Knezevic, Kalebic Maglica, & Krapic, 2011). However, regarding the interactions between personality traits and organizational stress, some personality traits had an effect on increasing burnout, such as reducing professional efficacy, mediated by organizational stress; work overload and role conflict (Hudek-Knezevic et al., 2011). The findings concluded that organizational stress and affective-normative commitment were stronger predictors toward decreasing nurses' burnout

that considered to be associated with their personality traits (Hudek-Knezevic et al., 2011).

PC is a concept that many investigators have an interest in researching, several variables have a close association with nurses' PC like job satisfaction (Lu, Zhao, & While, 2019), many findings that indicate a clear and optimistic connection between job satisfaction and PC (Hsu et al., 2015). Also, the PC of nurses found one of the predictors of career satisfaction and reinforced it (Barac et al., 2018).

Nurses managers should provide a strategy to increase support for nurses and decrease the obstacles that will raise their PC and bring them back which in turn decreases turnover for nurses (H. Chang et al., 2019). Also, organizational, supervisors, and colleagues' encouragement motivate nurses to stay in their jobs (Unruh & Zhang, 2013). Another study by H. Chang et al. (2015) indicates that a continuance commitment plays a part in raising nurse retention within their career, which decreases turnover indicating that all dimensions of nurse PC have been shown to be adversely associated with nursing turnover (H. Chang et al., 2015).

Moreover, working climate, organizational support, and other considerations such as being young, single and high education considered to be PC predictors and improve remaining in the nursing profession (Unruh & Zhang, 2013), as well as the higher nursing experience and the older age group having more PC than others (Teng, Shyu, & Chang, 2007). However, each discrimination and lack of promotion considered as work climate factors that negatively affect the affective commitment (H. Chang et al., 2019).

### **2.3 Patient safety**

Generally, accreditation plays an important role in pushing hospitals towards improving the quality of care and PS. For that reason, organizational culture plays an important role in improving PS; for example, hospitals start to pay more attention to incident reporting.

PS is a significant concern in achieving high-quality patient care and satisfaction, and we need to be mindful of all conditions influencing PS. Nursing shortage considers one of the most important factors impacting PS, raising the risk of safety impairment and patient death, raising workload and nursing shortage, increasing the incidence of adverse accidents and injuries among patients and having found a major cause of the error (Cho et al., 2016; Hayajneh, AbuAlRub, & Almakhzoomy, 2010; Khater et al., 2015).

A study conducted in Sweden by Nygren et al. (2013) aimed to investigate factors that may enhance PS among a sample of 218 health care professionals who have positions in PS work at county councils in Sweden. Two-third of respondents were working with PS issues at the county council, two-third of them had outstanding knowledge regarding PS work in county councils, they reported that PS can be achieved through encouraging incident reports, a blame-free culture and providing programs and lectures regarding communication skills to improve interactions between the healthcare provider and patients (Nygren et al., 2013). PS incidents are classified related to treatment, diagnoses, organization, prevention, triage and patient-related factors (Nygren et al., 2013). Multi-professional teaching in universities and training in clinical areas regarding PS is extremely essential to increase nurse awareness of PS, which will enhance quality care while providing health services (Robson et al., 2013).

To date, there are additional efforts made by the health care systems in order to reduce adverse events and medical error rates are predictable. In their study, Nygren et al. (2013) found that levels of PS are influenced by various factors: incident reporting, root cause, risk analyses and the PS law, which are the most important factors that may improve PS in the future; a blame-free culture encourages incidence reporting and improves communication between health care professionals and patients; Although healthcare professionals can be educated through establishing training programs. In addition, patients are not trained, but their involvement still plays an important role in improving PS (Nygren et al., 2013).

In order to investigate nursing errors and the related causes from the perception of staff nurses, Valiee, Peyrovi, and Nikbakht Nasrabadi (2014) conducted their qualitative study among a sample of 12 nurses working in critical care units at hospitals affiliated to Tehran and Kurdistan Universities of Medical Sciences. Nursing errors were found to be caused by workload, lack of collaborative teamwork, lack of personnel knowledge and skills, traditional care, lack of evidence-based practice, and lack of monitoring over patients. Nurses also perceive themselves as responsible for most of these errors (Valiee et al., 2014). More attention is needed toward improving nurse error reporting, as 44.1% of nurses were found to be always reporting their errors, 49.9% were rarely reporting their errors and only 6% of participants had never reported their errors (Kagan & Barnoy, 2013).

Dirik and Intepeler (2017) reported in their study a significant association between structural empowerment and PS culture. The finding indicated that nursing managers should give more attention to improve nurses' work environments and empower them in order to enhance PS culture (Dirik & Intepeler, 2017). Other researchers utilized the Hospital Survey on Patient Safety Culture (HSOPSC) among

a sample of 542 healthcare professionals working in 28 units (emergency medicine, surgery, and internal medicine) at 20 hospitals in the Netherlands (Smits et al., 2012). The response rate was 56%, as most of them were nurses (74%); three events were reported where improvement was needed for the safety culture as mediators between specialty units and the safety outcomes included a non-punitive response to error, hospital management support and professional willingness to report (Smits et al., 2012).

Furthermore, PS is threatened by many issues in all fields of the health care system. A study by Steelman, Graling, and Perkhounkova (2013) emphasized the importance of defining the highest priority issues that face PS by nurse managers, to develop educational programs aimed to guide preoperative nurses toward proper care to improve PS.

Communicating issues and other related information to health care employees enhance PS. A study has found that a shared vision had a statistically significant effect on PS mediated by knowledge sharing and that more attention is needed from nurse managers in sharing visions and sharing knowledge associated with nurses to enhance PS (C. Chang et al., 2012).

In Malaysia, Jarrar, Abdul Rahman, and Don (2016), in their literature review about the gaps in quality of Care and PS in Malaysia, considered adequate staffing to be an important component that improves the standard of care and PS positively. They reported that young and freshly named personnel should be prepared to work in multidisciplinary teams to improve productivity and provide best practices to enhance PS (Jarrar et al., 2016).

In conclusion, nursing managers need to develop strategies and communicate them to hospital nurses in order to enhance PS and quality of care provided at the individual, departmental and organizational levels (Kagan & Barnoy, 2013), including implementing written policies of a PS culture and starting PS training programs and workshops for staff nurses, thereby improving their knowledge and skills (Feng et al., 2011).

#### **2.4 Patient perceived care quality**

Throughout time, awareness and attention shown toward the quality of care in health organizations have widely increased in both medical and non-medical areas. This was noted to increase marketing and competition between health organizations to attract and retain patients (Aqel & Al-Tarawneh, 2013; Zarei & Mousazadeh, 2015).

In addition, Medicine et al. (2003) focus on the importance of improving safety and quality cultures in health care systems by educating their employees on six core competencies: patient-centered care with evidence-based care provides collaborative teamwork for continuous quality improvement. A Quality and Safety Education for Nurses (QSEN) project was built upon the study carried out by Cronenwett et al. (2007) focused on redefining these six core competencies and applying them into practice, clarifying for nurses how to work toward improving the quality of PS among nurses.

Reviewing research has shown that quality of care is linked to many variables and can be affected by many factors. Of these factors, a nurse's coordination with other care providers is considered an important factor in improving patient quality care, indicated by decreasing adverse events such as a decrease in the rates of hospital-acquired infections and medication errors (Gittell & Hajjar, 2019).



Furthermore, patients' educational level and the type of clinical admission area were predicting factors that influenced patient satisfaction in Malaysia (Ganasegeran et al., 2015). Another study by Chin (2017) conducted a review paper aimed to examine the impact of nurse staffing on the quality of care provided to patients in acute care settings. A unit that has a sufficient level of nurses and specially registered nurses, could provide more quality care to patients. So, organizational managers should provide an acceptable level of nurses as well as improve the quality of care provided and then improve patient safety (Chin, 2017).

Letvak, Ruhm, and Gupta (2013), in their study, have shown that nurses over 50 years old experienced lower nursing care productivity than those younger nurses due to health problems. On the other hand, there were no differences between older and younger nurses regarding medication errors, while older nurses experienced a higher rate of patients falling down (about 0.29 falls every two weeks related to physical problems) which may affect the quality of care provided for patients (Letvak et al., 2013).

Conversely, some studies pointed to quality care consequences. Quality care can play an important role in improving patient satisfaction and promote an effective relationship of trust with care providers (C. Chang, Chen, & Lan, 2013). PPCQ is considered to be a mirror that reflects the quality of care provided by care providers, especially nurses. Knowing that nurses spend more time with patients than any other health care members, it can be clearly ascertained that nurse care impacted the quality of care patients perceived as satisfactory or not. In recent years, patients have become more aware of their needs and requirements, so their expectations have moved towards receiving efficient and safe services (Kieft et al., 2014).

PS includes many aspects of nursing care provided for patients that can be defined as proper communication, a good staffing level, and administration of medications effectively and properly, this will reflect how they perceived quality care (Rathert, Brandt, & Williams, 2012). In contrast, the PPCQ was affected negatively by time pressure among nurses (Teng et al., 2010).

Among a sample of 300 patients from Jordanian private hospitals, 66.7% were found to be satisfied with the level of medical and nursing staff in general, while more than half (56%) were dissatisfied with the nursing staff services and their lack of a respectful relationship (Aqel & Al-Tarawneh, 2013). Thus, paying more attention to education and training programs for staff nurses was a must for a more qualified and improved quality of care (Aqel & Al-Tarawneh, 2013).

Given the positive outcomes in their descriptive comparative study, Dearmon et al. (2013) aimed to examine the effectiveness of transforming care at the bedside (TCAB) initiative from a unit perspective. To understand their views on how (TCAB) contributes to positive patient outcomes, a sample was taken of 55 registered nurses working in a trauma center (Dearmon et al., 2013). 30 nurses worked in surgical units with 35 beds to arbitrate transforming care at bedside (TCAB) and 25 nurses worked in a 30-bed medical unit as a control group. TCAB increased the direct patient care and significantly added value to the nursing care between the years of 2007-2009 from 61.0%, 70.9%, and 71.3%, respectively; nurses become more innovative in their practice and reported no increase in adverse events or rates of the patient (Dearmon et al., 2013).

## **2.5 Relationship between professional commitment and patient safety**

Very few studies investigated the association between the PC of nurses and PS. A descriptive, cross-sectional, correlational study conducted by Al-Hamdan, Dalky,

and Al-Ramadneh (2018) aimed to determine the PC level among nurses in Jordan and to analyze how nurses' PC correlates to PS using a sample size of 180 nurses. The findings showed that the PC of nurses was strongly and positively associated with PS (Al-Hamdan et al., 2018).

In congruence, Teng et al. (2009) performed a cross-sectional analysis to determine and analyze how the PC of nurses affects PS and PPCQ using a sample size of 284 nurses. The study results showed that overall PS has been strongly affected by the PC of nurses. Therefore, Nurses' managers should be aware of an improvement in PC level among nurses to boost and promote PS (Teng et al., 2009).

## **2.6 Relationship between professional commitment and patient-perceived care quality**

In reviewing various literature, very few studies investigated the association between the PC of nurses and PPCQ. Parry (2006) defined the PC as "the psychological link between a person and his or her profession". The quality of patient care can be highly achieved in a way all professionals, including nurses, work as a multidisciplinary team, taking into consideration the six Cs (care, commitment, competence, communication, compassion, and courage); however, it is considered the standard to achieve high-quality care (Ndoro, 2014).

A qualitative study conducted by Kieft et al. (2014) aimed to recognize how nurses' work and their work environment lead to positive patient experiences using a sample size of 26 nurses. The results revealed that patients' experiences and perceptions of the quality of nursing care can be improved by many elements: patient-centered culture, competent nurses, adequate staffing levels, autonomy, control over nursing practice, working with collaborative relationship and managerial support (Kieft et al., 2014).

Health care organizations and managers should provide more opportunities for professional nurse development in order to improve a foundation of knowledge and skill, which simultaneously increases their retention, improves their satisfaction and the quality of care provided in their health care setting (Yi, 2016). In congruence, Jafaraghaee, Mehrdad, and Parvizy (2014), in a qualitative study, found that nursing managers have an important role in improving the PC of nurses through valuing their care and maintaining an evidence-based practice (Jafaraghaee et al., 2014).

There is no reported study in Malaysia studied the PC and its relation to the PS and/or quality care from the perception of patients among Malaysian hospitals, so there is a necessity for studying these variables correlated together. The relationship of the PC of nurses with PS and PPCQ was limited in worldwide studies. PS is considered a vital factor in enhancing the quality of care. Additionally, the quality of care that patients perceive can affect patient satisfaction, retention and a marketing plan for hospitals. Therefore, there is a need to investigate the PC of nurses and its relation to PS and the PPCQ among the Malaysian health care sectors.

## **2.7 Theoretical and conceptual framework**

This study was adopted the Donabedian Model that was developed by (Donabedian, 1966) evaluating the quality of medical care, which studies health services and examines the quality of care through much research. To date, there were more than 7000 studies that use this model for example and not exclusively (Carthon et al., 2019). This model was selected to guide this study and to describe the relationship among the variables investigated by the current study in order to understand the PC of nurses and its relationship with PS and PPCQ. The Donabedian model (shown in Figure 2.1) is structured into three dimensions - Structure, Process,

and Outcomes - as indicators to measure the quality of care. The details of these dimensions are as follows:

**a. Structure** refers to the situation in which care is delivered, including employees providing patient care and the settings where the care is provided (Donabedian, 1988). Details of these characteristics include:

- i. Employees' characteristics: their education, training, financing, experience, and certification.
- ii. The settings where care is provided: sufficient staffing, equipment, safety policies, procedures and strategies, and organization as a whole. The measuring indicators regarding the structure dimension include human resources; equipment and supplies; financial resources; and services and information systems (Donabedian, 1988).

As shown in Figure 2.2, the structure dimension in the current study refers to the following: socio-demographical characteristics of the participants of nurses and patients such as gender, educational level, nursing experience in current hospital & monthly salary, and hospitals' traits such as type of patients' current hospital, accreditation, human resources, supportive work environment, marketability, policies, procedures and strategies, and financial resources.

**b. Process** is all about the actions, activities, skills, and methods that are performed throughout providing patient care which can be measured, for example, through observing medical records and care provided and interviewing patients (Donabedian, 1988). The indicators regarding this dimension are the diagnosis, therapeutic care, preventive care, communication, rehabilitation, information, and patient education (Donabedian, 1988). In the current study, nurses' PC was the