

CHAPTER 1

Introduction

Background and Significance of the Research Problem

Serious disease or trauma often lead to life-threatening conditions and it was far beyond a person daily experience. This kind of experience can be a crucial moment, especially when someone was removed from their safety territory and was sent to an intensive care unit (ICU), unfamiliar environment, strange and frightening place. Admission to the ICU itself was commonly described as something that happened in a sudden, unexpected and also brought up higher mortality among the patients (Rovatti, Teodoro, & Kern de Castro, 2012). There were millions of patient's required ICU treatment annually and approximately 4.4 million in the United States (Lee, n.d.; National Quality Measures Clearinghouse, 2008). The ICU varies from hospital to hospital associated with services, expertise, and organizations (Haupt et al., 2003). Somehow, this variation depended on economic factors, culture, settings of each hospital with respect to the country.

In Malaysia, the number of ICU admission were increasing year by year; in government hospitals, the number increased from year 2008 to 2012, which were 18907, 21266, 26977, 29794, and 33892, respectively (Malaysian Registry of Intensive Care, 2012). According to the statistic by Malaysian Registry of Intensive Care (2012), the number of ICU admission to three territory hospitals in 2012; Hospital Tengku Ampuan Afzan was 641; Hospital Raja Permaisuri Bainun was 926, and Hospital Taiping was 1203. Crude mortality rate in the ICU of these three hospitals were; Tengku Ampuan Afzan – 24.1 (34.9%); Hospital Raja Permaisuri Bainun – 16.5 (26.9%); and Hospital Taiping – 21.4 (35.5%) (Malaysian Registry of Intensive Care, 2012).

Intensive care unit is a dynamic, unpredictable environment where patients faced either slow or unsure of recovery process. Intensive care unit can be described as the

place for patient who has life-threatening illnesses or injuries, which required close monitoring and support from advanced equipments and medications in order to maintain normal bodily functions (Konkami & Oakley, 2012; National Health Services [NHS], 2012). In general, ICUs varies from hospital to hospital depends on structure, services, level of the hospital, expertise level, and also the organization (Haupt et al., 2003). In state of Malaysia, it consists of almost 143 government hospitals in any level which received the budget or subsidy to run the hospital from the government, also known as non-profit organisations, and the policies were guided by the Ministry of Health (Chee & Barraclough, 2007; Malaysian Society of Intensive Care, Ministry of Health, & Anaesthesia Programme, 2012); and has a total of 48 ICUs (Malaysia's Health, 2005).

In the context of ICU in Malaysia, it consists of three levels; Level 1 ICU – available in district hospital without anaesthetist, provide close monitoring and basic intensive care, no invasive mechanical ventilation, and ratio nurse per patient was 1:2 or 1:3; Level 2 ICU – available in district hospital with anaesthetist, provide intensive care and mechanical ventilation, ratio nurse per patient was 1:1 or 1:2; Level 3 ICU – available in all state hospital with intensivist or anaesthetist, provide multiple organ support services including mechanical ventilation and renal replacement therapy, ratio nurse per patient was 1:1 (Malaysia's Health, 2005).

Generally, in larger hospitals, and commonly the one that situated in urban area, the ICU can be divided into specialize area including general ICU, pediatric ICU, neonatal ICU, cardio ICU, medical ICU, surgical ICU, and also neurology ICU (Haupt et al., 2003), and the same phenomena can be seen in Malaysia (Malaysian Registry of Intensive Care, 2012). All the medical services and treatments were performed by specialised team consists of consultants, physicians, dietitians, physiotherapist, nurses (Tembo, Parker, & Higgins, 2012), nurse practitioners, clinical nurse specialist, doctors, social workers, and chaplain (California Pacific Medical Center, 2014). Most of the critical care staff have specialize skills gather from attending the specific course for intensive care (Tembo et al., 2012), and the staff was engaged with the sophisticated machines including mechanical ventilator (California Pacific Medical Center, 2014; Konkami & Oakley, 2012). Intensive care service in government hospitals of Malaysia were in-charged by Department of Anaesthesia and Intensive Care, and the critical care

staff included were intensivists, anaesthesiologists, doctors, and nurses (Malaysia's Health, 2005).

In context of Malaysia, the admission rate to the ICU kept increasing year by year, and the number was surprisingly increased from 18907 in 2008 to 33892 in 2012 (Malaysian Registry of Intensive Care, 2012). Most of the hospitals consisted of at least one ICU, with ratio of nurse per patient was 1:1 or 1:2 (California Pacific Medical Center, 2014; Malaysia's Health, 2005). With the specific unit of the ICUs, the admission of the patients was prioritized according to the disciplines or the category of the major injury that the patients were having at that time. The most common patient's conditions treated in ICU were including those such as trauma, multiple organ failure and sepsis (Malaysian Registry of Intensive Care, 2012). Other conditions that required admission to the ICU including patients who needed close monitoring after post operations, accidents and critical illnesses. In other words, the types of admissions to the ICU can be divided into two types; unplanned admission including direct admission from the emergency department or involved in major trauma; or planned admission including transfer in from another ward or operation theatre, deteriorating condition of existing illness which need ventilator support and close monitoring (Patak, Gawlinski, Fung, Doering, & Berg, 2004; Ho, Hamidah, Sanisah, & Syed, 2008).

The intensive care experience gives negative impact to patient's physical, emotional or psychological, social, and also economic status. Examples of the impact were; physical impact - physical impairment or physical exhausted as result for long-term impact (Cartwright, 2012; Hopkin, 2013; Jackson et al., 2012); financial impact – patients felt helpless when they were unable to return to work as an effect of their disability (Griffiths et al., 2013), hence, it gave burden to family members and caregivers (O'neil & McAuley, 2011); emotional and psychological impact – anxiety and depression, which was after a period of time can be a cause of PTSD (Jones, Humphris, & Griffiths, 2000; O'neil & McAuley, 2011; Ringdal, Johansson, Lundberg, & Bergbom, 2006), the impact to the physical, psychological, and financial influenced the development of a personality changes (Cartwright, 2012) and affected the social health status of the survivors. In other words, all these negative impact may affect the physical rehabilitation, mental and social health, and quality of life of the patients

(Caiuby, Andreoli, & Andreoli, 2010). However, the negative impact can be reduced through positive vibes that can be offered in ICU. The examples of positive things that might ease patients' minds were, being cared by nurses, close monitoring performed by staff and through technology which can enhance feeling of safety (Macnee & McCabe, 2008), getting enough information about own conditions, able to speak up their needs, and gained trust from the critical care staff (Hupcey, 2000).

After a period of time, patients will be transferred out from ICU and these patients were called ICU survivors. Intensive care unit survivors were the patients who were stable for more than 24-hours in step down unit or general wards, and were discharged from ICU after certain criteria were met: haemodynamically stable, patent airway and able to breathe normally, oxygen requirement not more than 60%, no longer needed inotropic or vasopressor support or only require a low dose, neurologically stable, and showed improvement from acute critical problems (Malaysian Society of Intensive Care et al., 2012).

While staying in the ICU, it was perceived as stressful and traumatic events and it influenced the emotional changes among the patients (Caiuby et al., 2010). Furthermore, the ability to recall about ICU experience depends on many factors and it varies depending on the patient themselves. The related factors were age, sex, ventilator support, types of admission, length of stay, and sedation. Younger patients were more prone to get higher scores of frightening experience (Rattray, Johnston, & Wildsmith, 2004). Research shows that, having endotracheal tube is the most recalled moment (Roberts, Rickard, Rajbhandari, & Reynolds, 2007), and about 71% of patients with emergency admission reported dream and hallucination (Roberts & Chaboyer, 2004). One study found that, shorter length of stay (less than 24-hours) helped 20% of 162 patients recall more about ICU (Roberts et al., 2007). However, patients who received sedation claimed no clear memory about ICU (Ringdal et al., 2006; Roberts & Chaboyer, 2004).

Intensive care experience was a memory of patient during stay in ICU (Rattray et al., 2004), and it can be either positive or negative, depending on how patient perceived it. Generally, the experience of intensive care can be explained in many ways. Some studies generally explained it in terms of physical and psychological (Rotondi et al.,

2002; Tembo et al., 2012). Examples of this theme were tracheal tube aspiration and sleep disturbances (Granja et al., 2005). However, some studies explained it as either unpleasant or pleasant experience such as claiming that ICU environment as friendly and calm (Granja, 2004). Another study states that, most of the patients described their intensive care experiences in a range from comfort to extremely discomfort (Lof, Berggren, & Ahlstrom, 2008). Comfort feeling apparently related to feel safe and secured (Hupcey, 2000; Russell, 1999), while discomfort feelings referred to fear, pain, and lack of control (Rotondi et al., 2002).

From previous literature reviews, Rattray et al. (2004) listed five key domains; memories, awareness, feelings, environment, and information, before integrated all of it and came out with four domains of intensive care experience: awareness of surrounding, frightening experience, recall of experience, and satisfaction of care. For this study, the approach from Rattray et al. (2004) was used. The chosen of four domains for this study can capture the experience in the ICU and suitable to apply to the target group in view to gather more detailed information. Furthermore, from two general themes of intensive care experience, this study offers more details by using four domains.

First domain of intensive care experience was awareness of surrounding, which best described as how patients were aware about their surroundings, and it can be patient's own self, relationship with other people, and environment such as room, equipments, and machines (Fredriksen & Ringsberg, 2007). The second domain was frightening experience, which it was one of the causes that influence the late recovery and give psychological disorder to the patients (Ringdal et al., 2006). The third domain was the recall of experience, which described as the retained memories. Patient claimed recalled not just vivid memory, but also the delusional memories such as nightmares that influence the distress feeling among them (Ringdal et al., 2006). The fourth domain was satisfaction with care, which described as the reaction from patient towards the services given by staffs. Received support from good communication, ensure safety, and friendly attitude may ease patient's mind (Fredriksen & Ringsberg, 2007; Engstrom, Nystrom, Sundelin, & Rattray, 2012; Granja et al., 2005).

Studies about intensive care experience were important in a way for early detection or prevention of late consequences from the unpleasant experience among

patients during their stay in ICU. Furthermore, it was beneficial to know until what extend the intensive care experience can affect patient after being discharged. Study by Rattray et al. (2004) in United Kingdom among 109 survivors in ICU of Scottish hospital showed that most of the patients remember been in ICU, felt safe, had bad dreams, saw strange things, been in pain, felt helpless, unsure about time, and did not think ICU as a noisy place. Most of the studies were done in the western countries; hence there were limited local data on patients' experiences during ICU stay (Ho et al., 2008). However a study was done in Malaysia to investigate about ICU experience. Ho et al. (2008) study was conducted in one hospital in Malaysia under university management, and the information were gained through modification of Intensive Care Experience Questionnaire by Rattray et al. (2004); Soh et al. (2014) conducted their studies in four government hospitals in Malaysia and used the questionnaire from other study to look at patients' experience in terms of physical and psychological theme.

This study might gave different data from the studies done in western countries since it was done in Malaysia, which have different cultural practice, had own policies in management of ICU, and different demographic data. Moreover, studies from other countries might not fulfill the gap in the selected country. Even though there was a study done in Malaysia, this study aim to explore the intensive care experience among ICU survivors in term of using more larger samples size (142 samples); the setting of this study was three government hospitals in tertiary level which provide high technology and advance services compared to the primary and secondary level hospitals; this study provide latest information regarding experiences since the previous study was done about seven to eight years ago, thus, the changes of technology, critical care practices and environment in ICU might give different data; used of different target group in terms of age of the samples; and this study used ICEQ without modification. The benefit of this study is to provide basic information for developing specific nursing practice and care plan towards ICU patients' needs, and also can prevent the negative consequences of ICU experience as the result can be an indicator for early detection of post ICU symptoms.

Research Objective

To explore the intensive care experiences among ICU survivors.

Research Question

What are intensive care experiences faced by ICU survivors?

Definition of Terms

The operational definitions for this study include:

Intensive care experience was any retained memory of been in ICU either positive or negative gained by adult patients who were been treated and discharged from the ICUs. The intensive care experienced for this study thoroughly look upon four domains: awareness of surrounding, frightening experience, recall of experience, and satisfaction of care; and measured by using Intensive Care Experience Questionnaire (ICEQ) developed by Rattray et al. (2004).

Intensive care units (ICU) were the specialized ward in the hospital where critically ill patients were cared by well trained staffs, facilitated with advanced equipments and treatments, up to date machines and monitors. In this study, ICUs were the unit from three tertiary level government hospitals, and placed an adult patients from various discipline includes general, medical, and surgical.

Intensive care survivors were the adults who were stable from critical condition for at least 24-hours in step down units or general wards after being moved out from the intensive care unit.