

THE NEEDS AND SATISFACTION AMONG FAMILY  
MEMBERS DURING COVID-19 PANDEMIC IN  
INTENSIVE CARE UNIT (ICU) HOSPITAL UNIVERSITI  
SAINS MALAYSIA

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by

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## **LIST OF ABBREVIATIONS**

CCFNI	–	Critical Care Family Needs Inventory
CCFNI-M	–	Critical Care Family Needs Inventory-Malay
COVID-19	–	Coronavirus Disease 2019
FS-ICU-M	–	Family Satisfaction-Intensive Care Unit-Malay
HUSM	–	Hospital Universiti Sains Malaysia
ICU	–	Intensive Care Unit
NICU	–	Neonatal Intensive Care Unit
SD	–	Standard Deviation
SICU	–	Surgical Intensive Care Unit
SPSS	–	Statistical Package for Social Science
TICU	–	Trauma Intensive Care Unit
WHO	–	World Health Organization

**KEPERLUAN DAN KEPUASAN DALAM KALANGAN AHLI KELUARGA  
SEMASA COVID-19 PANDEMIK DI UNIT RAWATAN RAPI HOSPITAL**

**UNIVERSITI SAINS MALAYSIA**

**ABSTRAK**

ICU adalah sistem berstruktur untuk memberi rawatan kepada pesakit yang sakit kritikal yang merangkumi rawatan rapi, perawatan kejururawatan yang intensif dan khusus, peningkatan kapasiti pemantauan dan pelbagai kaedah sokongan organ fisiologi untuk membantu pesakit bertahan dalam jangka masa hidup - mengancam nyawa kerana kekurangan sistem organ. Keperluan dan tahap kepuasan dalam kajian keluarga pesakit ICU telah mendapat perhatian di kalangan penyelidik perubatan kerana soal selidik ini terkenal dan boleh dipercayai. Kajian keratan rentas - telah dilakukan untuk mengenal pasti keperluan dan tahap kepuasan dalam kalangan ahli keluarga semasa Covid - 19 pandemik di ICU HUSM. Kajian ini juga mengkaji kolerasi antara keperluan dan kepuasan dalam kalangan ahli keluarga semasa Covid – 19 pandemik di ICU HUSM. Korelasi Pearson digunakan untuk memeriksa korelasi antara keperluan dan kepuasan di antara ahli keluarga semasa Covid - 19 pandemik di ICU HUSM. Sebanyak 85 responden terlibat dengan kajian ini dengan menggunakan persampelan kemudahan. Data dikumpulkan dari bulan Mac 2022 hingga Mei 2022 dengan menggunakan borang google dan dianalisis menggunakan SPSS versi 26.0 untuk tettingkap. Sebilangan besar responden adalah responden wanita (68.2%). Hasilnya menunjukkan bahawa urutan peringkat keperluan adalah Jaminan, diikuti oleh Sokongan, Informasi, Keselesaian dan Kedekatan. Ia juga menunjukkan tahap kepuasan; Pertimbangan Keperluan, Keprihatinan dan Prihatin Anda, diikuti oleh Kemahiran, Kompetensi dan Suasana di ICU. Keperluan tertinggi adalah Jaminan (Min = 45.61, SD = 2.55) yang paling

tidak diperlukan adalah Kedekatan ( $\text{Min} = 18.28$ ,  $\text{SD} = 3.50$ ) manakala kepuasan tertinggi adalah Pertimbangan Keperluan Anda ( $\text{Min} = 22.54$ ,  $\text{SD} = 2.30$ ) dalam kalangan ahli keluarga.

**THE NEEDS AND SATISFACTION AMONG FAMILY MEMBERS DURING  
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**ABSTRACT**

ICU is a structured system for providing care to critically ill patients that includes intensive and specialized medical and nursing care, increased monitoring capacity and multiple modalities of physiologic organ support to help patients survive during a period of life-threatening organ system insufficiency. The needs and the satisfaction level on the ICU patient family's studies have gained attention among the medical researcher since the questionnaire is widely known and reliable to use. A cross-sectional study has been conducted to identify the needs and level of satisfaction among family members during Covid-19 pandemic in ICU HUSM. This study also examined the correlation between the needs and satisfaction among family members during Covid-19 pandemic in ICU HUSM. Pearson correlation was used to examined the correlation between the needs and satisfaction among family members during Covid-19 pandemic in ICU HUSM. A total of 85 respondents were involved with this study by using convenience sampling. Data were collected from March 2022 to May 2022 by using google form and analyzed using SPSS version 26.0 for a window. Most of the respondents are female respondents (68.2%). The results revealed that the rank order of the needs were Assurance, followed by Support, Information, Comfort and Proximity. It also revealed the level of satisfaction; Consideration of Your Needs, Concern and Caring, followed by Skill, Competence and Atmosphere in ICU. The highest need was Assurance (Mean = 45.61, SD = 2.55) the least need was Proximity (Mean = 18.28, SD =

3.50) while the highest satisfaction is Consideration of Your Needs (Mean = 22.54, SD = 2.30) among the family members.

# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 Background of the study**

Every people in this world has almost the same perspective towards the admission of their family members to the intensive care unit (ICU). Their perspective towards ICU is where the patient has half a chance to live. The patients depend on the ventilator machines to breathe and be treated to help improve their condition. ICU is a scary place to our people since most of the patients die in the ICU. ICU is a structured system for providing care to critically ill patients that includes intensive and specialized medical and nursing care, increased monitoring capacity and multiple modalities of physiologic organ support to help patients survive during a period of life-threatening organ system insufficiency (Marshall et al., 2017). The number of critical care beds has increased, especially during Coronavirus diseases 2019 (COVID-19). The number of ICU beds in Malaysia for COVID-19 patients was 1322 during the latest update in June this year (WHO, 2021)

Nowadays, family bonding is powerful in each family where they are involved in all aspects of life, including socially and emotionally. ICU corridor usually will be packed and crowded with family members. During this time, family members are always expected to be involved with the caregiving process. They want to ensure the best nursing care is given to their relatives during the hospitalization. But they cannot see the progress, which could stress them a lot. They also do not expect their family to be admitted to the ICU and a little time to prepare for the situation. The healthcare provider continuously closely monitors the patients but does not always consider the needs of the patient's family members. Thus, it often leads

to dissatisfaction towards the family members that they feel their concern and queries towards the patient's progress are neglected (Dharmalingam, Kamaluddin, Hassan & Zaini, 2016).

People are so worried and scared when their family member is admitted to the ICU since every people perception about ICU is near to death. In Malaysia, most of the population are Muslim. As a Muslim, they are a surah recitation to help ease and improve the patient condition from my perspective and surroundings. During the Covid-19, their family members will organise an online recitation since no gatherings are allowed between the whole family, for example, through the Google Meet and Zoom Meetings application. This is one of the most needs of the family members. They are hoping for the best for their family members who are critically ill. I believe other religions also have non-pharmacological treatment for their sick relatives.

The needs on the ICU patient family's studies have gained attention among the medical researcher since the seminal study by Molter (1979) was suggested. The Critical Care Family Need Inventory (CCFNI) and quantitative approaches have been conducted to study the needs among the family members of their sick relative. The CCFNI was a highly validated research tool consisting of five subscales: information, assurance, proximity support, and comfort and initially developed by Molter (1979) (Al-Mutair, Plummer, O'Brien & Clerehan, 2014). In addition, a few studies have been conducted to investigate the needs of family members from various countries such as Hong Kong, Norway, Sweden, suburban and rural Greek population, Saudi Arabia and Jordan (Dharmalingam, Kamaluddin, Hassan & Zaini, 2016). Each of the studies brings a unique result due to the country's different socioeconomic background, culture, and religion. But, minimal studies have been conducted in Malaysia (Hashim & Hussin, 2012).

## **1.2 Problem statement**

The needs of family members in the intensive care setting are essential. Many studies have been conducted from various countries, but still, the healthcare is not fully alert about the needs in the ICU. If the needs of family members are met, it can lessen the negative impact to the family members, such as high-stress levels due to their relative's condition in the ICU. The needs of family members of ICU patients should be met as it can decrease the anxiety and psychological crisis (Alsharari, 2019). Healthcare, especially the nurses, played an essential role in the family needs since they spend most of the time with the patients compared to the other healthcare providers. The needs here, such as interacting with patients even though only through the voice call or video call, can help with the family needs by assisting them in giving support to their critically ill relative.

However, some healthcare providers are alert with the needs but do not know the priority of the needs. Every hospital has provided the facilities needed by the family members but does not know which comes first. For example, our hospital provides the needs such as the cafeteria, waiting area, prayer room, restroom, public phone and toilet for the visitors in the hospital. But we do not know whether the family members are satisfied with the needs given or other needs that still have not been fulfilled. All components are included in the questionnaire (Appendix A & B). Nurses must be able to accurately identify the needs of family members in order to meet their needs (Khatri & Thulung, 2018). So this study is to identify the needs and their satisfaction among the family members of the ICU because they need extra care of their needs. If they are satisfied with their needs, we can also see if that will improve the satisfaction.



Other than that, family is the backbone of our life. If the needs are met among the family members, it could help with the healing process of their sick relative. Various studies have shown promising patient and family outcomes if the needs are met. According to a study in 2015 by Agard et al., the family members' support is very crucial to the ICU patient's healing process. As we all know that the patient in the ICU is a life-threatening condition that may lead to death, that is why family needs in ICU are essential. Their family is still unable to accept the sudden admission of their family to the ICU. Both the family and patient need support to obtain the best outcome. For example, the family members could support their sick relative, which is very needed by the patient itself. But, the family members also need to fulfil their needs by the healthcare providers to give support to their sick relatives. This condition will help improve the patient's healing process and the satisfaction of the family members.

### **1.3 Research question**

1. What is the most important needs among family members during Covid-19 pandemic in the Intensive Care Unit (ICU) HUSM?
2. What is the level of satisfaction among family members during Covid-19 pandemic in the Intensive Care Unit (ICU) HUSM?
3. Is there any correlation between the needs and satisfaction among family members during Covid-19 pandemic in ICU HUSM?

### **1.4 Research Objectives**

#### **1.4.1 General Objective**

To describe the needs and satisfaction among family members during Covid-19 pandemic in Intensive Care Unit (ICU) Hospital Universiti Sains Malaysia (HUSM).

#### **1.4.2 Specific Objectives**

1. To identify the most important needs among family members during Covid-19 pandemic in ICU HUSM.
2. To identify the level of satisfaction among family members during Covid-19 pandemic in ICU HUSM.
3. To examine the correlation between the needs and satisfaction among family members during Covid-19 pandemic in ICU HUSM.

## **1.5 Research Hypothesis**

### **Hypothesis 1:**

$H_0$ : There is no correlation between the needs and satisfaction among family members during Covid-19 pandemic in ICU HUSM.

$H_A$ : There is a correlation between the needs and satisfaction among family members during Covid-19 pandemic in ICU HUSM.

## 1.6 Conceptual and operational definitions

**Table 1.1** Definitions for the conceptual and operational terms used in this study.

Terms	Conceptual definitions	Operational definitions
Family	A family can be broadly defined as a group of two or more people who are linked by marriage, blood, adoption and who live together in a single household, interacting and communicating with each other (Sonawat, 2001).	In this study, the family can be defined as the persons related to the patient.
Needs	Needs has a variety of meanings in health care. Moreover, it changes over time because different groups of health professionals refer to ‘needs assessment’ differently (Asadi, Packham & Gray, 2003).	In this study, needs refer to the requirement that the patient's family members need.
The Needs of Family	The needs of family can be defined as the things that are essential for the family, including the family’s physical, emotional, mental and social health.	In this study, it is the needs required to be fulfilled among the family members. The needs include in this study are assurance, information, proximity, comfort and support (Appendix A and B; Part 2).

Satisfaction	The act of fulfilling a need or a wish of the situation (Cambridge Dictionary, 2021).	In this study, it refers to the satisfaction among the family members of the ICU patients that include three domains which are concern and quality of care toward the patient, the service and effort in meeting your needs, and also skills, care and the atmosphere in the ICU (Appendix A and B; Part 3).
Covid-19	Covid-19 is the abbreviation of Coronavirus disease 2019. It is an infectious disease that can be spread through the infected person's mouth or nose in such as cough, sneeze, speak or breath. It is caused by the SARS-Cov-2 virus (World Health Organization, 2021).	Covid-19 can affect the needs and satisfaction of family members in the ICU.
Intensive Care Unit (ICU)	The highest level of patient care and treatment is given in intensive care for critically ill patients with the potential to recover from life-threatening conditions (Christopher, 2017).	The ward that requires intensive care for critically ill patients is at 1 Mutiara HUSM.

## **1.7 Significance of the study**

This study describes the needs of family members in the ICU and their satisfaction. This topic is crucial because patients in the ICU have a life-threatening condition compared to the other patients. Hence, various studies related to the family member needs of ICU patients. Firstly, the findings of this study will help gain information on family needs and the satisfaction of our hospital, especially in the ICU setting. It also helps to measure whether the quality of care in our healthcare is improving. Gaining the information from the family members' perception itself is one of the good sources to improve the quality of care because they are the ones who have the experience.

Secondly, this study's findings can help the ICU nurses improve family needs during Covid-19 or for the future planning of nursing care. From the results of the priority of family needs, the nurses will notice and alert which of the needs the family members need the most. For example, everyone knows when a patient with Covid-19 is admitted to the ICU, their condition is unstable due to having difficulty of breathing. That is why the family members are stressed about their relative condition. As the nurses notice the priority and importance of family needs, they will train themselves to not only focus on the patient but also on the family members.

Other than that, this study's findings can give nurses knowledge in the future. Having the latest findings of the study can help the nurses increase knowledge from time to time. The knowledge also comes from the summarization of the findings that the family members were describing. The patient and their family members are one of the priorities in the nursing field.

So by having the current knowledge about the current situation, it helps the nurses in the future to give their best in providing nursing care.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter generally discusses the intensive care unit, the concept the needs of family, and family satisfaction with care in the ICU. This chapter will also describe the conceptual framework used in this study in detail.

#### **2.2 Intensive Care Unit (ICU)**

The specialty of the intensive care unit (ICU) was developed as a result of an outbreak which was the poliomyelitis epidemic in the 1950s (Wenham and Alison, 2009). Due to an outbreak, ICU was invented as it required mechanical ventilation. Mechanical ventilation is a machine that treats a patient to allow them to breathe when they have difficulty breathing on their own (William, 2020). ICU admission has increased recently due to the current pandemic, Coronavirus disease 2019, known as Covid-19. Based on a study on 2020 by Abate, Ali, Mantfardo & Basu, it shows that from many studies found that the rate of ICU admission was higher among Covid-19 patients that ranged from 3% to 100% of cases while the prevalence of mortality among ICU patients was very high among Covid-19 patients that ranged from 6% to 86% patients.

Admission to the ICU has no specific criteria since range of diseases needs intensive care management, but physiological disorder and organ dysfunction are frequently the key hallmarks (Stretch and Shepherd, 2020). ICU patients are mainly in life-threatening conditions. However, involving the relatives with the care of the patients is associated with a better outcome (Rodriguez-Ruiz, Campelo-Izquierdo, Estany-Gestal, Rodriguez-Nunez &



Latours, 2021). That is why to deliver high-quality care in ICU, it must include patient-centred care and family-centred care. Due to the Covid-19 pandemic, visiting families in the ICU has been strictly restricted. By having the restrictions of the visitors, it caused challenges among the family members when their relatives had Covid-19 and were admitted to the ICU (Chen, Wittenberg, Sullivan, Lorenz & Chang, 2021). Known challenges among the family members include (a) low health literacy, (b) dissatisfaction with communication, (c) delayed negative prognostic communication at end-of-life (EOL), (d) immense emotional distress and (e) complicated grief (Chen et al., 2021).

### **2.3 Concept of the needs of family**

Family members usually have a traumatic experience when their relative is admitted to the ICU. The family members become disorganized about their daily life as they are not mentally prepared for their relative's critical illness that often occurs as emergencies (Gundo, Bodole, Lengu & Maluwa, 2014). The family members are at risk of failure in adapting themselves during the admission of their relatives. This is because the unfamiliar environment in the ICU may cause more stress to the family members (Gundo et al., 2014). The stress among the family members can be reduced with the nurses' skills, knowledge and caring attitude towards them (Gundo et al., 2014). Based on a study by Al-Mutair, Plummer, O'Brien & Clerehan in 2014, the results identified that the best staff to meet these needs is by the nurses and followed by the doctors.

The needs of family are the requirements of family members that need to be fulfilled to avoid the family members becoming more stressed if the needs are unmet (Alsharari, 2019). The recognition of needs among the family members is important due to the complicated care in the ICU that is given to the patients and also gives impacts to the family members (Alsharari,

2019). The first version of a standardized instrument to investigate and characterize the needs and their importance was developed in 1983 by Molter and Leske. The standardized instrument is the “Critical Care Family Needs Inventory (CCFNI)”. Until now, the instrument has been widely used by the researcher to assess and rank the family members of patients in the ICU needs (Alsharari, 2019). The instrument consists of five dimensions which are support, comfort, information, proximity and assurance (Shorofi, Jannati, Moghaddam & Yazdani-Charati, 2016). Support includes the resources or support system, comfort means personal and comfort needs, information means the family members need real information about their relative while proximity is need for contact and stay remain near their relatives and assurance means the need for hope in the desired results (Dharmalingam et al., 2016).

Based on the previous study by Dharmalingam et al., 2016, the findings found that Assurance items ranked as the most important needs by the family members. The study was also conducted in Hospital Universiti Sains Malaysia. The other previous study showed that the need for assurance and information had been ranked as the most important by the family members (Al-Mutair et al., 2014). The study was in Saudi Arabia. Based on the previous study that was also conducted in Saudi Arabia, the findings identified that the need for assurance was ranked the most important need and followed by the need for information (Alsharari, 2019).

## **2.4 Family satisfaction with care in ICU**

Patient satisfaction has been recognized as one way to measure the quality of care. In the care of the ICU, an essential alternative to achieve patient satisfaction is through family satisfaction (Schleyer and Curtis, 2013). There is a growing body of literature describing how families are generally satisfied with the ICU care that their relatives receive. Because of these

findings, some healthcare providers may believe that there is no need to focus on improving family satisfaction with ICU care (Schleyer and Curtis, 2013). Based on a previous study, the results found that overall care satisfaction was related to satisfaction with information and decision-making. In contrast, for the patient and family, the study found that the most satisfaction is with nursing care, respect, courtesy and compassion (Stricker, Niemann, Bugnon, Wurz, Rohner & Rothen, 2007). The family members were least satisfied with doctor communication, waiting room atmosphere and decision-making support (Stricker et al., 2017).

Family members play an essential role in patient care, including the decision-making process, trying to assist the healthcare providers in providing care, improving patient safety and quality of care, assisting in-home care and addressing the expectations of the patient's family and society at large (Jazieh, Volker & Taher, 2020). The role of the family is important in the care of critical patients in the ICU because it contributes to patient satisfaction and supportive care related to their intimacy (Arofiati, Primadani & Ruhyana, 2020). Families play an important role because they have emotional connections and attachments to one another (Arofiati et al., 2020). One of the challenges for the family in fulfilling its role in the ICU is due to the hospital policies with strict visiting hours. In addition, this Covid-19 pandemic has turned it to be more rigid to avoid the transmission of the virus. However, according to ICU staff, families should not be involved in patient care because it can have a negative impact on health services provided, and accidents can occur, which could add more to the family's suffering (Arofiati et al., 2020).

The literature demonstrates the extent and significance of family members' satisfaction with patient care. The previous research studies as shown that meeting the needs of patients'

families results in better quality care for the patient, as well as increased satisfaction (Mahrous, 2017). According to an Australian study, meeting the needs of patients' family members makes them more willing to participate in the patient's care after discharge (Mahrous, 2017).

## **2.5 Coronavirus Disease 2019 (COVID-19) and ICU**

An outbreak of pneumonia was reported in Wuhan, Hubei province, China, in December 2019 (Ciotti, Ciccozzi, Terrinoni, Jiang, Wang and Bernardini, 2020). It has also been reported as a continuous occurrence of an acute respiratory tract infection originating from the Hunan South China Seafood Market. The unknown viral sample was isolated from an infected person and sequenced its gene by using the next sequencing tool by a Chinese scientist. As a result, they discovered that the virus shared 98.3% genetic similarity with the Yunnan bat coronavirus RaTG13 and 70% homology with the severe acute respiratory syndrome coronavirus (SARS-Cov). (Elengue, 2020). In January 2020, the world health organization (WHO) announced that the cause of this epidemic outbreak was a novel coronavirus discovered in 2019 (2019-nCov) or SARS-Cov-2, and the disease was named coronavirus disease 2019 (COVID-19) (WHO, 2020). Since the virus was discovered, the virus has spread very fast worldwide (Ciotti et al., 2020). The SARS-Cov-2 has rapidly spread to other countries, including South Korea, Taiwan, Thailand, Singapore, Japan, Italy, Iran, Spain, USA and UK, until the disease has been classified as a pandemic by the WHO (Elengue, 2020). The cases in our country Malaysia have also increased since then that already hit more than 2 Million cases at the latest update on December 8<sup>th</sup>, 2021 (COVIDNOW, 2021).

Covid-19 pandemic restrictions have caused the complete isolation between the family members and the patient in the ICU. The isolation prevents clinician-family meetings, and hospital visitation policies limit caregivers' ability to be near their loved ones, potentially leaving them without any form of trusted representation and advocacy (Negro et al., 2020). Malaysia's ICU admission policy is guided by the Ministry of Health and the Malaysian Society on Intensive Care (Muhammad Ikhwan, Nur, Nadia & Aidalina, 2021). Based on clinical severity, there are five stages of covid-19. Therefore, during covid-19, the recommendation by MOH for ICU admission are those covid-19 patients in stages 4 and 5 (Muhammad Ikhwan et al., 2021). ICU guidelines in Hospital USM are based on Malaysia Society Intensive Care (MSIC) ICU Protocol Managements and Latest Trial in ICU.

Based on the previous studies before pandemic Covid-19, the findings found that assurance was ranked as the most important need by the family members (Hashim & Hussin, 2012; Mohamed, 2016; Dharmalingam et al., 2016; Alsharari, 2019). There is also finding that shown that information was ranked as the most important need, which was the study in 2017 by Lotfy et al. During this pandemic that occurred nearly two years, many parents have experienced increased pressures and deterioration of social supports, which has had an impact on their mental health (Gadermann et al., 2021). According to a survey conducted in the United States, the majority reported financial concerns, social isolation, criticism from others and emotional experiences during the pandemic (Gadermann et al., 2021). Therefore, Covid-19 has caused the presence of the patient's family members by avoiding crowds and maintaining the social distance to reduce the spread of SARS-Cov-2, the virus that causes Covid-19 (Hart & Taylor, 2021). Due to the presence of restrictions, it causes incomplete grief, emotional distress (Hart & Taylor, 2021). This study will help determine which needs

will be ranked first during pandemic Covid-19 among the family members and their satisfaction.

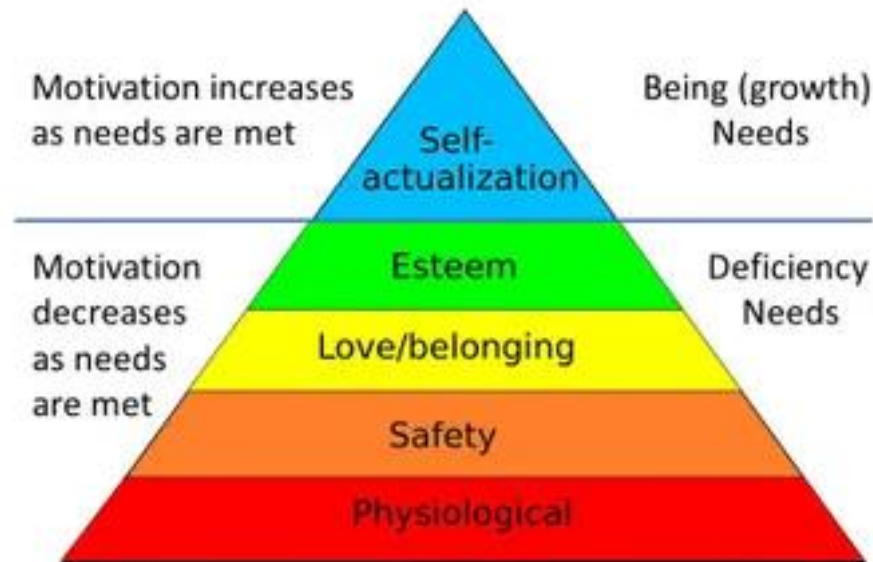
## **2.6 Theoretical and Conceptual Framework of the Study**

The theoretical framework for this study is based on Maslow's Hierarchy of Needs Model. This model was originally developed by Abraham Maslow in 1943. Maslow's hierarchy of needs is a psychological, motivational theory that consists of a five-tiered model of human needs (Milheim, 2012). Maslow described his concern in the early 1940s about the lack of a definitive motivational theory, and he proposed a hierarchy of needs model (Maslow, 1943) as a result (Milheim, 2012). Maslow also suggested this should use for future research on motivation to provide a way to understand better how individual needs are met (Milheim, 2012).

The five-tiered model is physiological needs, safety needs, love and belonging needs, esteem needs and self-actualization needs. Lower-level needs must be met before individuals can attend to higher-level needs (McLeud, 2018). The five-tiered model is classified into deficiency needs and growth needs. The bottom level up to the fourth level is known as deficiency needs, while the top level is known as growth needs (McLeud, 2018). From the bottom, it means the most important need of the human being. In Maslow's Hierarchy of Needs Model, from the bottom are physiological needs, and to the upwards is self-actualization.

Physiological needs are the biological necessities for humans in order to survive, such as air, food, drink, shelter, clothing, warmth, sex and sleep. The human body cannot function unless these needs are met. Maslow described physiological needs to be the most important, and all the other needs become secondary until these needs are met (McLeud, 2018). Safety needs mean protection from elements, security, order, stability and freedom from fear. Next, love and belonging needs involve feelings of belongingness, including friendship, intimacy, receiving and giving affection and family (McLeud, 2018). Next, Maslow divided the esteem

needs level into two categories which are (I) self-esteem that includes dignity, achievement, independence, mastery and (II) the desire for respect from others or reputation. Lastly, the needs of self-fulfilment and seeking personal growth, self-actualization needs.

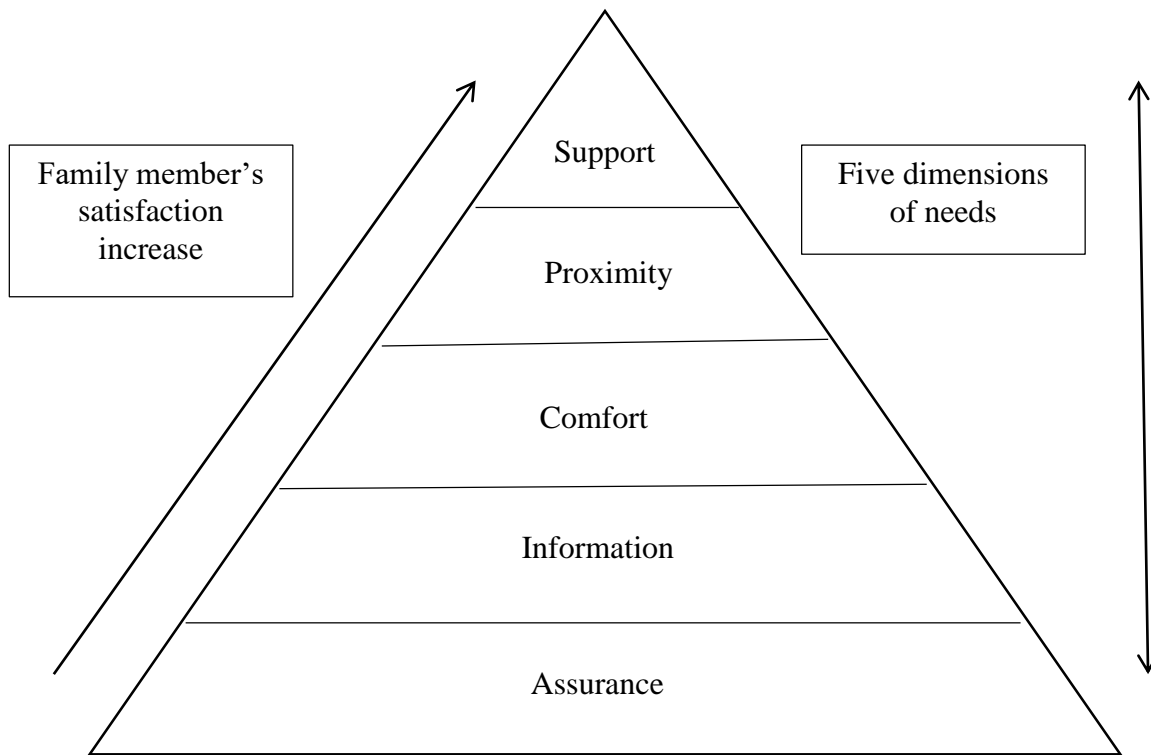


**Figure 2.1** Maslow's Hierarchy Needs Model

(Adopted from Abraham Maslow, 1943)

This conceptual framework for this study has been developed based on Maslow's Hierarchy Needs Model. In this study, this model will provide a better understanding of the needs of family that consists of five dimensions among the family members at the ICU and their satisfaction. The needs of family in the area of critical care also have five dimensions. The order of the level will be arranged based on the result of a previous study by Liew, Dharmalingam, Ganapathy, Muniandy & Johnny in 2017. According to the results, the lower level shows that it is the most important need required by the family members and followed by the rest of the dimension. Once the need at the lowest level is met, it will continue to the second level, which will also increase the family member's satisfaction.





**Figure 2.2** Framework of Maslow’s Hierarchy of Needs Regarding the Needs of Family and Their Satisfaction

(Adapted from Abraham Maslow, 1943)

The figure above showed the level of the needs needed by the family members according to the results of the study by Liew et al. in 2017. The study was conducted among the patient's family members admitted to the ICU of Queen Elizabeth Hospital, which is also situated in Malaysia. The findings of the local studies among the Malaysian population will be more reliable, valid and accurate (Dharmalingam et al., 2016). In addition, this study will be conducted during Covid-19, which will allow people to know if there is any difference in the needs between before Covid-19 and during Covid-19.

The study of Liew et al., 2017 also mentioned that “to be assured that the best care possible is being given to patient” item rank the highest needs by the family members. The

item is in the questionnaires (Appendix B). Next, the family members ranked other items that important were the needs “to know the expected outcome” and “to know exactly what is being done for the patient”. This clearly can relate to Maslow’s hierarchy of needs. In order to function, humans the to meet their needs. In this study, if the needs are met, the family members will be satisfied, which also gives benefits in many aspects, such as improving patient outcomes.

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

In this chapter, the researcher is aiming to explain the approach and rationale in supporting the research methodology that had been chosen. In term of determining correct and applicable research design was important to ensure the purpose of this study is correctly conveyed. This chapter aimed to discuss the type of research design used and the reason why the researcher wants to use it. Besides, study setting and population, subject criteria of respondents for this study, sampling plan, sample size estimation, instrumentation, collection of data and the ethical consideration. Next, the final section in this chapter explained the proposed statistical analyses used with quantitative data.

#### **3.2 Research Design**

This study is a cross-sectional study design. The researcher chose this design able to measures the exposure and outcome of the study participants in the same time (Setia, 2016). It was conducted by using self-administered questionnaire tools. In this study, researcher aimed to analyzed the family members' needs and satisfaction during Covid-19 pandemic in the intensive care unit (ICU) Hospital Universiti Sains Malaysia.

#### **3.3 Study setting and Population**

This study was conducted among family members at the intensive care unit (ICU) Hospital Universiti Sains Malaysia which included 1 Mutiara, 2 Delima, Surgical Intensive Care Unit (SICU), Neonatal Intensive Care Unit (NICU) and Trauma Intensive Care Unit (TICU). All the data from the respondents has been collected from March 2022 until May 2022.

### **3.4 Sampling Plan**

The method used in this study was convenience sampling.

#### **3.4.1 Sample Criteria**

Inclusion criteria:

Respondents must meet the following criteria to be included in the study:

- i. The patient's family members that came to accompany in ICU ward during the first admission.
- ii. The patient's family members are responsible for getting information from the healthcare providers.
- iii. The patient's family members are willing to participate.

Exclusion criteria:

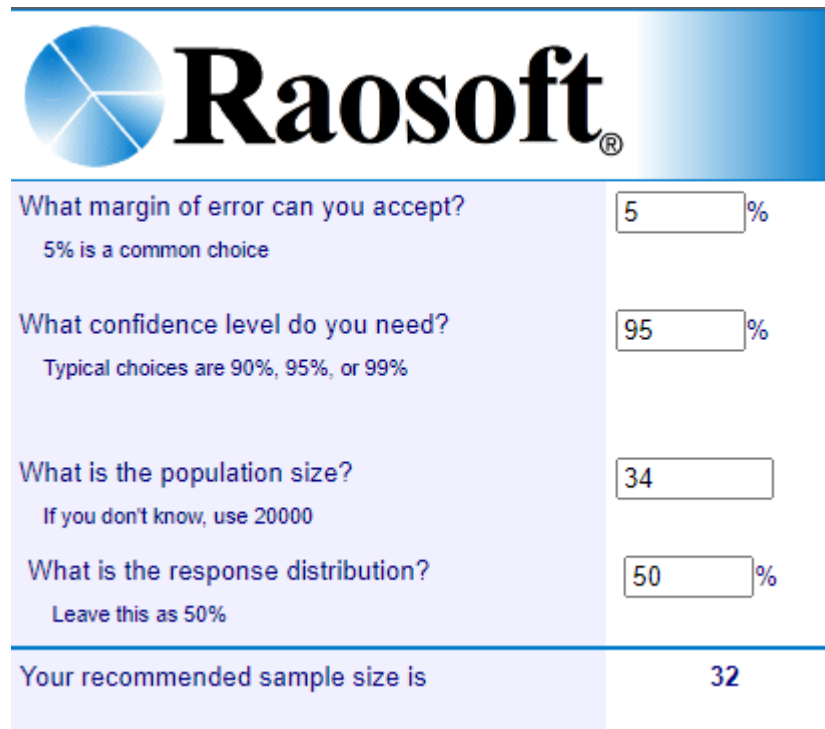
Subjects are excluded from the study if they are fulfilling one of the following:

- i. The patient's family members other than ICU ward.

#### **3.4.2 Sampling Size Estimation**

The sample size in this study using the larger sample size which is 110 respondents to help create more significant result. The number of patients admitted in the Intensive Care Unit (ICU) ward for the past three months is as follows: 14 patients in July, 10 patients in August, and 10 patients in September. The total number of patients is taken from the patient admission statistics in Hospital Universiti Sains Malaysia through their web page. The total number of patients admitted to the Intensive Care Unit (ICU) ward - 1 Mutiara, from July

2021 to September 2021 was 34 patients. The sample size estimation was calculated using the Raosoft Software.



Raosoft®	
What margin of error can you accept? 5% is a common choice	5 %
What confidence level do you need? Typical choices are 90%, 95%, or 99%	95 %
What is the population size? If you don't know, use 20000	34
What is the response distribution? Leave this as 50%	50 %
<hr/>	
Your recommended sample size is	32

**Figure 3.1** Sample size calculation by using Raosoft Software

The margin error that can be accepted was 5% with the confidence level of 95%, and the response distribution was 50%. Thus, the recommended sample size for this study was 32. Next, for the drop out of this study, 10% of the calculated sample size was recorded. Therefore, the total of participants required for this study are as follows:

Total of the participants = 32 + drop out of 10%

$$= 32 + 3.2$$

$$= 35 \text{ respondents}$$

For objective 2, the sample size was estimated using 95% confidential interval, power of 80%. This calculation using the anticipated population proportion from the previous study by Heyland et al. (2007) which is 7% ( $p = 0.07$ ). Using the single proportion estimation formula, the estimated sample size for this study are as follow:

$$n = \left[ \frac{Z}{\Delta} \right]^2 p(1 - p)$$

$n$  = sample size

$Z$  = Z score of confidence interval

$\Delta$  = precision

$p$  = anticipated population proportion

**Table 3.1** Single proportion estimation for objective 2

Objectives	p- estimate proportion	N	Drop out 10%
Objective 2: To identify the level of satisfaction among family members during Covid-19 in ICU HUSM.	P = 0.07 Refer to satisfaction among family members in previous study by Wall et al. (2007)	100	110

For objective 3, the sample size was estimated using the Pearson's correlation from web-based sample size calculator by Arifin (2022). The sample size calculation using the r-value for correlation of satisfaction with care and needs met ( $r = 0.86$ ) from previous study by

Khailaila (2012). The sample size shown in Figure 3.2 is 8 respondents and with 10% drop out, the sample size is 9 respondents.

[🏠](#) >> **Sample Size Calculator**

**Sample Size Calculator (web)**

**Pearson's Correlation - Hypothesis Testing<sup>1</sup>**

Expected correlation ( $r$ ):	<input type="text" value="0.86"/>	
Significance level ( $\alpha$ ):	<input type="text" value="0.05"/>	Two-tailed
Power ( $1 - \beta$ ):	<input type="text" value="80"/>	%
Expected dropout rate:	<input type="text" value="10"/>	%

Sample size, $n =$	<input type="text" value="8"/>
Sample size (with 10% dropout), $n_{drop} =$	<input type="text" value="9"/>

**Figure 3.2** Sample size calculation by sample size calculator (web)

Therefore, this study used the objective 2 sample size calculation as it results in a larger sample size which is 110 respondents to increase the accuracy of the data.

### 3.4.3 Sampling Method

In this study, the sampling method used was convenient sampling. Convenience sampling is one of the most common of nonprobability sampling (Edgar & Manz, 2017). Convenience sampling is the method of collection samples that are conveniently located near a location (Edgar & Manz, 2017). Family members in the ICU are emotionally unstable due to their concern with their relative condition. By using the convenient sampling method, it might be better to select the respondents.

### **3.5 Instrumentation**

This part explains the questionnaire that will be used in this study.

#### **3.5.1 Instrument**

This study is a quantitative study, and thus the data is collected by a self-administered questionnaire. The questionnaire consists of three parts. Part 1 is to assess the sociodemographic data. Part 2 assesses the important needs among family members, and part 3 assesses the care satisfaction of the family members. Part 1 attains respondents' sociodemographic data such as age, gender, race, marital status, education, occupation, income, and relationship with the patient. Then, part 2 will assess by using the Critical Care Family Needs Inventory-Malay (CCFNI-M). The permission is already obtained from the author (Appendix C). The questionnaire consists of 44 items. The items are divided into five dimensions:

Dimension 1: Assurance, 12 items

Dimension 2: Information, 7 items

Dimension 3: Proximity, 6 items

Dimension 4: Comfort, 6 items

Dimension 5: Support, 13 items

Each item will be rated using a four-point Likert-type scale ranging from '1'; not important, '2'; slightly important, '3'; important, and '4'; very important to determine the important of family needs in critical care.



Next, part 3 will be using the Family Satisfaction-Intensive Care Unit-Malay (FS-ICU-M) Questionnaire. Originally, it consists of 24 items. But this questionnaire is the Malay language translation of the modified FS-ICU with satisfaction care (Rahman, Othman, Jusoh, Zani, Awang & Ghazali, 2020). The questionnaire consists of 18 questions with three domains. The permission from the author also has been obtained (Appendix C).

Domain 1: Concern and quality of care toward patient, 6 items

Domain 2: The service and effort in meeting your needs, 6 items

Domain 3: Skills, care and the atmosphere in the ICU, 6 items

Each item will be rated using a four-point Likert-type scale ranging from '1'; very dissatisfied, '2'; dissatisfied, '3'; satisfied, and '4'; very satisfied to determine family members' satisfaction during Covid-19 in ICU HUSM.

### **3.5.2 Translation of Instrument**

The questionnaire was translated by the previous researcher; Dharmalingam et al., 2016 and Rahman et al., 2020, in Malay version by using forward and backward translation.

### **3.5.3 Validity and Reliability**

The validity and reliability of the instrument are essential to ensure the accuracy of the data collected. The two most important and fundamental features in the evaluation of any measurement instrument for good research are validity and reliability (Mohajan, 2017). The validity of the questionnaires in this study has already been validated by the previous researcher.

To measure the reliability in this study, a pilot study will be carried out to pre-test the questionnaire to determine problems related to the questions and estimate the length of time taken to answer the questionnaire. In this study, 11 respondents were invited to take part in the pilot study. The pilot study showed the Cronbach's Alpha for the questionnaire CCFNI-M was 0.906 while for questionnaire FS-ICU-M was 0.972. It was tested using Statistical Package for Social Science (SPSS).

The original version of the CCFNI was assessed in 1991, and the Cronbach's Alpha value was 0.92 (Alsharari, 2019). It should be greater than 0.7 for the value of Cronbach's Alpha for the items to achieve internal reliability (Rahman et al., 2020). According to the previous study, the internal consistency of the Critical Care Family Needs Inventory – Malay (CCFNI-M) appeared to be excellent ( $\alpha = 0.93$ ) with Cronbach's alpha values of the five dimensions within CCFNI-M ranging between 0.72 and 0.81. Therefore, these values considered the questionnaire reliable in assessing the family needs dimensions (Dharmalingam et al., 2016). In the Family Satisfaction-Intensive Care Unit-Malay (FS-ICU-M), Cronbach's alpha exceeded the threshold value of 0.7 for all domains. Therefore, the study concluded the questionnaire to measure the ICU-Care services satisfaction has achieved internal validity (Rahman et al., 2020).

### 3.6 Variables

#### 3.6.1 Variables measurement

This study has identified two different variables which were the dependent variable and the independent variable. The variables were as followed:

**Table 3.2** Independent and dependent variables

<b>Independent variables</b>	Sociodemographic characteristics of family members (age, gender, race, marital status, education, occupation, household income, relationship with the patient).
<b>Dependent variables</b>	The needs and satisfaction among family members during Covid-19 pandemic in intensive care unit (ICU) Hospital Universiti Sains Malaysia.

#### 3.6.2 Variable Scoring Method

The measurement for these two types of variables is by using a questionnaire. The questionnaire is divided into three parts, Part 1, Part 2 and Part 3. Part 1 consists of sociodemographic characteristics. The scoring will be based on the mean and the percentage that the respondents answer

For part 2, the scoring for the five dimensions and each item in part 2, including Assurance, Information, Proximity, Comfort and Support, is based on the four-point Likert

scale. The option is ranging from “very important = 4 marks”, “important = 3 marks”, “slightly important = 2 marks” and “not important = 1 mark”. In this scale, there was no negative item which means the higher score will indicate the higher level of that needs among respondents

For Part 3, the measurement used four-point Likert scale format with range 1 (very dissatisfied) until 4 (very satisfied). The scoring will also use the four-point Likert scale. The option is ranging from “very satisfied = 4 marks”, “satisfied = 3 marks”, “dissatisfied = 2 marks” and “very dissatisfied = 1 mark”. The higher the mean, it indicates high satisfaction among family members.

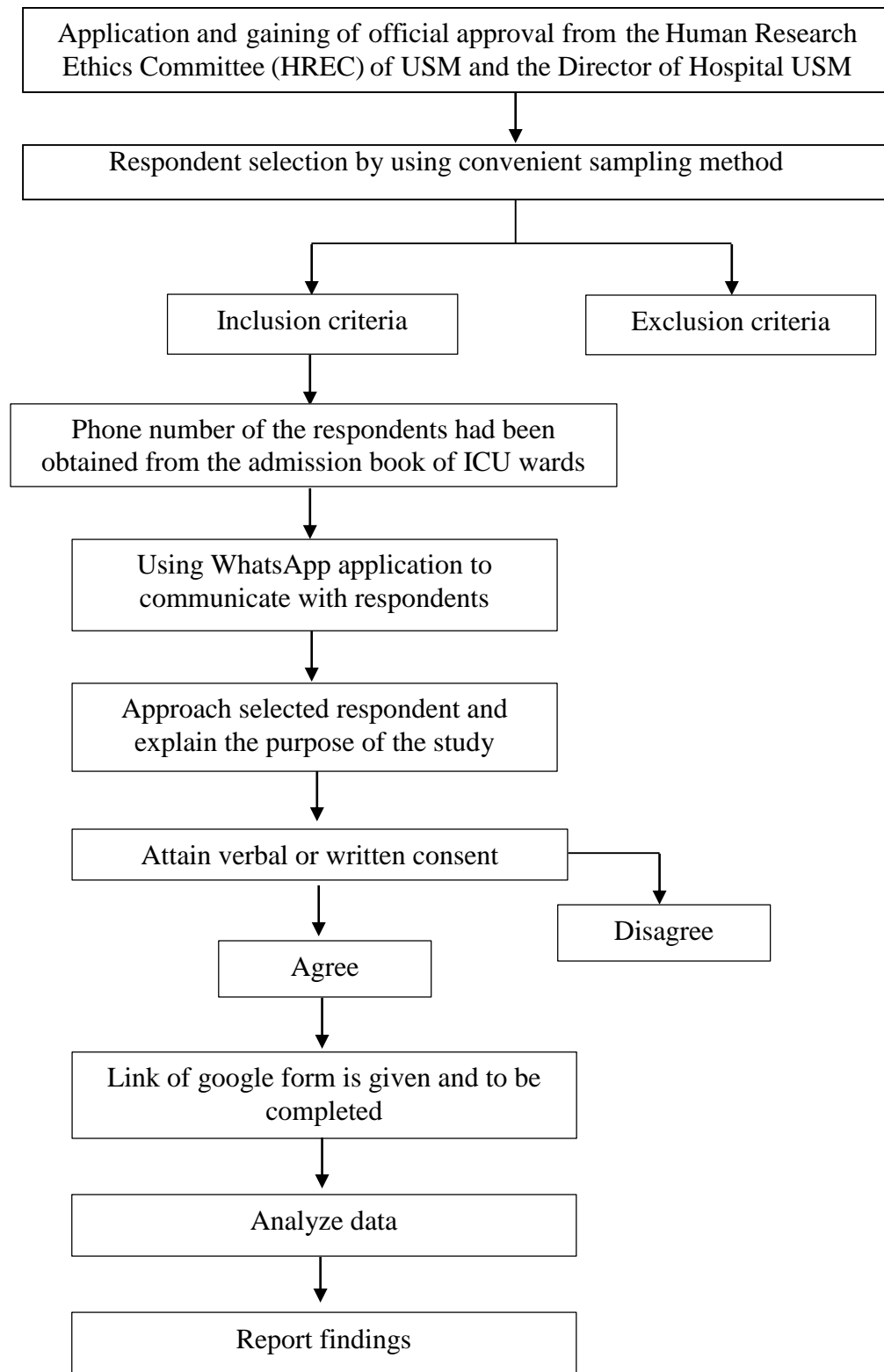
### **3.7 Data Collection Method**

#### **3.7.1 Procedure of data collection**

The data collection had been conducted after gaining the approval to conduct this study from the Human Research Ethics Committee (HREC) of USM and permission to collect the data from the Director of Hospital USM. Data was collected using a self-administered questionnaire from Dharmalingam et al., 2016 and Rahman et al., 2020 (Appendix A & B). After identifying the respondents who have fulfilled the inclusion criteria, the researcher had obtained the phone number of the respondents from the admission book records of the ICU wards. By using the WhatsApp application, the researcher had communicated with the respondents. After approaching the respondents, the researcher had briefly explained the purpose of the study. If the respondents agree and were willing to participate in this study, the researcher had gained verbal or written consent from the respondents. The data had been collected through online which is google form. It is because during the Covid-19 pandemic, there was no visiting hours that allow the family members to visit their relatives. Therefore, the researcher has no opportunity to meet with the family members face to face.

Next, the link of the google form that contains the questionnaire had been given to the respondents to be completed. The researcher analyzed the data and report the findings. The data were only accessed by the researcher and the researcher's supervisor as it is very confidential.

### 3.7.2 Flow Chart of Data Collection



### **3.8 Ethical Considerations**

For ethical consideration, this study was conducted after obtaining ethical approval from Human Research Ethics Committee (HREC), Universiti Sains Malaysia to conduct the study (Appendix I). The permission to collect the data also had been obtained from the Director of Hospital USM. The questionnaire used in this study is adapted from the previous study by Dharmalingam et al., 2016 and Rahman et al., 2020. The permission to use the questionnaire was obtained from the original author in November 2021 (Appendix C).

In this study, the participants were informed regarding the risks, their right to participate voluntarily, the right to make the decision whether to participate or not and the right to discontinue the study at any time without any penalty. A consent had been obtained from each of the participants to join this study in order to protect their right and respect their autonomy by deciding on their own.

Next, the researcher declares that this study has no conflict of interest. The researcher also guaranteed the anonymity of the participants to protect their privacy. All the data obtained from the participants were confidential and were used for academic and research purposes only.

The researcher concludes that the outcomes of this study will help the community to find out their needs when their family members is critically ill. Lastly, the participants had been already informed that this study is self-supported hence there is no honorarium and token of appreciation had been given.

### 3.9 Data Analysis

The data were analyzed using Statistical Package for Social Science (SPSS) software version 26.0 for Windows, including descriptive and statistical tests. The significant level was set at 5% ( $p < 0.5$ ) for all statistical tests. All null hypotheses were rejected if  $p < 0.5$ .

**Table 3.3** Measurement of data analysis

No.	Research Objectives	Test
1	To identify the most important needs among family members during Covid-19 pandemic in ICU HUSM.	Mean Standard deviation
2	To identify level of satisfaction among family members during Covid-19 pandemic in ICU HUSM.	Mean Standard deviation
3	To examine the correlation between the needs and satisfaction among family members during Covid-19 pandemic in ICU HUSM.	Pearson Correlation



## **CHAPTER 4**

### **RESULTS**

#### **4.1 Introduction**

This chapter reported the results of this study. It includes the sociodemographic characteristics of family members in the intensive care unit (ICU) Hospital Universiti Sains Malaysia, the ten most important and the ten least needs among family members during Covid-19 pandemic in ICU HUSM and the correlation between the needs and satisfaction among family members during Covid-19 pandemic in ICU HUSM. Statistical Package for Social Sciences (SPSS) version 26.0 for Windows program analyzed the raw data obtained by using descriptive and inferential statistics. Statistical method used to include frequency, standard deviation, mean and Pearson correlation. Pearson correlation was used to see the correlation between the needs and satisfaction among family members during Covid-19 pandemic in ICU HUSM. The results of this study was based on the data gathered which is 85 respondents.

#### **4.2 Sociodemographic Characteristic of Family Members during Covid-19 Pandemic in ICU HUSM**

There were 85 (77%) respondents were participated in this study. Details of the characteristics of respondents were described in Table 4.1 which included the frequency and percentage of distribution among participants.

The age of the participants in this study was 16 years old and above. The respondents age was between 16 – 64 years' old which is the minimum age is 16 years old and the maximum age is 64 years old. The respondent's age mean is 33.46. In terms of gender, female

respondents were higher than male respondents based on the results; female n = 58 (68.2%) and male n = 27 (31.8%).

Most of the respondents were Malay n = 79 (92.9%). Next, followed by Chinese n = 3 (3.5), Indian n = 2 (2.4) and others, Siamese n = 1 (1.2).

Next, the marital status for each respondent were divided into 3 categories which are, married participants, n = 53 (62.4%), single participants n = 31 (36.5%) and widowed participant is n = 1 (1.2%). For the educational level, 3 of respondents (3.5%) are from primary school while 21 of respondents (24.7%) are from secondary school. There are also from college, n = 18 (21.2%) and university n = 43 (50.6%).

For the occupation, it was divided into six categories which are government n = 19 (22.4%), private n = 24 (28.2%), self-employed n = 14 (16.5%), retired n = 2 (2.4) while housewife respondents n = 10 (11.8%) and unemployed n = 16 (18.8%). Next element is monthly income. It has been categorized into three categories based on the Kelantan household income. Most of the respondents are in below RM 3,030 category n = 49 (57.6%), followed by n = 24 (28.2%) from the middle income RM 3,030 – RM 6,619 and 12 respondents (14.1%) that are in high income which is above RM 6,620 category.

The last one is the relationship with the patient element. 10 respondents (11.8%) is the patient's spouse, followed by patient's children n = 23 (27.1%), parent of the patient n = 34 (40.0%) and 18 respondents (21.2%) are siblings of the patient.

**Table 4.1** Distribution of sociodemographic characteristics among family members during Covid-19 pandemic in ICU HUSM (n=85)

<b>Variables</b>	<b>Characteristics</b>	<b>Frequency, n</b>	<b>Percentage (%)</b>	<b>Mean (+/- SD)</b>
<b>Age</b>				33.46 (9.08)
<b>Gender</b>	<b>Male</b>	27	31.8	
	<b>Female</b>	58	68.2	
<b>Race</b>	<b>Malay</b>	79	92.9	
	<b>Chinese</b>	3	3.5	
	<b>Indian</b>	2	2.4	
	<b>Others</b>	1	1.2	
<b>Marital Status</b>	<b>Married</b>	53	62.4	
	<b>Single</b>	31	36.5	
	<b>Widowed</b>	1	1.2	
<b>Education Level</b>	<b>Primary School</b>	3	3.5	
	<b>Secondary School</b>	21	24.7	
	<b>College</b>	18	21.2	
	<b>University</b>	43	50.6	
<b>Occupation</b>	<b>Government</b>	19	22.4	
	<b>Private</b>	24	28.2	
	<b>Self employed</b>	14	16.5	
	<b>Retired</b>	2	2.4	
	<b>Housewife</b>	10	11.8	
	<b>Unemployed</b>	16	18.8	
<b>Income</b>	<b>&gt; RM 3,030</b>	49	57.6	
	<b>RM 3,030 – RM 6,619</b>	24	28.2	
	<b>&gt; RM 6,620</b>	12	14.1	
<b>Relationship to patient</b>	<b>Spouse</b>	10	11.8	
	<b>Children</b>	23	27.1	
	<b>Parent</b>	34	40.0	
	<b>Sibling</b>	18	21.2	

#### **4.3 Mean and standard deviation of the ten most and least important needs among family members during Covid-19 pandemic in ICU HUSM**

The ten most important needs among family members during Covid-19 pandemic in ICU HUSM has been summarized in the Table 4.2 below. The results showed that “To know the expected outcome” (mean 3.94, SD 0.237) was ranked first. This was followed by “To know how the patient is being treated medically” (mean 3.93, SD 0.338) was ranked second and “To be assured that the best care possible is being given to the patient” (mean 3.93, SD 0.258) was ranked third. Both of needs that were ranked as first and third are belong to Assurance dimensions while second need belongs to the Information dimension.

Table 4.3 summarizes the majority of needs that least important by family members during Covid-19 pandemic in ICU HUSM. The results showed that “To have a pastor visit” (mean 2.13, SD 0.949) “To be told about chaplain services” (mean 2.74, SD 0.966) “To visit at any time” (mean 2.75, SD 0.987) ranked the lowest. First and second lowest are in Support dimension while the third lowest is in Proximity dimension.

Next based on the Table 4.4, the overall most important need according to the Critical Care Family Needs Inventory (CCFNI) dimensions identified by the family members is the need for assurance (mean 45.61, SD 2.55), followed by Support (mean 41.00, SD 6.22), Information (mean 26.09, SD 2.01), Comfort (mean 20.05, SD 3.02) and Proximity (mean 18.28, SD 3.50).

**Table 4.2** The ten most important needs among family members during Covid-19 pandemic in ICU HUSM

CCFNI Rank	Need	Dimension	Mean	Standard deviation
1	To know the expected outcome	Assurance	3.94	0.237
2	To know how the patient is being treated medically	Information	3.93	0.338
3	To be assured that the best care possible is being given to the patient	Assurance	3.93	0.258
4	To have questions answered honestly	Assurance	3.92	0.277
5	To be called at home about changes in the patient's condition	Assurance	3.91	0.332
6	To know why things were done for the patient	Information	3.85	0.362
7	To know exactly what is being done for the patient	Information	3.84	0.373
8	To know specific facts concerning the patient's progress	Assurance	3.84	0.373
9	To have a specific person to call at the hospital when unable to visit	Assurance	3.79	0.537
10	To have explanations given that are understandable	Assurance	3.79	0.465

**Table 4.3** The ten least important needs of family members during Covid-19 pandemic in ICU HUSM

CCFNI Rank	Need	Dimension	Mean	Standard deviation
1	To have a pastor visit	Support	2.13	0.949
2	To be told about chaplain services	Support	2.74	0.966
3	To visit at any time	Proximity	2.75	0.987
4	To have a place to be alone while in the hospital	Comfort	2.96	0.919
5	To have a telephone near the waiting room	Proximity	2.96	0.969
6	To have friends nearby for support	Support	2.98	0.873
7	To feel it is alright to cry	Support	3.00	0.939
8	To talk to the same nurse every day	Proximity	3.02	0.816
9	To see the patient frequently	Proximity	3.04	0.919

10	To have comfortable furniture in the waiting room	Comfort	3.05	0.800
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**Table 4.4** Mean score of Critical Care Family Needs Inventory Dimension

<b>Critical Care Family Needs Inventory Dimension</b>	<b>Mean Score (SD)</b>	<b>Rank</b>
<b>Assurance</b>	45.61 (2.55)	1
<b>Support</b>	41.00 (6.22)	2
<b>Information</b>	26.09 (2.01)	3
<b>Comfort</b>	20.05 (3.02)	4
<b>Proximity</b>	18.28 (3.50)	5

#### **4.4 Mean score of ICU-Care Service satisfactions**

Based on Table 4.5, most of the family members during Covid-19 pandemic in the ICU HUSM satisfied with the consideration of your needs domain (mean 22.54, SD 2.30), followed by concern and caring (mean 22.52, SD 2.38) and the last one is skill, competence and atmosphere in ICU (mean 22.18, SD 2.21).

**Table 4.5** ICU-Care Service Satisfactions

<b>Family satisfaction ICU-Care Service</b>	<b>Mean Score</b>	<b>Rank</b>
<b>Variables</b>	<b>(SD)</b>	
<b>Consideration of Your Needs</b>	22.54 (2.30)	1
<b>Concern and Caring</b>	22.52 (2.38)	2
<b>Skill, Competence and Atmosphere in ICU</b>	22.18 (2.21)	3

#### **4.5 The Correlation Between the Needs and Satisfaction Among Family Members During Covid-19 Pandemic in ICU HUSM.**

Based on the Table 4.6, the results were tested using Pearson correlation test. For Assurance, there is significant correlation with satisfaction concern and caring ( $r = 0.303$ ,  $p = 0.005$ ), satisfaction consideration of your needs ( $r = 0.274$ ,  $p = 0.011$ ) while there is no correlation with satisfaction skill, competence and atmosphere in ICU ( $r = 0.202$ ,  $p = 0.066$ ). there was no significant correlation between the needs and the satisfaction that was tested using Pearson correlation test ( $r = 0.109$ ,  $p \text{ value} = 0.325$ ).

For Proximity, there is no significant correlation between all of the satisfaction domain which the results showed concern and caring ( $r = -0.075$ ,  $p = 0.495$ ), consideration of your needs ( $r = -0.032$ ,  $p = 0.768$ ), and skill, competence and atmosphere in ICU ( $r = -0.074$ ,  $p = 0.502$ ).

Moving on to the Comfort. There is also no significant correlation between comfort and all of the satisfaction domain, concern and caring ( $r = -0.020$ ,  $p = 0.856$ ), consideration of your needs ( $r = 0.024$ ,  $p = 0.830$ ), and skill, competence and atmosphere in ICU ( $r = -0.014$ ,  $p = 0.896$ ).

Next, for Information. There is a significant correlation between information and satisfaction concern and caring ( $r = 0.381$ ,  $p = 0.000$ ). There is also a significant correlation between information and satisfaction consideration of your needs ( $r = 0.300$ ,  $p = 0.005$ ). But there is no correlation between information and satisfaction skill, competence and atmosphere in ICU ( $r = 0.154$ ,  $p = 0.161$ ).

Lastly, support. There is no significant correlation between support and all of the satisfaction domain that the results showed; concern and caring ( $r = 0.073$ ,  $p = 0.506$ ), consideration of your needs ( $r = 0.067$ ,  $p = 0.540$ ) and skill, competence and atmosphere in ICU ( $r=0.017$ ,  $p = 0.161$ ).

**Table 4.6** Correlation Between the Needs and Satisfaction Based on Dimension and Domain Among Family Members During Covid-19 Pandemic in ICU HUSM

Measure	Concern and Caring		Consideration of Your Needs		Skill, Competence and Atmosphere in ICU	
	r	p	r	p	r	p
<b>Assurance</b>	0.303	0.005*	0.274	0.011*	0.202	0.066
<b>Proximity</b>	-0.075	0.495	-0.032	0.768	-0.074	0.502
<b>Comfort</b>	-0.020	0.856	0.024	0.830	-0.014	0.896
<b>Information</b>	0.381	0.000*	0.300	0.005*	0.154	0.161
<b>Support</b>	0.073	0.506	0.067	0.540	0.017	0.879

\*. Correlation is significant at the 0.05 level



## **CHAPTER 5**

### **DISCUSSION**

#### **5.1 Introduction**

This chapter focused on the discussing of the findings of the results based on the research objectives which had been structured before. The discussion was about the sociodemographic characteristics of respondents, the most important needs, the level of satisfaction and the correlation between the needs and satisfaction among family members during Covid-19 pandemic in ICU HUSM.

#### **5.2 Sociodemographic characteristics among family members**

There are 110 total respondents required to participate in the study but only 85 respondents of them that participated in this study. The mean age of 85 respondents of this study was 33.46 years old (SD = 9.08). The majority of the respondents were females (n = 58) which is in line with a similar previous study done by Dharmalingam et al. (2016) that females respondents were higher than male respondents. In term of race, majority of the respondents were Malay (92.9%) due to this study only included family members from ICU HUSM, Kelantan where the majority is Malay ethnicity.

Next, 62.4% of the respondents were married, 36.5% were single and 1.2% were widowed. Majority of the respondents were educated in which 50% had university as level of education which is also in line with previous study by Dharmalingam et al. (2016). Furthermore, majority of the respondents works in the private sector (28.2%) while the income of the respondents was majority from below than RM 3,030 (57.6%). For respondent-patient relationship, majority were their parents (40.0%), followed by their children (27.1%).

### **5.3 The rank of needs among family members during Covid-19 Pandemic in ICU**

#### **HUSM**

In this study, family members identified the most important family members' needs were those related to the assurance dimension (Table 4.4). The result was consistent with previous studies that demonstrated the assurance needs were considered as a greater need by the family members (Dharmalingam et al., 2016; Almargharbeh et al., 2019; Alsharari, 2019). The previous studies stated were conducted in Malaysia, Iran, Jordan and Saudi Arabia. Following assurance, support was the second in the list with the highest mean score. It differs from several previous studies that showed information dimension was the second important needs (Dharmalingam et al., 2016; Almarghabeh et al., 2019). The reason for the differences might be due to the current pandemic, Covid-19 that family members requires more support from the healthcare teams. Next, followed by information, comfort and proximity dimension. Information dimension was still in the top three as the family members will seek the information regarding the patient condition by asking the healthcare team. However, proximity and comfort is in the least need dimension for this study. It also might be due to the Covid-19 since there is limitation to visit the patients compared to before this family member were given a short period of time of visiting hours to be with the patients (Almargharbeh et al., 2019).

### **5.4 The ten most important needs among family members during Covid-19 Pandemic in ICU HUSM**

In particulars of the assurance dimension among the ranked items, "to know the expected outcome" was ranked first as the most important needs (Table 4.2). The result was consistent with the study that was also conducted in Malaysia by Hashim and Hussin in 2012.

Due to the fact that all family members of patients admitted to Malaysian ICUs will consider that the patient is serious and on the extremely ill condition. As a result, family members must be aware of the patient's potential outcome in order to be psychologically and physically prepared for the worst (Hashim & Hussin, 2012). But, it differs from several previous studies which is ‘to be assured that the best care possible is being given to the patient’ ranked first (Dharmalingam et al., 2016; Alsharari, 2019). 7 out of 10 most important needs were belong to the assurance dimension (Table 4.2). Assurance is the vital aspect to increase their trust, confidence and freedom from doubts about the treatment given to their family members (Dharmalingam et al., 2016). Another 3 important needs were belonging to the information dimension which is “To know how the patient is being treated medically” that ranked second as the most important need. Family members need to know regarding the procedure done to treat their relatives or medication given especially during Covid-19 as they cannot present physically to be with their relatives.

### **5.5 The ten least important needs among family members during Covid-19 Pandemic in ICU HUSM**

In terms of the least important needs, ten of the them fell under the dimensions of support, proximity and comfort. The results were consistent with a previous study by Alsharari, 2019 that also consist nine of the least important needs from comfort and support dimension. Some of the ten least important items had a 3 of a mean value which consider as the needs were still important to the family members. As in the Table 4.3, most of the needs were related to the personal comfort or needs included “to have a place to be alone while in the hospital”, “to have friends nearby for support”, “to feel it is alright to cry”. It is because most of the family have strong family relationship that shared values with family members

even is in critical condition. Strong family relationship leads to the least important needs that were mostly personal comfort as the family members were more concerned about the patient's condition than their own needs (Hashim & Hussin, 2012).

## **5.6 The level of satisfaction among family members during Covid-19 Pandemic in ICU HUSM**

The level of satisfaction of the family members related to the ICU-care services showed that consideration of your needs (2nd domain) satisfied the most with the highest mean. Followed by concern and caring (1st domain) and the lowest satisfaction is the skill, competence and atmosphere in ICU (3rd domain). But from the mean score value (Table 4.5), there were not much differences among these three domains. In short, it means that most of the respondents were satisfied with the ICU-Care services but only a few respondents were less satisfied with the ICU-care services.

The result was not consistent with the previous study by Rahman et al (2020) that was conducted in Terengganu, Malaysia. The previous study had concern and caring (1st domain) as the highest satisfaction, followed by the skill, competence and atmosphere in ICU (3rd domain) and the lowest satisfaction goes to consideration of your needs (2nd domain). Concern and caring showed by the ICU staffs will increase the trust between the family members and the ICU staffs. Thus, the family members are confidence to leave their relatives in the care of the ICU staffs Rahman et al. (2020; as cited in Adams et al., 2017). The present study was different because some of the respondents might not feel the caring and concern by the ICU staffs because different respondents had different interpretation of receiving the care; some were satisfied and some were not satisfied.

For consideration of your needs (2nd domain), the result of this study was quite consistent with the previous study that emotional support has the lowest mean score. This study showed that emotional support was the second lowest with (mean = 3.62, SD = 0.636). Emotional support is important in order the healthcare wants to improve the satisfaction among family members (Rahman et al., 2020). Emotional support is especially important during the Covid-19. Most of the respondent were more concerned over the patient's condition but that does not mean the healthcare can neglect the family members' feelings by just focusing on the patient.

Lastly, skill, competence and atmosphere in ICU was ranked the lowest satisfaction. "The atmosphere in the waiting room was satisfactory" was ranked the lowest with (mean = 3.52, SD = 0.666), "We are satisfied with the doctor's skills here" (mean = 3.72, SD = 0.526) and "Good nursing skills" (mean = 3.80, SD = 0.402). The atmosphere in the waiting room might be the contributor to the lowest satisfaction as I believed that most of the ICU staffs in our hospital are good with skills, competence and sincerity.

### **5.7 The Correlation Between the Needs and Satisfaction Among Family Members During Covid-19 Pandemic in ICU HUSM**

Generally, this study showed there is no significant correlation between the needs and satisfaction among family members during covid-19 pandemic in ICU HUSM with  $p\text{-value} > 0.005$ . Therefore, the null hypothesis was accepted. But there are certain needs and satisfaction that showed correlation with each other (Table 4.6). There is significant correlation between assurance and satisfaction concern and caring ( $r = 0.303$ ,  $p = 0.005$ ) and there is significant correlation between assurance and satisfaction consideration of your needs ( $r = 0.274$ ,  $p = 0.011$ ). Furthermore, there is significant correlation between

information and concern and caring ( $r = 0.381$ ,  $p = 0.000$ ) and there is significant correlation between information and consideration of your needs ( $r = 0.300$ ,  $p = 0.005$ ). The findings showed that this study is positive weak to moderate correlation with  $r$  value 0.274 to 0.381. The other needs dimension such as proximity, support and support showed no significant correlation between all of the satisfaction domains with  $p\text{-value} > 0.005$ . So far, there is not much study between the needs and satisfaction among family members in ICU.

For assurance, it is the most important dimension needed by the family members. Assurance helps decreasing uncertainty of patient condition, decrease stress among family members and provides hope for better outcomes Dharmalingam et al. (2016; as cited in Leske, 1992). If assurance needs are met, it also will make the family members satisfied with the concern and caring and consideration of their needs. This is due to assurance dimension involved the needs that required ICU staffs to answer their uncertainty regarding the patient condition. Thus, if the healthcare teams did their best to fulfill the needs, family members will satisfy with their services.

Next, information also found had significant correlation with concern and caring and consideration of your needs which is same with the assurance. There was no study regarding the information and satisfaction. But, it is similar with the assurance. If the ICU staffs constantly give information of the patient condition which is very important to the family members, the family needs are met. Therefore, they were satisfied with the services which showed the correlation of this study.

## **5.8 Strength and Limitation of the study**

The strength of this study is this study was the first conducted regarding the needs and satisfaction among family members during Covid-19 pandemic in ICU, particularly in

Hospital Universiti Sains Malaysia. This study may benefit the ICU staffs team regarding the needs and satisfaction based on the result of this study. It can help the staffs to focus both on family members and the patient by following the ranking of needs. By having the knowledge of this study, ICU staffs able to improve their knowledge in giving care and treatment especially the nurses as they are the closest one to the patient and family members. This eventually will lead to satisfaction among family members and improve the hospital performance.

The data collection for this study was collected by the researcher herself. The respondents also have been approached by the researcher to explain the study by herself. Besides, the Cronbach alpha for questionnaire used in this study were quite high which is 0.906 for CCFNI-M and 0.972 for FS-ICU-M. It showed that the questionnaire was validated and consider reliable. The questionnaire is also in Malay and researcher found that most of the respondents able to answer without any problems.

Aside from that, this study might be helpful for other similar studies because it familiarizes their research team with the protocol used and help to determine whether the instrumentation used is appropriate. The other researcher also able to look at the results of this study and improve more in their future research.

The limitation for this study is due to the Covid-19 pandemic, the relatives were not able to come visit patients during visiting hours. It was quite hard collecting the data through google form since the age of respondents were vary. For example, elder people takes time to answer the questionnaire and contains lot of question which making them feel tired.

Next, some of family members of the ICU patients were emotionally disturbed and the researcher felt that they are inappropriate to be able joining in this study. There are also respondent that rejected to join due to emotionally disturbed. Furthermore, the researcher was lacking in time due to the researcher need to attend her practical training too at the hospital.



## **CHAPTER 6**

### **CONCLUSION AND RECOMMENDATION**

#### **6.1 Introduction**

This chapter will summarize the findings, recommendations for nursing practice, education and research and the conclusion of the study.

#### **6.2 Summary of the Findings**

This cross-sectional study was designed to analyses the needs and satisfaction among family members during covid-19 pandemic in ICU HUSM. A total of 110 respondents were required but only 85 respondents were involved in this study. The data were collected by using self-administered questionnaire.

The finding in this study revealed that assurance was the highest and support was the least need dimension needed among the family members while consideration of your needs was the highest domain satisfied among the family members. Meanwhile, the results revealed that there was significant correlation between the needs (assurance, information) and satisfactions (concern and caring and consideration of your needs) among the family members during Covid-19 pandemic in ICU HUSM.

#### **6.3 Implications and Recommendations**

The following implications and recommendations are offered to further enhance study regarding the needs and satisfaction among family members during Covid-19 pandemic in intensive care unit.

### **6.3.1 Implication to Nursing Practice**

From the nursing aspect, nurses will be beneficial as the study will help them improving the way of giving care and increase higher satisfaction among the family members. With this knowledge, nurses will know which of the needs they need to prioritise the most. Nurses will be able to balance their care not only for patient, but also for the family members. In addition, satisfaction among the family members will increase towards ICU care services if nurses are full with this knowledge which will eventually increase the hospital performance.

Besides, with good knowledge in needs and satisfaction of the family members, it will develop good nurse-client relationship. The family members will put trust on the nurses in giving care to their relatives. Delivering good practices with this knowledge not only good for nurses, but also build confidence among the family members. Apart from nurse's ICU, nursing students are also able to gain this knowledge during learning regarding the intensive care unit to prepare themselves FOR posting at the ICU or critical care department.

### **6.3.2 Recommendation for Future Research**

To improve this study for future research, it is recommended to carry out this research in a larger sample size involving intensive care unit from more public hospital in Malaysia. By conducting the study among larger population, the results can be varying and might affected or be different from other studies. It will produce better data which is more accurate if the study is conducted with larger population. Next, it is recommended to collect the data by face-to-face with the respondents. The family members are able to take it as one of the coping strategy to talk with people compared to the google form.

## **6.4 Conclusion**

In conclusion, it is important to have some knowledge about the needs and satisfaction in ICU. This study proves that assurance is the most needed among the family members as the results was consistent with the other previous study. Not only that, it also proves that our ICU staffs has doing great and giving good care with no much differences between the satisfaction level among the family members.

From this study, we can conclude that no significant correlation between the needs and satisfaction among family members during Covid-19 pandemic but only certain needs dimension has a positive weak to moderate significant correlation with the certain satisfactions. Researcher must also continue to investigate more by having the larger data to provide more accurate data. However, the findings revealed the needs that the most and least important were very helpful to the ICU staffs in improving the delivering of care.

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## 8.0 APPENDICES

### Appendix A: Soal Selidik (Bahasa Malaysia Version)

#### KEPERLUAN DAN KEPUASAN DALAM KALANGAN AHLI KELUARGA SEMASA COVID-19 PANDEMIK DI UNIT RAWATAN RAPI HOSPITAL UNIVERSITI SAINS MALAYSIA

**Pengenalan:** Instrumen ini dibahagikan kepada tiga bahagian dan anda dikehendaki menjawab kesemua soalan ini. Bahagian 1 berkaitan dengan data demografi pesakit. Bahagian 2 berkaitan dengan keperluan yang penting di kalangan ahli keluarga. Bahagian 3 berkaitan dengan kepuasan berkaitan dengan penjagaan.

#### Bahagian 1: Penilaian data demografi

**Arahan:** Sila tandakan “✓” untuk menjawab kesemua soalan.

##### 1. Umur:

##### 2. Jantina:

Lelaki

☐

Perempuan

☐

##### 3. Bangsa:

<input type="checkbox"/>	Melayu
<input type="checkbox"/>	Cina
<input type="checkbox"/>	India
<input type="checkbox"/>	Lain-lain

##### 4. Status perkahwinan:

<input type="checkbox"/>	Berkahwin
<input type="checkbox"/>	Bujang
<input type="checkbox"/>	Janda
<input type="checkbox"/>	Lain-lain

## 5. Tahap pendidikan

	Tidak bersekolah
	Sekolah Rendah
	Sekolah Menengah
	Kolej
	Universiti

## 6. Pekerjaan

	Kerja Kerajaan
	Kerja Swasta
	Kerja Sendiri
	Pesara
	Suri Rumah
	Tidak Bekerja

## 7. Pendapatan isi rumah

	< RM 3,030
	RM 3,030 – RM 6,619
	> RM 6,620

## 8. Saya Adalah:

	Pasangan Kepada Pesakit
	Anak Kepada Pesakit
	Ibubapa Pesakit
	Adik Beradik Pesakit

**Bahagian 2:** Penilaian keperluan yang penting dalam kalangan ahli keluarga semasa Covid-19 pandemik.

**Arahan:** Sila tandakan “✓” setiap item keperluan mengikut kepentingan oleh anda.

**Skala kepentingan:**

Skala 1 = Tidak penting (1)

Skala 2 = Kurang penting (2)

Skala 3 = Penting (3)

Skala 4 = Sangat penting (4)

No	Item	Tahap kepentingan setiap item			
		1	2	3	4
1	Mengetahui keadaan pesakit yang dijangka				
2	Memberi penjelasan tentang persekitaran unit rawatan rapi sebelum masuk				
3	Berbincang dengan doktor setiap hari				
4	Mempunyai pihak hospital tertentu yang boleh dihubungi untuk mengetahui keadaan pesakit apabila ahli keluarga tidak dapat datang				
5	Soalan dijawab dengan jujur				
6	Menukar waktu melawat dalam keadaan tertentu				
7	Membincang tentang perasaan atas perkara yang terjadi				
8	Mempunyai makanan yang baik				
9	Mempunyai arahan tentang perkara yang perlu dilakukan dekat katil pesakit				
10	Melawat pesakit pada bila-bila waktu				
11	Mengetahui staf mana yang dapat memberi informasi tertentu				
12	Mempunyai rakan di sebelah untuk memberi sokongan				
13	Mengetahui mengapa prosedur itu dilakukan untuk pesakit				
14	Mengenali kumpulan staff yang menjaga pesakit				
15	Mengetahui jenis rawatan yang diberikan kepada pesakit				
16	Memastikan rawatan terbaik diberi kepada pesakit				
17	Mempunyai tempat untuk bersendirian seketika semasa berada di hospital				
18	Mengetahui secara pasti apa yang sedang dilakukan untuk pesakit				
19	Mempunyai perabut yang selesa di ruang menunggu				

20	Merasa diterima oleh staf hospital				
21	Mempunyai seseorang untuk memberikan bantuan kewangan				
22	Mempunyai telefon di ruang menunggu				
23	Mempunyai seorang tok imam (ustaz) untuk melawat pesakit				
24	Memberitahu jika ada kemungkinan pesakit meninggal				
25	Membenarkan seorang pengiring bersama saya semasa melawat pesakit di ICU				
26	Mempunyai seseorang yang mengambil berat tentang kesihatan saya				
27	Memastikan bahawa adalah 'ok' untuk meninggalkan hospital untuk seketika				
28	Berbincang dengan jururawat yang sama setiap hari				
29	Berasa 'ok' untuk menangis apabila perlu				
30	Diberitahu bahawa ada orang lain dapat membantu masalah kita				
31	Mempunyai bilik mandi dekat berhampiran bilik menunggu				
32	Dibenarkan bersendirian apabila saya perlu				
33	Memberitahu tentang ada pihak yang dapat membantu dalam masalah keluarga				
34	Diberi penjelasan dalam bentuk yang mudah difahami				
35	Memulakan waktu melawat pada waktu yang telah ditentukan				
36	Diberitahu mengenai perkhidmatan imam				
37	Membantu pesakit dalam penjagaan fizikal				
38	Diberitahu tentang pemindahan tempat pesakit jika dirancang				
39	Membuat panggilan ke rumah jika ada sebarang perubahan kondisi pesakit				
40	Menerima informasi mengenai pesakit sekurang-kurangnya sekali sehari				
41	Merasa bahawa pihak hospital menjaga pesakit				
42	Mengetahui fakta spesifik tentang kesihatan pesakit				
43	Boleh melawat pesakit dengan kerap				
44	Bilik menunggu berhampiran pesakit				

**Bahagian 3:** Penilaian kepuasan penjagaan ahli keluarga anda di Unit Rawatan Rapi semasa Covid-19 pandemik.

**Arahan:** Sila tandakan satu skala nombor yang terbaik bagi menggambarkan perasaan dan pandangan anda.

**Skala kepentingan:**

Skala 1 = Sangat tidak berpuashati (1)

Skala 2 = Tidak berpuas hati (2)

Skala 3 = Berpuas hati (3)

Skala 4 = Sangat berpuashati (4)

KENYATAAN		Tahap kepuasan setiap item			
Keprihatinan dan kualiti penjagaan terhadap pesakit					
1	Pesakit telah dijaga dengan baik oleh staf ICU.	1	2	3	4
2	Budi bahasa staf ICU adalah memuaskan.	1	2	3	4
3	Layanan staf ICU adalah memuaskan	1	2	3	4
4	Rawatan kesakitan telah diberikan dengan baik.	1	2	3	4
5	Rawatan kesukaran bernafas adalah memuaskan	1	2	3	4
6	Rawatan keresahan dan kegelisahan adalah memuaskan.	1	2	3	4
Layanan dan usaha didalam memenuhi keperluan anda					
7	Staf ICU memenuhi keperluan kami dengan memuaskan	1	2	3	4
8	Staf ICU memberi sokongan emosi dengan memuaskan	1	2	3	4
9	Semangat kerja berpasukan kakitangan ICU adalah memuaskan	1	2	3	4
10	Budi bahasa kakitangan ICU memuaskan	1	2	3	4

<b>11</b>	Layanan kakitangan ICU memuaskan	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>12</b>	Komunikasi jururawat adalah memuaskan.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Kemahiran, perawatan dan suasana persekitaran di ICU</b>					
<b>13</b>	Kemahiran jururawat bertugas memuaskan	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>14</b>	Kami berpuashati dengan kemahiran doktor di sini	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>15</b>	Suasana di dalam bilik ICU adalah memuaskan	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>16</b>	Suasana di bilik menunggu adalah memuaskan.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>17</b>	Kebersihan bilik menunggu ICU adalah memuaskan.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>18</b>	Kami berpuashati dengan rawatan yang diberikan oleh doktor di ICU.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>

## **Appendix B: Questionnaire (English Version)**

### **THE NEEDS AND SATISFACTION AMONG FAMILY MEMBERS DURING COVID-19 PANDEMIC IN INTENSIVE CARE UNIT (ICU) HOSPITAL UNIVERSITI SAINS MALAYSIA**

**Introduction:** This questionnaire is divided into three parts and you need to answer all the questions. Part 1 is related to sociodemographic data. Part 2 is related to the important needs among family members. Part 3 is related to care satisfaction.

#### **PART 1: Assessment of Sociodemographic Data**

**Instruction:** Please tick “✓” to answer all the questions.

##### **1. Age:**

##### **2. Gender:**

Male

☐

Female

☐

##### **3. Race:**

<input type="checkbox"/>	Malay
<input type="checkbox"/>	Chinese
<input type="checkbox"/>	Indian
<input type="checkbox"/>	Others

##### **4. Marital status:**

<input type="checkbox"/>	Malay
<input type="checkbox"/>	Chinese
<input type="checkbox"/>	Indian
<input type="checkbox"/>	Others

## 5. Education

	No formal education
	Primary school
	Secondary school
	College
	University

## 6. Occupation

	Government
	Private
	Self-employee
	Retiree
	Housewife
	Jobless

## 7. Household income

	< RM 3,030
	RM 3,030 – RM 6,619
	> RM 6,620

## 8. I am

	Spouse
	Children
	Parent
	Siblings



**Part 2:** Assessment of the important needs among family members during Covid-19 pandemic.

**Instruction:** Please tick “✓” how important each of the following needs is to you.

Important scale:

Scale 1 = Not important (1)

Scale 2 = Slightly important (2)

Scale 3 = Important (3)

Scale 4 = Very important (4)

No	Item	Rating of how important of the items			
		1	2	3	4
1	To know the expected outcome				
2	To have explanations of the environment before going into the critical care unit for the first time				
3	To talk to the doctor every day				
4	To have a specific person to call at the hospital when unable to visit				
5	To have questions answered honestly				
6	To have visiting hours changed for special conditions				
7	To talk about feelings about what has happened				
8	To have good food available in the hospital				
9	To have directions as to what to do at the bedside				
10	To visit at any time				
11	To know which staff members could give what type of information				
12	To have friends nearby for support				
13	To know why things were done for the patient				
14	To feel there is hope				
15	To know about the types of staff members taking care of the patient				
16	To know how the patient is being treated medically				
17	To be assured that the best care possible is being given to the patient				
18	To have a place to be alone while in the hospital				

19	To know exactly what is being done for the patient				
20	To have comfortable furniture in the waiting room				
21	To feel accepted by the hospital staff				
22	To have someone to help with financial problems				
23	To have a telephone near the waiting room				
24	To have a pastor visit				
25	To talk about the possibility of the patient's death				
26	To have another person with you when visiting the critical care unit				
27	To have someone be concerned with your health				
28	To be assured it is alright to leave the hospital for awhile				
29	To talk to the same nurse every day				
30	To feel it is alright to cry				
31	To be told about other people that could help with problems				
32	To have a bathroom near the waiting room				
33	To be alone at any time				
34	To be told about someone to help with family problems				
35	To have explanations given that are understandable				
36	To have visiting hours start on time				
37	To be told about chaplain services				
38	To help with the patient's physical care				
39	To be told about transfer plans while they are being made				
40	To be called at home about changes in the patient's condition				
41	To receive information about the patient at least once a day.				
42	To feel that the hospital personnel care about the patient				
43	To know specific facts concerning the patient's progress				
44	To see the patient frequently				
45	To have the waiting room near the patient				

**Part 3:** Assessment of care satisfaction of your family members in ICU during

Covid-19 pandemic.

**Instruction:** Please tick one numbering scale that best represents your feelings and views.

**Satisfaction scale:**

Scale 1 = Very dissatisfied (1)

Scale 2 = Dissatisfied (2)

Scale 3 = Satisfied (3)


Scale 4 = Very satisfied (4)


STATEMENT		Rate of satisfaction of each items			
Concern and quality of care toward patient					
1	The patient was well cared for by the ICU staff.	1	2	3	4
2	Staff's manners are satisfactory	1	2	3	4
3	ICU staff service was satisfactory.	1	2	3	4
4	Pain treatment has been well administered.	1	2	3	4
5	The treatment for breathing difficulties is satisfactory.	1	2	3	4
6	The treatment for anxiety and restlessness is satisfactory.	1	2	3	4
The service and efforts in meeting your needs.					
7	ICU staff meet our needs satisfactorily.	1	2	3	4
8	ICU staff provide emotional support satisfactorily.	1	2	3	4
9	The teamwork of the ICU staff is satisfactory.	1	2	3	4
10	The ICU staff's manners are satisfactory.	1	2	3	4

<b>11</b>	The ICU staff's service is satisfactory.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>12</b>	The communication of the nurses was satisfactory.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Skills, care, and the atmosphere in the ICU</b>					
<b>13</b>	Good nursing skills.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>14</b>	We are satisfied with the doctor's skills here.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>15</b>	The atmosphere in the ICU room was satisfactory.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>16</b>	The atmosphere in the waiting room was satisfactory.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>17</b>	The cleanliness in the ICU waiting room was satisfactory.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>18</b>	We are satisfied with the treatment given by the doctors in the ICU.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>

## Appendix C: Permission from the Author

Request permission for a soft copy of Malay validated CCFNI Inbox x


 **Fatin Umairah Norazman** Nov 17, 2021, 3:01 PM (20 hours ago) ☆  
Greetings Dr./Prof./Sir./Madam, I am Fatin Umairah Binti Norazman, a final year student, Bachelor of Health Sciences (Nursing) from University of Science, M...


 **kumar vadivel** to me 7:34 AM (3 hours ago) ☆ ↶ ⋮  
Good day  
Attached the questionnaire. Hope it helps. Thank you.  
Regards,  
Kumar  
[Sent from Yahoo Mail on Android](#)


\*\*\*

Activate Windows

Request permission for a soft copy of Family Satisfaction Malay Version Inbox x

 **Fatin Umairah Norazman** Sun, Nov 14, 2:21 PM (4 days ago) ☆  
Greetings Dr./Prof./Sir./Madam, I am Fatin Umairah Binti Norazman, a final year student, Bachelor of Health Sciences (Nursing) from University of Science, M...

 **WAN NOR ALIZA WAN ABDUL RAHMAN** to me Sun, Nov 14, 7:01 PM (4 days ago) ☆ ↶ ⋮  
Walaikumussalam..Thanks for your interest in FS-ICU Malay languages tool. You are welcome to use it. Please acknowledge copyright UniSA in your study and in your article after completing your study.  
\*\*\*

 FSICU Malay versio...

Activate Windows

**MAKLUMAT KAJIAN**

**Tajuk Kajian** : Keperluan dan Kepuasan dalam Kalangan Ahli Keluarga Semasa Covid-19 Pandemik di Unit Rawatan Rapi Hospital Universiti Sains Malaysia  
**Nama Penyelidik** : Fatin Umairah Binti Norazman  
**Penyelidik bersama** : Puan Norliza Binti Hussin

**Pengenalan**

Anda dipelawa untuk menyertai satu kajian penyelidikan secara sukarela. Kajian ini adalah berkaitan dengan keperluan dan kepuasan dalam kalangan ahli keluarga semasa ahli keluarga mereka yang sakit yang sedang dirawat di Unit Rawatan Rapi Hospital Universiti Sains Malaysia. Keperluan di unit rawatan rapi adalah sangat penting kerana ia dapat membantu proses penyembuhan pesakit dan mengurangkan stres keluarga. Hasil daripada kajian ini akan dapat membantu menambah pengetahuan di kalangan kakitangan kesihatan atas keperluan dan kepuasan ahli keluarga di ICU. Seterusnya, adalah penting bagi anda membaca dan memahami maklumat kajian sebelum anda bersetuju untuk menyertai kajian penyelidikan ini. Sekiranya anda menyertai kajian ini, anda akan menerima satu salinan borang ini untuk simpanan anda. Penyertaan anda dalam kajian ini dijangka hanya mengambil masa 10 hingga 15 minit. Seramai 110 orang dijangka akan menyertai kajian ini.

**Tujuan Kajian**

Kajian ini bertujuan untuk menyelidik keperluan dan kepuasan dalam kalangan ahli keluarga semasa Covid-19 pandemik di Unit Rawatan Rapi Hospital Universiti Sains Malaysia.

**Kelayakan Penyertaan**

Penyelidik untuk kajian ini akan membincangkan kelayakan untuk menyertai kajian ini. Adalah penting anda berterus terang dan jujur dengan penyelidik mengenai maklumat yang diminta. Anda perlu memenuhi syarat kriteria untuk mengambil bahagian dalam kajian ini. Anda tidak layak sekiranya tidak memenuhi kriteria-kriteria yang diminta.

Kajian ini akan melibatkan individu yang:

- Ahli keluarga pesakit yang datang menemani di wad Unit Rawatan Rapi semasa kemasukan pesakit.

- Ahli keluarga pesakit yang bertanggungjawab menerima informasi daripada kakitangan hospital.
- Ahli keluarga yang sukarela untuk menyertai.

Kajian ini tidak akan melibatkan individu yang:

- Ahli keluarga pesakit yang lain daripada wad unit rawatan rapi

## **PROSEDUR-PROSEDUR KAJIAN**

Jika anda bersetuju untuk mengambil bahagian dalam kajian ini, anda akan menyertai dengan menjawab soal selidik yang bakal diedarkan oleh penyelidik. Masa yang diperuntukkan untuk menjawab adalah lebih kurang 10 hingga 15 minit.

## **RISIKO**

Kajian ini adalah merupakan soal selidik tinjauan. Jadi, ia tidak melibatkan sebarang prosedur invasif dilakukan ke atas anda. Kajian ini juga telah diseragamkan mengikut piawai, tiada unsur-unsur diskriminasi terhadap kecerdasan anda. Antara risiko yang bakal dihadapi oleh anda adalah anda mungkin berasa keletihan atau kebosanan semasa menjawab soal selidik ini. Sila maklumkan kepada penyelidik yang bertanggungjawab sekiranya anda menghadapi sebarang masalah atau mempunyai maklumat penting yang mungkin mengubah persetujuan anda untuk menyertai kajian ini.

## **MELAPORKAN PENGALAMAN KESIHATAN (Jika Kajian Melibatkan Kesihatan SAHAJA)**

Sila hubungi kakitangan berikut pada bila-bila masa sekiranya anda mengalami sebarang masalah kesihatan, samada berkaitan atau tidak berkaitan dengan kajian ini.

Fatin Umairah Binti Norazman di talian 019-6602154 berikut, secepat mungkin.

## **PENYERTAAN DALAM KAJIAN**

Penyertaan anda dalam kajian ini adalah secara sukarela. Anda berhak menolak untuk menyertai kajian ini atau menamatkan penyertaan anda pada bila-bila masa, tanpa sebarang kehilangan manfaat yang sepatutnya anda perolehi.

Penyertaan anda juga mungkin boleh diberhentikan oleh kakitangan kajian ini tanpa persetujuan anda sekiranya anda didapati tidak sesuai untuk meneruskan kajian ini

berdasarkan protokol kajian. Kakitangan kajian akan memaklumkan anda sekiranya anda perlu diberhentikan dari menyertai kajian ini.

### **MANFAAT YANG MUNGKIN [Manfaat terhadap Individu, Masyarakat, Universiti]**

Prosedur kajian ini akan diberikan kepada anda tanpa kos. Anda boleh menerima maklumat tentang keperluan dan kepuasan ahli keluarga. Hal ini juga dapat membantu mengurangkan stres terhadap ahli keluarga.

Hasil kajian ini diharapkan, dapat memberi manfaat kepada masyarakat umum untuk menambahkan pengetahuan tentang keperluan dan kepuasan ahli keluarga semasa Covid-19 ini.

Anda tidak akan menerima sebarang pampasan kerana menyertai kajian ini. Namun sebarang keperluan perjalanan berkaitan dengan penyertaan ini akan diberikan.

### **PERSOALAN**

Sekiranya anda mempunyai sebarang soalan mengenai prosedur kajian ini atau hak-hak anda, sila hubungi;

**Fatin Umairah Binti Norazman**

Program Kejururawatan  
Pusat Pengajian Sains Kesihatan  
Universiti Sains Malaysia  
Kampus Kesihatan  
16150 Kubang Kerian, Kelantan, Malaysia.  
H/P No: 019-6602154  
Email: fatinumairah16@student.usm.my

**Puan Norliza Binti Hussin**

Pensyarah  
Program Kejururawatan  
Pusat Pengajian Sains Kesihatan  
Universiti Sains Malaysia  
Kampus Kesihatan  
16150 Kubang Kerian, Kelantan, Malaysia.  
H/P No: 014-8169682  
Email: norlizakck@usm.my



Sekiranya anda mempunyai sebarang soalan berkaitan kelulusan Etika atau sebarang pertanyaan dan masalah berkaitan kajian ini, sila hubungi;

**En. Mohd Bazlan Hafidz Mukrim**  
**Setiausaha Jawatankuasa Etika Penyelidikan (Manusia) USM**  
**Bahagian Penyelidikan dan Inovasi (P&I)**  
**USM Kampus Kesihatan.**  
**No. Tel: 09-767 2354 / 09-767 2362**  
**Email : bazlan@usm.my**

**ATAU**

**Cik Nor Amira Khurshid Ahmed**  
**Sekretariat Jawatankuasa Etika Penyelidikan (Manusia) USM**  
**Pejabat Pengurusan dan Kreativiti Penyelidikan (RCMO)**  
**USM Kampus Induk, Pulau Pinang.**  
**No. Tel: 04-6536537**  
**Email: noramira@usm.my**

## **KERAHSIAAN**

Maklumat yang anda berikan akan dirahsiakan oleh kakitangan kajian. Ianya tidak akan dedahkan secara umum melainkan jika ia dikehendaki oleh undang-undang.

Data yang diperolehi dari kajian ini tidak akan mengenalpasti anda secara perseorangan. Hasil kajian mungkin akan diterbitkan untuk tujuan perkongsian ilmu.

Semua borang kajian dan data yang anda berikan yang asal mungkin akan disemak oleh pihak penyelidik, Lembaga Etika kajian ini dan pihak berkuasa regulatori bagi tujuan mengesahkan prosedur dan/atau data kajian klinikal. Maklumat anda akan disimpan dalam komputer dan hanya kakitangan kajian yang dibolehkan sahaja dibenarkan untuk mendapatkan dan memproses data tersebut.

Dengan menandatangani borang persetujuan ini, anda membenarkan penelitian rekod, penyimpanan maklumat dan pemprosesan data seperti yang dihuraikan di atas.

## **TANDATANGAN**

Untuk dimasukkan ke dalam kajian ini, anda atau wakil sah anda mesti menanda kotak berkenan bagi menunjukkan bahawa anda bersetuju untuk menyertai kajian ini.

## Appendix E: Maklumat responden dan borang keizinan responden

## LAMPIRAN S

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### Borang Keizinan Peserta (Halaman Tandatangan)

---

**Tajuk Kajian** : Keperluan dan Kepuasan dalam Kalangan Ahli Keluarga Semasa Covid-19  
Pandemik di Unit Rawatan Rapi Hospital Universiti Sains Malaysia

**Nama Penyelidik** : Fatin Umairah Binti Norazman, Puan Norliza Binti Hussin

Untuk menyertai kajian ini, anda atau wakil sah anda mesti menandatangani mukasurat ini. Dengan menandatangani mukasurat ini, saya mengesahkan yang berikut:

- Saya telah membaca semua maklumat dalam Borang Maklumat dan Keizinan Pesakit ini **termasuk apa-apa maklumat berkaitan risiko yang ada dalam kajian** dan saya telah pun diberi masa yang mencukupi untuk mempertimbangkan maklumat tersebut.
- Semua soalan-soalan saya telah dijawab dengan memuaskan.
- Saya, secara sukarela, bersetuju menyertai kajian penyelidikan ini, mematuhi segala prosedur kajian dan memberi maklumat yang diperlukan kepada doktor, para jururawat dan juga kakitangan lain yang berkaitan apabila diminta.
- Saya boleh menamatkan penyertaan saya dalam kajian ini pada bila-bila masa.
- Saya telah pun menerima satu salinan Borang Maklumat dan Keizinan Peserta untuk simpanan peribadi saya.

---

**Nama Peserta**

---

**No. Kad Pengenalan Peserta**

---

**Tandatangan Peserta** atau Wakil Sah

---

**Tarikh** (dd/MM/yy)  
(Masa jika perlu)

---

**Nama & Tandatangan Individu** yang Mengendalikan  
Perbincangan Keizinan

---

**Tarikh** (dd/MM/yy)

---

**Nama Saksi dan Tandatangan**

---

**Tarikh** (dd/MM/yy)

**Nota:** i) Semua peserta yang mengambil bahagian dalam projek penyelidikan ini tidak dilindungi insuran.

---

**Borang Keizinan bagi Penerbitan Bahan yang berkaitan dengan Peserta Kajian  
(Halaman Tandatangan)**

---

**Tajuk Kajian** : **Keperluan dan Kepuasan dalam Kalangan Ahli Keluarga Semasa Covid-19  
Pandemik di Unit Rawatan Rapi Hospital Universiti Sains Malaysia**  
**Nama Penyelidik** : **Fatin Umairah Binti Norazman, Puan Norliza Binti Hussin**

Untuk menyertai kajian ini, anda atau wakil sah anda mesti menandatangani mukasurat ini.

Dengan menandatangani mukasurat ini, saya memahami yang berikut:

- Bahan yang akan diterbitkan tanpa dilampirkan dengan nama saya dan setiap percubaan yang akan dibuat untuk memastikan ketanpanamaan saya. Saya memahami, walaubagaimanapun, ketanpanamaan yang sempurna tidak dapat dijamin. Kemungkinan sesiapa yang menjaga saya di hospital atau saudara dapat mengenali saya.
- Bahan yang akan diterbitkan dalam penerbitan mingguan/bulanan/dwibulanan/suku tahunan/dwi tahunan merupakan satu penyebaran yang luas dan tersebar ke seluruh dunia. Kebanyakan penerbitan ini akan tersebar kepada doktor-doktor dan juga bukan doktor termasuk ahli sains dan ahli jurnal.
- Bahan tersebut juga akan dilampirkan pada laman web jurnal di seluruh dunia. Sesetengah laman web ini bebas dikunjungi oleh semua orang.
- Bahan tersebut juga akan digunakan sebagai penerbitan tempatan dan disampaikan oleh ramai doktor dan ahli sains di seluruh dunia.
- Bahan tersebut juga akan digunakan sebagai penerbitan buku oleh penerbit jurnal.
- Bahan tersebut tidak akan digunakan untuk pengiklanan ataupun bahan untuk membungkus.

Saya juga memberi keizinan bahawa bahan tersebut boleh digunakan sebagai penerbitan lain yang diminta oleh penerbit dengan kriteria berikut:

- Bahan tersebut tidak akan digunakan untuk pengiklanan atau bahan untuk membungkus.
- Bahan tersebut tidak akan digunakan di luar konteks – contohnya: Gambar tidak akan digunakan untuk menggambarkan sesuatu artikel yang tidak berkaitan dengan subjek dalam foto tersebut.
- 

---

**Nama Peserta**

---

**No. Kad Pengenalan Peserta**

---

**T/tangan Peserta**

---

**Tarikh (dd/MM/yy)**

---

**Nama & Tandatangan** Individu yang Mengendalikan

---

**Tarikh (dd/MM/yy)**

**Nota:** i) Semua peserta yang mengambil bahagian dalam projek penyelidikan ini tidak dilindungi insuran.

**RESEARCH INFORMATION**

***Research Title : The Needs And Satisfaction Among Family Members During Covid-19 Pandemic in Intensive Care Unit (ICU) Hospital Universiti Sains Malaysia***

**Main Researcher's Name:** Fatin Umairah Binti Norazman

**Co-Researcher's Name:** Puan Norliza Binti Hussin

**INTRODUCTION**

You are invited to take part voluntarily in a research study. This research is about the needs and satisfaction among family members when a their sick relative is being treated in the ICU Hospital University Sains Malaysia. The needs are very important in the ICU as it help the healing process of the patient and also able to reduce family member's stress. From the findings of this study, it could help to increase knowledge among the healthcare provider about the needs and satisfaction of family members in the ICU. It is important that you read and understand this research information before agreeing to participate in this study. You will receive a copy of this form to keep for your records if you agree to participate. Your participation in this study is expected to be around 10 to 15 minutes. This study is estimated to include up to 110 participants.

**PURPOSE OF THE STUDY**

The purpose of this study are to determine the needs and satisfaction among family members during Covid-19 Pandemic in ICU HUSM.

**PARTICIPANTS CRITERIA**

The researcher will discussed your eligibility to participate in this study. It is important that you are completely truthful with the researcher regarding the information that will be asked. You need to fulfill the criteria needed to participate in this study. You are not eligible to participate if not fulfill the criterias needed.

This study will include individual who are:

- The patient's family members that came to accompany in ICU ward during first admission
- The patient's family members are responsible for getting information from the healthcare provider.
- The patient's family members are willing to participate.

This study will not include individual who are:

- The patient's family members other than ICU ward.

## **STUDY PROCEDURES**

If you are agree to participate in this study, you will participate by answering questionnaire that will distributed by the researcher. The time allocate for answering the questionnaire is about 10 to 15 minutes.

## **RISKS**

This research study is a survey questionnaire. So, no invasive procedure will be performed on you. The questionnaire in this study also has been standardized which does not contain any discrimination towards the respondents. Some of the risks that you face are you might feel fatigue or boredom during answring the questionnaire. You are welcome to ask the researcher that is responsible for this study if you have any doubts or wish to stop from answering the questionnaire. The information will be kept confidential.

## **REPORTING HEALTH EXPERIENCES.**

Please contact, at any time, the following researcher if you experience any health problem either directly or indirectly related to this study.

Ms. Fatin Umairah Binti Norazman at 019-6602154, immediately.

## **PARTICIPATION IN THE STUDY**

Your taking part in this study is entirely voluntary. You may refuse to take part in the study or you may stop your participation in the study at anytime, without any penalty or loss of benefits to which you are otherwise entitled. Your participation also may be stopped by the research team without your consent if in any form you have violated the study eligibility criteria. The research team member will discussed with you if the matter arises.

## **POSSIBLE BENEFITS [Benefit to Individual, Community, University]**

This findings of this study will give benefits to the family members regarding the needs of family and their satisfaction. This can help reducing the stress that they faced. Other than that, the community also able to gain more knowledge regarding the needs of family members.

## QUESTIONS

If you have any question about this study or your rights, please contact;

**Fatin Umairah Binti Norazman**

Program Kejururawatan  
Pusat Pengajian Sains Kesihatan  
Universiti Sains Malaysia  
Kampus Kesihatan  
16150 Kubang Kerian, Kelantan, Malaysia.  
H/P No: 019-6602154  
Email: fatinumairah16@student.usm.my

**Puan Norliza Binti Hussin**

Pensyarah  
Program Kejururawatan  
Pusat Pengajian Sains Kesihatan  
Universiti Sains Malaysia  
Kampus Kesihatan  
16150 Kubang Kerian, Kelantan, Malaysia.  
H/P No: 014-8169682  
Email: norlizakck@usm.my

If you have any questions regarding the Ethical Approval or any issue / problem related to this study, please contact;

**Mr. Mohd Bazlan Hafidz Mukrim**  
**Secretary of Human Research Ethics Committee USM**  
**Division of Research & Innovation (R&I)**  
**USM Health Campus**  
**Tel. No. : 09-767 2354 / 09-767 2362**  
**Email : bazlan@usm.my**

**OR**

**Miss Nor Amira Khurshid Ahmed**  
**Secretariat of Human Research Ethics Committee USM**  
**Research Creativity & Management Office (RCMO)**  
**USM Main Campus, Penang**  
**Tel. No. : 04-6536537**  
**Email : noramira@usm.my**

## **CONFIDENTIALITY**

Your information will be kept confidential by the researchers and will not be made publicly available unless disclosure is required by law.

Data obtained from this study that does not identify you individually will be published for knowledge purposes.

Your original records may be reviewed by the researcher, the Ethical Review Board for this study, and regulatory authorities for the purpose of verifying the study procedures and/or data. Your information may be held and processed on a computer. Only research team members are authorized to access your information.

By signing this consent form, you authorize the record review, information storage and data process described above.

## **SIGNATURES**

To be entered into the study, you or a legal representative must click on the box to indicate that you agree to participate in the study.



## Appendix G: Subject's information and consent form

ATTACHMENT S

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### Subject Information and Consent Form (Signature Page)

---

**Research Title** : The Needs And Satisfaction Among Family Members During Covid-19 Pandemic In Intensive Care Unit (ICU) Hospital Universiti Sains Malaysia

**Researcher's Name** : Fatin Umairah Binti Norazman, Puan Norliza Binti Hussin

To become a part this study, you or your legal representative must sign this page. By signing this page, I am confirming the following:

- I have read all of the information in this Patient Information and Consent Form **including any information regarding the risk in this study** and I have had time to think about it.
- All of my questions have been answered to my satisfaction.
- I voluntarily agree to be part of this research study, to follow the study procedures, and to provide necessary information to the doctor, nurses, or other staff members, as requested.
- I may freely choose to stop being a part of this study at anytime.
- I have received a copy of this Participant Information and Consent Form to keep for myself.

---

**Participant Name**

---

**Participant I.C No**

---

**Signature of Participant** or Legal Representative

---

**Date** (dd/MM/yy)

---

**Name of Individual**  
Conducting Consent Discussion

---

**Signature of Individual**  
Conducting Consent Discussion

---

**Date** (dd/MM/yy)

---

**Name & Signature of Witness**

---

**Date** (dd/MM/yy)

Note: i) All participants who are involved in this study will not be covered by insurance.

---

**Participant's Material Publication Consent Form**  
**Signature Page**

---

**Research Title** : The Needs And Satisfaction Among Family Members During Covid-19 Pandemic In Intensive Care Unit (ICU) Hospital Universiti Sains Malaysia

**Researcher's Name** : Fatin Umairah Binti Norazman, Puan Norliza Binti Hussin

To become a part this study, you or your legal representative must sign this page.

By signing this page, I am confirming the following:

- I understood that my name will not appear on the materials published and there have been efforts to make sure that the privacy of my name is kept confidential although the confidentiality is not completely guaranteed due to unexpected circumstances.
- I have read the materials or general description of what the material contains and reviewed all photographs and figures in which I am included that could be published.
- I have been offered the opportunity to read the manuscript and to see all materials in which I am included, but have waived my right to do so.
- All the published materials will be shared among the medical practitioners, scientists and journalist world wide.
- The materials will also be used in local publications, book publications and accessed by many local and international doctors world wide.
- I hereby agree and allow the materials to be used in other publications required by other publishers with these conditions:
- The materials will not be used as advertisement purposes nor as packaging materials.
- The materials will not be used out of context – i.e.: Sample pictures will not be used in an article which is unrelated subject to the picture.

---

**Participant Name**

---

**Participant I.C No.**

---

**Participant's Signature**

---

**Date** (dd/MM/yy)

---

**Name and Signature of Individual**

---



**Date** (dd/MM/yy)

Conducting Consent Discussion

Note: i) All participants who are involved in this study will not be covered by insurance.

## Appendix H: Institutional Approval

### i) Ethical approval

 	<p><b>Jawatankuasa Etika Penyelidikan Manusia USM (JEPeM)</b> Human Research Ethics Committee-USM (HREC)</p> <p><b>Universiti Sains Malaysia Campus Kelantan</b> 11212 Kubang Kerian, Kelantan, Malaysia. Tel. : +609 - 767 2000/22562262 Fax. : + 609 - 767 2362 Email : jepem@usm.my Laman Web : www.jepem@usm.my www.usm.my</p>
<p>20<sup>th</sup> February 2022</p> <p>Miss Fatm Umairah Norazman Undergraduate Student (Nursing) School of Health Sciences Universiti Sains Malaysia 16150 Kubang Kerian, Kelantan.</p> <p><b>JEPeM Code : USM/JEPeM/21120800</b> <b>Protocol Title : The Needs and Satisfaction among Family Members During Covid-19 in Intensive Care Unit (ICU) Hospital Universiti Sains Malaysia.</b></p> <p>Dear Miss,</p> <p>We wish to inform you that your study protocol has been reviewed and is hereby granted approval for implementation by the Jawatankuasa Etika Penyelidikan Manusia Universiti Sains Malaysia (JEPeM-USM). Your study has been assigned study protocol code <b>USM/JEPeM/21120800</b>, which should be used for all communications to JEPeM-USM in relation to this study. This ethical approval is valid from <b>20<sup>th</sup> February 2022</b> until <b>19<sup>th</sup> February 2023</b>.</p> <p>Study Site: Hospital Universiti Sains Malaysia.</p> <p>The following researchers are also involved in this study:</p> <ol style="list-style-type: none"><li>1. Mrs. Norliza Hussin</li></ol> <p>The following documents have been approved for use in the study.</p> <ol style="list-style-type: none"><li>1. Research Proposal</li></ol> <p>In addition to the above mentioned document, the following technical documents were included in the review on which this approval was based:</p> <ol style="list-style-type: none"><li>1. Participant Information Sheet and Consent Form (English version)</li><li>2. Participant Information Sheet and Consent Form (Malay version)</li><li>3. Questionnaire (English version)</li><li>4. Questionnaire (Malay version)</li></ol> <p>While the study is in progress, we request you to submit to us the following documents:</p> <ol style="list-style-type: none"><li>1. Application for renewal of ethical approval 60 days before the expiration date of this approval through submission of <b>JEPeM-USM FORM 3(B) 2019: Continuing Review Application Form</b>.</li><li>2. Any changes in the protocol, especially those that may adversely affect the safety of the participants during the conduct of the trial including changes in personnel, must be submitted or reported using <b>JEPeM-USM FORM 3(A) 2019: Study Protocol Amendment Submission Form</b>.</li><li>3. Revisions in the informed consent form using the <b>JEPeM-USM FORM 3(A) 2019: Study Protocol Amendment Submission Form</b>.</li><li>4. Reports of adverse events including from other study sites (national, international) using the <b>JEPeM-USM FORM 3(G) 2019: Adverse Events Report</b>.</li><li>5. Notice of early termination of the study and reasons for such using <b>JEPeM-USM FORM 3(E) 2019</b>.</li><li>6. Any event which may have ethical significance.</li></ol>	

7. Any information which is needed by the JEPeM-USM to do ongoing review.
8. Notice of time of completion of the study using **JEPeM-USM FORM 3(C) 2019: Final Report Form**.

Please note that forms may be downloaded from the JEPeM-USM website:  
[www.jepem.kk.usm.my](http://www.jepem.kk.usm.my)

JEPeM-USM is in compliance with the Declaration of Helsinki, International Conference on Harmonization (ICH) Guidelines, Good Clinical Practice (GCP) Standards, Council for International Organizations of Medical Sciences (CIOMS) Guidelines, World Health Organization (WHO) Standards and Operational Guidance for Ethics Review of Health-Related Research and Surveying and Evaluating Ethical Review Practices, EC/IRB Standard Operating Procedures (SOPs), and Local Regulations and Standards in Ethical Review.

Thank you.

"WAWASAN KEMAKMURAN BERSAMA 2030"

"BERKHIDMAT UNTUK NEGARA"

Sincerely,



**ASSOC. PROF. DR. AZLAN HUSIN**

Chairperson

Jawatankuasa Etika Penyelidikan (Manusia) JEPeM  
Universiti Sains Malaysia



HOSPITAL UNIVERSITI SAINS MALAYSIA  
KAMPUS KESIHATAN, USM  
16150 KUBANG KERIAN, KELANTAN

**BORANG PERMOHONAN  
PENGUNAAN DATA PESAKIT, PERKHIDMATAN  
MAKMAL DAN LAIN-LAIN DI HOSPITAL USM**

**BAHAGIAN A : MAKLUMAT PEMOHON**

NAMA : FATIN UMAIRAH BINTI NORAZMAN  
NO. KAD PENGENALAN : 991216 - 07 - 5058  
ALAMAT/JABATAN : 26, LORONG TELUK AIR TAWAR 1, TAMAN AIR TAWAR INDAH, 13050  
BUTTERWORTH, PULAU PINANG  
PROGRAM AKADEMIK : IJAZAH SARJANA MUDA SAINS KESIHATAN (KEJURURAKATAN)  
PUSAT PENGAJIAN : SAINS KESIHATAN  
NO. TELEFON : 019 - 6602154 EMAIL : fatinumah16@student.usm.my

**TAJUK PENYELIDIKAN / AKTIVITI (jika berkaitan: beside teaching/peperiksaan professional)**

THE NEEDS AND SATISFACTION AMONG FAMILY MEMBERS DURING COVID-19 IN INTENSIVE CARE  
UNIT (ICU) HOSPITAL UNIVERSITI SAINS MALAYSIA

.....

.....

.....

**JENIS & NOMBOR AKAUN GERAN (jika berkaitan: FRGS, RU, Jangka pendek, insentif dll)**

.....

**TEMPOH PENYELIDIKAN / AKTIVITI : Oktober 2021 – Julai 2022**

**SILA SENARAikan NAMA PAKAR/PENSYARAH/STAF/PELAJAR JIKA PERMOHONAN MELIBATKAN  
PENYELIDIKAN, PROJEK INOVASI, LATIHAN INDUSTRI & PEMBELAJARAN.**

**PENYELIDIK UTAMA/KETUA KUMPULAN/PENYELIA UTAMA:**

FATIN UMAIRAH BINTI NORAZMAN

**PENYELIDIK BERSAMA/AHLI KUMPULAN (jika berkaitan):**

1 PUAN NORLIZA BINTI HUSSIN

2.....

3.....

4.....

**PELAJAR SELAJAN/KUMPULAN PELAJAR (jika berkaitan):**

1.....

2.....

3.....

**(JIKA LATIHAN INDUSTRI, SILA NYATAKAN TEMPAT ASAL PENGAJIAN/KERJA PELAJAR)**

.....

**BAHAGIAN B : PERMOHONAN PENGGUNAAN DATA PESAKIT, PERKHIDMATAN MAKMAL DAN LAIN-LAIN**  
(sila tanda ( / ) dinuang yang disediakan)

**MAKLUMAT DIPERLUKAN**

☒ **PENGGUNAAN DATA PESAKIT**

- Tujuan ☐ Pengajaran dan pembelajaran  
☒ Penyelidikan  
☐ Projek inovasi  
☐ Latihan industri

Tarikh Mula : Januari 2022

Tarikh Tamat : Mac 2022

Penerangan : .....

**PERKHIDMATAN MAKMAL**

- |  |   |
|--|---|
| <input type="checkbox"/> MAKMAL PATOLOGI KIMIA | <input type="checkbox"/> MAKMAL FARMAKOKINETIK            |
| <input type="checkbox"/> MAKMAL ENDOKRIN       | <input type="checkbox"/> MAKMAL FARMAKOLOGI (TOKSIKOLOGI) |
| <input type="checkbox"/> MAKMAL HEMATOLOGI     | <input type="checkbox"/> MAKMAL TRANSFUSI PERUBATAN       |
| <input type="checkbox"/> MAKMAL MIKROBIOLOGI   | <input type="checkbox"/> PUSAT GENOM                      |
| <input type="checkbox"/> MAKMAL HISTOPATOLOGI  | <input type="checkbox"/> NEURO SAINS                      |
| <input type="checkbox"/> MAKMAL IMUNOLOGI      | <input type="checkbox"/> PERKHIDMATAN RADIOLOGI           |

- Tujuan ☐ Pengajaran dan pembelajaran  
☐ Penyelidikan  
☐ Projek inovasi  
☐ Latihan industri

Tarikh Mula : .....

Tarikh Tamat : .....

Penerangan : .....

**LAIN-LAIN PERKHIDMATAN**

☐ **ASET MUDAH ALIH (ventilator, ultrasound, SPO2, x-ray dll)**

Sila senaraikan : .....

☐ **INFRASTRUKTUR (ruang/waditilik rawatan/klinc dll)**

Sila senaraikan : .....

☐ **IVENTORI (peralatan pejabat/ct/perabot/alat gunahabis)**

Sila senaraikan : .....



☐ **SUMBER MANUSIA** (Jurawat, Pembantu Perawatan Kesihatan, Houseman dll)  
Sila senaraikan:

- Tujuan ☐ Pengajaran dan pembelajaran  
☐ Penyelidikan  
☐ Projek inovasi  
☐ Latihan industri

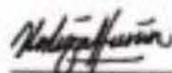
Tarikh Mula : .....

Tarikh Tamat : .....

Penerangan : .....

**BAHAGIAN C : PENGESAHAN KETUA JABATAN/PENYELIA**

Dengan ini saya mengesahkan / tidak mengesahkan maklumat yang di pohon memandangi keperluan Pengajaran & Pembelajaran, Penyelidikan dan Projek Inovasi



**NORLIZA HUSSEIN**  
Pembantu Pengajar (Pembantu)  
Klinik Pengajar (Klinik) & Klinik  
Klinik & Klinik (Klinik) & Klinik

12/12/21

(Tandatangan & Cap Rasmi)

(Tarikh)

**BAHAGIAN D : KEGUNAAN PEJABAT**

☒ Diperakukan ☐ Tidak Diperakukan

Ulasan / Komen : .....

**MOHD SABERI BIN MOHD YUSOF**  
TIDAKALAN PENDAFTAR KLINIK  
Hospital Universiti Sains Malaysia  
16150 Kubang Keratan, Kelantan 09000

(Tandatangan & Cap Rasmi)

**BAHAGIAN E : KELULUSAN PENGARAH HOSPITAL USM**

☒ Diluluskan ☐ Tidak Diluluskan

Ulasan / Komen : .....

**PROF. DATO' DR. NIK HISAMUDDIN NIK AB. RAHMAN**

No. MAM : 32959

(Tandatangan & Cap Rasmi)

Pengarah

Hospital Universiti Sains Malaysia

16150 Kubang Keratan, Kelantan

**Nota :**

1. Maklumat ini hanya diberikan kepada Pengajaran & Pembelajaran, Penyelidikan dan Projek Inovasi: sesuai dengan sahaja tanpa melibatkan pembentangan dan penyediaan luar.
2. Sila lampirkan ringkasan projek pengajaran & pembelajaran, penyelidikan dan projek inovasi yang dipersetujui oleh Penyelia.
3. Sila tembakkan satu salinan borang ini ke Jawatankuasa Etika Penyelidikan Manusia (JPEM)

## Appendix I: Gantt Chart and Planned Research Milestone

(Project Starts October 2021 – End July 2022)

No.	Project Activities	2021			2022						
		Oct	Nov	Dec	Jan	Feb	Mac	Apr	May	Jun	July
1.	Selection of research topic, proposal preparation and presentation, ethical approval										
2	Data collection										
3	Data analysis										
4	Thesis write up										
5	Thesis draft submission for evaluation										
6	Final presentation										
7	Thesis correction & final report writing										
8	Submission of thesis (final draft)										

### PLANNED RESEARCH MILESTONE

November 2021 : Completion of proposal preparation  
 January 2022 : Completion of proposal presentation  
 March 2022 : Ethical approval granted  
 April 2022 : Completion of data collection  
 May 2022 : Completion of data analysis  
 June 2022 : Completion of thesis writing and final presentation  
 July 2022 : Thesis submission



