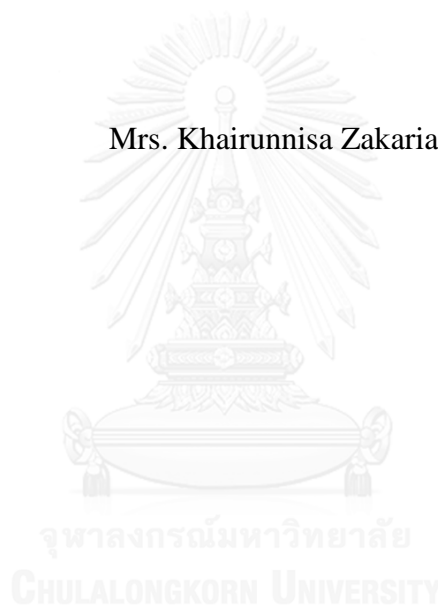


KNOWLEDGE ATTITUDE AND PRACTICE OF PSYCHOLOGICAL FIRST AID
AMONG HEALTH PROFESSIONALS WORKING IN ACCIDENT &
EMERGENCY DEPARTMENT IN BRUNEI DARUSSALAM

Mrs. Khairunnisa Zakaria



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ความรู้ ทักษะ และ การปฏิบัติต่อการปฐมพยาบาลด้านจิตใจ ของบุคลากรวิชาชีพ
สาธารณสุข แผนกอุบัติเหตุและฉุกเฉิน ในประเทศบรูไน ดารุสซาลาม



วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาสาธารณสุขศาสตรมหาบัณฑิต
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ความสำคัญของปัญหา

สุขภาพจิตเป็นปัจจัยสำคัญต่อสุขภาพ การปฐมพยาบาลด้านจิตใจเป็นการบำบัดรักษาที่เป็นประโยชน์ในระยะยาวสำหรับผู้ที่ประสบกับภาวะความเครียดจากเหตุการณ์วิกฤตต่างๆ อาทิภัยพิบัติหรืออุบัติเหตุ ที่พึงได้รับการช่วยเหลือขั้นพื้นฐาน การศึกษานี้มีวัตถุประสงค์เพื่อหาสัดส่วนการการปฏิบัติต่อการปฐมพยาบาลด้านจิตใจ ของบุคลากรวิชาชีพสาธารณสุข แผนกอุบัติเหตุและฉุกเฉิน ในประเทศบรูไน ดารุสซาลาม และประเมินความรู้และทักษะต่อการปฏิบัติต่อการปฐมพยาบาลด้านจิตใจ

วิธีการ

การวิจัยครั้งนี้เป็นการศึกษาภาคตัดขวาง ในกลุ่มของบุคลากรวิชาชีพสาธารณสุขในประเทศบรูไน ดารุสซาลาม ระหว่างเดือนพฤษภาคม-มิถุนายน 2560 มีการทดสอบแบบสอบถามก่อนที่จะนำไปใช้กับกลุ่มตัวอย่าง การเก็บข้อมูลเป็นการตอบแบบสอบถามด้วยตนเอง การศึกษาครั้งนี้ได้ใช้โปรแกรมสำเร็จรูป SPSS (Version 19) ในการวิเคราะห์ข้อมูลทางสถิติ

ผลการวิจัย

ผลการวิจัยพบว่า จากกลุ่มตัวอย่างของบุคลากรวิชาชีพสาธารณสุข แผนกอุบัติเหตุและฉุกเฉิน จำนวน 123 คน ไม่มีผู้ใดได้รับการอบรมเกี่ยวกับการปฐมพยาบาลด้านจิตใจ อย่างไรก็ตามในจำนวนนี้ ร้อยละ 39 มีความรู้ในระดับปานกลาง ร้อยละ 42.3 มีทัศนคติทางบวกต่อการการปฐมพยาบาลด้านจิตใจ และร้อยละ 51.2 มีการปฏิบัติต่อการปฐมพยาบาลด้านจิตใจในระดับปานกลาง นอกจากนี้กลุ่มตัวอย่างจำนวนร้อยละ 48.3 กล่าวว่าตนเองได้มีการการปฏิบัติต่อการปฐมพยาบาลด้านจิตใจอย่างน้อยหนึ่งครั้งในการปฏิบัติงาน

สรุป

การวิจัยครั้งนี้พบว่า กลุ่มตัวอย่างมีความรู้และการปฏิบัติต่อการปฐมพยาบาลด้านจิตใจในระดับปานกลาง การศึกษาวิจัยครั้งต่อไปควรรักษาถึงทักษะของบุคลากรวิชาชีพสาธารณสุข และผลลัพธ์ที่ได้จากการปฐมพยาบาลด้านจิตใจ

สาขาวิชา สาธารณสุขศาสตร์

ปีการศึกษา 2559

ลายมือชื่อนิสิต

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KHAIRUNNISA ZAKARIA: KNOWLEDGE ATTITUDE AND PRACTICE OF PSYCHOLOGICAL FIRST AID AMONG HEALTH PROFESSIONALS WORKING IN ACCIDENT & EMERGENCY DEPARTMENT IN BRUNEI DARUSSALAM. ADVISOR: MONTAKARN CHUEMCHIT, Ph.D., 70 pp.

Background: Mental health is an important and integral factor of health. Psychological first aid (PFA) is seen as a beneficial treatment in the long run in order to make sure that any individual who is undergoing acute stress due to a disaster, emergency or crisis is able to receive basic support. This study was done to determine the proportion of PFA among emergency health professionals in Brunei Darussalam and assess their knowledge and attitude towards PFA practice.

Methods: A cross-sectional survey study was conducted among emergency health professionals in Brunei Darussalam from end of May to early June 2017. Pilot testing was done prior to handing out interview-assisted, self-administered questionnaires to the study population. Descriptive statistics was performed by SPSS version 19.

Results: A total sample of 123 health professionals working in the emergency department responded to the questionnaire. None of the emergency health professionals received PFA training, however, 39.0% had moderate level of knowledge, 42.3% had positive attitude towards PFA and 51.2% practice PFA on a moderate level. 48.3% claimed to have performed PFA at least once in their professional life.

Conclusion: This study found moderate level of knowledge and practice of PFA among health professionals. Further research will be required to measure the skills of staff and outcome of PFA.

Field of Study: Public Health

Academic Year: 2016

Student's Signature

Advisor's Signature

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LIST OF ABBREVIATIONS

AED	Accidents and Emergency Department
KAP	Knowledge, Attitude and Practice
MoH	Ministry of Health
PFA	Psychological First Aid
PTSD	Post-Traumatic Stress Disorder
SDA	Sustainable Development Agenda
SPSS	Statistical Package for Social Sciences
UNGA	United Nations General Assembly
UNHCR	United Nations High Commissioner for Refugees
WHO	World Health Organization

CHAPTER I – INTRODUCTION

1.1 Background

Mental health is a state of wellbeing in which anyone are able to recognize their own potential, manages their normal life stressors, work effectively, and is able to make a contribution to their community (Organization, 2016). There are many elements of mental health such as various psychosocial and biological factors. Furthermore, poor mental health can be related to abrupt social change, stress, gender discrimination, social exclusion, high risk lifestyle, violence, physical health and human rights violation. Mental health is an essential and integral component of health as it has been repeatedly emphasized that there is no health without mental health. 1 in every 4 people will be affected by some form of mental disorder (Organization, 2001). That means about 1.8 billion or 25% of the world general population is likely to be affected by mental illness.

In Brunei Darussalam, the number of patients that attended mental health specialist outpatient services had increased over the last few years. According to the Health Information Booklet 2015, 15,509 patients attended mental health specialist outpatient departments in 2015 and this figure had risen from 14, 626 outpatient attendees in 2011(health, 2015). Although it seems that the increase is small, it is suspected that there are more people who are not diagnosed as stigma and stereotyping towards mental illness is still very strong in the Brunei community. In addition, there is no information found on the total number of patients that had been diagnosed with any form of mental illness or those who are receiving treatment in an inpatient setting.

Mental health is an important public health issue as it affects anyone of all ages, gender and background. This can be seen through the multiple efforts of many organizations, such as WHO, United Nations and World Bank, in addressing the importance of mental health and mental wellbeing. In 2015, the United Nations General

Assembly had adopted the promotion of mental health and wellbeing into their Sustainable Development Agenda, which was mentioned in the SDG number 3.4 (Organization, 2017). This shows that importance of mental health within global development and health priorities is recognized worldwide.

In the recent World Mental Health Day, which is observed every 10th October, “psychological first aid” was covered as the theme of the year 2016. Psychological first aid (PFA) is seen as an asset in the long run in order to ensure that any individual who is going through acute distress due to an emergency, disaster or crisis is able to receive basic support. It was also recommended that those individuals who need more than PFA will get further advanced support from health, mental health and social services (Organization, 2016).

It is difficult for people undergoing crisis to cope with what they are experiencing and it is also difficult for health professionals to seek and support those who are suffering. However, often people undergoing stressful situations such as accidents and trauma would go to or be taken to the emergency department. The International Medical Corps helped developed the PFA guideline published by WHO in 2011 to help those undergoing stressful situation cope with their concerns and also raise a positive and supportive environment for the a better mental health and mental wellbeing(Corps., 2015). They also would like to bring forward this skill to emergency responders worldwide as they have seen improved care that were provided during crisis.

1.2 Rationale

According to Brunei’s Ministry of Health (MoH) in their Health Information Booklet 2015 report, the outpatient attendance in emergency department in 2015, in all four public hospitals was 193,120 (health, 2015). This shows a rise in outpatient attendee when compared to the 189,597 visits in 2013. Although, the number of

emergency cases seems small when compared to other countries, it is a large number (46% of the population) to Brunei as the population is approximately 417,200 people (health, 2015). Unfortunately, local statistics on mental health problem in emergency cases cannot be found.

Although mental health services in Brunei had existed for a long time, they are still inadequate. The growth of mental health in Brunei can be considered slow as Brunei Darussalam's Mental Health Order is just over 2 years old, being launched on November 2014 in order to replace the 1929 Lunacy Act. Research on any field in Brunei is also very limited. After searching well, there is no study found on the knowledge, attitude and practice of psychological first aid among health professionals working in Brunei Darussalam.

In recent years, there had been many occurrences in natural disasters and accidents in the world. The highest occurrence of natural disasters was 526 events in 2002 (Disasters, 2016). The cases of natural disasters and accidents had been increasing since the 1940s. Although the cases are decreasing, it is still high. In 2015, 394 natural disasters happened in worldwide (Disasters, 2016). In Brunei, floods often occur during the rainy season between Octobers to May. In records, floods have occurred six times in Brunei since 1960s and killed 10 people. Brunei has also experienced small earthquakes in 1992 and 2005 (Centre, 2015). However, some damages due to natural disasters that occurred in 2009 and 2010 were not recorded in EM-DAT (The International Disaster Database). There is still lack of correct information on the actual number of incidences on Brunei's natural disasters and accidents.

Natural disasters and accidents can result in stressful situations. It is essential to remember that during stressful situations, more people are mentally affected by a crisis or disaster than the actual number of physically affected or injured people. Distressful events can occur at a large scale or at an individual level. Large scale events can mean

natural disasters and wars. An event happening at an individual level would be at a small scale such as accidents, loss of loved ones and domestic violence. PFA should be done immediately after an event; however, it can range from immediately after the event up to a week. It is important to keep in mind that PFA is not a clinical or psychiatric intervention. However, it can be a part of a good clinical care. Like physical first aid, psychological first aid cannot treat a condition alone. The most effective way is to combine it with other health intervention.

Since one of PFA's aims is to give support and practical response to the people who just experienced some form of stressful event or emergency, it is appropriate for health professionals working in the emergency department to know some basic form of PFA as they are the ones who will be the first responders in any emergency. Furthermore, PFA among health professionals can help the patient or attendee that is going through a crisis.

It is important for the researcher to conduct this study because the researcher believes a holistic approach to health care service and delivery is more efficient than focusing on one aspect of health. Health professionals working in emergency departments are admirable at treating various physical injuries or health conditions. However, the researcher would like to know more if psychological support such as PFA is also given with the physical treatments.

1.3 Research Questions

1.3.1 What is the prevalence of practice on PFA among health professionals working in Accidents & Emergency department of all four public hospitals in Brunei Darussalam?

1.3.2 What are the socio-demographic characteristics, knowledge, attitude, enabling factors and practice on PFA among health professionals working in Accidents & Emergency department of all four public hospitals in Brunei Darussalam?

1.3.3 Is there any association between socio-demographic characteristics, knowledge, attitude, enabling factors and practice on PFA among health professionals working in Accidents & Emergency department of all four public hospitals in Brunei Darussalam?

1.4 Research Objectives

1.4.1 To determine the proportion of practice on PFA among health professionals working in Accidents & Emergency department in Brunei Darussalam.

1.4.2 To describe the socio-demographic characteristics, knowledge, attitude, enabling factors and the practice of PFA among health professionals working in Accidents & Emergency department in Brunei Darussalam.

1.4.3 To identify the association between socio-demographic characteristics, knowledge, attitude, enabling factors and practice on PFA among health professionals working in Accidents & Emergency department in Brunei Darussalam.

1.5 Research Hypotheses

1.5.1 There is association between socio-demographic characteristics and the practice of PFA among health professionals working in Accidents & Emergency department in Brunei Darussalam.

1.5.2 There is association between knowledge and the practice of PFA among health professionals working in Accidents & Emergency department in Brunei Darussalam.

1.5.3 There is association between attitude and the practice of PFA among health professionals working in Accidents & Emergency department in Brunei Darussalam.

1.5.4 There is association between enabling factors and the practice of PFA among health professionals working in Accidents & Emergency department in Brunei Darussalam.

1.6 Operational Definitions

Psychological first aid (PFA) refers to having basic mental health training or PFA training, being able to identify individuals who need urgent psychosocial support, approach them and offer them access to correct information or referral to needed services that may make them feel better.

Health professionals are doctors, nurses and any health staff that directly deals with patients or attendees in the AED.

Socio-demographic characteristics include age, gender, education level, occupation, workplace branch and number of years working in current occupation of the respondents.

Age refers to the self-reported age of the respondents on his/her last birthday.

Gender refers to the gender of the respondent; male or female.

Educational level refers to the highest and latest level of education that the respondent possesses during the time of the study. This is classified into four categories; “Diploma”, “Bachelor”, “Masters” and “Others”.

Occupation refers to the current profession that the respondent holds in the AED for instance doctors, nurses or nursing officer.

Workplace branch refers to the AED branch the respondent works in during the study. This is categorized into four groups; “RIPAS Hospital”, “PMMPMHAMB Hospital”, “SSB Hospital” and “PIHM Hospital”.

Number of years working in current occupation refers to the number of years the respondent has been working in the current occupation during the time of the study.

Knowledge refers to the level of knowledge of the respondent regarding PFA including self-reportedly have the ability to identify the signs and symptoms of acute stress, who to prioritize and the services available for referral.

Attitude refers to the respondent’s viewpoint towards the importance of learning PFA, whether they feel they have adequate knowledge and skills to perform PFA and if they have confidence in performing PFA.

Practice refers to applying knowledge of the respondent in PFA and putting it into action.

Enabling resources refers to the availability of guidelines, policies and training in PFA that the health professionals can follow.

Need refers to immediate cause to perform PFA to the people in need, in which depends on how they perceived the severity of the case of the service user.

Perceived severity refers health professional’s recognition of signs and symptoms of acute stress that requires PFA to be performed.

1.7 Conceptual Framework

Independent variables

Dependent variables

Predisposing characteristics

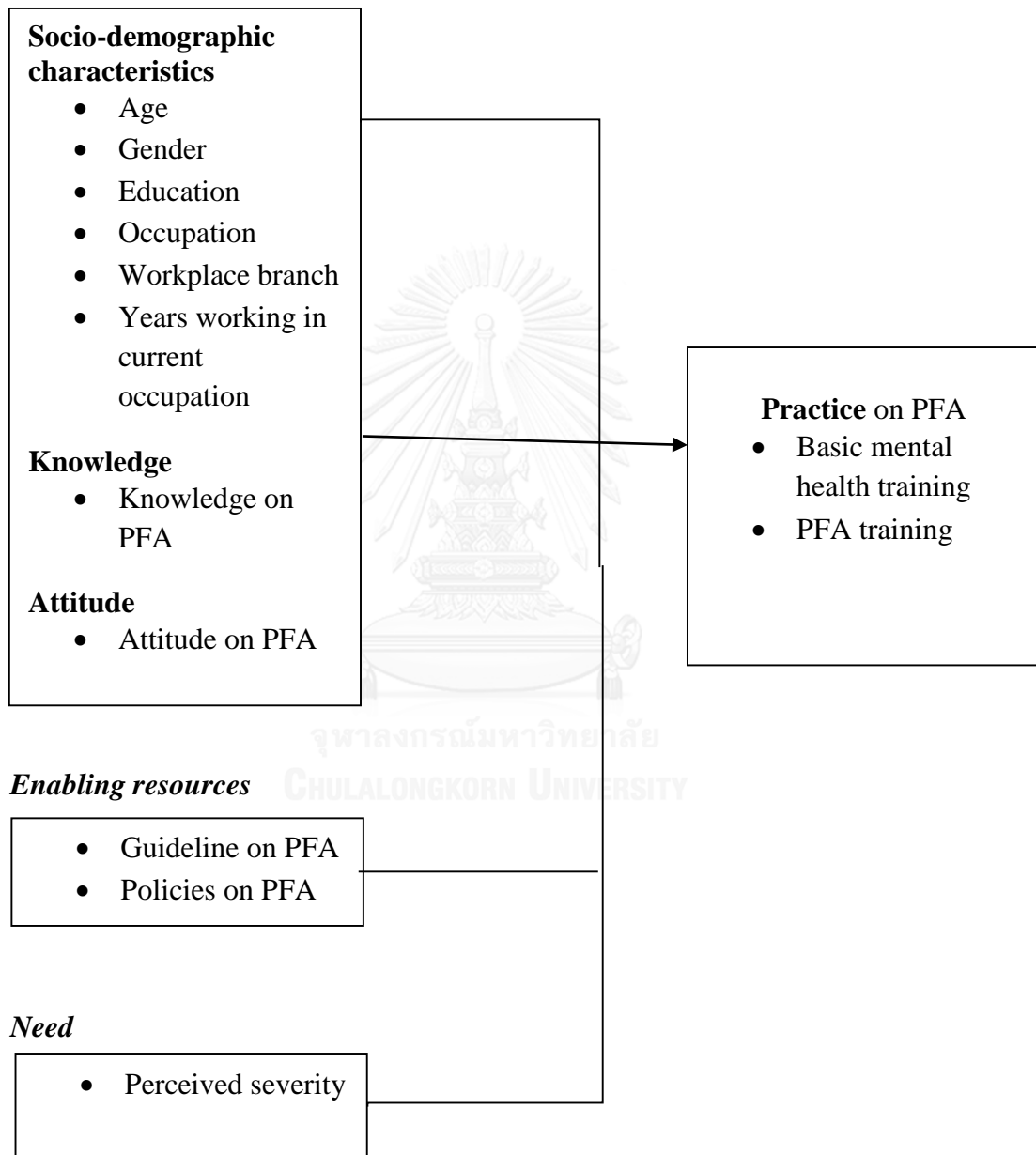


Figure 1. Conceptual Framework

CHAPTER II – LITERATURE REVIEW

2.1 Psychological First Aid

Psychological first aid or PFA, is a front line psychosocial support for people that had experienced a traumatic event or crisis. Like physical first aid, PFA should not be administered as a sole treatment but rather as part of a multi component of treatment. PFA should be performed immediately or up to a few weeks after a traumatic experience. It is a non-intrusive practical care and support which helps assess and address the basic needs of the individual undergoing a distressful situation. PFA is also used to help connect the people experiencing trauma with information; such as updates on the situation and services; that may calm and comfort them (Organization, 2011b).

PFA does not always need to be provided by mental health professionals. It can be performed anywhere; such as community centers, health centers or scene of accident. PFA can also be provided by anyone from general health staff to the public. Training of PFA only takes a minimum half a day and no equipment is needed in order to perform PFA which makes PFA resource efficient. Psychosocial support during or immediately following an event can be beneficial for those in distress (Organization, 2016). However, this study will focus on health professionals working in emergency departments as they are the first responders who will deal with people facing stressful events.

In 2011, WHO published “Psychological first aid: Guide for field workers” as a guideline on providing PFA (Organization, 2011b). The three key action principles of PFA are to look, listen and link. Good communication was also emphasized in order to perform PFA. The first step in PFA is to be prepared in understanding the overall situation of the crisis in order to provide PFA more effectively. First responders or people working in emergencies need to learn about the crisis event, know about available services and supports; and identify safety and security concerns. Next, *look*

for safety of the individual or group of distressed people and identify for people with obvious urgent basic needs while prioritizing on people with severe distress responses. Those who are more likely to be prioritized are children, including adolescents; people with physical and mental health conditions, elderly people, pregnant women and people of a certain ethnic groups that are at risk of discrimination or violence. Following is *listen* – this is when the first responders approaches the people who may need support and inquire about their needs and worries. The listening process is essential because this process will help them to feel calm. Finally, the person providing the PFA should *link* the people with proper, practical support. This support addresses the basic needs of the individual undergoing crisis and offers them access to needed services. Also, by giving them accurate and relevant information about the stressful situation, how to connect with their loved ones and other social supports will enable them to cope with their concerns. It is also important to remember that PFA is often a one-time intervention but it will help those affected use their coping skills to recover in the long run.

2.2 Stress

2.2.1 Definition

The term ‘stress’ was first defined by Hans Selye as the “non-specific response of the body to any demand for change”(Selye, 1936). It affects everyone and each individual has different responses and coping mechanism towards stress. Some people may react strongly to minimal stressors while some may recover faster than others (N. I. o. M. Health)

Acute stress or traumatic stress happens after an individual had experience a strong, negative or life-threatening situation and is highly affected by it (Stress, 2017). Experiencing trauma is not a new phenomenon as humans throughout history have experienced disasters and calamities. Although not all stress is bad, prolonged exposure

to stress may disturb one's sleep, suppress the immune system and affect the digestive and reproductive systems. It may also lead to mental health problems such as depression and anxiety.

On the other hand, posttraumatic stress disorder (PTSD) is often used loosely with acute stress. Although they have similar diagnostic criteria, acute stress can only be diagnosed in the first month after the person experienced a traumatic event, while PTSD is assessed beyond one month of the traumatic exposure. A person experiencing acute stress and is untreated, is predicted to be more likely to develop PTSD after six months of the initial exposure with the stressor (PTSD, 2016).

2.2.2 Causes

Causes of acute stress can be divided into large scale incidents and individual level incidents. War, terrorist attacks and natural disaster; such as floods, earthquakes or fire; are categorized as large scale. Road traffic accidents, physical or sexual assault, domestic violence or abuse, witnessing unexpected death of a family member or close friend and other extremely stressful or upsetting events are categorized as stressors at an individual level (A. C. f. P. M. Health).

2.2.3 Signs and symptoms of acute stress

In order to provide proper acute stress management, it is important to recognize the signs and symptoms of acute stress. Signs and symptoms of acute stress can be divided into four parts: (i) physical; (ii) emotional; (iii) cognitive; and (iv) spiritual.

Physical signs and symptoms	Thirst, fatigue, headaches, racing heart, shock, gastro-intestinal distress, sweating, muscle tremors, chills.
Emotional signs and symptoms	Emotional shock, sadness, frustration, anger, irritability, feeling overwhelmed, anxiety, fear, panic, withdrawal.
Cognitive signs and symptoms	Mental confusion, inability to concentrate, poor attention span, difficulties in problem solving, memory disruptions, inability to calculate, impaired decision making, time distortions.
Spiritual signs and symptoms	Anger at god, withdrawal from faith-based community, cessation of faith-related practices.

Table 1. Four types of stress and symptoms (Academy, 2014)

2.2.4 Global situation

An estimated 252 million of the world's population has suffered from PTSD (Organization, 2013b). With this, WHO co-published a new protocol with the United Nations High Commissioner for Refugees (UNHCR). The new protocol guides primary health-care workers that offer basic psychosocial support to people in distress. Identifying stressors and strengthening the people's coping mechanism and social support were among the types of support that can be offered to the people in need. Furthermore, this also includes psychological first aid and stress management (Organization, 2013a).

A survey of the general population from 24 countries across six continents found over 70% of the respondents reported to have had experience some sort of

traumatic event. Among them, 30.5% had reported to have experience at least four different type of crisis situation such as being involved in a road traffic accident, robbed, having life-threatening illness or injury, witnessing death or the unexpected death of a loved one (Benjet et al., 2016).

2.2.5 Local situation

Fortunately, in the Brunei context, it is free from large scale disasters such as wars, terrorist attacks, earthquakes, tsunamis or volcanic eruptions. On the other hand, Brunei does experience occasional thunderstorms and flooding during the wet and rainy season, which sometimes cause landslides. The flooding usually affects the population's daily life, especially going to work or school, as there are not many alternative main roads that can be used for a detour. Some of the people that live in the rural area would have difficulty during the wet, rainy season because they only have one small road going through their area. However, during the hot and dry season, Brunei sometimes experience forest fires and moderate to heavy haze (Management, 2014). This can be a dangerous hazard because more than 72% of Brunei Darussalam is covered in forest and there are still many of the population that lives near the forest areas (Bank, 2016). Individual level incidents are a more common stressor in Brunei. The crime rate such as robbery and assault in Brunei, although present, is low. While road traffic accidents are decreasing, it is still one of the ten leading causes of death in Brunei Darussalam (health, 2015). Many are traumatized with the close-encounter to death, death of a family member or their loved ones from road traffic accidents. Scene of road traffic accident and emergency departments are places where the distressed can be found.

2.2.6 Acute stress management

There are several recommendations to manage stress such as Cognitive Behavioral Therapy (CBT) with trauma focus, early psychological intervention,

relaxation techniques, psycho-education and pharmacological interventions. The main choice of management would be CBT, however, CBT with a trauma focus can only be provided by a qualified and competent professional (Organization, 2013a). It also needs a lot of time per session which does not compliment the time and workload in emergency departments.

Alternatively, WHO had also recommended psychological first aid as one of the management of people who had undergone a traumatic experience (Organization, 2010). If resources are available, a combination of psychological first aid and CBT should be considered. In Brunei, psychotherapy in the form of behavior therapy and cognitive behavioral therapy are the main available management options (Baker, 2012). Otherwise, psychological first aid should be provided with other interventions such as pharmacological treatment (benzodiazepines), psycho-education and relaxation techniques.

The natural reaction for our body when facing stress is the fight or flight response, in which hormones are temporarily being flooded in the body that increases heart rate, blood pressure and boosts one's energy. However, when stress is not managed properly, the body might be stuck in the fight or flight response. As a result, it can have serious concerns to one's health (Association, 2013). Minor concerns may include headaches, stomach aches and insomnia. On the other hand, various studies have shown that stress can trigger arrhythmias, heart attack and even sudden death (Davidson, Mostofsky, & Whang, 2010; Denollet, Schiffer, & Spek, 2010; Krantz, Whittaker, & Sheps, 2011).

2.3 Health professionals in emergency department

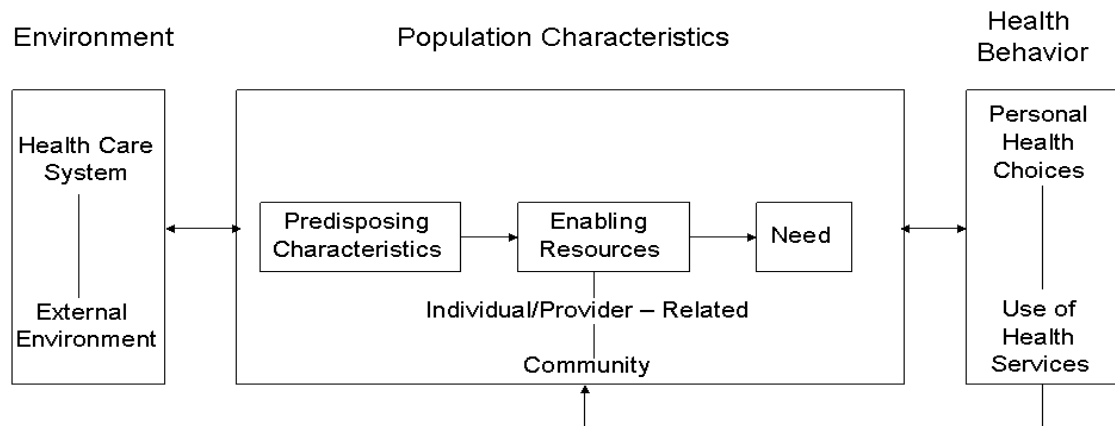
Health professionals and paramedics working in the Accident and Emergency department are the first line of people that deals with people in emergency situations.

Not only that, emergency department staffs often see a number of patients coming in with different types of complaints. Therefore, a set of different skills and knowledge is required for those who are working in the emergency department in order to deliver a holistic health care. Yet, the majority of Bruneian doctors and nurses working in the primary care setting was reported to not receive mental health training within the last five years (Organization, 2011a). The human resource for mental health care was 20.3 staffs per 100,000 population (Organization, 2015). Generally, the median number of mental health workers is 9 per 100,000 populations, nevertheless, there is extreme difference from below 1 per 100,000 populations in low income countries to over 50 in high income countries (Organization, 2015). However, the numbers of emergency staff with mental health training background are unknown. Therefore, it is not unusual to find out whether the health professionals working in the emergency department has adequate knowledge and appropriate attitude towards psychosocial interventions, specifically on PFA.

2.4 Andersen's behavioral model

This model was developed by Ronald M. Andersen in 1968 (Ronald M. Andersen, 1995). It's aimed to establish the main reason that people use health services. This model consists of three factors; (i) predisposing factor, (ii) enabling factor and (iii) need. Demographic characteristics, such as age, gender and health beliefs are included in the predisposing factor. Knowledge and attitude are part of health belief. The enabling factor describes the ability to use the health services while need is the direct reason of health service usage. However, this model may not be best as it was developed for service users and not providers. Instead, a modified Andersen's behavioral model was used for this study.

The Andersen Model of Health Care Utilization



RM Andersen. Revisiting the behavioral model and access to medical care: does it matter?
J Health Social Behavior 1995;36:1-10.

Figure 2. Andersen Model of Health Care Utilization (Ronald M Andersen, 1995)

A modified Andersen's behavioral model was used for the framework of this study. The "use of health services" was the practice of PFA performed by the provider (dependent variable) which included whether they had basic mental health training or training specifically on PFA while independent variables such as socio-demographic characteristics, knowledge, and attitude will be part of the predisposing factors. The availability of guidelines and policy on PFA was included as part of enabling resources. While the number of time health professionals recognizes people who needed PFA during their visit at the emergency department is considered as perceived severity or the need of health professionals to practice PFA.

2.5 Socio-demographic characteristics affecting practice of PFA

There are several factors that may influence the practice of mental health care such as gender, age, staff current work branch, educational level, current occupation title and the duration of working experience in the emergency department. There is indication that women are better at distinguishing their own and others' emotion (Donges, Kersting, & Suslow, 2012; Zhiheng et al., 2012). A study done in the Department of Psychiatry in University of Münster by Donges, Kersting & Suslow on 81 young health volunteers found that women had a higher ability to perceive and respond to facial emotion when compared to men (Donges et al., 2012). It is possible that female health professionals might have sensed when a person is in distress more than male health professionals working at the same place.

A study conducted on 43 emergency department nurses in Australia, found that younger nurses were more likely to be less supportive towards patients with a mental health complaint when compared to older and more experienced nurses (McCann, Clark, McConnachie, & Harvey, 2006). This is similar to a study done in Republic of Ireland in 2009, where the study population was 68 nurses working in a trauma level 1 emergency department. The study found that older nurses, more than forty years of age, had a more positive attitude (McCarthy & Gijbels, 2010). Years of experience and age of staff might be related in regards to the more the staffs have worked in the area, they are more likely to have a positive attitude towards patients with signs and symptoms of mental health problem (Zhiheng et al., 2012). Nurses' work branch can also be a predictor for the adequacy of practice in health care delivery (Ismail & Saiboon, 2012). Another study also found that gender, position, type of work, work experience were the leading factors affecting the health emergency response capacity (Zhiheng et al., 2012). Health staffs who have been working in emergency department for quite a number of years which in turn has more experience and is often involved in disaster response are more likely to report adequate practice in comparison to those who only attended training. However, health staff that attended trainings and workshops are more likely to have adequate knowledge and practice.

2.6 Knowledge and attitude affecting the practice of PFA

A cross-sectional study conducted in 2012 on the knowledge, attitude and practice towards disaster management among 468 nurses working in emergency departments and health clinics in Selangor, Malaysia found that both groups had similar inadequate knowledge towards disaster management (Ismail & Saiboon, 2012). The study also found that nurses in both groups had shown positive attitude towards disaster management. Meanwhile, a study done in 15 cities of Guangdong Provinces in China found that the knowledge; attitude and behavior of primary care medical staffs in China were poor (Zhiheng et al., 2012). Another study done in 2011, found that nurses working in emergency department in New South Wales, Australia felt less prepared in dealing with individuals with some sort of mental health presentations (Pich, Hazelton, Sundin, & Kable, 2011). However, this depends on their skill level and their perceived efficacy to deliver health care service appropriately.

Other factors that might affect the practice of PFA are the training of the health professionals. Mental health training to emergency health professional might enhance the overall service delivery to a more holistic approach (Zhiheng et al., 2012) and it can also improve the negative attitudes of the staff in dealing with suspected mental health related patients (Commons Treloar & Lewis, 2008) (Ismail & Saiboon, 2012). A study done by Commons, Treloar & Lewis in 2008 among 140 mental health and emergency medicine practitioner from two Australian health services and one New Zealand health service found that the strongest predictor of attitude was their workplace, followed by years of experience and whether they had specific training (Commons Treloar & Lewis, 2008). Guidelines and protocols that are available in the workplace in the event of meeting people with traumatic stress can also be factors affecting practice of PFA. Health staffs with clearer job roles and work objectives are more likely to have a positive attitude towards delivering their service.

CHAPTER III – RESEARCH METHODOLOGY

3.1 Research Design

This is a quantitative, cross sectional study.

3.2 Study Area

Brunei Darussalam is divided into four districts; (i) Brunei-Muara district; (ii) Tutong district; (iii) Belait district and; (iv) Temburong district. The highest populated district is Brunei-Muara district with about 72% of the population. Brunei has four public hospitals that have an Accident and Emergency department and one specialist hospital, namely The Brunei Cancer Centre. Brunei also has two private specialist hospitals located in Brunei-Muara district. The study area is in all four districts of Brunei Darussalam.

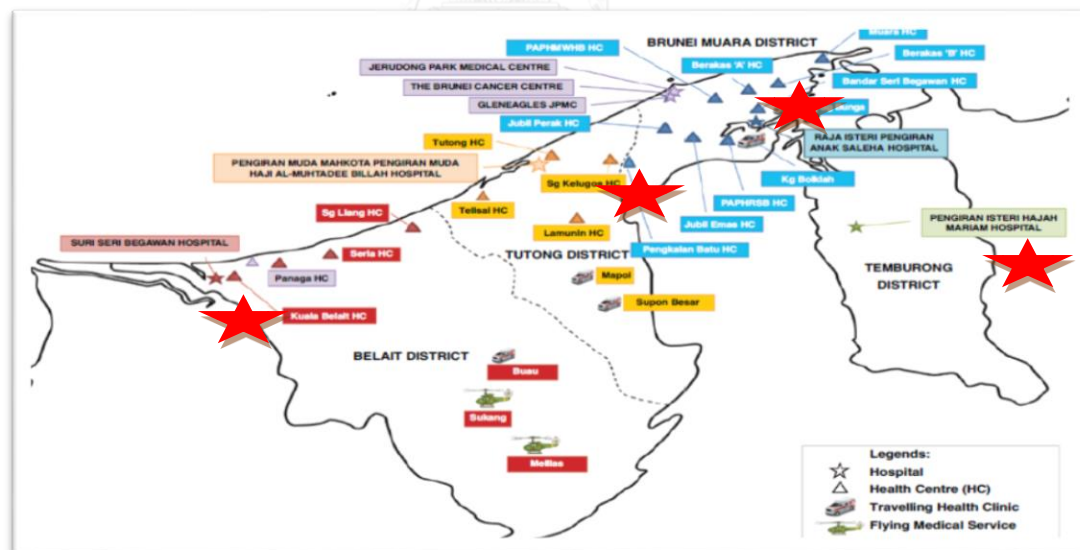


Figure 3. distribution map of health care facilities in Brunei Darussalam. (health, 2014)

3.3 Study Population

The study population of this study is all health professionals (doctors and nurses) that are currently working in the Accident and Emergency department in all four public hospitals in Brunei Darussalam.

3.4 Sample Size

The following formula was used to calculate the sample size:

$$= \frac{\frac{z^2 \times p(1-p)}{e^2}}{1 + \left(\frac{z^2 \times p(1-p)}{e^2 N} \right)}$$

Proportion (p) : 0.5

Error (e): 0.05

Population (N): 179

z: 1.96

Sample size = $(1.96^2 \times 0.5 \times (1 - 0.5) / 0.05^2) / 1 + (1.96^2 \times 0.5 \times (1 - 0.5) / 0.05^2 \times 179)$

Therefore, the sample size is 123.

3.5 Sampling Technique

Convenient sampling was chosen for the sampling technique.

3.5.1 Inclusion criteria

- Health professionals who are working in AED in Brunei at the time of the study.
- Have not participated in the pilot study of the study.
- Willing to participate in the study.

3.5.2 Exclusion criteria

- Students doing their clinical attachment in AED.
- Health professionals who worked at AED less than 3 months.
- Health professionals who are working part time at AED.

3.6 Measurement Tools

The interviewer-assisted or self-administered questionnaire was developed by the researcher based on previous published studies and also with reference to a book by WHO (2008) ‘A guide to developing knowledge, attitude and practice surveys’. Although Malay language is the official language of Brunei, English language is widely spoken among the people of Brunei and is considered the official business or working language. Therefore, the questions were administered in English language.

The questionnaire consists of four parts; (i) Socio-demographic characteristics; (ii) Knowledge on PFA; (iii) Attitude on PFA; and (iv) Practice of PFA.

(i) Socio-demographic characteristics

There are six items in this part which consist of gender, age, hospital branch, education level, current occupation and number of years working in the current occupation. The variables are based on ‘Demographische Standards’, which is a standardized data collection instrument for social and market research (Hoffmeyer-Zlotnik, 2016).

(ii) Knowledge on PFA

This section focuses on the basic knowledge on PFA. There are eleven items (Q.7 – Q.17) in this part. Q.8 and Q.9 tests the participants’ knowledge whether they know that guidelines and policies on PFA are available in their department. Q.10 – Q.14 tests on the knowledge of the “Look” component on whether the participants know the

criteria of people that might need PFA. Q.15 – Q.16 tests the knowledge on the “Link” component of PFA while Q.17 tests the knowledge on the “Listen” component of PFA. Each correct response was awarded a score of 1. The minimum possible score is 0 and the maximum possible score is 11. The total score was then compared with Bloom’s cut off point (Bloom, 1968) and was divided into three levels; (i) low level of knowledge (<60%); (ii) moderate level of knowledge (60 – 79%); and (iii) high level of knowledge ($\geq 80\%$).

Level of knowledge	Cut off point	Scores
Low	<60%	0 - 6
Moderate	60% - 79%	7 - 8
High	$\geq 80\%$	9 - 11

(Bloom, 1968)

(iii) Attitude on PFA

There are five items (Q.18 – Q.22) in this section. It aims to find out whether the overall attitude of the respondents towards PFA was positive, neutral or negative. Five responses ranging from “strongly agree”, “agree”, “neutral”, “disagree” and “strongly disagree” were expected. The most ideal response received a score of 5 while the least ideal response received a score of 1. Therefore, the total score in this section ranged from a minimum of 5 to a maximum of 25. The total attitude score was categorized into (i) negative attitude; (ii) neutral attitude; and (iii) positive attitude.

Attitude Response Scoring

Attitude Item	<i>Strongly agree</i>	<i>Agree</i>	<i>Neutral</i>	<i>Disagree</i>	<i>Strongly disagree</i>
Q. 18	5	4	3	2	1
Q.19	5	4	3	2	1
Q.20	5	4	3	2	1
Q.21	5	4	3	2	1

Q.22 | 5 4 3 2 1

Total attitude score was classified into three levels by using mean cut-off point.

Attitude Level	Cut-off point	Scores
Negative	$<-1SD$	5 – 15
Neutral	$-1SD \leq x < 1SD$	16 – 17
Positive	$\geq 1SD$	18 – 25

(iv) Practice of PFA

There are eleven items in part 4 (Q.23 – Q.33) in order to find out the practice of PFA. Each correct or ideal response was awarded a score of 1, except for Q.27, Q.30 and Q.33. Q.27 has a maximum score of 2, while Q.30 and Q.33 have a maximum score of 3. Scores were divided into three levels; (i) low level of practice; (ii) moderate level of practice; and (iii) high level of practice. The minimum score is 0 and the maximum score is 16.

Total practice score was classified into three levels by using mean cut-off point.

Practice Level	Cut-off point	Scores
Low	$<-1SD$	0 – 1
Moderate	$-1SD \leq x < 1SD$	2 – 3
High	$\geq 1SD$	4 - 16

3.7 Reliability and Validity Test

3.7.1 Pilot test

The reliability and validity of the questionnaire was examined by conducting a pilot study on 20 people which matches the inclusion criteria of the study. Cronbach's alpha coefficient test was used to measure the reliability of the knowledge and attitude

section of the questionnaire. The Cronbach's alpha coefficient test result was 0.70. Face validity was done to find out whether the questions made sense or not. Revision of questionnaire was made accordingly after pre-testing.

3.7.2 Validity test

The questionnaire was developed by reviewing previous literatures and articles. Following that, a panel of three experts were invited to evaluate the content and construct validity of the questionnaire and the questions were be revised accordingly. The experts were Dr. Hilda Ho, consultant psychiatrist and head of department of Psychiatric Services in Brunei, Dr. Linawati Haji Jumat, acting consultant emergency physician of the emergency department in RIPAS hospital and Agong Lupat, nursing lecturer at PAPRSB Institute of Health Sciences, Universiti Brunei Darussalam.

3.8 Data Collection

Two research assistants were selected for the study. The research assistants are previous colleagues that have experience conducting interviews for research studies. The research assistants have adequate knowledge on the health system in Brunei Darussalam as they had previously worked in RIPAS hospital. Transportation to conduct the interviews was provided by the researcher. The research assistants were trained by the researcher one day prior to the interview. The training included explaining the definition of PFA, its basic objectives and core actions of PFA. The training session also included explaining the objectives of the study, obtaining informed consent from the respondents and methods of interviewing by demonstration. Teaching resources and materials, such as hand-outs, PowerPoint presentation and WHO guideline on Psychological First Aid, was used for the training session. The researcher also practiced interviewing with the research assistants through roleplaying until they were able to correctly execute the interview according to the training demonstration. By the end of every data collection day, the researcher will collect the answered questionnaires from the research assistants and entered the data in the data collection form. The researcher supervised the work of the research assistants through random

visits during the data collection period. The research assistants were allowed to contact the researcher at any time during the data collection period, if any questions or problems arise regarding the questionnaire. Identification IDs such as hospital's visitor pass was requested for the research team to use during data collection period.

Health professionals in Brunei works in four shifts: (i) office hours; (ii) morning shift; (iii) afternoon shift; and (iv) night shift. Therefore, interviews were taken once in the morning for participants working the night shift and once in the afternoon for participants working in the morning shift and office hour, after the passing of duty report so as not to disturb their working hours. This only applies to those who needed assistance in answering the questionnaire. Health professionals who preferred to answer the questionnaires themselves are allowed to complete the survey during their free time. This data collection process was done from 29th May 2017 until 8th June 2017. Before collecting the data, the health professionals were explained regarding the study and a written informed consent was obtained. The questionnaires were then distributed to the consenting participants. Any questions asked by the participants regarding the questionnaire were answered to clarify any doubts. The research assistants were told beforehand that they should not prompt ideal answers from the participants. After a given time for the participants to complete the questionnaires, the questionnaires were collected and checked for missing answers. If there were missing answers, the mean score of that section was applied to the missing answers.

3.9 Data Analysis

Data was entered, cleaned and coded before analyzing. Statistical Package for Social Sciences (SPSS Version 19) was used to perform statistical analysis.

3.9.1 Uni-variate analysis

Uni-variate analysis was used to describe and summarize one variable and find patterns in the data. For example, frequencies, percentages, means, median and standard deviation.

3.9.2 Bivariate analysis

Pearson correlation test was used to find out the correlation and significance between continuous variables for instance age, total knowledge score, total attitude score and total PFA practice score. Chi-square test was used to find out whether there is relationship between the nominal or ordinal variables and the level of PFA practice.

3.9.3 Multivariate analysis

Multiple regression analysis was done in order to find out the relationship between all independent variable and dependent variable. Backward selection was used to select independent variables significantly related to practice of PFA. This was done by starting a model with all the variables of interest and then dropping the least significant variable. This was done consecutively until all remaining variables are statistically significant. Stepwise selection was also performed by dropping or adding variables at the various steps. Backward stepwise selection includes starting off in a backward approach and then adding back variables if they later appear to be significant. The procedure is one of alternation between selecting the least significant variable to drop and then reconsidering all dropped variables for reintroduction into the model.

3.10 Ethical Consideration

Approval from Brunei's Medical and Health Research and Ethics Committee (MHREC) was obtained before proceeding with study. In terms of autonomy, the health professionals must make decision in the study without having been subjected to coercion, undue influence or intimidation. They may also withdraw from the study at any time without having consequences to their working position. Informed consent must be obtained prior continuing with the study. Therefore, the potential participants

must receive and understood the necessary information of the study such as objectives and procedure of the study. Furthermore, the confidentiality of the participants must be emphasized to the participants, explanation to the potential participants that their names will not be asked in the questionnaire or any information that might reveal their identity will not be disclosed.



CHAPTER IV – RESULTS

This study was aimed to determine the proportion of practice on PFA among health professionals working in Accidents & Emergency department in Brunei Darussalam; assess the socio-demographic characteristics, knowledge, attitude, enabling factors and the practice of PFA among health professionals working in Accidents & Emergency department in Brunei Darussalam; and identify the association between socio-demographic characteristics, knowledge, attitude and enabling factors and practice on PFA among health professionals working in Accidents & Emergency department in Brunei Darussalam. Self-administered questionnaire was distributed at the field in which 123 emergency health professionals had participated. The data was analysed by SPSS version 19.

Table 2. The number of response rate according to workplace (n=123)

	Number	Percent
RIPAS H	74	67.9
PMMPMHAMB H	21	70.0
SSB H	16	57.1
PIHM H	12	100.0

4.1 The proportion of practice on PFA

According to this study, about a little over half (51.2%) of the respondents working in AED in the country practices PFA in a moderate level (table 3). Nineteen (15.4%) of the respondents have encountered people who needed PFA at their department in the last four weeks. Although all of the respondents were never trained in PFA, 23.6% answered they have practiced PFA at least once. The majority of them (48.3%) are from RIPAS hospital.

Table 3. Practice level of 123 emergency health professionals working in all four districts

Practice level	Score Range	Number	Percent
Low	0 – 1	22	17.9
Moderate	2 – 3	63	51.2
High	4 – 16	38	30.9
Total		123	100

Table 4. PFA practice description of 29 respondents that answered they performed PFA at least once

		Number	Percent
No. of times performing PFA	Once	14	48.3
	2 – 4 times	6	20.7
	More than 4 times	9	31.0
Given priority to elderly	Yes	15	51.7
	No	14	48.3
Referred individual undergoing crisis to needed services	Yes	14	48.3
	No	15	51.7
Work branch	RIPAS H	14	48.3
	PMMPMHAMB H	8	27.6
	SSB H	3	10.3
	PIHM H	4	13.8

4.2 Socio-demographic characteristics

In this study, 52.0% of the respondents were female. The mean age of the respondents was 37.9 [7.6]. Out of the 123 respondents, only 15 (12.2%) were doctors. The rest of the respondents were staff nurses, assistant nurses and nursing officers.

Table 5. Socio-demographic characteristics of 123 emergency health professionals

	Number	Percent
Age		
20-29	18	14.6
30-39	60	48.8
40-49	37	30.1
50-59	7	5.7
>59	1	0.8
Gender		
Male	58	47.2
Female	64	52.0
Unknown	1	0.8
Work branch		
RIPAS H	74	60.2
PMMPMHAMB H	21	17.1
SSB H	16	13
PIHM H	12	9.8

Table 5: Socio-demographic characteristics of 123 emergency health professionals (cont.)

Highest education level		
Diploma	76	61.8
Bachelor	25	20.3
Master	6	4.9
Others	16	13
Occupation		
Doctor	15	12.2
Staff Nurse	91	74
Assistant Nurse	13	10.6
Nursing Officer	4	3.3
Years working in current profession		
Less than 1 year	1	0.8
>1 year, Less than 5 years	14	11.4
>5 years, Less than 10 years	31	25.2
>10 years, Less than 15 years	35	28.5
More than 15 years	42	34.1

4.3 Knowledge on PFA

This study found that the majority of the respondents had moderate knowledge level on PFA and only 26.0% of respondent had high knowledge on PFA. Out of the 123 respondents, 13 (10.6%) had previously heard of PFA and 33 (26.8%) thought that only health professionals are allowed to perform PFA. 99 (80.5%) of the respondents answered that they are able to recognise the signs and symptoms of acute stress.

Table 6. Knowledge level of 123 emergency health professionals working in all four districts

Knowledge Level	Number	Percent
Low (0-6)	43	35.0
Moderate (7-8)	48	39.0
High (9-11)	32	26.0

Table 7. Knowledge details of 123 respondents on PFA

	Number	Answered correctly Percent
Only health professionals are allowed to perform PFA	90	73.2
PFA is for distressed people who have been exposed to a traumatic event in the last 4 weeks	48	39.0

PFA can be provided immediately or up to 4 weeks after a traumatic event	65	52.8
PFA should be prioritised in children	58	47.2
Referring a person to other needed services is not part of PFA	74	60.2
Providing relevant information is part of PFA	91	74.0
Good communication is important when performing PFA	104	84.6

4.4 Attitude on PFA

Table 8 shows that out of 123 respondents, 42.3% have a positive attitude towards PFA. Seventy-two (60.5%) agreed “It is crucial to learn PFA in daily life” and 88 (74%) of them also agreed that public education on PFA is essential. Although almost half of the respondents (49.6%) positively thinks that it is the responsibility of all health professional to perform PFA (table 8), only 18 (15.1%) had confidence in providing PFA to the people in need.

Table 8. Attitude of 123 emergency health professionals working in all four districts

Attitude Score	Number	Percent
Negative attitude (5-15)	39	31.7
Neutral attitude (16-17)	32	26
Positive attitude (18-25)	52	42.3
	119	100.0

Note: Negative $<-1SD$; Neutral $-1SD < x < 1SD$; Positive $1SD <$

Table 9. Attitude percentage of 123 emergency health professionals working in all four districts

Item	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
It is crucial to learn PFA in daily life.	19.5	42.3	32.5	4.1	1.6
Public education on PFA is essential.	25.2	49.6	23.6	0.0	1.6
It is the responsibility of all health professional to perform PFA.	13.8	37.4	43.1	3.3	2.4
I have adequate knowledge and skills to perform PFA to the people in need.	1.6	11.4	62.6	15.4	8.9
I am confident in providing PFA to the people in need.	1.6	13.0	60.2	14.6	10.6

4.5 Enabling resources

All of the respondents were never trained in PFA. However, 19 (15.4%) of the respondents had basic mental health training during their studies (table 11).

Table 10. Availability of resources in the emergency department according to 123 respondents

		Number	Percent
Guidelines available	RIPAS H	4	5.4
	PMMPMHAMB H	0	0.0
	SSB H	1	6.25
	PIHM H	0	0.0
Policy available	RIPAS H	4	5.4
	PMMPMHAMB H	2	9.52
	SSB H	1	6.25
	PIHM H	0	0.0

Table 11. The number of health professionals that have basic mental health training and PFA training according to 123 respondents

	Basic mental health training		PFA training	
	Number	Percent	Number	Percent
RIPAS H	9	7.3	0	0
PMMPMHAMB H	7	5.7	0	0
SSB H	1	0.8	0	0
PIHM H	2	1.6	0	0
	19	15.4	0	0

4.6 Need

Out of 123 respondents, only 19 (15.4%) have encountered people who needed PFA at their department in the last 4 weeks (table 12). The majority of the encounters were at RIPAS hospital with 9 (12.2%) people. PMMPMHAMB hospital, SSB hospital and PIHM hospital encountered 4 (19.0%) and 4 (25%) and 2 (16.7%), respectively.

Table 12. The number of health professionals who have encountered people who needed PFA in the last 4 weeks

	Number	Percent
RIPAS H	9	12.2
PMMPMHAMB H	4	19.0
SSB H	4	25.0
PIHM H	2	16.7

Table 13. Percentage of emergency cases seen by 123 emergency health professionals in a day

	None	Less than 5	More than 5	More than 10
RIPAS H	9.5	10.8	50.0	29.7
PMMPMHAMB H	33.3	28.6	14.3	23.8
SSB H	12.5	31.3	25.0	31.3
PIHM H	8.3	16.7	25.0	50.0

4.7 Bivariate analysis

For continuous independent variables, Pearson correlation was used to measure the correlation between independent variables and practice of PFA (table 14). The independent variables tested are age, knowledge and attitude. Knowledge and attitude were significantly related to the practice of PFA ($p=0.005$) and ($p=0.018$), respectively. The association trend was positive low correlation ($r=0.254$) for knowledge and practice. The association trend for attitude and practice was also positive low correlation ($r=0.213$). Age was not significant to the practice of PFA.

Table 14. Pearson correlation between independent (continuous) variables and PFA practice among emergency health professionals in Brunei Darussalam

Variables	Pearson Correlation	p-value
Age	-0.044	0.631
Knowledge	0.254**	0.005
Attitude	0.213*	0.018

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

**Correlation is significant at the 0.05 level (2-tailed).*

For categorical independent variables, Chi square test was performed to find the association between the independent variables and PFA practice (table 15). The independent variables were gender, work branch, education level, occupation, work years, guideline, policy, basic mental health training, encounters and cases seen.

Table 15. Chi-square test between categorical independent variable and PFA practice

Variables	X ²	p-value
Gender	1.583	0.453
Work branch	8.106	0.230
Education	8.913	0.179
Occupation	3.549	0.737
Work years	11.625	0.169
Guideline	2.489	0.288
Policy	3.084	0.214
Basic mental health training	42.931	0.000*
Perceived severity	20.058	0.000*
Emergency cases in a day	82.400	0.000*

4.8 Multivariate analysis

Regression analysis was performed to find the relationship between a dependent variable (PFA practice) and multiple independent variables (table 16).

Table 16. First stage of multivariate analysis

Model	B	Std. Error	Beta	T	Sig.
(Constant)	-2.176	0.907		-2.400	0.018
Knowledge	0.062	0.073	0.052	0.848	0.398
Attitude	0.126	0.051	0.147	2.494	0.014
Basic mental health training	3.100	0.404	0.454	7.671	0.000
Perceived severity	2.189	0.415	0.320	5.280	0.000
Emergency cases in a day	1.080	0.141	0.440	7.668	0.000

$r=0.787$; $r^2=0.620$

Variables that were significant in the first stage analysis were then included in the final model of multivariate analysis. Knowledge was found not to be significant ($p=0.398$) in the first stage analysis, therefore, it is excluded from the final model (table 17).

Table 17. Final model of multivariate analysis

Model	B	Std. Error	Beta	T	Sig.
(Constant)	-1.936	0.860		-2.250	0.026
Attitude	0.137	0.049	0.159	2.784	0.006
Basic mental health training	3.122	0.403	0.457	7.751	0.000
Perceived severity	2.271	0.403	0.332	5.639	0.000
Emergency cases in a day	1.086	0.140	0.443	7.727	0.000

$r=0.786$; $r^2=0.617$

From this study, it was found that:

- (i) The more positive the attitude, the higher the practice.
- (ii) The more mental health training, the higher the practice.
- (iii) The higher perceived severity, the higher the practice.
- (iv) The more emergency cases seen in a day, the higher the practice.

Most (61.7%) of total variation can be explained by this regression model.

CHAPTER V – DISCUSSION, CONCLUSION AND RECOMMENDATION

This was a cross-sectional study carried out on 123 emergency health professionals in Brunei Darussalam. The objectives of this study were; (i) to determine the proportion of practice on PFA among health professionals working in Accidents & Emergency department in Brunei Darussalam; (ii) to assess the socio-demographic characteristics, knowledge, attitude, enabling factors and the practice of PFA among health professionals working in Accidents & Emergency department in Brunei Darussalam; (iii) to identify the association between socio-demographic characteristics, knowledge, attitude, enabling factors and practice on PFA among health professionals working in Accidents & Emergency department in Brunei Darussalam.

5.1 Discussion

5.1.1 The proportion of PFA practice

PFA is still quite new in Brunei Darussalam as it has only started being promoted in 2016 during the World Mental Health Day. However, this study found 51.2% of the respondents' practices PFA moderately even though 89.4% of the 123 respondents had never heard of PFA. About 30% of the respondents had a high PFA practice level while 17.9% had a low practice level. This might be due to respondents performing some components of PFA without recognizing what they are doing is part of PFA. The respondents might not know the components of PFA because none of them were trained in it. Meanwhile, the majority number of the respondents that self-reportedly admitted to have performed PFA at least once in their professional life is from RIPAS hospital. This may be due to RIPAS hospital being the main hospital located in the capital and receives more emergency cases when compared to other

hospitals in the country. RIPAS hospital also has a larger amount of staff working in their emergency department which gives a higher chance of self-reported practice when compared to the smaller hospitals. Most high risk emergency cases that need specialised treatment from the other three hospitals are usually transferred to RIPAS hospital due to RIPAS hospital having better or almost complete equipment and resources.

5.1.2 The socio-demographic characteristics of the respondents

The gender of the participants in this study is almost equal with 52% of them female. Although there are more female nurses working in Brunei, the staff allocation between male and female in the Accidents & Emergency department is balanced. This is probably due to the cultural norm and religion where female patients prefer female health professionals while male patients prefer male health professionals to attend to them during their visit. The health professionals working in AED are mostly people in their 30s and 40s, in which also 62.6% of the respondents have worked more than 10 years in the department. Working in the Accidents & Emergency department is categorized as “high risk” area where the work demand and self-independence of the health professionals are high. Therefore, more experienced staffs are desirable in the department. As mentioned earlier, the majority of the respondents are working in RIPAS hospital (60.2%) while the hospital branch with the least staff allocation is PIHM hospital with 12 nurses. The staffs are allocated based on the size of the hospital and the number of population living in that district. The majority of Brunei’s population lives in Brunei-Muara district which is where RIPAS hospital is located whereas Temburong district has the least number of population in which PIHM hospital is located. Out of the 123 respondents, only 15% are doctors while the rest of the emergency health professionals are made up of staff nurses, assistant nurses and nursing officers. This explains the majority of highest education level is a diploma (61.8%) because the minimum qualification of a staff nurse is a diploma certificate.

5.1.3 Knowledge

During bivariate analysis, knowledge and attitude were significant to the practice of PFA. The respondents' level of knowledge is moderate although most of them have not heard about PFA. This is probably due to questions in the survey that can be answered by those who has a certain level of good judgement. Those with previous basic mental health training also have an advantage as PFA fundamentals and goals are related to mental health. A high percentage of the respondent (73%) knows that PFA can be performed by anyone, however, they don't know to whom. Out of 123 respondents, only 39% managed to answer correctly that PFA is for distress people who have been exposed to traumatic event in the last 4 weeks. A little less than half (47.2%) of the respondents were able to recognise that children need to be given priority when performing PFA. This might be because extra knowledge is required to know who to prioritize during PFA practice. Without proper training in PFA, this area of knowledge would be lacking. Meanwhile, 60.2% answered that referring to needed services is part of PFA, but only 48.3% had ever referred someone undergoing crisis to the needed services. This could be due to the job role or level of authority of the respondents as one of the respondents mentioned that nurses aren't allowed to make a referral on their own.

5.1.4 Attitude

Exactly 42.3% of the respondents have a general positive attitude towards the practice of PFA, however, only 15.1% had confidence in providing PFA to the people in need. This could be related to the low percentage (13%) of respondents that agreed they have "...adequate knowledge and skills to perform PFA to the people in need". It was found that they are more positive towards learning PFA and on educating the public on PFA. On the other hand, they have a neutral attitude towards the statement "it is the responsibility of all health professionals to perform PFA", "I have adequate knowledge and skills to perform PFA to the people in need" and "I am confident in providing PFA

to the people in need". This shows that respondents were keen towards learning PFA but were impartial on performing the act of PFA. This indicates that attitude can influence the practice. This is similar to a study that found nurses showed positive attitude towards disaster or crisis management (Ismail & Saiboon, 2012). On the other hand, a study done in 2010 among emergency nurses in Australia found that the nurses felt less prepared in dealing with individuals with some sort of mental health presentations (Pich et al., 2011). If health professionals are trying to improve their healthcare services, they should improve their attitudes (Price, 2015). According to Aponte in 2012, attitudes have four functions in which, help us to get things done, express who we are, protect our sense of self-worth and help us to organize information, for example deciding what makes a health professional competent. This shows how attitude is an important influencer towards professional practice (Aponte, 2012).

In another study that was done among nurses working in a level 1 trauma emergency department in the Republic of Ireland found that older nurses of more than forty years of age, had a more positive attitude towards patients with a mental health complain (McCarthy & Gijbels, 2010). However, the majority of the health professionals (63.4%) in this study are below 40 years of age. Then again, this depends on their skill level and their perceived efficacy to deliver health care service appropriately (McCarthy & Gijbels, 2010). Years of experience of health professionals is related to the more years health professionals have worked in the area, they are more likely to have a positive attitude towards patients with signs and symptoms of mental health problem (Zhiheng et al., 2012). Since 62% of this study's respondent had worked more than 10 years, there are more positive attitudes.

5.1.5 Enabling resource

Regarding the availability of guidelines and policies on PFA in their department, 11.65% answered there is guideline in their department, whereas 21.2% of the respondents replied that there is policy on PFA available in their department. But

then again, PFA guidelines and policies specifically for the department are not yet available. Training on PFA is also not yet available for emergency health professionals during the study. The inconsistencies in the answers might be due to confusion between local and international guidelines on PFA. The health professionals might have been aware of the availability of international guidelines and policies on PFA, however, they might have been confused that it is a local guideline and policy on PFA.

Factors that might affect the practice of PFA are the training of the health professionals. Mental health training to emergency health professional might enhance the overall service delivery to a more holistic approach (Zhiheng et al., 2012) and this is similar to the findings of this study in which basic mental health training is one of the significant factor that improves practice of PFA. Mental health training can also improve the attitudes of the staff dealing with suspected mental health related patients (Commons Treloar & Lewis, 2008; Ismail & Saiboon, 2012). Guidelines and protocols that are available in the workplace in the event of meeting people with traumatic stress can also be factors affecting practice of PFA (Zhiheng et al., 2012). Health staffs with clearer job roles and work objectives are more likely to have a positive attitude towards delivering their services. Yet, the majority of Bruneian doctors and nurses working in the primary care setting was reported to not receive mental health training within the last five years as part of continuous education (Organization, 2011a). This study found only 15.4% of the emergency health professionals had basic mental health training. Due to changes in the nursing curricula, some of the nurses might not have basic mental health during their studies and have opted to study subjects that are specific to emergency care instead.

5.1.6 Need

In Andersen's Behavioural Model, this need is for service user. However, in this study, the need is based on perceived severity of health professional on whether the service users need to be provided with PFA or not. Out of 123 respondents, only 19

(15.4%) have encountered people who needed PFA at their department in the last 4 weeks. This shows that the emergency health professionals do not think that there is a need to provide PFA to the emergency service user. The majority of the encounters were at RIPAS hospital with 9 people. PMMPMHAMB hospital with 4 people, SSB hospital with 4 people and PIHM hospital encountered with only 2 people who needed PFA. As mentioned previously, RIPAS hospital is receives the most visits when compared to hospitals in other districts. Therefore, there is a higher chance of encountering people who needed PFA. Almost 80% of the respondents from that sees more than 5 cases a day are from RIPAS hospital which shows that more cases seen by the health professionals, the higher the chances of encountering people that needs PFA.

5.1.7 Factors associated with practice

During bivariate data analysis, it was found that knowledge and attitude were significantly correlated to practice ($p=0.005$) and ($p=0.018$), respectively. Chi square test also revealed that there was association between basic mental health training, perceived severity and emergency cases in a day and the practice of PFA. However, when the variables are run on regression analysis, “knowledge” lost its significance and was excluded from the final model. The final regression model includes attitude, basic mental health training, perceived severity and emergency cases in a day as the independent variable and the practice score of PFA as the dependent variable. The model indicated significant result that more positive attitude leads to a better practice score (0.006). The same goes with the other 3 variables. The more mental health training ($p=0.000$); the higher perceived severity ($p=0.000$); and higher emergency cases seen in a day ($p=0.000$), the higher the practice score.

A study in UK done between 2006 – 2007 on mental health nurses found that specific training is linked to positive attitudes and engagement in practice (Robson, Haddad, Gray, & Gournay, 2013). This is because health professionals will be equipped with skills and knowledge in a specific area, thus, they are more confident in putting

their skills and knowledge into practice. A study that was conducted by Jordi et al. in 2015 was done in four emergency departments around Switzerland. According to the study, confidence in putting skills and knowledge into practice can be affected by how accurate their perceived severity towards the emergency cases they see (Jordi et al., 2015). If the health professional does not recognize that the patients or family member does not require PFA, the practice of PFA would not be performed. Furthermore, having infrequent exposure to emergency cases in a day contributes to the accuracy of perceived severity of health professionals (Jordi et al., 2015). Being able to accurately judge whether a person requires attention needs frequent exposure to cases and confidence in their ability to do so. A study done by Chandra et. al in 2014 among Medical Reserve Corps members found having appropriate training in order to improve engagement in practice improves confidence and competency (Chandra et al., 2014).

5.2 Strength

This study acts as a baseline data for future research as there is no previous study conducted on this topic in Brunei Darussalam.

5.3 Limitation

The study population are health professionals that are working at one of the busiest department in the hospital. The health professionals might rush in answering the questionnaire and not answer honestly. Some had missed some questions, resulting in a few missing data. Consequently, a non-response will result in bias in measures of the outcome. This is a problem when the characteristics of non-responders are different from responders. In addition, different hospitals have different rates of emergency visits and this might affect the experience of the health professionals. Moreover, questions could be interpreted differently by the respondents who do not want to be interview-assisted. For this reason, pre-testing was done to check the validity and reliability of the questions. It is challenging but possible to plan questionnaires to reduce this effect. Another limitation is recall bias for their life long professional experience which may

lead to inaccuracy of data. Self-reported knowledge on signs and symptoms is not a valid measure of knowledge. Expansion of their knowledge on the signs and symptoms should be asked to validate their self-reported answers on their knowledge on signs and symptoms.

As skills are required for those who are working in the emergency department in order to deliver a holistic health care, it is important to investigate the staffs' skill level. However, a questionnaire is not able to measure their skill level.

5.4 Conclusion

To conclude, the proportion of PFA practice among health professionals working in AED in Brunei Darussalam was determined. This study found that there is moderate level of knowledge on PFA and moderate level of practice on PFA. However, the health professionals have a positive attitude towards PFA practice. This study also found positive association between attitude, basic mental health training, perceived severity, emergency cases seen in a day and the practice of PFA.

Recognising the signs and symptoms of people under acute stress and recognising that they need help is the first step to performing PFA. A high percentage of health professionals claim to be able to recognise acute stress, however, the overall knowledge score is still at moderate level. It is important to improve the knowledge level of the health professionals by providing training and workshops on PFA and basic mental health.

5.5 Recommendations

5.5.1 Recommendation for future research

(i) Study on the outcome or impact of the health system should be done in the future as this study only measure reported service delivery by the service providers' point of view. It is important to find out if service users received the reported services provided. It is also recommended to measure the quality of the service provided.

(ii) Skills of health professionals need to be assessed too as skills cannot be measured via questionnaire. An observation checklist will be needed to assess their skills and the effectiveness to patients and their family in future research.

(iii) Qualitative research should be conducted with selected number of study participants from the study to find out what they think of PFA and what they think could be done to improve the PFA situation in their department.

5.5.2 Recommendation for policy makers

(i) Since this study found that all the respondents did not receive trainings on PFA, it is recommended that PFA or basic mental health trainings are provided to all emergency health professionals by qualified PFA or basic mental health instructors every 2 years to improve their practice.

(ii) Furthermore, there were also discrepancies in answers regarding the availability of guidelines and policy on PFA. It is recommended that a standard guideline and policy is created for health providers in Brunei.

(iii) In addition, the public needs to be aware of PFA because it is of assistance to everyone who is experiencing crisis, be it their family and friends or strangers. Yearly public health awareness programs on acute stress, PTSD and PFA by the health promotion department for the public will be beneficial to the public in the long run.



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APPENDIX I - QUESTIONNAIRE

SELF-ADMINISTERED QUESTIONNAIRE

Participant Code _____

Have you answered this questionnaire before?

Yes No

Part 1: Socio-demographic Information

1. Gender: Male Female

2. Age on your last birthday:

3. Which Accident & Emergency Department are you working in?

- RIPAS Hospital
- PMMPMHAMB Hospital
- SSB Hospital
- PIHM Hospital

4. Highest educational level: Diploma

Bachelor

Masters

Others, please specify

.....

5. Professional status (Occupation):

6. Years working in current profession:

Less than 1 year

> 1 year, Less than 5 years

> 5 years, Less than 10 years

> 10 years, Less than 15 years

Others, please specify:

.....

Part 2: Knowledge

7. Have you heard of Psychological First Aid (PFA)? Yes No
8. There are guidelines on PFA available in the department. Yes No
9. There are policies on PFA available in the department. Yes No
10. Only health professionals are allowed to perform PFA. Yes No
11. PFA is for distressed people who have been exposed to a traumatic event in the last 4 weeks. Yes No
12. PFA can be provided immediately or up to 4 weeks after a traumatic event. Yes No
13. PFA should be prioritized in children. Yes No
14. Are you able to recognize the signs & symptoms of acute stress? Yes No
15. Referring a person to other needed services is NOT part of PFA. True False
16. Providing relevant information is part of PFA. True False
17. Good communication is important when performing PFA. True False

Part 3: Attitude

Do you think the following sentences are suitable to describe your views on psychological first aid? Please express with “Strong agree, Agree, Neutral, Disagree or Strongly disagree”.

18. It is crucial to learn PFA in daily life.

Strongly agree Agree Neutral Disagree Strongly disagree

19. Public education on PFA is essential.

Strongly agree Agree Neutral Disagree Strongly disagree

20. It is the responsibility of all health professional to perform PFA.

Strongly agree Agree Neutral Disagree Strongly disagree

21. I have adequate knowledge and skills to perform PFA to the people in need.

Strongly agree Agree Neutral Disagree Strongly disagree

22. I am confident in providing PFA to the people in need.

Strongly agree Agree Neutral Disagree Strongly disagree

Part 4: Practice

23. I am trained in basic mental health. Yes No

(If no, please skip to Q. 28)

24. If yes, where were you trained?

Undergraduate Postgraduate Continued learning

Others, please specify:

25. I have trained in PFA. Yes No

(If no, please skip to Q. 31)

26. If yes, how were you trained?

Online training In-house training Others, please specify:

.....

27. When was your last PFA training?

Less than 1 year 1 year – 2 years ago more than 2 years

28. I have encountered people who needed PFA at the department in the last 4 weeks.

Yes No

29. In my professional life, I performed PFA in a real scenario at least once.

Yes No

(If no, please skip to Q.36)

30. If yes, how many times? Once 2 – 4 times More than 4 times

31. I have given priority to elderly when providing PFA. Yes No

32. I have referred an individual undergoing crisis to needed services. Yes No

33. How many cases of emergency do you see in a day?

0 Less than 5 More than 5 More than 10

---End of questionnaire, thank you for participating!---

APPENDIX II - Informed Consent Form

Code number of participant:

Date:.....

I, who have signed here below, agree to participate in this research project

Title: *“Knowledge, attitude and practice of psychological first aid among health professionals working in accident & emergency department in Brunei Darussalam.”*

Principle researcher’s name: Khairunnisa Zakaria

Contact address: Institute Building 2-3, Soi Chulalongkorn 62, Phyathai Rd., Pathumwan, Bangkok 10330, Thailand.

Office Telephone: +662 218 8152/3

I have (**read or been informed**) about the rationale and objective(s) of the project, what I will be engaged with in details, risk/harm and benefit of this project. The researcher has explained to me and I **clearly understand with satisfaction**.

I willingly **agree** to participate in this project and consent the researcher to use data from my response to the researcher’s questionnaire.

I have **the right** to withdraw from this research project at any time as I wish with no need to **give any reason**. This withdrawal **will not have any negative impact upon me** (*e.g. still receive the usual services and does not affect my work status*).

Researcher has guaranteed that procedure(s) acted upon me would be exactly the same as indicated in the information. Any of my personal information will be **kept confidential**. Results of the study will be reported as total picture. Any of personal information which could be able to identify me will not appear in the report.

If I am not treated as indicated in the information sheet, I can report to the Medical and Health Research and Ethics Committee, Executive Screening Suite,

Baseline Level 1, RIPAS Hospital, Bandar Seri Begawan. BA1710. Brunei Darussalam.

E-mail: mhrecbrunei@gmail.com

I also have received a copy of information sheet and informed consent form.

Sign

(.....)

Researcher

Sign

(.....)

Participant

Sign

(.....)

Witness



APPENDIX III - Participant Information Sheet

Title of research project:

“Knowledge, attitude and practice of psychological first aid among health professionals working in accident & emergency department in Brunei Darussalam.”

Principal researcher’s name: Khairunnisa Zakaria **Position:** MPH student

Address College of Public Health Sciences, Chulalongkorn University, Institute Building 2-3, Soi Chulalongkorn 62, Phayathai Road, Phatumwan, Bangkok 10330, Thailand.

Office Telephone: +662 218 8152/3

E-mail: kskzakaria@gmail.com

1. You are being invited to take part in the research project. Before you decide to participate it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and do not hesitate to ask if anything is unclear or if you would like more information.
2. This research project involves determining the amount of practice on psychological first aid among health professionals working in Accident & Emergency departments in Brunei Darussalam. It also assess and tries to identify the association between the socio-demographic characteristics, knowledge, attitude, enabling factors and practice of psychological first aid among health professionals working in Accident & Emergency departments in Brunei Darussalam.
3. Details of participant.
 - The participants of this survey study are health professionals who are currently working at the Accident & Emergency department in Brunei Darussalam. The participant must be working full time in the Accident & Emergency department at the time of the study for more than 3 months, have gone through basic mental health

training, have never participated in the pilot study and is willing to participate in this study.

- All health professionals working in Accident & Emergency department in Brunei Darussalam are invited to take part in this study.
 - You are invited to take part in this study because you are a health professional working in Accident & Emergency department in Brunei Darussalam.
4. First of all, it is entirely up to you whether you want to join this study or not. If you agree to take part, we will then ask you to sign a consent form. If you do decide to take part, you will be given this information sheet to keep and a copy of your signed consent form. The research duration is March to June but your involvement would only be up to 15 minutes. During this time, you will be asked to answer a questionnaire regarding knowledge, attitude and practice of psychological first aid.
 5. You are very unlikely to receive any **risk/harm** which may cause ill effect to your physical, mental, social, economic and belief. Should the researcher have any additional information which may cause any harm, the researcher will inform you immediately.
 6. The findings of this study may be used to improve the service quality by creating new policy and guidelines on the use of psychological first aid in the department. It can also be used for planning and allocating health resources such as training or refresher course that may create career development opportunities.
 7. Your participation to the study is **voluntary** and you have the **right to deny** and/or **withdraw** from the study at any time, no need to give any reason, and there will be no bad impact upon you.
 8. If you have any question or would like to obtain more information, the researcher can be reached at all time. If the researcher has new information regarding benefit on risk/harm, you will be informed as soon as possible.

9. Information related directly to you will be kept **confidential**. Results of the study will be reported as total picture. Any information which could be able to identify you will not appear in the report.
10. There will not be any payment for your participation; and you do not need to pay for taking part in this study.
11. Should you be treated not according to the participation information sheet, you may make a complaint to the Medical and Health Research and Ethics Committee, Executive Screening Suite, Baseline Level 1, RIPAS Hospital, Bandar Seri Begawan. BA1710. Brunei Darussalam. E-mail: mhrecbrunei@gmail.com

Thank you for taking the time to read this Information Sheet.

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.....

Principal Investigator



APPENDIX IV - Ethical Approval

E-mail: mhrec@moh.gov.bn



MHREC Executive Screening Suite
Basement Carpark Level 1
Raja Isteri Pengiran Anak Saleha Hospital
Bandar Seri Begawan BA1710
Negara Brunei Darussalam

Our Ref : MHREC/MOH/2017/3/4(1)

22nd May 2017
25 Syaaban 1438

To:
Khairunnisa Zakaria
Master of Public Health
Chulalongkorn University, Thailand

Dear Khairunnisa,

Re: Knowledge, Attitude and Practice (KAP) of Psychological First Aid among Health Professionals Working in Accident & Emergency in Brunei Darussalam

Thank you for submitting the required document(s) and making amendments to your research proposal. Following review of the amendments made, the MHREC Committee has decided to give full approval to your research proposal.

Please adhere to the conditions stated below:

1. The study should comply to the Guidelines for Good Clinical Practice
2. Any deviation to the study should have MHREC's written approval
3. Please provide us a report of your research findings

This approval is valid for one year from the date of this letter or the duration that you have applied for your study, whichever is shorter. If you wish to extend your research beyond this period, you are required to apply to MHREC at least one month before the end of your approval including a preliminary report of your research findings.

All the best with your research.

"Keluargaku, Harapanku"
"BERSAMA KE ARAH WARGA SIHAT"

Yours Sincerely,


Dr Alice Yong

Chairperson of Medical and Health Research & Ethics Committee

Cc 1. Setiausaha Tetap
2. Timbalan Setiausaha Tetap

Knowledge, Attitude and Practice (KAP) of Psychological First Aid among Health Professionals Working in Accident & Emergency in Brunei Darussalam

VITA

Name: Khairunnisa Zakaria

Gender: Female

Nationality: Bruneian

Education:

2010 - Diploma in Nursing

2015 - Bachelor of Health Sciences (Hons)

Professional experience:

2011 - Staff Nurse at Gastroenterology & Hepatology department, RIPAS
Hospital, Brunei Darussalam.

