



Faculty of Medicine and Health Sciences

**KNOWLEDGE AND ATTITUDES TOWARDS FIRST AID AMONG
UNDERGRADUATE STUDENTS AT RAFFLESIA COLLEGE, UNIMAS**

SHUQI LE ANDRA JU

71571

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KNOWLEDGE AND ATTITUDES TOWARDS FIRST AID AMONG UNDERGRADUATE
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UNIMAS

SHUQI LE ANDRA JU
(71571)

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SHUQI LE ANDRA JU (71571)

Name of the student (Matric No.)

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ABSTRACT

Background: Accident and injuries may happen anytime and anywhere and this incident may take place outside of the hospital setting. Thus, first aid is essential to help those in need. First aid is not only minimise the wound deterioration but also reduce the mortality rate.

Objectives: The study aimed to assess the first aid knowledge, attitude towards first aid, and its association with socio-demographic characteristics.

Methodology: A quantitative cross-sectional study was conducted among 343 undergraduate students at Rafflesia College, UNIMAS, by using a convenience sampling method. Data collection were done by using a self-administered questionnaire adopted from Jamaludin et al. (2018) via google form. The knowledge of first aid were assessed with 10 questions whilst attitude towards first aid were assessed with 5 questions.

Results: Six responses were exempted from the study due to missing data, thus bringing up a final sample of 337 respondents. A total of 51.6% respondents had moderate first aid knowledge and 83.4% of the respondents showed good attitude towards first aid. Faculty and first aid training was significantly associated with knowledge of first aid. However, there were no significant association between all of the socio-demographic characteristics and the attitude towards first aid.

Conclusions: The findings showed that most of the respondents had moderate knowledge and attitude towards first aid. However, there is a need to introduce the first aid course in every faculty in the university to enhance the first aid knowledge not only among health sciences students but also non-health sciences students.

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CHAPTER 1: INTRODUCTION

1.0 Introduction

This chapter will present the study background of the study and its statement of problem, research questions, objectives of the study, significance of the study as well as the definitions respectively. Lastly, this chapter will be concluded with a summary as in the section 1.7.

1.1 Background of the Study

Accidents and injuries may happen anytime and anywhere regardless of the age, gender, and health status of an individual. These events are unexpected yet inevitable due to natural disasters or even negligence of one or more individuals (World Health Organization, 2022). For instance, road traffic accidents (RTA) occur due to speeding, distracted driving, not using motorcycle helmets and seatbelts, and driving under the influence of alcohol. According to the World Health Organization (2022), nearly 1.3 million individuals worldwide lose their lives in road accidents, also 20 to 50 million suffer non-fatal injuries every year and 93% of global road deaths occur in low- and middle-income nations. Meanwhile, the number of road traffic accident (RTA) cases in Malaysia kept on rising from 2010 to 2019 with 7152 deaths reported which was the highest fatalities number throughout the years (Ministry of Transport Malaysia, 2022).

Besides, accidents and injuries may also happen at home and workplace. Based on a study conducted in Malaysia by Sahril et al. (2014), 994 out of 8017 children experienced home injuries at least once in the previous year, also 4.8% of the children with injuries were reported had been admitted to the hospital, and 11.6% were reportedly unable to perform activities as a result of the

injuries. As for the workplace injuries, there were 21534 total cases of work-related injuries with 301 deaths in 2021 (Department of Statistics Malaysia, 2022). A report by Department of Statistics Malaysia (2022), the workplace injuries are categorised into several types whereby the four highest reported cases of injuries include sprains and strains (1708 cases with 2 deaths), fractures (3991 cases with 27 deaths), and other unspecified injuries (4288 cases with 72 deaths) as well as other wounds (8374 cases with 21 deaths).

According to the statistics mentioned previously, numerous people injured with several death cases due to those injuries. This incident usually takes place outside of the hospital setting where health care workers might not be around to treat the victim on time. Subsequently, this kind of situation will definitely cause a delay in providing medical attention to the victim as the ambulance takes some time to arrive at the scene (Pei et al., 2019). Hence, first aid is a crucial life-saving skill that anyone must possess in order to minimise the injury complications as well as to save lives (Khan et al., 2010). First aid can be defined as an immediate action performed by a bystander to rescue an injured individual at the scene of an accident until full medical care is available (Alanazi et al., 2022). There are several types of common first aid management including management of external bleeding, burns, fractures, dislocation, choking, unconsciousness, epistaxis, heat stroke, electrocution, seizures, poisoning, frostbite, animal bites, foreign body in eyes and ears, drowning, shock, angina, and heartburn (Joseph et. Al., 2014). By performing first aid on the site of an accident, it may help in reducing the deterioration of the wounds depending on the severity of the injuries (Czyzewski et al., 2017). Thus, the exposure of the first aid knowledge may aid in lowering the mortality rates as the quick response of first aid management among bystanders can elevate the survival chances of the victims. Since today's youth represent the future of the country,

it is quite important for them to get familiar with first aid to save many lives. University students could be the best target to assess how good is their knowledge and attitude towards first aid. Therefore, this study will assess the level of knowledge as well as to identify the attitudes towards first aid among undergraduate students at Rafflesia College, University of Malaysia Sarawak (UNIMAS).

1.2 Statement of Problem

Basic first aid skill is very important as it can save people from further injuries and lessen the chance of death which may happen out-of-the hospital settings. However, it is unknown how many people have adequate first aid knowledge and are willing to perform first aid in emergency cases. In general, there are numerous studies done on knowledge and attitudes towards first aid in global, but the research regarding this topic that were conducted among the undergraduate students is lesser in numbers in both globally and in Malaysia. Based on a research conducted by Alsayali et al. (2019), they found 50% of the respondents which consist of both medical and non-medical students at Taif University had poor first aid knowledge. In a similar study, 92% of the respondents were found to have a poor attitude towards first aid (Alsayali et al., 2019). This study showed that higher education students still lacked of knowledge and attitudes towards first aid and these findings are also concerning whereby the students may not be able to offer first aid to those in needs in the future due to inadequate first aid knowledge and also poor attitude towards first aid. Besides, no studies were conducted regarding this topic in Sarawak, especially in UNIMAS. Hence, it is necessary to conduct a study on knowledge and attitudes towards first aid among university students in UNIMAS.

1.3 Research Questions

- a) What is the level of knowledge of first aid among undergraduate students at Rafflesia College, UNIMAS?
- b) What are the attitudes towards first aid among undergraduate students at Rafflesia College, UNIMAS?
- c) What are the associations between socio-demographic characteristics and level of knowledge of first aid among undergraduate students at Rafflesia College, UNIMAS?
- d) What are the associations between socio-demographic characteristics and attitude towards first aid among undergraduate students at Rafflesia College, UNIMAS?

1.4 Research Objectives

- a) To assess the level of knowledge of first aid among UNIMAS undergraduate students at Rafflesia College.
- b) To identify the attitudes towards first aid among UNIMAS undergraduate students at Rafflesia College.
- c) To examine the associations between socio-demographic characteristics and level of first aid knowledge among UNIMAS undergraduate students at Rafflesia College
- d) To examine the associations between socio-demographic characteristics and attitudes towards first aid among UNIMAS undergraduate students at Rafflesia College.

1.5 Significance of the study

According to WHO (2021), out of the 4.4 million injury-related fatalities, 3.16 million people died due to unintentional injuries. The first aid application on injured people can reduce the fatality cases as well as to lessen the injuries from further complications. Hence, this study is conducted to assess the knowledge and also to identify the attitudes towards first aid among UNIMAS undergraduate students at Rafflesia College. Through this study, the knowledge gaps of first aid can be identified among UNIMAS undergraduate students at Rafflesia college. Since Rafflesia college resided by UNIMAS students from different faculties including health sciences students, it will also help to determine how good is the nursing and medical students' knowledge and attitudes towards first aid. Thus, this study can act as a guidance in evaluating the effectiveness of syllabus on first aid conducted at Faculty of Medicine and Health Sciences. Other than that, the findings from this study may also guide the university administrators to implement strategies like providing any first aid training in every faculty which may help in enhancing their knowledge as well as attitudes towards first aid. In addition, the evidence in this study can also be served as a reference for future research in the similar areas of studies, particularly a study of first aid conducted among undergraduate students in Malaysia.

1.6 Definition of terms

1.6.1 Knowledge

- a) Conceptual definition: The understanding of a subject that were gained from education, experience, or by people (Cambridge Dictionary, n.d.).
- b) Operational definition: The knowledge of the undergraduate students at Rafflesia College, UNIMAS, about first aid. In this study, it is measured by 10 items if multiple choice

questions adopted from Jamaludin et al. (2018) whereby each question allocates 1 point for a correct answer and 0 point for an incorrect answer. The maximum score is 10 while the minimum score is 0. The level of knowledge of the respondents will be categorised into 3 categories. A score of more than 70% indicates high level of knowledge, a score between 50-70% indicates intermediate level of knowledge, and a score less than 50% indicates low level of knowledge.

1.6.2 Attitude

- a) Conceptual definition: A feeling, an opinion, or how you behave towards something or someone (Cambridge Dictionary, n.d.).
- b) Operational definition: The way undergraduate students at Rafflesia College in UNIMAS, feel, think and behave towards first aid. In this study, it is measured by 5 items questionnaire with a five-point Likert's scale adopted from Jamaludin et al. (2018). Each question item is given a score ranging from 1 to 5. The maximum score is 25 while the minimum score is 5. The total score that falls between 5-14 indicates good attitude, a total score of 15 indicates moderate attitude, and a total score between 16-25 indicates poor attitude.

1.6.3 First aid

Definition: An immediate action performed by a bystander to rescue an injured individual at the scene of an accident until full medical care is available (Alanazi et al., 2022).

1.6.4 Undergraduate students

Definition: Students who are actively enrolled in degree programmes in UNIMAS at the time

of the data collection.

1.7 Summary

This chapter discusses the background of the study of first aid in which describes what first aid is and its importance in helping people in need, problem statement which includes limited studies of the knowledge and attitude towards first aid conducted in Malaysia specifically among undergraduate students in UNIMAS, research questions, research objectives, significance of study, as well as defining the main terms used in this study.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This chapter presents the literature review of the research topic that is being studied which is the level of knowledge and attitude towards first aid among undergraduate students. Section 2.1 describes the level of knowledge of first aid among undergraduate students. Section 2.2 describes the attitude towards first aid among undergraduate students. Section 2.3 describes the association between socio-demographic characteristics and the level of knowledge of first aid among undergraduate students. Section 2.4 describes the association between socio-demographic characteristics and attitude towards first aid among undergraduate students. Google Scholar, ResearchGate, and PubMed were used as the sources for the literature review. The common keywords used were knowledge, attitude, first aid, and undergraduate students. Section 2.5 describes the conceptual framework of the study. Lastly, the summary of the literature review will be presented in section 2.6.

2.1 Knowledge of first aid among undergraduate students at Rafflesia College, UNIMAS

There are several studies have been carried out globally to assess the degree of first aid knowledge among different populations, including university students. A study done in Taif University, Saudi Arabia, conducted by Alsayali et al. (2019), was aimed to determine the knowledge and attitudes towards first aid among both medical and non-medical students with a total of 500 participants recruited in their study. They found that the majority of the participants (56.6%) had good knowledge on first aid. This result is consistent with a study conducted at different universities in Saudi Arabia whereby more than half of the participants had good

knowledge (AlQahtani et al., 2020). The study aimed to assess the knowledge among the university students in Saudi Arabia which include both medical and non-medical students with a total of 389 participants. However, these two studies were in contrast to a study conducted by Ahmer et al. (2020) where the results showed lower first aid knowledge among the university students. This study was to assess the knowledge and attitude of first aid among non-medical students of Karachi University in Pakistan with a sample size of 386. Similarly, Khatatbeh (2016) revealed a serious lack of knowledge on basic first aid among university students from 14 colleges at Yarmouk University in Jordan. Eight hundred and eighty-three participants were involved in this study; 59.3% of literary students, 31.4% of scientific students, 6.3% physical education students, and 2.9% health sciences students.

Comparing the four studies regarding the first aid knowledge among university students, the two of the studies' findings were opposite to the other two. Both Alsayali et al. (2019) and AlQahtani et al. (2020) found good knowledge among university students while Ahmer et al. (2020) and Khatatbeh (2016) found lack of first aid knowledge among university students. These findings might be different due to a few factors such as presence of first aid session and the difference in the sample sizes. Based on Ahmer et al. (2020), they revealed that only 4.9% of the students had attended the first aid session previously and this may affect the overall percentage of first aid knowledge among the participants. Khatatbeh (2016) also discovered that only 29.2% had previous first aid experience. This study stated that those who had previous first aid experience possessed better knowledge. In addition, the sample size in the Khatatbeh (2016) study was large which was 883 participants compared to other studies. The larger the sample, the more the information gathered. Since the majority of the participants were non- medical with only 2.9% of

medical students, the findings were expected to be low.

2.2 Attitudes towards first aid among undergraduate students at Rafflesia College, UNIMAS

The attitude towards first aid is also crucial to be identified among the university students since it may affect how the individual reacts towards first aid which subsequently affects their willingness to learn as well as to help people in emergency cases. A study done at six colleges in Karachi, Pakistan, conducted by Khan et al. (2010), was aimed to assess the knowledge and attitudes towards first aid among undergraduate students which included both medical and non-medical students with a sample size of 446. They found that the majority of the participants (94.4%) showed a good attitude towards first aid whereby they wanted first aid courses to be covered in their syllabus. This finding goes in line with a study conducted by Ahmer et al. (2020) where the attitude towards first aid was assessed through the willingness of attending a first aid session questions. The result showed that 67.1% of the participants had a good attitude towards first aid whereby they were willing to take part if any first aid training sessions were organised by their educational institutions(Ahmer et al., 2020). Similarly, Jamaludin et al. (2018) reported that 90.8% of the participants showed a good attitude towards first aid whereby they understood the importance of first aid to help those who are in need. This study was done among 348 health sciences students at International Islamic University Malaysia (IIUM), in Kuantan. However, 92% out of 500 participants at Taif University, in Saudi Arabia, were found to have a poor attitude (Alsayali et al., 2019).

In this section, there were four quantitative cross-sectional studies were conducted to identify the

attitudes among the university students. Out of four studies, three studies reported a similar result. Khan et al. (2010), Ahmer et al. (2020), and Jamaludin et al. (2018) found that majority of the participants had a good attitude towards first aid meanwhile a poor attitude towards first aid was found in a research conducted by Alsayali et al. (2019). The contrasting findings on attitudes might be closely related to the availability of the first aid courses and training in their institution. Based on Alsayali et al. (2019) study, most of the respondents who had a first aid group showed a good attitude towards first aid compared to those who had no first aid group. However, this study found that only 26.2% of the participants had a first aid group. Thus, this led to an unfavourable result, particularly a major poor attitude towards first aid reported in the study. Furthermore, the percentage of the students who had good attitudes towards first aid in Jamaludin et al. (2018) study was found to be high because most of them had taken first aid courses (65.2%, n= 227) and this finding is similar to Khan et al. (2010). In a study done by Khan et al. (2010), 94.4% (n= 421) respondents would like first aid to be covered in their syllabus. A total of 64.8% (n= 172) non-medical students wanted first aid syllabus to be covered at matriculation levels and 25.5% of the respondents wanted the first aid syllabus to be covered at intermediate or A levels (Khan et al., 2010). Besides, Ahmer et al. (2020) study showed that majority of the respondents (67.1%, n= 259) had a good attitude towards first aid as indicated by willing to attend the first aid session. Respondents who had first aid knowledge were noted to be more willing to attend the first aid session (Ahmer et al., 2020). It shows that the first aid knowledge increased the respondents' willingness to participate in the session.

2.3 Association between the socio-demographic characteristics and the level of first aid knowledge

Several studies had been conducted globally to examine whether the degree of first aid knowledge

was associated with the socio-demographics or not. In this section, the socio-demographic profiles included are gender, faculty, year of study, and first aid course or training.

In terms of gender, a study by Khatatbeh (2016) discovered that females were more knowledgeable compared to male. This is similar to Jamaludin et al. (2018) study whereby there was a significant association between gender and first aid knowledge ($p=0.018$); females had better knowledge. Nonetheless, Joseph et al. (2014) claimed that females had slightly better knowledge than male but since the p -value was more than 0.05 ($p=0.74$), thus, there was no association between gender and first aid knowledge among the participants. This finding is contradicted with the first two studies and it may be due to the discrepancy of an equal gender representation in the study sample and the sample size as well. The total number of participants in a study by Joseph et al. (2014) was 152 with 91 females and 61 males. The sample size calculated in this study is small and there is not much difference in number between the two genders. According to Gumpili & Das (2022), the sample is not a realistic representative of the population if it is very tiny, and the results cannot be generalised to the full population and if the sample size is too small, it will be impossible to identify the differences between the groups. Unlike in a study by Khatatbeh (2016) and Jamaludin et al. (2018), the sample sizes were 883 and 348 respectively. Plus, the amount of female participants exceeded the male participants where the number of females were 65.9% ($n= 582$) and 58.4% ($n=204$) respectively. Larger sample sizes provide more information from the participants. The results will be more accurate since a larger sample will be more accurately reflective of the population (Andrade, 2020). Hence, this also explains why females had higher first aid knowledge compared to male.

Alsayali et al. (2019) and Khatatbeh (2016) revealed that there was a statistically significant

difference between the faculty background and first aid knowledge among the university students with the p -value of <0.05 while AlQahtani et al. (2020) summarised that there was a statistically insignificant difference with p -value of >0.05 between those variables. Although both Alsayali et al. (2019) and Khatatbeh (2016) found a statistically difference between the variables, the findings were opposite whereby health sciences and scientific students had better knowledge compared to literary and physical education students in Khatatbeh (2016) while majority of the medical students (49.2%) had poor knowledge compared to scientific (26%) and literary students (24.8%) were noted in Alsayali et al. (2019). The findings in Khatatbeh (2016) may be linked with their academic performance. In Jordan, where the study was conducted, students who wanted to be registered in health sciences and scientific courses must possess higher averages in their high school (Khatatbeh, 2016). The students who are eligible to enroll in these two courses may have a very good academic performance. In addition to Khatatbeh (2016) study, 0.7% of the sample size ($n=500$) were postgraduate students. Postgraduate students have more experience and knowledgeable compared to undergraduate students and this may influence the first aid knowledge result among health sciences and scientific students. Other than that, only 2.9% of the participants were health sciences students. A very small quantity of the group of health sciences is inadequate to conclude that health sciences students had better knowledge compared to other courses.

Medical students are expected to have better knowledge on first aid but different in Alsayali et al. (2019) study. This study found that the presence of first aid group or committee is statistically associated with the first aid knowledge among the respondents ($p<0.05$). There were 54.4% ($n=136$) of the respondents who had no idea of the first aid presence showed poor knowledge of first aid. The medical students may be among those who were not aware with the first aid presence. In

the case of AlQahtani et al. (2020) study, there was no significant difference between faculty background and first aid knowledge due to both medical and non-medical generally having good knowledge ($p>0.05$). Most of the medical students obtained correct answers on neck injuries, heatstroke, seizures, and hypoglycemic attacks meanwhile majority of the non- medical students obtained correct answers on neck injuries and hypoglycemic attacks as well (AlQahtani et al., 2020).

Three studies found that there was an association between year of study and first aid knowledge. According to Jamaludin et al. (2018), health sciences students in year 3 had better knowledge compared to year 4 and other years with the p -value of <0.001 . Third year is where they started learning regarding first aid so the participants from year 3 got the higher scores in the study. The year 4 students may have forgotten of what they had learn about first aid while year 1 and year 2 had lack of experiences and exposure to first aid courses. In a study by Joseph et al. (2014), medical students who were in eighth semesters scored more than fourth and sixth semester students ($p=0.04$), which was similar to the findings of a recent study from Saudi Arabia. Medical students who were in batch 15 had better knowledge compared to medical students in batch 18 with the p -value of 0.03 (Alanazi et al., 2022). Hence, these studies showed that the first aid knowledge was associated with the years of study as the more the first aid experience as well as exposure to the first aid syllabus, the more the knowledge they have.

Some studies found that the level of knowledge of first aid had significantly associated with the involvement of students on first aid courses or training. Khatatbeh (2016) disclosed that students who had previous first aid training had good knowledge of first aid compared to those who had no first aid training before ($p<0.05$). Similarly, a study by Alanazi et al. (2022) whereby the students