

**NURSES' KNOWLEDGE AND ATTITUDE TOWARDS
DEPRESSION IN HOSPITAL PAKAR USM**

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**NURSES' KNOWLEDGE AND ATTITUDE TOWARDS
DEPRESSION AT
HOSPITAL PAKAR USM**

by

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**Dissertation submitted in partial fulfilment of the
requirements
for the degree of
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CERTIFICATE

This is to certify that the dissertation entitled NURSES' KNOWLEDGE AND ATTITUDE TOWARDS DEPRESSION AT HOSPITAL PAKAR USM is the bona fide record of research work done by Ms ANIS SYAFIQA BINTI ABDUL RAZAK during the period from October 2024 to August 2025 under my supervision. I have read this dissertation and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation to be submitted in partial fulfilment for the degree of Bachelor of Nursing (Honours).

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DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated and duly acknowledged. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at Universiti Sains Malaysia or other institutions. I grant Universiti Sains Malaysia the right to use the dissertation for teaching, research and promotional purposes.



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LIST OF ABBREVIATIONS

HBM	Health Belief Model
HPUSM	Hospital Pakar Universiti Sains Malaysia
USM	Universiti Sains Malaysia
WHO	World Health Organization

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**PENGETAHUAN DAN SIKAP JURURAWAT TERHADAP KEMURUNGAN DI
HOSPITAL PAKAR USM**

ABSTRAK

Kemurungan merupakan satu keadaan kesihatan mental yang lazim tetapi sering tidak dikenalpasti, dan boleh memberi kesan besar terhadap hasil rawatan pesakit. Jururawat sebagai penyedia penjagaan kesihatan barisan hadapan memainkan peranan penting dalam mengenal pasti dan mengurus pesakit yang mengalami kemurungan. Namun begitu, pengetahuan yang tidak mencukupi dan sikap negatif dalam kalangan jururawat boleh menjejaskan pengesanan awal serta penjagaan yang berkesan. Kajian ini dijalankan untuk menilai tahap pengetahuan dan sikap terhadap kemurungan dalam kalangan jururawat di Hospital Pakar USM serta mengenal pasti hubungan antara kedua-dua pemboleh ubah tersebut. Kajian keratan rentas ini melibatkan seramai 304 orang jururawat yang telah melengkapkan soal selidik yang telah disahkan kesahihannya. Instrumen yang digunakan dalam kajian ini ialah *Depression Knowledge and Attitude Questionnaire* yang diambil daripada Ahmed et al. (2024), yang mengandungi 11 item berkaitan pengetahuan dan 18 item berkaitan sikap terhadap kemurungan. Statistik deskriptif digunakan untuk menilai tahap pengetahuan dan sikap, manakala ujian chi-square digunakan bagi menentukan hubungan antara kedua-duanya. Hasil menunjukkan bahawa walaupun semua responden pernah mendengar tentang kemurungan, hanya (32.2%) dari para peserta menunjukkan tahap pengetahuan yang baik manakala (67.8%) dari para peserta mempunyai tahap pengetahuan yang rendah. Dari segi sikap pula, (81.6%) dari para peserta menunjukkan sikap yang kurang baik terhadap kemurungan. Terdapat pelbagai salah faham berkaitan punca, rawatan dan persepsi terhadap pesakit kemurungan. Hasil ujian chi-square menunjukkan tiada hubungan yang signifikan antara

tahap pengetahuan dan sikap ($\chi^2 = 0.382$, $p = 0.537$). Hasil ini menunjukkan bahawa meskipun tahap kesedaran adalah tinggi, tahap pengetahuan dan sikap masih tidak memuaskan. Ketiadaan hubungan yang signifikan turut mencadangkan bahawa peningkatan pengetahuan sahaja mungkin tidak mencukupi untuk mengubah sikap. Oleh itu, latihan berterusan, program pendidikan kesihatan mental, dan usaha mengurangkan stigma amat disarankan bagi meningkatkan kecekapan serta empati jururawat dalam penjagaan pesakit yang mengalami kemurungan.

**NURSES' KNOWLEDGE AND ATTITUDE TOWARDS DEPRESSION AT
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ABSTRACT

Depression is a common yet often underrecognized mental health condition that significantly affects patient outcomes. Nurses, as frontline healthcare providers, play a crucial role in identifying and managing patients with depression. However, inadequate knowledge and negative attitudes among nurses may hinder early detection and appropriate care. This study aimed to assess the level of knowledge and attitudes toward depression among nurses at Hospital Pakar USM and to determine whether there is an association between these two variables. A cross-sectional study was conducted involving 304 nurses using a validated self-administered questionnaire. The instrument used in this study was the Depression Knowledge and Attitude Questionnaire adopted from Ahmed et al. (2024), consisting of 11 knowledge items and 18 attitude items. Descriptive statistics were used to evaluate the overall levels of knowledge and attitude, while a chi-square test was used to examine the association between the two. Results revealed that although all respondents had heard about depression, only (32.2%) of respondents demonstrated good knowledge, while (67.8%) of respondents had poor knowledge. In terms of attitude, (81.6%) of the respondents displayed a poor attitude toward depression. Common misconceptions about causes, treatments, and the nature of depression were observed. The chi-square test showed no statistically significant association between knowledge and attitude ($\chi^2 = 0.382$, $p = 0.537$). These findings indicate that while awareness is high, both knowledge and attitude remain inadequate. Moreover, the lack of significant association suggests that improving knowledge alone may not be enough to shift attitudes. Therefore, continuous mental health training, education programs, and stigma-reduction

efforts are recommended to enhance nurses' competence and compassionate care in mental health settings.

CHAPTER 1

INTRODUCTION

1.1 Introduction

The purpose of this dissertation is to study on nurse's knowledge and attitude towards depression at Hospital Pakar USM. This chapter presents the background of the study, followed by a detailed problem statement, research questions, and objectives. It also outlines the study's hypotheses, the significance of the research, and provides operational definitions of key terms used throughout the study.

1.2 Background of Study

Depressive disorder, also known as depression, is a mental health condition that is quite common and can affect anyone. It is marked by feeling very down or losing interest in activities that one normally enjoys for a long time. Unlike normal mood swings or reactions to everyday life, depression involves deep sadness or a lack of interest in most activities, lasting for most of the day, nearly every day, for at least two weeks (WHO, 2023). People with depression often have trouble sleeping and eating. They may feel worthless, think about death, and feel hopeless about the future. They also frequently feel tired and have difficulty concentrating (WHO, 2023).

Depression is caused by a mix of social, psychological, and biological factors. People who have gone through abuse, major losses, or other difficult experiences are more likely to develop depression. Challenges at school or work can also contribute to depression. There are ways to help prevent depression, and there are effective treatments available, including therapy and medications. However, these treatments are often not available or are hard to access, especially in low- and middle-income countries. It's

estimated that over 75% of people with mental health issues in these countries do not receive any treatment (WHO, 2023).

Depression is characterized by ongoing feelings of sadness and a loss of interest or enjoyment in activities that were once pleasurable (WHO, 2023). According to Fahrni et al., (2021) in Asian countries, the rate of depression among older adult ranges from 12% to 34%. For instance, the prevalence is 12.7% in India, 16.5% in Malaysia, 17.2% in Vietnam, 27.8% in Sri Lanka, 30.3% in Japan, and 33.8% in Indonesia (Fahrni et al., 2021).

Research shows that developing Asian countries, including Malaysia, have seen a rise in depression (Loo & Furnham, 2012). According to Loo & Furnham, (2012), in Malaysia, depression is the fourth most disabling disease, with data indicating a prevalence of 11.2% for depression and anxiety. Research shows that suicidal thoughts, a key symptom of depression, affect around 6% of the population (Loo & Furnham, 2012).

Since many cases of depression are self-reported, accurate recognition by the individuals and their families is crucial for seeking appropriate care. This highlights the importance of depression literacy, which refers to the public's knowledge and attitudes that aid in recognizing and managing depression (Loo & Furnham, 2012). Studies have shown that many people fail to identify depression correctly, often mistaking it for a temporary crisis rather than a chronic condition. This gap in understanding, along with negative attitudes toward treatments like antidepressants, creates barriers to effective detection and treatment of depression. Thus, improving public knowledge about depression is vital for ensuring timely diagnosis and care (Loo & Furnham, 2012).

Depression affects an estimated 3.8% of the global population, with around 5% of adults experiencing it, including 4% of men and 6% of women. Among adults aged 60 and above, the prevalence rises to 5.7%. Globally, roughly 280 million people are living with depression. The condition is approximately 50% more prevalent in women compared to men. Additionally, more than 10% of women who are pregnant or have recently given birth are affected by depression. Each year, over 700,000 individuals die by suicide, making it the fourth leading cause of death among people aged 15 to 29 years (World Health Organization: WHO & World Health Organization: WHO, 2023). Every year, around 18.8 million teenagers also struggle with depression, showing just how common and serious this condition is (Ahmed et al., 2023).

Depression is a common mental health disorder that affects individuals across all ages and backgrounds. In a hospital setting, caregivers, including nurses, doctors, and support staff, play a crucial role in providing holistic care to patients with various health conditions, including depression. Understanding nurses' knowledge and attitudes towards depression is vital, as it can significantly impact patient outcomes, and the quality of care provided. This study aims to explore the knowledge and attitudes of nurses towards depression in a hospital setting to identify gaps and potential areas for intervention.

1.3 Problem Statement

Despite the growing awareness and recognition of depression as a critical public health issue, there is still a lack of adequate knowledge and appropriate attitudes among nurses towards depression in many hospital settings. This knowledge gap highlights the urgent need for targeted educational intervention programs to improve nurses' understanding of

depression. By enhancing nurses' knowledge, attitudes, and practices through continuous medical education, hospitals can significantly improve the confidence of healthcare providers in managing depression. Such interventions are critical for ensuring timely diagnosis and effective treatment, ultimately improving patient outcomes (Ahmed et al., 2024).

(WHO) has ranked depression as one of the most burdensome diseases globally. According to Ahmed et al., (2024), biological, social, environmental, cultural, and economic factors all contribute to mental health issues. When these factors are out of balance, anyone regardless of age, gender, or socioeconomic status can experience mental disorders. To ensure high-quality psychiatric care and integrate mental health services into primary healthcare, it is essential to understand nurses' attitudes and knowledge (Ahmed et al., 2024).

Suicide, a significant cause of premature death, is closely linked to depression. Previously, patients with depression were primarily treated in psychiatric hospitals, but now they are increasingly admitted to general hospitals. A nurse's knowledge and attitude are critical in providing effective care, as adequate knowledge enables nurses to identify early symptoms of depression and deliver necessary care, facilitating a faster recovery for patients. This has prompted the investigator to examine the knowledge and attitudes of nurses regarding the management of patients with depression (Kumar & B, 2014).

This study also looks at the current level of knowledge about and attitude towards depression among nurses at Hospital Pakar USM. An understanding of this aspect will not only highlight the areas where knowledge about mental health may be lacking, but it

also provides insight into those prevailing attitudes that may affect the quality of patient care. This study identifies such gaps, as it also helps in formulating specific educational interventions that will not only improve mental health literacy among nurses but also bring in better patient outcomes while making the approach to mental health care more supportive and empathetic.

1.4 Research Questions

The research questions for this study are as follows:

1. What is the nurses' level of knowledge regarding depression at HPUSM?
2. What is the nurses' level of attitudes towards depression at HPUSM?
3. Is there an association between nurses' knowledge and attitude level towards depression at HPUSM?

1.5 Research Objectives

1.5.1 General Objective

The general objective of this study is to determine the nurses' knowledge and attitudes level towards depression at Hospital Pakar USM.

1.5.2 Specific Objectives

The specific objectives for this study are as follows:

1. To determine nurses' level of knowledge regarding depression at HPUSM
2. To determine nurses' level of attitudes towards depression at HPUSM
3. To determine the association between nurses' knowledge and attitude level towards depression at HPUSM

1.6 Research Hypothesis

Hypothesis 1 (H_0): There is no association between the knowledge level and attitude level towards depression among nurses at HPUSM.

(H_1): There is an association between the knowledge level and attitude level towards depression among nurses at HPUSM.

1.7 Significance of study

The findings from this study provide valuable insights into the current state of knowledge and attitudes towards depression among nurses in hospital settings. Understanding nurses' knowledge and attitudes toward depression is essential for several reasons. First, improving nurses' knowledge and fostering positive attitudes can lead to earlier detection and better management of depression, which ultimately enhances patient outcomes. Since nurses are often the frontline caregivers, their role in recognizing and addressing depression is crucial for ensuring timely and effective care (Mahaiyuddin & Sateesh, 2024). Additionally, the study holds importance in reducing stigma associated with mental illness, particularly depression. By assessing nurses' attitudes, the research can contribute to fostering a more compassionate healthcare environment, which is critical for providing empathetic care to individuals with mental health conditions.

Furthermore, the study can reveal gaps in nurses' knowledge about depression, informing the development of targeted educational interventions aimed at improving mental health literacy within the profession. This not only benefits patients by helping them to get the proper treatment related to their depression in a timely manner but also supports the integration of mental health services into primary healthcare, where nurses play a pivotal role. The findings of the study can also guide the creation of policies and training

programs that enhance nurses' ability to care for patients with depression, thus improving the overall quality of care.

Moreover, when nurses had a better understanding regarding depression, it will help nurses address both the emotional and physical needs of their patients, creating a more balanced and supportive approach. For example, they might include mental health support in care plans or communicate more compassionately, leading to better outcomes for patients overall. Lastly, by addressing attitudes toward mental health conditions, the study could help create a more supportive work environment for nurses, encouraging them to prioritise their own mental well-being. Overall, this research is significant because it can lead to enhanced mental health care, reduced stigma, improved nursing education, and contribute to the advancement of healthcare systems.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

According to Ahmed et al., (2024), depression is a common emotional response to life's minor setbacks, often referred to as feeling "blue." These episodes are typically short-lived as individuals adjust to changes, disappointments, or perceived failures. However, when someone struggles to adapt effectively, they may develop pathological depression. According to Ahmed et al., (2024), like brief feelings of sadness, depression is a persistent condition that impacts a person's mood, behaviour, and outlook on life. Ahmed et al., (2024) stated that depression is a serious illness that affects many areas of life and is a leading risk factor for suicide, as well as the most prevalent mental health condition worldwide.

Mental health issues are among the top causes of disability worldwide. According to Ahmed et al., (2024), depression contributed to 6.6% of the global years lived with a disability-adjusted life expectancy and 18.9% of the world's years with a disability. Depression is recognised as the most diagnosed mental disorder and is considered a leading factor in the development of other illnesses. Its high lifetime prevalence, early onset, chronic nature, and role impairment have led the WHO to rank depression as the most burdensome disease globally in recent years. Mental health is influenced by a complex interaction of biological, social, environmental, cultural, and economic factors, and when these elements are imbalanced, they can lead to mental disorders that can affect individuals of any age, gender, location, or socioeconomic status (Chaudhari et al., 2022). Understanding the perspectives of nurses is essential for providing high-quality, holistic

psychiatric care and for successfully integrating mental health into primary healthcare services (Ahmed et al., 2024).

A global survey revealed that around 450 million people are affected by mental health disorders, with approximately 121 million suffering specifically from depression. Depression is a common mental illness that impacts individuals across all age groups. By the year 2020, it was projected to become the second leading cause of death and disability worldwide. It is estimated that one in five individuals will face depression at some point in their lives. Fortunately, with appropriate treatment and modern medications, more than 80% of depression cases can be successfully managed. Nurses play a vital role in caring for patients with depression, as their knowledge and attitude greatly influence patient outcomes. Well-informed nurses are better equipped to recognize early symptoms and provide timely intervention, supporting faster recovery. As a result, this study aims to explore the level of knowledge and attitudes among nurses in managing patients with depression (Mahaiyuddin, 2024).

2.2 Knowledge of Depression

In the literature, there is a significant focus on healthcare workers' knowledge and understanding of depression, its causes, treatment, and management. Seman et al. (2024) found that education plays a crucial role in helping individuals recognise mental illnesses like depression, although the interpretation of symptoms can remain complex, leading to potential misdiagnoses. Mulango et al. (2018) highlighted that the majority of healthcare providers (85.4%) rejected the idea that depression is caused by supernatural forces, and most understood the risks of depression leading to suicide (92.9%) and the effectiveness of treatments like pharmacotherapy and psychotherapy (85.8%). However, only 28.3%

were familiar with fluoxetine as an antidepressant, suggesting gaps in pharmacological knowledge.

Similarly, Alemayehu et al. (2023) confirmed that most healthcare workers had an understanding of the health risks associated with depression, with over 90% recognising the potential for depression to lead to suicide and acknowledging the effectiveness of psychotherapeutic and pharmaceutical treatments. However, there remained misconceptions, with a significant number of healthcare providers incorrectly identifying medications like methotrexate and carbamazepine as antidepressants. Furthermore, knowledge of diagnostic tools for depression was lacking, with only 22.5% of respondents aware of their existence.

Alemayehu et al. (2023) reported that most respondents (84.1%) recognized depression as a legitimate health concern. Additionally, 69.1% of participants disagreed with the belief that depression is caused by witchcraft, charms, or evil spirits (Alemayehu et al., 2023). Furthermore, approximately 91.8% of medical professionals acknowledged that depression can lead to suicide or suicide attempts (Alemayehu et al., 2023).

This lack of familiarity with standard depression screening tools and pharmacological treatments was also echoed in Xie et al. (2023), where a large proportion of healthcare workers demonstrated limited awareness of effective depression management strategies. More than 89% of nurses, for instance, were unaware of the use of common antidepressants like fluoxetine and amitriptyline. Moreover, only a small percentage had knowledge of psychotropic drug prescription practices.

Ahmed et al. (2024) further underscored these knowledge gaps among nurses specifically. Their study found that, while 95% of participants had heard of depression, a significant majority lacked awareness regarding the potential for a depressed patient to experience a sudden emotional collapse (92.8%) and remained uninformed about the risks posed by a depressed individual to themselves and others (52.5%). Additionally, most participants (96.5%) were unaware of the link between depression and suicide or suicide attempts, and 89% were unfamiliar with effective depression management strategies. Regarding attitudes towards depression treatment, 73.5% and 70.8% of nurses disagreed that depression could be managed solely by traditional and orthodox practices, respectively. The study also highlighted low awareness regarding antidepressant medications: 80.5% and 82.5% of nurses were unfamiliar with amitriptyline and fluoxetine, respectively, and 89.3% displayed an overall deficient level of pharmacological knowledge. Furthermore, 94.8% of non-psychiatric nurses lacked understanding of the connection between misfortune and depression.

2.3 Attitude towards depression

The literature reveals mixed attitudes among healthcare providers toward depression, with a complex interplay of positive and negative views. Mulango et al. (2018) found that a significant proportion of healthcare providers believed depression arose from life stressors and early deprivation, but fewer acknowledged public discrimination against depressed individuals. Many respondents demonstrated confidence in antidepressant treatments, yet a notable percentage (67.3%) believed depression could improve without medication, reflecting some ambivalence in therapeutic approaches.

Attitudes toward depression were also influenced by misconceptions. Mulango et al. (2018) and Mbatia et al. (2009) noted that while most healthcare workers recognised the role of life events in depression, many still held stigmatising views, such as associating depression with poor stamina in coping with life challenges. These views may hinder the differentiation between clinical depression and general unhappiness, though fewer healthcare workers struggled with this distinction than in other regions.

Ahmed et al. (2024) highlighted further gaps in attitudes and understanding among nurses. Approximately half (53%) of participants had not observed any notable increase in depressive symptoms in recent years, with a significant proportion (55.5%) expressing challenges in distinguishing between psychological and biochemical depression. Additionally, most nurses (55.3%) disagreed with the idea that depression could be effectively managed without medication. Discomfort in handling depression was prevalent, with 57.3% of nurses reporting unease when working with depressed patients, and a substantial 91.8% lacked awareness of the role primary healthcare workers play in managing depression. Moreover, a majority (76.5%) displayed negative attitudes toward individuals diagnosed with depression, indicating that stigma remains a major barrier in effective depression management.

Alemayehu et al. (2023) highlighted that while the majority of healthcare providers agreed on the biochemical basis of severe depression, nearly half believed depressive disorders could improve without medication. Despite these reservations, many felt confident in supporting depressed patients, though they often deferred complex cases to psychiatrists. However, nearly half of the respondents found treating depressed patients

challenging and emotionally taxing. From Alemayehu et al. (2023) study, (29.9%) respondents have negative attitude toward depression.

Stigmatising attitudes were further observed in Xie et al. (2023), where a significant proportion of nurses expressed discomfort in managing depression, with many lacking knowledge about the condition's causes and treatments. This discomfort, coupled with a general lack of awareness about healthcare workers' roles in managing depression, contributed to a pervasive sense of negativity. Interestingly, over two-thirds of healthcare providers in rural settings displayed pessimism about depression care, especially those with lower educational qualifications (Xie et al., 2023).

Mbatia et al. (2009) and Muriuki et al. (2024) found that healthcare workers were generally positive about their professional role in treating depression, showing therapeutic optimism, though they were less positive about the broader context of depression's causes and management. Knowledge and experience positively correlated with more favorable attitudes, indicating the importance of mental health training in shaping healthcare workers' perceptions.

2.4 Association between knowledge and attitude

Seman et al. (2024) found that greater knowledge about mental health is linked to more helping behavior, less blame and anger, and a greater willingness to discuss mental health, highlighting the critical role of education and experience in fostering positive attitudes among healthcare professionals. Ihalainen-Tamlander et al. (2016) noted that nurses are more likely to engage in conversations about mental health and offer support to individuals with mental illnesses.

Research on nurses in general hospitals found that most lacked sufficient knowledge about depression and had unfavourable attitudes toward patients with the condition. Furthermore, a significant positive relationship was found between the participants' knowledge and their attitudes (Ahmed et al., 2024). According to Ahmed et al., (2024) while nurses at general hospitals have limited knowledge of depression, their attitudes toward both the condition and patients experiencing it are generally neutral to somewhat positive.

Improving nurses' understanding of depression assessment methods will strengthen their knowledge, attitudes, and decision-making abilities. Given the identified gaps in nurses' awareness and skills related to managing depression, future research should focus on creating, implementing, and thoroughly evaluating targeted mental health awareness programs as part of nursing education and professional development (Ahmed et al., 2024).

2.5 Theoretical and Conceptual Framework

According to the literature review mentioned above, knowledge impacts attitude towards depression among nurses. Improved understanding of depression among non-psychiatric nurses may lead to quicker detection, better support for patients, and overall improved mental health care in environments with limited psychiatric expertise. By increasing nurses' awareness of depression assessment methods, their knowledge, attitudes, and decision-making abilities will also be enhanced. (Ahmed et al., 2024).

The Health Belief Model (HBM), as explained in *Health Behavior: Theory, Research, and Practice* (5th edition) by Glanz et al., (2015) is a framework used to understand and predict health behaviours based on personal beliefs. It suggests that people are more likely to take health-related actions if they believe they are at risk for a disease (perceived susceptibility), think the condition is serious (perceived severity), believe the benefits of action outweigh the barriers (perceived benefits and barriers), feel confident in their ability to act (self-efficacy), and are prompted by something that triggers them to take action (threat). The model helps explain why individuals adopt or avoid certain healthy behaviours and can be used to guide health interventions.

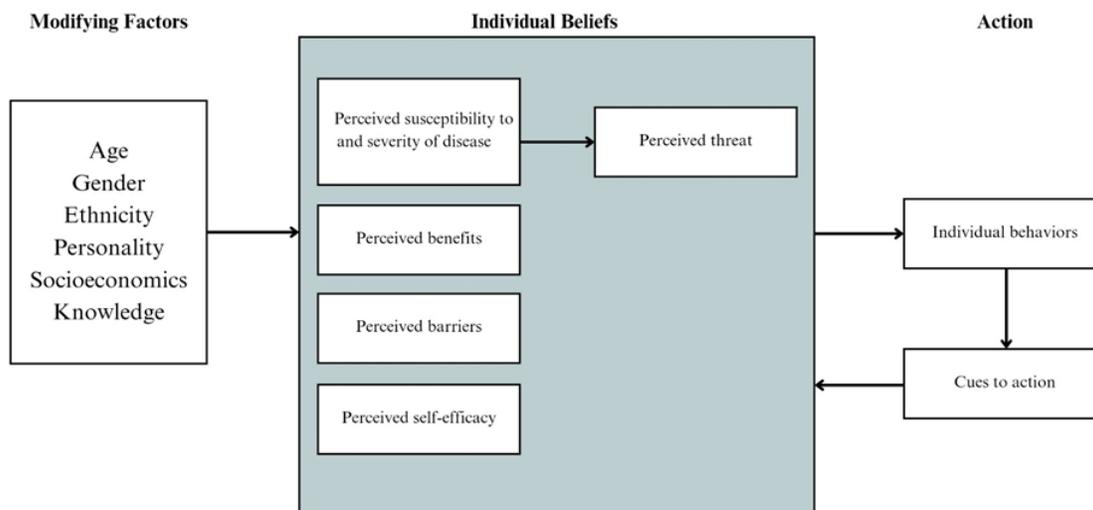


Figure 2.1 Components of the Health Belief Model adopted from Glanz et al. (2015).

The Health Belief Model (HBM) can be effectively applied to the study of knowledge and attitudes towards depression among nurses in HPUSM. Figure 2.1 shows a conceptual framework adapted from the health belief model that will guide the process of the research. The HBM helps explain how knowledge and attitudes toward depression

can shape nurses' actions. Nurses' knowledge about depression serves as the foundation for their ability to identify and address the condition effectively. Their beliefs regarding the severity and susceptibility of depression, as well as its potential consequences, shape their perception of the threat it poses to patients. Recognizing the benefits of early detection and treatment can motivate nurses to adopt proactive care practices, while barriers such as stigma may hinder their willingness or ability to provide optimal care. Confidence in their knowledge and skills, or perceived self-efficacy, plays a crucial role in empowering nurses to manage depression effectively. Furthermore, actions such as attending mental health seminars act as cues to encourage positive behaviour and enhance their capability to deliver quality care. By incorporating these elements, the model highlights how knowledge, attitudes, and beliefs influence nurses' practices, emphasizing the importance of education and training to improve care for patients with depression at Hospital Pakar USM.

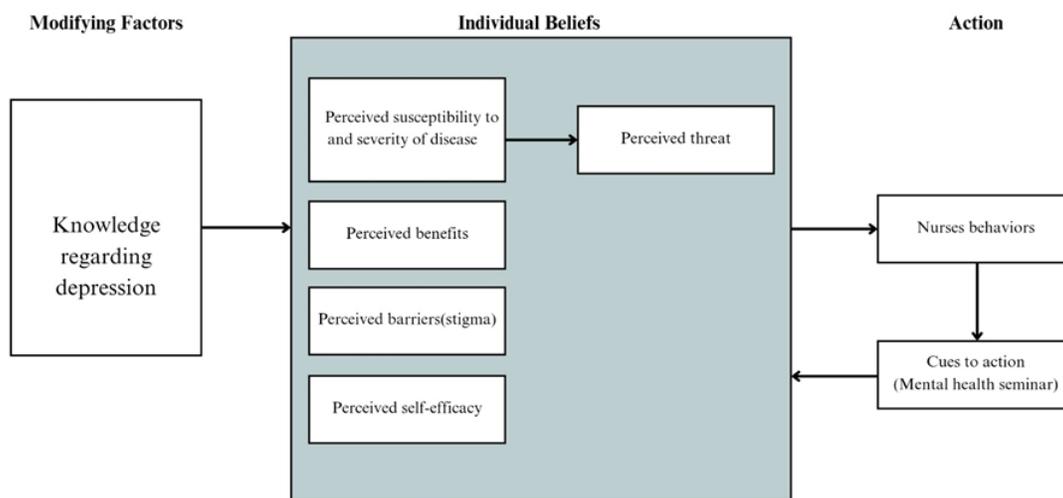


Figure 2.2 Conceptual framework of study: knowledge and attitude towards depression.

Adapted from Health Belief Model.

CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter outlines the research methodology used to conduct the study on nurses' knowledge and attitude towards depression at Hospital Pakar USM. It describes the research design, study setting and population, sampling plan, instrumentation, variables, data collection methods, ethical consideration and data analysis. the methodology was structured to ensure the validity, reliability, and relevance of the data collected to address the research objectives effectively.

3.2 Research Design

A cross-sectional study design was used in this study. A cross-sectional study is a type of observational study where both the outcome and exposure are measured at the same time in participants. The participants were chosen based on specific inclusion and exclusion criteria for the study. This design is commonly used in population surveys and to determine the prevalence of diseases in clinical settings (Setia, 2016).

3.3 Study Setting and Population

The study setting was conducted at Hospital Pakar Universiti Sains Malaysia (HPUSM), Kubang Kerian, Kelantan. HPUSM, the establishment of the USM Specialist Hospital as a University Teaching Hospital (HPU), represents a key development in combining medical education, research, and healthcare delivery. Its primary goal is to provide an integrated environment where medical students can gain practical, hands-on experience in a real hospital setting. By merging teaching and clinical practice, students are able to

directly apply their academic knowledge, learn from real patient cases, and work closely with experienced healthcare professionals.

Moreover, HPUSM functions as a fully equipped hospital, offering specialized healthcare services to the public. This unique integration ensures high-quality patient care while also fostering a collaborative environment where learning, research, and clinical service are seamlessly connected. As a result, HPUSM not only advances medical education but also plays a pivotal role in improving healthcare through research and practical innovation (Kamarudin, 2024).

The target population in this cross-sectional study is the nurses at Hospital Pakar Universiti Sains Malaysia, Kubang Kerian.

3.3.1 Sample criteria

Several criteria were specified and set to ensure that the subject's data were suitable for research purposes and can attain the targeted goals at the end of the study to meet the research's objective.

3.3.1.1 Inclusion criteria

The specific eligibility requirements for inclusion in this study required that each participant must be:

1. Nurses who work at general ward and clinic at Hospital Pakar USM.

3.3.1.2 Exclusion criteria

Subjects were excluded from this study if they:

1. Nurses that work in psychiatric ward and clinic at Hospital Pakar USM.
2. Nurses with less than 6 months experience in working.

3.4 Sampling Plan

This study utilized a structured sampling plan, including sample size estimation and sampling method. The sample size was determined based on the study's three objectives, using statistical formulas and prevalence data from previous research. The largest calculated sample size was selected to ensure sufficient power. A convenience sampling method was used to recruit participants from wards and clinics at Hospital Pakar USM due to its practicality and time efficiency (Convenience Sampling Method: How and When to Use | Qualtrics, 2023).

3.4.1 Sample Size Estimation

The sample size was calculated for objectives 1 and 2 (to determine the level of knowledge regarding depression and to determine the attitudes of nurses towards depression at Hospital Pakar USM). The reasonable sample size was taken as the study sample size. Objectives 1 and 2 used single proportion formula and the population proportion taken based on previous study conducted by (Ahmed et al., 2024).

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

Where,

n = sample size

p = anticipated population proportion

z = value of standard normal distribution = 1.96

Δ = precision = 0.05

Objective 1:

The prevalence of good knowledge towards depression was 10.8% (Ahmed et al., 2024).

Thus,

$$n = \left[\frac{1.96}{0.05} \right]^2 \times 0.108(1 - 0.108)$$
$$n=148.03$$

After considering 10% of response rate,

$$148.03 \times 10\% = 14.80$$

$$n \approx 163$$

Therefore, the total sample size for the objective were 163 samples.

Objective 2:

The prevalence of good attitude towards depression was 23.5% (Ahmed et al., 2024).

Thus,

$$n = \left[\frac{1.96}{0.05} \right]^2 \times 0.235(1 - 0.235)$$
$$n=276.25$$

After considered 10% of response rate,

$$276.25 \times 10\% = 27.63$$

$$n \approx 304$$

Therefore, the total sample size for the objective were 304 samples.

Objective 3:

Objective 3 was to identify whether there is an association or not between nurses' knowledge and attitude towards depression at Hospital Pakar USM. Based on study by (Chuang & Kuo, 2018). Sample size was calculated using Pearson's correlation.

In this study, Pearson's chi-square test was employed for data analysis due to the categorical nature of both the independent and dependent variables. Unlike Pearson correlation, which had been used to assess the strength and direction of relationships between continuous variables, Pearson's chi-square test was specifically designed to evaluate associations between categorical variables. This makes it the most suitable statistical tool for analysing relationships in this study. Although (Chuang & Kuo, 2018) utilized Pearson correlation, it likely involved continuous data or a different analytical focus. In contrast, this study aimed to explore the association between categorical variables.

Therefore, the sample size required for objective 3 in this study was 67 participants who fulfilled the inclusion and exclusion criteria.

[🏠](#) >> **Sample Size Calculator**

Sample Size Calculator (web)

Pearson's Correlation - Hypothesis Testing¹

Expected correlation (r):	<input type="text" value="0.355"/>	
Significance level (α):	<input type="text" value="0.05"/>	Two-tailed
Power ($1 - \beta$):	<input type="text" value="80"/>	%
Expected dropout rate:	<input type="text" value="10"/>	%
<input type="button" value="Calculate"/> <input type="button" value="Reset"/>		
Sample size, $n =$	<input type="text" value="60"/>	
Sample size (with 10% dropout), $n_{drop} =$	<input type="text" value="67"/>	

Figure 3.1 Sample size calculator by (Chuang & Kuo, 2018)

Based on the sample size calculation for all 3 objectives, the sample size for this study was based on the largest sample size, which was 304 participants.

3.4.2 Sampling Methods

This study used a convenience sampling method for collection of data in wards and clinic at Hospital Pakar USM. Convenience sampling used in this study due to its practicality and efficiency. This non-probability sampling method involves selecting participants who are easily accessible and willing to participate, thereby reducing time and resource demands. It is particularly beneficial in a hospital setting where time and resources are limited, enabling the researcher to focus on the target population without the need for extensive recruitment efforts. Convenience sampling facilitates the rapid collection of preliminary data and hypothesis testing, making it a useful approach when more rigorous sampling techniques are infeasible (Convenience Sampling Method: How and When to Use | Qualtrics, 2023).

3.5 Instrumentation

This section describes the research instrument used for data collection, including its development, translation and the validation.

3.5.1 Instrument

The instrument used was a self-administered questionnaire developed based on previously published studies (Ahmed et al., 2024) and permission was granted.

3.5.2 Translation of instrument

The questionnaire was originally drafted in English, there is no need for translation, as the original study was also conducted in English. Additionally, the nurses at Hospital Pakar USM were required to have proficiency in English.

3.5.3 Validation and reliability of instrument

The questionnaire was adopted from Ahmed et al., (2024) and the Cronbach's alpha values for the knowledge and attitude scales were 0.739 and 0.701, respectively, indicating satisfactory reliability (Ahmed et al., 2024). The original author, Ahmed et al., (2024) had already done content and construct validity for his questionnaire.

3.6 Variables

The variable of the study was measured by using a self-administered questionnaire.

Table 3.1 Independent and dependent variables

Independent variable	Knowledge regarding depression
Dependent variable	Attitude towards depression

3.6.1 Measurement of Variables and Variable Scoring

The questionnaire consisted of three sections. The first section had four questions that made up the socio-demographic information section, and ask about age, gender, marital status and level of education.

The second section was about knowledge of participants towards depression. It had three items on the scale included the following response option: yes, no, do not know which used to determine knowledge with yes = 2, while no = 0, and do not know = 1. Scores were reversed for inverted questions, where "yes" was assigned a value of 0, and both "no" and "do not know" were assigned a value of 1. Those data were categorized using the 75th interquartile range score that indicate good knowledge (Ahmad et al., 2024). The purpose of the scale was to test nurses' knowledge about depression

identification, diagnosis, and management which was scored by sum the scores yielded a final score ranging 0 to 17 with higher scores indicating higher knowledge of depression (Ahmed et al., 2024). The standardised scores categorised as below:

Table 3.2 Scores for knowledge regarding depression

Knowledge	Range
Poor	0-13
High	14-17

The third section of the questionnaire was about attitude towards depression. It had three items on the scale included the following response option: yes, no, do not know which had been used to determine attitude with yes = 2, while no = 0, and do not know = 1. The data were categorized using the 75th interquartile range score that indicate good attitude (Ahmad et al., 2024). The purpose of the scale was to test nurses' attitude towards depression which will be score by sum the scores yielded a final score ranging 0 to 36 with higher scores indicating good attitude towards depression (Ahmed et al., 2024). The standardized scores categorized as below:

Table 3.3 Score for attitude towards depression

Attitude	Range
Poor	0-25
High	26-36

3.7 Data collection methods

Data collection was conducted after obtaining official approval from the Human Research Ethics Committee (HREC) of USM and the Director of Hospital Pakar USM. Eligible participants were selected based on inclusion and exclusion criteria. Verbal and written consent was obtained before participation. Respondents who agreed were given a