KNOWLEDGE AND ATTITUDE TOWARDS DYSMENORRHEA AMONG FEMALE UNDERGRADUATE STUDENT AT UNIVERSITI SAINS MALAYSIA HEALTH CAMPUS

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by

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DECLARATION

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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.

Signature

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Nur Alisya Izwani Binti Yusof

Date: 12 June 2025

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PENGETAHUAN DAN SIKAP TERHADAP DISMENOREA DALAM KALANGAN PELAJAR PEREMPUAN PRASISWAZAH DI KAMPUS KESIHATAN UNIVERSITI SAINS MALAYSIA.

ABSTRAK

Dismenorea, atau kesakitan haid, merupakan keadaan yang lazim dialami oleh sebilangan besar wanita, terutamanya dalam kalangan remaja dan golongan dewasa muda. Kajian ini bertujuan untuk menilai tahap pengetahuan, sikap, dan amalan pengurusan terhadap dismenorea dalam kalangan peserta wanita. Reka bentuk kajian keratan rentas telah digunakan, dan data dikumpul melalui soal selidik berstruktur. Dapatan menunjukkan bahawa walaupun kebanyakan peserta pernah mengalami kesakitan haid, ramai yang kurang pengetahuan tentang strategi pengurusan yang berkesan. Sebahagian besar bergantung kepada kaedah bukan farmakologi seperti berehat dan penggunaan haba, manakala kesedaran serta penggunaan rawatan perubatan masih terhad. Kajian ini menekankan keperluan untuk meningkatkan pendidikan kesihatan dan program kesedaran bagi memperbaiki pengetahuan serta menggalakkan mekanisme penanganan yang berkesan. Menangani kekurangan ini boleh meningkatkan kualiti hidup serta prestasi akademik atau kerja dalam kalangan individu yang terjejas.

Kajian ini dijalankan untuk menilai tahap pengetahuan dan sikap terhadap dismenorea dalam kalangan pelajar perempuan prasiswazah di Kampus Kesihatan Universiti Sains Malaysia. Seramai 194 orang peserta terlibat, dan data dikumpul menggunakan soal selidik yang dijawab sendiri oleh peserta. Analisis dijalankan menggunakan statistik deskriptif dan Ujian Korelasi Pearson melalui perisian SPSS versi 28.0. Skor purata pengetahuan adalah 9.01 (SP = 1.06), manakala skor purata sikap ialah 13.41 (SP = 1.81). Majoriti peserta menunjukkan tahap pengetahuan yang rendah (N =

138, 71.13%) dan tahap sikap yang sederhana (N = 105, 54.12%). Analisis Korelasi Pearson menunjukkan hubungan yang signifikan secara statistik antara pengetahuan dan stigma terhadap Dismenorrhea (p > 0.05). Kesimpulannya, meningkatkan pengetahuan awam tentang dismenorea dapat membantu meningkatkan sikap terhadap dismenorea.

KNOWLEDGE AND ATTITUDE TOWARDS DYSMENORRHEA AMONG FEMALE UNDERGRADUATE STUDENT AT UNIVERSITI SAINS MALAYSIA HEALTH CAMPUS

ABSTRACT

Dysmenorrhea, or painful menstruation, is a prevalent condition affecting a significant number of women, particularly adolescents and young adults. This study aims to assess the level of knowledge, attitude, and management practices towards dysmenorrhea among female participants. A cross-sectional design was employed, and data were collected through structured questionnaires. The findings revealed that while most participants had experienced menstrual pain, many lacked adequate knowledge regarding effective management strategies. A notable proportion relied on non-pharmacological methods, such as rest and heat application, while awareness and use of medical treatments were limited. The study highlights the need for increased health education and awareness programs to improve knowledge and promote effective coping mechanisms. Addressing these gaps can lead to better quality of life and academic or work performance among affected individuals. This study aimed to assess the level of knowledge and attitude towards dysmenorrhea among female undergraduate student in Universiti Sains Malaysia Health. A total of 194 participants were involved, and data were collected using a self-administered questionnaire. The analysis was conducted using descriptive statistics and Pearson Correlation through SPSS version 28.0. The average knowledge score was 9.01 (SD = 1.06), while the average stigma score was 13.41 (SD = 1.81). The majority of participants demonstrated a low level of knowledge (N = 138, 71.13%) and a moderate level of stigma (N = 105, 54.12%). Pearson Correlation analysis showed a statistically significant relationship between knowledge and stigma towards

Dysmenorrhea (p > 0.05). In conclusion, enhancing public knowledge about Dysmenorrhea can contribute to increase attitude level of dysmenorrhea.

CHAPTER 1

INTRODUCTION

1.1   Introduction

This research proposal seeks to evaluate the level of knowledge and attitude towards dysmenorrhea among female undergraduate student at Universiti Sains Malaysia Health Campus. This chapter outlines the study's background, followed by the problem statement, research questions and objectives, hypotheses, the significance of the study, and the definitions, both conceptual and operational of the key terms used.

1.2   Background of Study

Menstruation is a normal physiological process that occurs during every woman's reproductive year. While most women experience mild pain and discomfort during their periods, some endure such severe pain that it disrupts their regular activities and productivity (Tanushree & Akanksha, 2021). During the transition from childhood to adulthood, women undergo physical, hormonal, emotional and mental changes. One significant change is the onset of menarche, which typically occurs in women of childbearing age, between 15 and 45, though it may happen earlier or later, depending on the individual (Dengeingei et al., 2020).

Approximately 60% of women with dysmenorrhea, which is defined as painful menstruation. Dysmenorrhea can be either cyclical or chronic and, in some cases, can result in severe pain accompanied by anxiety and may even lead to depression. Study from Mandana Mansour Ghanaie conducted globally report the prevalence of dysmenorrhea ranging from 8.8% to 94%, with the lowest rate observed in Bulgaria (8.8%) and the highest in Finland (94%). Dysmenorrhea is a prevalent concern for women, with most experiencing it at some stage. The pain may arise, before, during, or

just after menstruation. It is caused by prostaglandins, which lead to uterine muscles contractions (Trisnawati et al., 2023).

There are two types of dysmenorrhea, which are primary and secondary. Primary dysmenorrhea is defined as menstrual pain that occurs without any underlying pelvic disease. It is characterized by an excessive production of prostaglandins by the endometrium, leading to increased uterine contractions that cause ischemia, hypoxia, and pain in the uterine muscles. This condition is the most prevalent gynecological issue among women of reproductive age and a significant cause of pelvic pain; however, it often goes underdiagnosed and undertreated. Many women may even regard it as a normal part of their menstrual cycle (Guimarães & Póvoa, 2020).

Primary dysmenorrhea can significantly affect quality of life, restricting daily activities and causing psychological stress, and is a leading reason for absenteeism in school and work. Diagnosis is primarily clinical, relying on medical history and normal physical examinations, while also ruling out secondary causes of dysmenorrhea. Treatment options include pharmacological, non-pharmacological, and surgical approaches, with nonsteroidal anti- inflammatory drugs (NSAIDs) being the first-line treatment. For those seeking contraception, hormonal contraceptives are also an option. Alternative treatments like topical heat, lifestyle changes, transcutaneous electrical nerve stimulation, dietary supplements, acupuncture, and acupressure can be considered when conventional treatments are unsuitable. Surgical intervention is reserved for rare cases of severe dysmenorrhea that do not respond to other treatments (Guimarães & Póvoa, 2020).

Secondary dysmenorrhea refers to pelvic pain caused by an underlying disorder or disease. It often begins in women in their late teens or early twenties and progressively worsens over time. The pain can start before menstruation and continue throughout, even lasting beyond the menstrual period (Awad et al., 2019). The primary cause of secondary

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dysmenorrhea is endometriosis, which is the growth of endometrial tissue outside the uterus. It is estimated that up to two-thirds of adolescent girls with persistent dysmenorrhea that does not respond to non-steroidal anti-inflammatory drugs (NSAIDs) or hormonal treatments have endometriosis. Thus, endometriosis should be considered in any patient experiencing ongoing and significant dysmenorrhea, especially those who do not respond to standard therapies (Gutman et al., 2022).

Other causes of secondary dysmenorrhea include fibroids, cysts, and abnormalities of the reproductive tract, such as hymenal obstruction or Müllerian anomalies. While chronic pelvic pain can present similarly, it is a distinct diagnosis that differs from both primary and secondary dysmenorrhea. Dysmenorrhea is linked to the menstrual cycle, whereas chronic pelvic pain is defined as pain in the pelvic region lasting more than six months, which may occur cyclically, acyclically, intermittently, or constantly (Gutman et al., 2022).

Several factors are linked to more severe dysmenorrhea, including early menarche, heavy bleeding, smoking, family history, obesity, and alcohol use. Oral contraceptive use is associated with milder symptoms, and atheist women report lower prevalence than religious women. Obstetric factors like pregnancy and breastfeeding, as well as education and religion, also influence dysmenorrhea. Physical activity and body mass index, however, do not increase menstrual pain (De Sanctis et al., 2015). Childbearing and age generally reduce severity, although moderate to severe cases can persist with age. Early onset and family history remain key predictors (Bernardi et al., 2017).

Dysmenorrhea especially affects students beyond physical discomfort, leading to social and psychological disruptions. These effects include poor university attendance, reduced sleep quality, difficulty concentrating, social withdrawal, strained family

relationships, declining academic performance, and decreased participation in sports as symptoms worsen. Dysmenorrhea also negatively impacts mental health, often causing anxiety and depression (Taleb et al., 2023). A study by Wijesiri and Suresh (2013) found a statistically significant relationship between pain and mental well-being, with 66% of students reporting mental strain, which can hinder concentration, problem-solving abilities, and exam performance.

1.3   Problem Statement

Dysmenorrhea is highly prevalent, but many women lack sufficient knowledge about it. Poor management of the condition can lead to a reduced quality of life, impacting both academic and non-academic performance (Dengeingei et al., 2020). Dysmenorrhea is one of the most common complaints among adolescents, affecting quality of life for many women during their reproductive years. However, it was not recognized as a medical issue until the 1970s. A Swedish study found that 72% of 600 women aged 19 experienced dysmenorrhea; for 15%, it limited activities and didn't respond to pain relievers, with 50% having missed school or work due to it, and 7.9% missing at least half a day each cycle (De Sanctis et al., 2015).

Despite its impact, many women do not seek medical treatment. In the U.S., 75.1% of women believe they must endure menstrual pain until menopause, and 86% do not seek medical help (Mansour Ghanaie et al., 2020). Misconceptions and attitudes about dysmenorrhea, often influenced by cultural, ethnic, and religious backgrounds, prevent students from seeking proper treatment. Sources such as mothers, teachers, friends, and media shape young women's views on menstruation and dysmenorrhea (Farotimi et al., 2015). In regions like Pakistan, young girls often lack adequate knowledge about treatment and view dysmenorrhea as a normal part of menstruation that will resolve with

time or marriage. This leads to home remedy use and fears about medications causing dependency, reducing menstrual flow, or harming fertility.

Menstruation is a natural physiological process, yet it is often surrounded by various socio-cultural and religious beliefs. Many cultures carry a stigma that discourages open discussion about menstruation. Research from Keng Sheng Chew identified four main categories of socio-cultural and religious beliefs among university students which is religious restrictions, limitations on social interactions with men, personal dietary and behavioral restrictions and the belief that menstrual blood is unpleasant or dirty. A similar study in Fiji, Papua New Guinea, and the Solomon Islands revealed four interconnected themes, three of which align closely with our findings, excluding the category of religious beliefs (Chew et al., 2021).

The first theme is the notion that menstrual blood is "dirty," leading to restrictions on household tasks. The second theme involves the belief that menstruating women bring "bad luck," which restricts their activities, including gardening. The third theme highlights the stigma of shame and secrecy surrounding menstruation, influencing behaviors around menstrual hygiene. The fourth theme addresses prohibitive beliefs regarding health and menstruation, similar to our personal dietary restrictions category. These parallels suggest a widespread universality of such beliefs across cultures (Chew et al., 2021).

Dysmenorrhea affects not only physical well-being but is also closely linked to psychological disorders like depression, anxiety, and stress in a bidirectional relationship. Recurrent pain increases the risk of these conditions, which can, in turn, amplify menstrual pain. Psychological distress may worsen pain perception and reduce medication effectiveness. A review by Iacovides et al. (2015) suggests that increased pain sensitivity in severe dysmenorrhea may stem from both elevated prostaglandins and

central pain sensitivity, where an abnormal response heightens sensitivity. This highlights dysmenorrhea's dual physical and psychological dimensions, suggesting it acts as a stressor, exacerbating depression and anxiety (Pakpour et al., 2020).

Most studies in Malaysia have focused on the prevalence of dysmenorrhea among Malaysian women (Mohamad Bakro et al., 2023). However, no research has yet been conducted in Malaysia to assess the knowledge and attitudes of dysmenorrhea among female undergraduate students. Therefore, this study aims to determine the knowledge and attitudes of female undergraduate students about dysmenorrhea.

1.4   Research Questions

1. What is the level of knowledge of dysmenorrhea among female undergraduate students at Universiti Sains Malaysia Health Campus?

2. What is the level of attitude of dysmenorrhea among female undergraduate students at Universiti Sains Malaysia Health Campus?

3. What is the association between knowledge level and sociodemographic characteristics (age) of dysmenorrhea among female undergraduate students at Universiti Sains Malaysia Health Campus?

1.5   Research Objectives

1.5.1   General Objective

To determine the level of knowledge and attitude of dysmenorrhea among female undergraduate students in Universiti Sains Malaysia Health Campus.

1.5.2 Specific Objectives

1. To determine the level of knowledge of dysmenorrhea among female undergraduate students in Universiti Sains Malaysia Health Campus.

2. To determine the level of attitudes of dysmenorrhea among female undergraduate students in Universiti Sains Malaysia Health Campus.

3. To determine the association between knowledge and sociodemographic characteristics (age) of dysmenorrhea among female undergraduate students in Universiti Sains Malaysia Health Campus.

1.6   Research Hypothesis

Hypothesis

H_0:

There is no significant association between knowledge with attitudes of dysmenorrhea among female undergraduate students in Universiti Sains Malaysia Health Campus.

Hypothesis

H_1:

There is a significant association between knowledge with attitudes of dysmenorrhea among female undergraduate students in Universiti Sains Malaysia Health Campus.

1.7   Definitions of Operational Terms

The definitions of the operational terms used in this research proposal are

listed below:

Table 1.1 Conceptual and operational definitions

Term	Conceptual	Operational Definition
Knowledge	Knowledge refers to the understanding of information about a subject gained through experience or study, whether held by an individual or shared among people in general (Cambridge University Press, 2024c).	In this study, it refers to female undergraduate students' knowledge about dysmenorrhea.
Attitudes	Attitude refers to a belief or perspective about something or someone that influences one's behavior (Cambridge University Press, 2024a).	In this study, it refers to female undergraduate students' attitudes about dysmenorrhea.
Dysmenorrhea	Dysmenorrhea refers to pain occurring during or just before menstruation (the monthly uterine blood flow) (Cambridge University Press, 2024b).	In this study, it refers to the condition that will be occur to female undergraduate students before or during menstruation.
Undergraduate students	An undergraduate student is an individual enrolled in a college or university who has not yet	In this study, it refers to those studying from year one to year five at USM Kubang Kerian who not yet

	obtained a bachelor's degree, which is generally the first level of academic achievement (Cambridge University Press, 2024d)	obtained their bachelor's degree.

1.8 Significance of Study

This study aims to assess student's knowledge and attitudes about dysmenorrhea and understand how it affects their daily lives. Dysmenorrhea, or menstrual pain, can have a significant impact on academic performance, social interactions, and overall well-being. By identifying the level of knowledge students have regarding the causes, symptoms, and management of dysmenorrhea, this research aims to uncover potential gaps in understanding. Moreover, exploring students' attitudes towards this condition, including whether they view it as a normal part of life or a medical issue worth addressing, will offer insight into how they cope with the discomfort and manage its effects on their studies, extracurricular activities, and social lives. The results can inform future educational initiatives to enhance menstrual health awareness and promote better management strategies among students.

Assessing undergraduate students' knowledge and attitudes about dysmenorrhea is vital for several reasons. First, many students may not fully understand the nature of dysmenorrhea, its causes, and effective management strategies, which can lead to unnecessary suffering and impact their academic performance and quality of life. By evaluating their knowledge, universities can identify gaps and misconceptions that may exist, allowing for targeted educational interventions. Furthermore, understanding

students' attitudes toward dysmenorrhea can shed light on the stigma or