PREVALENCE OF DYSMENORRHEA, EFFECTS ON THE ACTIVITIES OF DAILY LIVING, AND THE PRACTICE OF COMPLEMENTARY AND ALTERNATIVE MEDICINE (CAM) AMONG UNIMAS UNDERGRADUATE NURSING STUDENTS

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Bachelor of Nursing with Honors

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This graduation exercise is submitted in partial fulfillment of requirement for the degree of Bachelor of Nursing with Honors

Faculty of Medicine and Health Sciences

UNIVERSITI MALAYSIA SARAWAK

2023

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Final Year Project Report ☑

Masters ☐

PhD ☐

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I declared that the research project titled " Prevalence of dysmenorrhea, its effects on Activity Daily Living and the Use of Complementary and Alternative Medicine (CAM) among UNIMAS undergraduate nursing students" presented to UNIMAS is my own work and specifically adapted from other resources. This project is guided by Mdm Roziah Arabi, nursing lecturer from the nursing department of UNIMAS.

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ABSTRACT

Introduction: Dysmenorrhea is a common medical condition among women of child-bearing age which affects womens' Activity Daily Living. Complementary and Alternative Medicine (CAM) are commonly practiced to manage dysmenorrhea.

Objective: This study aims to assess the effects of dysmenorrhea on Activity Daily Living (ADL) and the use of Complementary and Alternative Medicine (CAM) among UNIMAS undergraduate nursing students.

Methods: This was a cross-sectional study conducted among 134 UNIMAS undergraduate nursing students between April and May 2023. The study was conducted using a simple random sampling technique. The data was analyzed using descriptive statistics and inferential statistics. Fisher-Freeman-Halton Exact Test was used to test the association between the variables.

Results: The prevalence of dysmenorrhea among UNIMAS undergraduate nursing students was 71.6% with most of the participants (n= 134) reported moderate pain (58.2%). Daily chores activity (p= 0.022), sleep disturbance (p=0.026), socializing with peers (p= 0.001) and meal routine (p<0.001) were statistically significantly affected by dysmenorrhea. Dysmenorrhea also had a significant impact on missing class (p= 0.022). The use of Paracetamol (p<0.001), Mefenamic Acid (p= 0.022), hot compress/ heating pads (p=0.001) and bed rest (p=0.008) were associated with dysmenorrhea.

Conclusions: The effect of dysmenorrhea on Activity Daily Living could be reduced. Hence, empowering the community on the use of other CAM modalities (exercising, massage, acupuncture & TENS) other than the common ones aid in reducing the symptoms of dysmenorrhea.

Keywords: Dysmenorrhea, Activity Daily Living, Complementary and Alternative Medicine, nursing students

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LIST OF ABBREVIATION

ADL	Activity Daily Living
CAM	Complementary and Alternative Medicine
UNIMAS	Universiti Malaysia Sarawak
NSAIDS	Non Steroidal Anti-Inflammatory Drugs
TENS	Transcutaneous Electrical Nerve Stimulation
VAS	Visual Analogue Scale
LMIC	Low Middle Income Country
WaLIDD	Working ability, location, intensity, days of pain, dysmenorrhea

CHAPTER 1: INTRODUCTION

1.0 INTRODUCTION

This research focused on the prevalence of dysmenorrhea among UNIMAS undergraduate nursing students and its effects on their Activity Daily Living (ADL). At the same time, this study also identified the use of Complementary and Alternative Medicine (CAM) among UNIMAS undergraduate nursing students during dysmenorrhea. In this chapter, the background of study, problem statement, significance of study, research objectives, research questions, conceptual framework and operational definition were discussed.

1.1 BACKGROUND OF STUDY

Dysmenorrhea was also defined as painful menstruation with the occurrence of the cramping sensation in the lower abdomen which was accompanied with other symptoms such as nausea, headache, vomiting or diarrhea (Ju et al., 2014). The prevalence of dysmenorrhea varied greatly from 94% in Oman (De et al., 2016), 85% in the USA (Acheampong et al., 2019), 40.7% in India (Acheampong et al., 2019), 34% in Egypt (De et al., 2016) and 0.9% in Korea (De et al., 2016). Dysmenorrhea was categorized into primary and secondary dysmenorrhea. There was absence of discernible pelvic pathology in primary dysmenorrhea while there were underlying medical conditions like endometriosis and pelvic inflammatory disease in secondary dysmenorrhea (De et al., 2016). Unfertilized eggs caused

decreased progesterone levels which resulted in contraction of uterus and shedding of uterine lining. Decreased progesterone level led to increased prostaglandins production which resulted in primary dysmenorrhea. Overproduction of prostaglandins (PG) stimulated myometrium hypercontractility that restricted blood flow to the uterine muscle and led to pain (Ferries et al., 2020).

The factors which increased the risk of dysmenorrhea included age, higher BMI, early menarche age, nulliparity, heavier and longer menstrual flow experienced, having family history of dysmenorrhea as well as depression, stress (Ju et al., 2014), skipping breakfast (Abu et al., 2018), smoking (Ju et al., 2014) and high intake of snacks (Najafi et al., 2018). The symptoms associated with menstrual pain range from abdominal cramps, low back pain, physical fatigue (De et al., 2016), irritability (Abu et al., 2018), breast tenderness and tingling nipples (Ameade, 2018). During menstruation, body changes occurred with swollen abdomen and flare up of acne which affected womens' perceptions of beauty as they had to alter their dressing style to conceal swollen parts of the abdomen (Fernandez et al., 2020a). Dysmenorrhea had affected school attendance and concentration in class negatively (Ameade, 2018) as well as family relationships and involvement in social recreational activities (Lacovides et al., 2015). There's lack of energy in carrying out daily activities and lack of appetite (Fernandez et al., 2020a). Students were concerned that there would be blood stains on their white scrubs and having to stay vigilant at night to avoid menstrual leaks further increased their distress level which led to insomnia (Fernandez et al., 2020a). The uncertainty on the severity of pain led to feelings of stress and anxiety (Fernandez

et al., 2020a). In addition, emotional ups and downs were being experienced with feelings of receptiveness towards care and affection along with feelings of agitation when they were being criticized or condemned (Fernandez et al., 2020a). Most of the female adolescents or women resorted to consulting their family members or friends for the management of dysmenorrhea compared to consulting a doctor (Alsaleem, 2018). The practice of self-medication was also widespread (Samba et al., 2019). NSAIDS and oral contraceptives were the first two lines of drug therapy consumed (Lacovides et al., 2015). The application of physical exercise, extra bed rest, meditation and heat pads aided in reducing menstrual pain (Lacovides et al., 2015). The increased intake of food rich in calcium, Vitamin D, tofu, salmon and beans had been reported in previous studies to ease menstrual pain (Lacovides et al., 2015).

1.2 PROBLEM STATEMENT

Most of the female adolescents or women suffering from dysmenorrhea did not seek consultation from the doctors as the management method, as evidenced by participants from Ghana, India, Ibadan and Malaysia. In contrast, they often opted to use pharmacological interventions and non-pharmacological interventions to relieve the pain. More than fifty percent of the respondents in King Khalid University, Saudi Arabia (Alsaleem, 2018), Palestine (Abu et al., 2018) and Ibadan (Adeoye, 2015) reported using self-medication with analgesics for pain relief. However, Acheampong et al. (2019) and Armour et al. (2019) reported that optimal pain relief wasn't provided to those women who practiced self-medication in

Western region of Ghana. Most of the respondents in India (Omidvar et al., 2016) applied Complementary and Alternative Medicine as pain coping mechanisms, which was also one of the methods under non-pharmacological interventions.

Complementary and alternative medicine (CAM) were used frequently in the management of chronic disease in Malaysia, such as diabetes (Baharom & Rotina, 2016), hypertension (Siew-Mooi et al., 2013), cancer (Farooqui et al., 2016) and hypercholesterolemia (Kew et al., 2015). In Malaysia, the majority of adult women used CAM therapy during pregnancy (Yusof et al., 2016), labor and postnatal care (Mohamad et al., 2019). However, there's limited research done on the use of CAM in managing dysmenorrhea. According to a study, more than half of the female adolescents never discussed menstruation matters with their family members (Ismail & Abd, 2016) . In other words, menstruation was considered a taboo topic in Malaysia. Furthermore, studies about the prevalence, effects and the use of CAM during dysmenorrhea among nursing students were scarce.

Most of the women ignored the pain and did not seek treatment from healthcare facilities (Acheampong et al., 2019) even though most of the studies highlighted the detrimental effect of dysmenorrhea on the women's Activity Daily Living (Armour et al., 2019). As for university students, dysmenorrhea implicated their academic performance causing absenteeism (Fernández-Martínez, 2020). Most of the nursing students consisted of young women who potentially experienced menstrual pain. Absenteeism might be a concern among nursing students as 100% of clinical practicum attendance was mandated. The rigid

regulations on attendance would increase the students' participation rate in attendance of clinical training even though the student was ill or not fully functioning. In the nursing context, presenteeism while being sick might compromise the patient's safety (Critz et al., 2020).

Dysmenorrhea restricted daily activities and sports participation. Whenever minimum force was being exerted such as climbing the stairs, carrying grocery items or lifting weight, pain would be felt. The students would have to lie down, take medications to manage the pain which would result in the feeling of frustration as they couldn't function normally in completing their daily tasks. The pain was also intensified during sports activities, especially during running or jumping. Lack of energy, fatigue and pain were the common factors that affected the Activity Daily Living. Many students preferred to stay home during dysmenorrhea. They faced uncertainty or preferred not to make plans to avoid canceling, apologizing or having to make excuses. They would have to give up on their favorite pastimes activities which limit their social activities (Fernandez et al., 2020a).

1.3 SIGNIFICANCE OF STUDY

According to Kathryn & Corey (2021), dysmenorrhea implicated up to 50-90% of the women at childbearing age. Dysmenorrhea led to absenteeism, symptoms of