



Faculty of Medicine and Health Sciences

**PREVALENCE, KNOWLEDGE, AND ATTITUDE TOWARDS
PREMENSTRUAL DISORDER AMONG UNIMAS UNDERGRADUATE
FEMALE MEDICAL STUDENTS**

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PREMENSTRUAL DISORDER AMONG UNIMAS UNDERGRADUATE
FEMALE MEDICAL STUDENTS

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Masters

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ABSTRACT

Introduction: Prevalence, knowledge, and attitude of Premenstrual Disorder are significant for women, particularly as the symptoms can negatively impacting mental health and relationship with others thus interfering quality of life. **Objectives:** This study aims to identify the prevalence, to assess the level of knowledge and attitude towards Premenstrual Disorder among UNIMAS undergraduate female medical students. **Methodology:** A quantitative cross-sectional study was conducted at Faculty of Medicine and Health Sciences, University Malaysia Sarawak. A total of 189 participants were selected using simple random sampling. A structured item questionnaire was developed, pre-tested and it was used for data collection. SPSS version 26.0 was used to enter and analyze the data of respondents. Descriptive statistics were used to describe the prevalence, knowledge, and attitude towards Premenstrual Disorder among UNIMAS undergraduate female medical students. Chi-square test was used to determine the association between prevalence, knowledge, and attitude of Premenstrual Disorder among UNIMAS undergraduate female medical students. **Results:** This finding revealed high prevalence of Premenstrual Disorder (50.2%) despite low level of knowledge (51.3%) and low level of attitude (51.3%) towards Premenstrual Disorder. among UNIMAS undergraduate female medical students. There was significant association between prevalence of Premenstrual Disorder and regularity of menstruation cycle **Conclusion:** Therefore, the present study showed that there is still lack of knowledge and attitude towards Premenstrual Disorder despite the high prevalence.

Keywords: Premenstrual Disorder, Medical Students, Prevalence, Knowledge, Attitude

ABSTRAK

Pengenalan: Kelaziman, pengetahuan dan sikap terhadap Masalah Pramenstruasi adalah penting bagi wanita, terutamanya kerana gejala boleh memberi kesan negatif kepada kesihatan mental dan hubungan dengan orang lain sehingga mengganggu kualiti hidup.

Objektif: Kajian ini bertujuan untuk mengenal pasti kelaziman, untuk menilai tahap pengetahuan dan sikap terhadap Masalah Pramenstruasi dalam kalangan pelajar wanita prasiswazah perubatan di UNIMAS. **Metodologi:** Satu kajian keratan rentas kuantitatif telah dijalankan di Fakulti Perubatan dan Sains Kesihatan, Universiti Malaysia Sarawak. Seramai 189 peserta telah dipilih menggunakan persampelan rawak. Soal selidik item berstruktur telah dijalankan, diuji terlebih dahulu dan ia digunakan untuk pengumpulan data. SPSS versi 26.0 digunakan untuk memasukkan dan menganalisis data responden. Statistik deskriptif digunakan untuk menggambarkan kelaziman, pengetahuan, dan sikap terhadap Masalah Pramenstruasi dalam kalangan pelajar wanita prasiswazah perubatan UNIMAS. Ujian Chi-square digunakan untuk menentukan hubungan antara kelaziman, pengetahuan, dan sikap terhadap Masalah Pramenstruasi dalam kalangan pelajar wanita prasiswazah perubatan UNIMAS. **Keputusan:** Penemuan ini mendedahkan kelaziman gangguan pramenstruasi yang tinggi (50.2%) walaupun tahap pengetahuan yang rendah (51.3%) dan tahap sikap yang rendah (51.3%) terhadap Masalah Pramenstruasi dalam kalangan pelajar wanita prasiswazah perubatan UNIMAS. Terdapat hubungan yang signifikan antara kelaziman Masalah Pramenstruasi dan keteraturan kitaran haid. **Kesimpulan:** Oleh itu, kajian ini menunjukkan bahawa masih terdapat kurang pengetahuan dan sikap terhadap Masalah Pramenstruasi walaupun terdapat kelaziman yang tinggi.

Kata kunci: Masalah Pramenstruasi, Pelajar Perubatan, Kelaziman, Pengetahuan, Sikap

TABLE OF CONTENT

DECLARATION.....	iii
ACKNOWLEDGEMENT.....	v
ABSTRACT.....	vi
TABLE OF CONTENT.....	viii
LIST OF TABLES.....	xii
LIST OF FIGURES.....	xiii
LIST OF ABBREVIATION.....	xiv
CHAPTER 1.....	1
INTRODUCTION.....	1
1.0 INTRODUCTION.....	1
1.1 BACKGROUND OF STUDY.....	1
1.2 SIGNIFICANT OF STUDY.....	3
1.3 PROBLEM STATEMENT.....	4
1.4 RESEARCH QUESTIONS AND OBJECTIVES.....	5
1.4.1 Research Question.....	5
1.4.2 Research Objectives.....	5
1.5 CONCEPTUAL FRAMEWORK.....	6
1.6 DEFINITIONS OF TERMS.....	7
1.6.1 Premenstrual Disorder.....	7
1.6.2 Prevalence.....	7
1.6.3 Knowledge.....	7
1.6.4 Attitude.....	8
1.6.5 UNIMAS Undergraduate Female Medical Students.....	8
1.7 SUMMARY.....	9
CHAPTER 2.....	10
LITERATURE REVIEW.....	10
2.0 INTRODUCTION.....	10
2.1 PREVALENCE OF PREMENSTRUAL DISORDER.....	10
2.2 KNOWLEDGE TOWARDS PREMENSTRUAL DISORDER.....	12
2.3 ATTITUDE TOWARDS PREMENSTRUAL DISORDER.....	14

2.4	THE ASSOCIATION BETWEEN PREVALENCE, KNOWLEDGE, AND ATTITUDE TOWARDS PREMENSTRUAL DISORDER	15
2.5	SUMMARY	16
	CHAPTER 3	17
	METHODOLOGY	17
3.0	INTRODUCTION	17
3.1	RESEARCH DESIGN	17
3.2	RESEARCH SETTING	18
3.3	POPULATION AND SAMPLING	18
3.3.1	Population	18
3.3.2	Sampling	19
3.3.3	Sample size	19
3.4	INCLUSION AND EXCLUSION CRITERIA	20
3.4.1	Inclusion criteria	20
3.4.2	Exclusion criteria	21
3.5	DATA COLLECTION METHOD AND STUDY INSTRUMENTATION	21
3.5.1	Data collection method	21
3.5.2	Study Instrument/ Instrumentation	21
3.6	PILOT STUDY	23
3.7	VALIDITY AND RELIABILITY	24
3.8	DATA ANALYSIS	25
3.8.1	Analysis Technique	25
3.9	ETHICAL CONSIDERATION	25
3.10	SUMMARY	26
	CHAPTER 4	27
	RESULT	27
4.0	INTRODUCTION	27
4.1	SOCIO DEMOGRAPHIC DATA	27
4.1.1	Age	27
4.1.2	Race	28
4.1.3	Religion	28
4.1.4	Year of study	28
4.1.5	Age of first period (menarche)	28
4.1.6	Duration of menstruation	28
4.1.7	Regularity of menstruation cycle	28

4.2	PREVALENCE OF PREMENSTRUAL DISORDER AMONG UNIMAS UNDERGRADUATE FEMALE MEDICAL STUDENTS	29
4.2.1	Prevalence of Premenstrual Disorder based on the physical and psychological symptoms.....	30
4.3	LEVEL OF KNOWLEDGE TOWARDS PREMENSTRUAL DISORDER AMONG UNIMAS FEMALE MEDICAL STUDENTS	33
4.4	ATTITUDES TOWARDS PREMENSTRUAL DISORDER AMONG UNIMAS UNDERGRADUATE FEMALE MEDICAL STUDENTS	35
4.5	ASSOCIATION BETWEEN DEMOGRAPHIC DATA AND PREVALENCE OF PREMENSTRUAL DISORDER AMONG UNIMAS UNDERGRADUATE FEMALE MEDICAL STUDENTS	36
4.5.1	Association between age of first period (menarche) and prevalence of Premenstrual Disorder	36
4.5.2	Association between duration of menstruation and prevalence of Premenstrual Disorder	37
4.5.3	Association between menstruation cycle and prevalence of Premenstrual Disorder	38
	CHAPTER 5	42
	DISCUSSIONS AND CONCLUSIONS	42
5.0	INTRODUCTION	42
5.1	SOCIO-DEMOGRAPHIC CHARACTERISTIC OF RESPONDENTS	42
5.2	PREVALENCE OF PREMENSTRUAL DISORDER AMONG UNIMAS UNDERGRADUATE FEMALE MEDICAL STUDENTS	43
5.3	THE LEVEL OF KNOWLEDGE OF PREMENSTRUAL DISORDER AMONG UNIMAS UNDERGRADUATE FEMALE MEDICAL STUDENTS	44
5.4	THE LEVEL OF ATTITUDES OF PREMENSTRUAL DISORDER AMONG UNIMAS UNDERGRADUATE FEMALE MEDICAL STUDENTS	45
5.5	THE ASSOCIATION BETWEEN SOCIO-DEMOGRAPHIC DATA AND PREVALENCE OF PREMENSTRUAL DISORDER AMONG UNIMAS UNDERGRADUATE FEMALE MEDICAL STUDENTS	46
5.6	THE ASSOCIATION BETWEEN PREVALENCE AND LEVEL OF KNOWLEDGE OF PREMENSTRUAL DISORDER AMONG UNIMAS UNDERGRADUATE FEMALE MEDICAL STUDENTS	46
5.7	THE ASSOCIATION BETWEEN PREVALENCE AND LEVEL OF ATTITUDE OF PREMENSTRUAL DISORDER AMONG UNIMAS UNDERGRADUATE FEMALE MEDICAL STUDENTS	47
5.8	THE ASSOCIATION BETWEEN LEVEL OF KNOWLEDGE AND ATTITUDE OF PREMENSTRUAL DISORDER AMONG UNIMAS UNDERGRADUATE FEMALE MEDICAL STUDENTS	49
5.9	SUMMARY OF FINDING OF THE STUDY	49

5.10	IMPLICATIONS OF THE STUDY	50
5.11	LIMITATION	50
5.12	RECOMMENDATION	50
5.13	CONCLUSION.....	51
	REFERENCES	52
	APPENDICES	58
	APPENDIX A: ETHICAL APPROVAL APPLICATION FORM.....	58
	APPENDIX B: PARTICIPANT’S INFORMED CONSENT.....	60
	APPENDIX C: PERMISSION OF USED OF INSTRUMENTS	64
	APPENDIX D: DATA COLLECTION INSTRUMENTATION	65
	APPENDIX E: GANTT CHART.....	70
	APPENDIX F: BUDGET	70

LIST OF TABLES

Table 4.1: Socio-demographic characteristics of the respondents (n = 189).....	29
Table 4.2: Prevalence of Premenstrual Disorder among UNIMAS undergraduate female medical students	30
Table 4.3: Prevalence of Premenstrual Disorder based on physical and psychological symptoms.....	32
Table 4.4: Response regarding the level of Knowledges towards Premenstrual Disorder	34
Table 4.5: Responses regarding the Attitudes towards Premenstrual Disorder.....	35
Table 4.6: Association between age of first period (menarche) and prevalence of Premenstrual Disorder	37
Table 4.7: Association between duration of menstruation and prevalence of Premenstrual Disorder	38
Table 4.8: Association between menstruation cycle over past 6 months and prevalence of Premenstrual Disorder	39
Table 4.9: Association between prevalence and level of knowledge of Premenstrual Disorder	40
Table 4.10: Association between prevalence and level of attitudes towards Premenstrual Disorder.....	40
Table 4.11: Association between level of knowledge and attitudes towards Premenstrual Disorder.....	41

LIST OF FIGURES

Figure 1.1: Conceptual Framework	6
Figure 4.1: Prevalence of Premenstrual Disorder among UNIMAS undergraduate female medical students	30
Figure 4.2: Level of knowledge among UNIMAS undergraduate female medical students...	34
Figure 4.3: Level of attitudes towards Premenstrual Disorder among UNIMAS undergraduate female medical students	36

LIST OF ABBREVIATION

UNIMAS	University Malaysia Sarawak
FMHS	Faculty of Medicine and Health Sciences
PMS	Premenstrual Syndrome
PMDD	Premenstrual Dysphoric Disorder
APA	American Psychiatric Association
ACOG	The American College of Obstetricians and Gynaecologist
SPSS	Statistical Package for Social Sciences

CHAPTER 1

INTRODUCTION

1.0 INTRODUCTION

This study is conducted to investigate the prevalence, knowledge, and attitude of UNIMAS undergraduate female medical students towards Premenstrual Disorder which consist of Premenstrual Syndrome (PMS) and severe form of PMS which is Premenstrual Dysphoric Disorder (PMDD). This chapter introduces the background of this study, the significance of study, problems of statement, research question and objectives. This chapter also presents the conceptual framework and definition of terms and lastly the summary.

1.1 BACKGROUND OF STUDY

Many females experience both physical and emotional changes before menstrual cycle begins. Some of these changes can be severe, negatively impacting their mental health and relationship with others (Quitana Zin et al., 2017). Premenstrual Disorder included Premenstrual Syndrome (PMS) and severe form of PMS which is Premenstrual Dysphoric Disorder became one of the vital menstruation problems among women.

Premenstrual syndrome (PMS) is described as a cluster of adverse physical and psychological symptoms which starts from the luteal phase of menstrual cycle and ends 4 days after menstruation approximately. The syndrome manifests oneself through physical, cognitive, emotional, and behavioral changes (The American College of Obstetricians and Gynaecologist [ACOG], 2021). The most reported psychological

symptoms included anger and irritability, mood swings/tearfulness, fatigue/lack of energy and food cravings, whilst physical symptoms include bloating, weight gain and breast tenderness (Dennerstein et al, 2014; Tschudin et al, 2015). Most of the symptoms healed by themselves when the menstruation starts (Hantsoo & Epperson, 2015). It has been noted by Chocano & Bertone (2013) three-fourths of women who menstruate experience Premenstrual Disorder, with higher occurrence in younger women. The onset of Premenstrual Disorder symptoms can vary and can occur at any point after the onset of menstruation but are typically seen in individuals between puberty and their twenties (Hantsoo & Epperson, 2015).

Meanwhile, Premenstrual Dysphoric Disorder (PMDD) is the most severe disorder within the Premenstrual Syndrome (PMS) spectrum which combine of psychological and physical symptoms that commence about a week before menstruation (Hasim & Khaiyom, 2019). The symptoms include irritability, anger, mood swings, depression, tension/ anxiety, abdominal bloating, breast pain, and fatigue often subside during the menses and disappear after that (American Psychiatric Association [APA], 2013). PMS and PMDD are related conditions that affect women, but they have different symptoms (ACOG, 2021), while PMDD is primarily characterized by mood symptoms (APA,2013; Hasim & Khaiyom, 2019). According to studies, PMDD affect lower percentage of women in Western populations at around 3-8% (APA, 2013), but studies in Africa have found higher prevalence rates at 26.8- 36.1% (Jember et al., 2017). Studies in Asian populations have also found a prevalence rate of PMDD between 1.2%-6.4% (Oo et al., 2016; Molugulu, 2016). The main difference between PMS and PMDD is that the latter specifically characterized by mood symptoms. DSM-IV diagnostic criteria for PMDD require the presence of at least five physicals, emotional, and/or behavioral symptoms in a premenstrual pattern. These symptoms must include at

least one of the key emotional symptoms of mood swings, tearfulness, sensitivity to rejection, irritability, or anger, marked depressed mood, hopelessness, self-deprecating thoughts, anxiety, tension or feeling on edge. Additionally, individuals with PMDD may experience difficulty concentrating or feeling overwhelmed or out of control.

1.2 SIGNIFICANT OF STUDY

Currently, research on Premenstrual Disorder such as Premenstrual Syndrome (PMS) and Premenstrual Dysphoric Disorder (PMDD) is limited in Malaysia (Hasim & Khaiyom, 2019) thus, this research will provide useful information about the current prevalence, knowledge, and attitude towards Premenstrual Disorder among the undergraduate female medical students at UNIMAS. It is important to determine the prevalence of Premenstrual Disorder within society to explore the contributing factors to describe the etiology and planning the effective treatment to resolve the symptoms (Hofmeister & Bodden, 2016; ACOG, 2016; Hantsoo & Epperson, 2015).

This study will become a foundation for further research regarding Premenstrual Disorder prevalence, knowledge, and attitude, especially among female medical students. The purpose of this research is to measure the prevalence, to assess the knowledge and attitude towards Premenstrual Disorder that still lack of research and awareness among female in Malaysia specifically. Therefore, it would provide data to guide Premenstrual Disorder awareness based on knowledge level and positive attitude into public health interventions. It also can provide reliable data to alter medical education syllabus that emphasize the importance of knowledge and attitude towards Premenstrual Disorder among female medical students and provide guidance for medical doctors and female medical students in giving health education to patients and community.

The study setting is at University of Malaysia Sarawak (UNIMAS) because the respondents involving undergraduate female medical students. Year 3 until Year 5 undergraduate female medical students whose had started clinical posting were chosen in this study to measure the prevalence and assess their level of knowledge and attitude to create and spread the awareness of this disorder among female that mainly taught in Obstetrics and Gynecology field. Thus, this study is significant to enhance the knowledge level and positive attitude among future medical doctors to apply in hospital settings.

1.3 PROBLEM STATEMENT

Various studies in Malaysia, Myanmar and India reported that most women experienced PMS had been diagnosed with PMDD after met all the criteria in DSM-IV (Oo et al., 2016; Molugulu et al., 2016; Jadhav et al., 2022). These studies showed high prevalence of PMDD among Asian's female that suffered from PMS during menstruation. Eldeeb et al. (2021) studied the prevalence of PMDD among medical students was higher compared to other commerce students and significantly contribute to academic performance. The problems arise when there is lack of knowledge of premenstrual disorder especially PMDD that may affect the life of a woman when no treatment received at the early stage. Moreover, study by Nan Nitra Khan (2017) revealed that PMS have affecting the respondent daily routine activities caused by lack of school-based counselling to educate. Promotion and awareness of premenstrual disorder need to be conducted among adolescent girls to create positive attitudes in seeking treatment (Wong, 2011; Thwin et al., 2015; Molugulu, 2016). Therefore, this study aims to identify the prevalence, to assess the level of knowledge and attitude of UNIMAS female undergraduate medical students whose had started clinical posting

and will become a future doctor towards Premenstrual Disorder to spread the awareness since there is no study conducted about this topic in UNIMAS.

1.4 RESEARCH QUESTIONS AND OBJECTIVES

1.4.1 Research Question

- a) What is the prevalence of Premenstrual Disorder among UNIMAS undergraduate female medical students?
- b) What is the level of knowledge of Premenstrual Disorder among UNIMAS undergraduate female medical students?
- c) What is the attitude towards Premenstrual Disorder among UNIMAS undergraduate female medical students?
- d) Is there any association between prevalence, knowledge, and attitude of Premenstrual Disorder among UNIMAS undergraduate female medical students?

1.4.2 Research Objectives

- a) To identify the prevalence of Premenstrual Disorder among UNIMAS undergraduate female medical students.
- b) To assess the level of knowledge of Premenstrual Disorder among UNIMAS undergraduate female medical students.
- c) To assess the attitude towards Premenstrual Disorder among UNIMAS undergraduate female medical students.
- d) To determine the association between prevalence, knowledge, and attitude of Premenstrual Disorder among UNIMAS undergraduate female medical students.

1.5 CONCEPTUAL FRAMEWORK

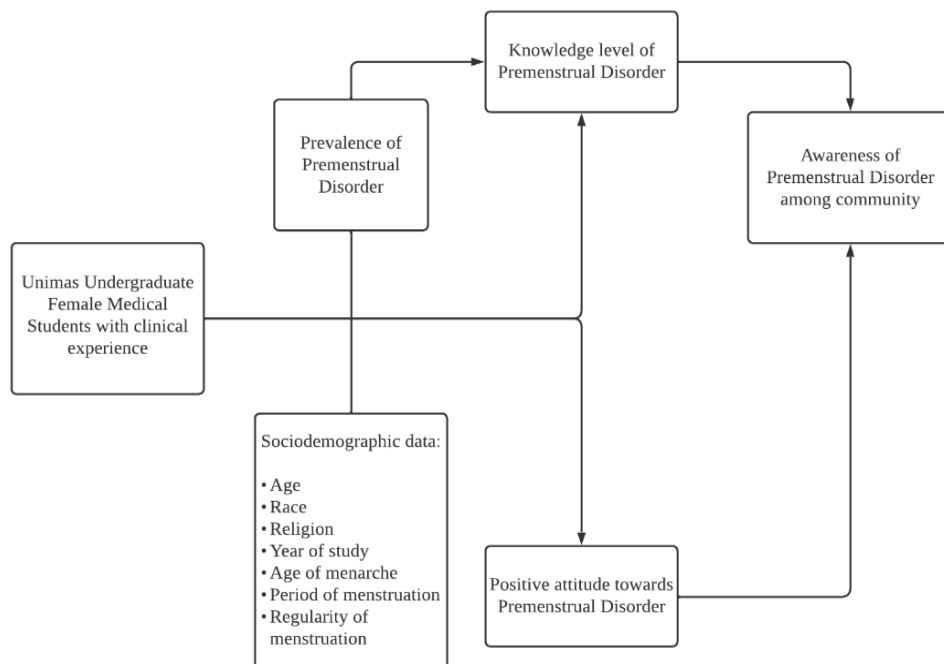
Based on the conceptual framework, the research topic was about prevalence, knowledge, and attitude towards Premenstrual Disorder among UNIMAS undergraduate female medical students.

For demographic data, the information regarding age, race, religion, year of study, age of menarche, period of menstruation and regularity of menstruation was included as these components may affect the prevalence, knowledge, and attitude towards Premenstrual Disorder.

In this study, the researcher interested to determine the prevalence, knowledge, and attitude towards Premenstrual Disorder among UNIMAS undergraduate female medical students.

Figure 1.1

Conceptual Framework



1.6 DEFINITIONS OF TERMS

1.6.1 Premenstrual Disorder

Premenstrual Disorder is a condition that affects many women during their menstrual cycle. Premenstrual Disorder is characterized by a range of physical and emotional symptoms that can occur before or during menstruation, such as cramps, headaches, fatigue, and mood swings (ACOG, 2021). In this study, Premenstrual Disorder define as Premenstrual Syndrome (PMS) and severe form of Premenstrual Syndrome (PMS) which is Premenstrual Dysphoric Disorder (PMDD).

1.6.2 Prevalence

The National Institute of Mental Health defines prevalence as proportion of a population who have specific characteristic in each period (2022). In this study, the prevalence of Premenstrual Disorder among Year 3 until Year 5 UNIMAS undergraduate female medical students were measure using Premenstrual Symptoms Screening Tools (PSST) adopted from Özdel et al. (2015). All the 19-item in the questionnaire were scored on a 4-point Likert with “Not at all”, “Mild”, “Moderate” and “Severe”. The scale is scored as Not at all = 1, Mild = 2, Moderate = 3 and Severe = 4. With maximum score of 76, respondents who had score of 52 and above indicates a higher likelihood of Premenstrual Disorder. Meanwhile, the severity is categorized into mild with total scores range between 0-25, moderate with scores between 26-51 and severe range between 52-76 (ACOG, 2016).

1.6.3 Knowledge

Knowledge is defined as an understanding of or information about a subject that you get by experience or study, either known by one person or by people generally (Cambridge Dictionary, 2019). In this study, knowledge is defined as respondent’s knowledge, opinions, and sources of information about Premenstrual Disorder based on

the questionnaire given adapted from Rabiepoor and Yas (2018). It contains 12-items closed ended questions comprised of 2-items with “YES” and “NO” and 10-items with “FALSE”, “DON’T KNOW” and “TRUE” design. A score of “1” will be given to each “yes” and correct answer meanwhile “0” for the “no”, wrong answer and “don’t know”. The total knowledge score for each respondent will be ranged from 0 to 12. Total score range between 6 to 12 (50% - 100%) indicates high level of knowledge and total score of and less than 6 (<50%) indicates low level of knowledge towards Premenstrual Disorder according to Bloom’s cut off points (Krathwohl, 2010).

1.6.4 Attitude

Attitude is defined as a detailed study of people's feelings and opinions about a company or product (Cambridge Dictionary, 2021). In this study, attitude is defined as how Year 3, Year 4, and Year 5 UNIMAS undergraduate female medical students feel about Premenstrual Disorder including their influences, reservations and opinions in questionnaire adapted from Rabiepoor and Yas (2018). The questionnaire consists of 5 items and each item was rated on a 5-point Likert scale. The total score ranged from 10 to 50 with “Strongly Disagree”, “Disagree”, “Neutral”, “Agree” and “Strongly Agree”. The scale is scored as Strongly Disagree = 1, Disagree = 2, Neutral= 3, Agree = 4, and Strongly Agree = 5. A higher total score indicated a positive attitude. There will be two categorizations which include negative and positive attitude. The scoring for negative attitude would range from 0 to 12, meanwhile, positive attitude would be in range 13 to 25 (Krathwohl, 2010). Certain statements were structured into negative statements and the scores were reversed when calculated the total scores to avoid bias.

1.6.5 UNIMAS Undergraduate Female Medical Students

A medical student is defined as an individual enrolled in medical school (Medical Dictionary, 2009). For this study, medical students refer to University Malaysia

Sarawak (UNIMAS) Undergraduate female medical students in the academic year 2022/2023 who have experiences in the clinical setting involving Year 3 to Year 5.

1.7 SUMMARY

Chapter 1 presents an overview of the prevalence, knowledge, and attitude of UNIMAS undergraduate female medical students towards Premenstrual Disorder. It describes the background of the study and outlines some statements of problems faced which led to this study being conducted. Issues include lack of suitable measurement method to determine the prevalence of Premenstrual Disorder, poor knowledge, and attitude towards this study topic. In addition, there is still limited study related to Premenstrual Disorder is conducted in Malaysia especially regarding PMDD to examine the association between prevalence, knowledge, and attitude among undergraduate female students. The chapter also reviews research questions, objectives, significance of study, and conceptual framework and definitions.

CHAPTER 2

LITERATURE REVIEW

2.0 INTRODUCTION

Review of literature is presented in this chapter. The findings of several studies that have been reviewed are organized to gain more information and understanding of the issues studied. The literature search was conducted using online databases, the official website of a specific institution, Google scholar, and the ResearchGate electronic database. All literature is restricted and filtered to the original article published in 2021. The literature was filtered through a variety of keywords such as “premenstrual disorder”, “premenstrual syndrome”, “premenstrual dysphoric disorder, “prevalence”, “knowledge,”, “attitude,” and “medical students”.

The literature is presented in several subtopics, namely: Prevalence of Premenstrual Disorder, Knowledge towards Premenstrual Disorder, Attitude towards Premenstrual Disorder and The Association of Prevalence, Knowledge, and Attitude towards Premenstrual Disorder and lastly the summary.

2.1 PREVALENCE OF PREMENSTRUAL DISORDER

Premenstrual Disorder consist of premenstrual syndrome and premenstrual dysphoric disorder that may interrupt a woman’s daily life activities, relationship, and health. It manifests with changes of physical, psychological, and behavioral symptoms during late luteal phase of menstrual cycle and resolve by the end of menstruation (ACOG, 2021). Premenstrual Disorder is presented with common physical symptoms such as headache, breast tenderness, pelvic pain, and discomfort, bloating and joint pain meanwhile the significant symptoms affecting psychology changes are anxiety, depression, mood swing, irritability, poor concentration, and social withdrawal