Bridging the Gap: Addressing Gender Disparities in the Menstruation Knowledge and Awareness among IPTA Student

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Abstract

Menstruation is a natural biological process once in a month for every woman, yet many societies nevertheless view it negatively. In Islam, it recognized as normal physiological occurrence with instruction to women in doing religious responsibilities and interacting with others. Despite the prevalence of menstruation, the awareness and knowledge of menstruation varies significantly across men and women in Malaysia. This study was therefore conducted to evaluate the students' awareness and understanding of menstruation at the UiTM Cawangan Pulau Pinang, Bertam Campus. Additionally, the study evaluates demographic that may have an impact on students' knowledge about menstruation. In addition to this, the current study is to evaluate the degree of menstruation knowledge and awareness among IPTA Muslim students as well as the relationship between menstruation knowledge and awareness based on gender difference. A comparative cross-sectional survey was administered to 106 students at the Bertam Campus of UiTM Cawangan Pulau Pinang in June 2023. Students' characteristics, menstrual awareness, and knowledge were gathered through a questionnaire. The collected data were analysed with statistical methods that are both descriptive and inferential using *Statistical Package for Social Sciences (SPSS) version 22*. As a result, men and women had significantly different mean scores for all the menstruation-related knowledge domains. When it comes to all aspects of menstruation, women are more knowledgeable than males. Furthermore, a Mann-Whitney test was employed to examine the relationship between respondents' genders with their knowledge and awareness. Consequently, the results showed that for every domain of menstrual knowledge and awareness, there was a statistically significant difference between the male and female participants. In conclusion, their awareness and understanding of menstruation were influenced by their gender.

Keywords: Menstruation, knowledge, awareness, gender.

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Introduction

Menstruation refers to the monthly shedding of blood and mucosal tissue from the inner lining of the uterus through the vagina and it is also known as the period. The menstrual cycle begins and ends with menstruation and is divided by ovulation into the follicular and luteal phases (Bull et al., 2019) (Wilcox, A. J. 2000). Menstruation is recognized in Islam as a normal physiological occurrence, and Islamic teachings offer instructions on how menstrual women should behave when doing religious responsibilities and interacting with others. Men can help women at this period of need by understanding and supporting them. The Qur'an provides clear guidance on how menstruation should be managed within the framework of Islamic law. The key verse related to menstruation is:

وَيَسْـَٔلُونَكَ عَنِ ٱلْمَحِيضِ قُلْ هُوَ أَذًى فَٱعْتَزِلُواْ ٱلنِّسَآءَ فِى ٱلْمَحِيضِ وَلَا تَقْرَبُوهُنَّ حَتَّىٰ يَطْهُرْنَ فَإِذَا تَطَهَّرْنَ فَأْتُوهُنَّ مِنْ حَيْثُ أَمَرَكُمُ ٱللَّهُ إِنَّ ٱللَّهَ يُحِبُّ ٱلتَّوَّٰبِينَ وَيُحِبُّ ٱلْمُتَطَهِّرِين

> Translation: “And they ask you about menstruation”. Say, “It is harm, so keep away from wives during menstruation and do not approach them until they are purified. And when they have purified themselves, then come to them from where Allah has ordained for you. Indeed, Allah loves those who are constantly repentant and loves those who purify themselves” (al-Baqarah 2:222).

It highlights that, rather than being a sign of impurity, menstruation is a question of personal and spiritual purification. In Islam, men are encouraged to be compassionate and supportive toward women, particularly during menstruation. The Qur'an advocates for kindness and good conduct within marriage:

وَعَاشِرُوهُنَّ بِٱلْمَعْرُوفِ

Translation: “And live with them in kindness” (al-Nisa 4:19).

The verse emphasizes how important it is to treat your spouse with compassion and respect in all facets of your married life, even during the woman's menstrual cycle. By encouraging males to offer both physical and emotional support, this approach helps to create a loving and compassionate environment in the home Men are encouraged to be attentive and understanding, recognizing the physical and emotional challenges that menstruation can bring. This guidance fosters an environment where women feel supported and valued in their life.

While menarche symbolize the first menstruation that marks the onset of the fertile segment of a woman's life or reproductive years, in which women can conceive and give birth to one or more children. (International Encyclopaedia of Public Health, 2008). The average age at menarche is 13.8 years, however, it ranges from 9 to 18 years and varies by race and ethnicity (Jodi et al., 2000). The menstrual cycle is not experienced by all women, but most women who do experience it are menstruators. Thereby, it is apparent why men's attitudes regarding their

encounters with menstruation have received less attention. Comprehensive education and thorough understanding about reproductive health are vital for addressing gender bias and stigma (Erchull MJ. 2020). In Malaysia, menstruation knowledge and awareness among Malaysian Muslim males can vary depending on factors such as age, education, and cultural background. Given that there has been improvement recently, there are still particular fields in which knowledge and comprehension need to be addressed. Although women have historically been the ones with most knowledge regarding menstruation, it is becoming more widely acknowledged that men can also gain from accurate information and a positive outlook on this normal physiological function.

Menstruation's knowledge is very important to woman's health and for men however it's frequently seen as a taboo subject. Comprehensive education and accurate reproductive health knowledge are critical in combating gender bias and stigma. Most males surveyed agree that education on menstruation is important, yet the majority do not have or do not remember formal education on this topic, instead relying on family members and friends as learning tools and resources. Most participants identified negative symptoms associated with menstrual periods, especially mental health concerns including mood changes and irritability. It is therefore critical that accurate menstrual education be widely available for everyone, regardless of gender. The research questions in this study are: 1) Do male and female students have different in the knowledge of the occurrence of menstruation between male and female students? 2) Do male and female students have different in the knowledge of the frequency of menstruation in a month between male and female? 3) Do male and female students have different in the knowledge of the average menstruation cycle between male and female? 4) Do male and female students have different in the knowledge of the average period length of menstruation between male and female? 5) Do male and female students have different in the knowledge of the meaning of menstruation between male and female? 6) Do male and female students have different in the knowledge of the impact of mood and emotional health during menstruation between male and female? 7) Do male and female students have different in the knowledge of the volume woman bleeds during menstruation? 8) Do male and female students have different in the knowledge of the awareness about menstruation between male and female?

Below is the following research hypothesis to determine the relationship between the domains of knowledge and awareness between gender: 1) There are no significant differences in the knowledge about the occurrence of menstruation knowledge between male and female students. 2) There are no significant differences in the knowledge about the frequency of menstruation in a month between male and female 3) There are no significant differences in the knowledge about the average menstruation cycle between male and female 4) There are no significant differences in the knowledge about the average period length of menstruation between male and female 5)There are no significant differences in the knowledge about the meaning of menstruation between male and female 6) There are no significant differences in the knowledge about the impact of mood and emotional health during menstruation between male and female. 7) There are no significant differences in the knowledge about how much volume woman bleeds during menstruation. 8) There are no significant differences in the awareness about menstruation between male and female.

Exploring men's knowledge and awareness of menstruation in Malaysia can shed light on societal attitudes, cultural norms, and potential barriers to gender equality. Considering the above scenario, this proposed study was aimed to assess the knowledge and awareness towards menstruation among Muslim students at UiTM Cawangan Pulau Pinang, Bertam Campus. Thus, the purpose of the research is to assess the demographic factors that could affect the students' understanding about menstruation. Apart from this, the present study aims to identify the level of knowledge and awareness regarding menstruation among IPTA Muslim students as well as to determine the relationship between knowledge and awareness regarding menstruation based on gender disparity. To the best of our knowledge, no study has investigated regarding menstruation among male students in UiTM Cawangan Pulau Pinang, Bertam Campus.

Literature Review

Research on knowledge, attitude and menstrual experience is necessary for women's health. Based on a menstrual attitude questionnaire by McPherson (2004), a comprehensive menstruation preparation with positive menarcheal experience is related to a more positive adult menstrual attitudes, experiences and behaviours and vice versa. However, most studies on menstruation and menstrual disorders are mainly confined to female adolescents. (Houston et al., 2006) (Lee et al., 2006).

These are a few significant findings focusing on gender disparity in menstrual knowledge. In Malaysia, the knowledge and awareness as well as how to manage symptoms and practice during menstruation still low among women especially men. In a study published in 2015, Y Nor Asyikin et al. emphasized the value of men's support for women and their participation in conversations about menstruation health. The study did not, however, specifically measure the disparity in knowledge between men and women. Undeniably, menstrual disorder among women can affect male population directly. In a marital relationship, especially in the Malay culture, the men hold the role as the head of the family and should support the family not only financially but also emotionally. According to a 2017 study by Sultan and Sahu, teenage girls in India had a higher incidence of menstrual diseases than boys did, including dysmenorrhea, irregular bleeding, and backaches. This implies that girls are more aware and knowledgeable than boys, but boys may not be as understanding. (Sultan & Sahu., 2017). In addition to this study, it was found that women had a more positive attitude towards menstruation than men (Kumar et al., 2016). This indicates a gender-based disparity in perception and understanding.

Likewise, a study on menarche experiences in Myanmar found that information about managing menstruation and feelings of contentment and readiness were associated with awareness of menstruation. However, awareness was associated with more frequently reported feelings of embarrassment surrounding menarche. The awareness at menarche can also point to a greater general comprehension of menstruation (Hennegan et al., 2022). The knowledge and attitudes of women are greatly influenced by cultural conventions and taboos around menstruation. Menstruation is stigmatized and taboo in many cultures, which can prevent open discussion and education about the topic (Johnson & Smith, 2022). This stigma can prevent young girls from receiving accurate information, resulting in misconceptions and unnecessary

anxiety about menstruation.

The way menstruation is taught and discussed within families varies widely. Families frequently share information, which may be inaccurate or insufficient, in societies where there is little regulation about menstruation. Women's understanding and management of their menstrual cycles may be impacted by this informal guidance. In some cases, traditional beliefs and misinformation passed down through generations contribute to a lack of proper knowledge (Lee & Martinez, 2021). Religious beliefs have significant impacts on menstruation practices and attitudes. Menstruation, for example, is discussed in the Qur'an and Hadith in Islam, which has an impact on religious rituals like fasting and prayer. Within Muslim communities, these religious teachings may have an impact on how menstruation is viewed and managed (Khan, 2019). Women's knowledge of menstruation might be significantly influenced by their religious education. Women's understanding of menstruation is influenced by the variety and depth of menstrual health education offered in religious contexts. Ali and Yousaf (2021) discuss the variability in religious education about menstruation and its impact on women's understanding.

For instance, it is imperative that everyone must have early comprehensive and widespread access to proper menstrual education regardless gender. Most men surveyed believed that education about menstruation is important, rely on friends and family as their primary sources of information. In addition, most participants noted unpleasant symptoms related to their periods, particularly mental health issues including mood swings and irritation. More than two-thirds (67%) of male respondents in a similar study, menstrual education was regarded as very important. Over half (56%) said that friends or relatives were the ones who initially informed them about menstruation. (Kaitlyn Zablock. & Y. Frances Fei. (2024). To motivate man to contribute a meaningful role in improving woman's health, study on their knowledge, attitudes, and experiences linked to menstruation, including socioeconomic factors, must be emphasized. Thus, addressing this is an essential step for reducing gender disparities in adolescent health. Research conducted in India revealed that an amalgam of curiosity and awkwardness regarding to menstruation among boys. Majority of boys lacked accurate knowledge and possessed misinformation about menstruation. However, the knowledge, attitudes and beliefs of menstruation can be accessed via schooling in private school, education background of their mother, comfortable communication with teachers. (M. Gundi et al., 2020).

Research on menstruation knowledge and attitudes in Malaysia reveals significant gaps, particularly among male students. A study at Sunway University found that while male students had general knowledge about menstruation, they lacked understanding of specific aspects like menarche and menopause (Barnett et al., 2020). Similarly, a study in northeastern Malaysia showed that premarital men had lower knowledge of menstrual disorders compared to women (Nor Asyikin et al., 2015). This gender disparity in reproductive health knowledge was also observed in Kelantan, where female students demonstrated better understanding of various sexual and reproductive health topics (Ab Rahman et al., 2011). The lack of comprehensive sexual education is evident, with friends being the primary source of information for many students (Ab Rahman et al., 2011). These findings highlight the need for improved sexual and reproductive health education in Malaysian schools and universities to address knowledge gaps and misconceptions (Barnett et al., 2020; Nor Asyikin et al., 2015).

Menstruation may be embraced in some cultures as an inherent part of womanhood, while it could be linked with taboo in others. Women's lives, primarily regards to mental well-being and social connections, can be significantly influenced by menstruation discrimination and prejudice. Despite the expanding education about women's health issues in Malaysia, men still stigmatize and discriminate against women based on their traditional beliefs and misunderstanding about menstruation.

Methodology

Data Collection Method

This research utilized a comparative cross-sectional study conducted among Diploma in Pharmacy and Health Science students in UiTM Pulau Pinang, Bertam Campus in June 2023 based on their willingness availability. Students will be invited to participate in the survey via google form, which will be distributed online to subjects who have agreed to participate, along with written instructions for full participation. Questionnaire was distributed among students regardless of age, gender and student faculty. The questionnaire consisted of 4 sections that required information on the women's and men's socio demographic data, question on the knowledge of menstruation, practice as well as attitude of students during menstruation.

Data analysis

The questionnaire items for this survey included four criteria regarding Demographic and Knowledge. The questionnaire component covered demographic factors and general knowledge on menstruation (8 items). The study utilized five-point Likert scale values for 8 knowledge domains. The following scores was used for knowledge domain, scores of '5', '4', '3', '2' and '1' for 'strongly agree', agree', 'neutral', disagree' and 'strongly disagree' respectively (Y Nor Asyikin et al., 2015). The results obtained were then analysed quantitatively using descriptive and inferential statistical methods to indicate the level of the students' ability and proficiency in reading the Quran. The data for all variables were recorded and analysed *using Statistical Package for Social Sciences (SPSS) version 22*. The demographic data in terms of frequency, percentage, mean, and standard deviation were performed using descriptive statistics. Apart from that, inferential statistics was employed to determine the relationship between the domain in knowledge and awareness regarding menstruation among gender. A Mann-Whittney test was chosen to determine the relationship between knowledge and awareness regarding menstruation among different gender since the data was not normally distributed. The findings were utilized using a measured significance level of 0.05 to answer the research questions. A mean score interpretation scale system was used to evaluate the level of knowledge among IPTA students. This system categorizes scores into five distinct levels: Poor, Fair, Good, Very Good, and Excellent based on research done by Pahuriray & Algara (2021). Table 1 represents an interpretation scale used to evaluate the knowledge level of menstruation between gender.

Result

Table 1 represents an interpretation scale used to evaluate the knowledge level of menstruation between gender.

Mean Score Interpretation
1.00-1.80 Poor
1.81-2.60 Fair
2.61-3.40 Good
3.41-4.20 Very Good
4.21-5.00 Excellent

(Pahuriray & Algara (2021)

Respondents' Demographic Profile

A total of 106 students were participated in this study with the majority of respondents were females, 76 females (71.70%) and the rest were 30 males (28.3%) (Table 1). Most of respondents aged 21, 91 students with the highest percentage (85.84%) followed by 5 (4.71%) students aged at 20 and 22 respectively. Another 2 respondents (1.88%) in this study were 23 years old. Only one respondent (0.94%) aged at 18, 19 and 26. Besides, most of respondents come from the faculty of pharmacy (n=76) and faculty of Health Science (n= 28). The biggest proportion of the respondents, 54 students (50.90%) were also living in the sub urban area compared to 33 students (31.10%) and 19 students (17.90%) originated from urban area and rural area respectively (Table 1). Undeniably, female respondents, faculty of pharmacy and those who lived in sub-urban area had the most contribution for the result in this study.

Table 2: Demographic characteristics of the respondents

Item	Frequency	Percentage %
Age		
18	1	0.94
19	1	0.94
20	5	4.71
21	91	85.84
22	5	4.71
23	2	1.88
26	1	0.94
Gender		
male	30	28.30
female	76	71.70

Faculty		
Pharmacy	78	73.60
Health Science	28	26.40
Living area		
Urban	33	31.10
Rural	19	17.90
Sub- urban	54	50.90

Table 3. Comparison of domains knowledge mean between gender

Domain's knowledge	Knowledge score Mean (SD)		Interpretation	
	Men	Women	Men	Women
1. Do you know about menstruation and how it occurs?	3.70(1.17)	4.50 (0.77)	Very Good	Excellent
2. Menstruation comes a month	4.03(0.85)	4.35 (1.00)	Very Good	Excellent
3. Average menstruation cycle is 28 days.	4.10 (0.95)	4.57 (0.78)	Very Good	Excellemt
4. Average period length is 2-7 days.	3.96 (0.98)	4.56(0.66)	Very Good	Excellent
5. Menstruation happens when the lining of the uterus breaks down and bleed after no fertilization.	4.20(0.84)	4.71 (0.64)	Excellent	Excellent
6. Menstruation cycle can impact mood and emotional health.	4.46(0.89)	4.80(0.65)	Excellent	Excellent
7. Woman bleeds about 20ml -90 ml during				

	menstruation.	3.40(0.62)	3.92(0.92)	Very Good	Very Good
8.	Do you have any awareness about menstruation before?				
		3.40 (1.00)	4.39(0.86)	Very Good	Very Good

Respondent Level Knowledge of Menstruation

There was a significant difference of mean score between men and women for all the domains of knowledge on the menstruation (Table 3). Compared to men, women exhibit a greater degree of expertise in every area pertaining to menstruation. Most women received "Excellent" scores on most questions, especially when it came to understanding the physiological aspects of menstruation, including the biological processes involved and the impact of the menstrual cycle on emotional health. Although they scored "Very Good" overall, men were less aware of certain specifics, such as the volume of blood lost during menstruation. Men's mean score of 3.70 points to a good but incomplete understanding, while women's mean score of 4.50 indicates a remarkable understanding of the physiological processes involved in menstruation and its cause. Both genders, man scored well on questions about the menstrual cycle's duration (28 days) and average period length (2-7 days). However, women had higher scores, suggesting they are more familiar with the variability in menstrual cycles. Interestingly, both male and female respondents presented excellent interpretations to the following domains: "Menstruation cycle can impact mood and emotional health" and "Menstruation happens when the lining of the uterus breaks down and bleeds after no fertilization". Female students scored (Mean=4.71, SD=0.64) and male students scored (Mean=4.20, SD=0.84) for the domain "Menstruation occurs when the uterine lining breaks down and bleeds after no fertilization" while female students scored (Mean=4.80, SD=0.65) and male students scored (Mean=4.46, SD=0.89) for the domain "Menstruation cycle can impact mood and emotional health." When asked, "Do you have any awareness about menstruation before?" male students (Mean=3.40, SD=1.003) clearly had a poor level of menstrual awareness. The knowledge regarding the amount of blood lost during menstruation was lower for both genders, especially among men (mean score of 3.40). This highlights a significant gap in understanding a fundamental aspect of menstruation. The question regarding prior awareness showed that women had significantly higher scores (4.39) compared to men (3.40). This suggests that women are more likely to have been educated or informed about menstruation before reaching adulthood. This disparity indicates a need for improved educational resources aimed at men, particularly during formative years.

Occurrence of menstruation knowledge

$H_0$1: There are no significant differences in the knowledge about the occurrence of menstruation knowledge between male and female students.

Table 4: Occurrence of menstruation knowledge

	Knowledge score
Mann-Whitney U	666.000
Wilcoxon W	1131.000
Z	-3.663
Significant (2-tailed)	0.000

A Mann-Whitney U test was employed to compare the knowledge about occurrence of menstruation between males and females. The results indicated that there was significant difference between the knowledge about the occurrence of menstruation knowledge between gender, U= 666.000, z=-3.663 with the *p*-value of 0.000.

Frequency of menstruation in a month

$H_0$2: There are no significant differences in the knowledge about the frequency of menstruation in a month between male and female

Table 5: Frequency of menstruation

	Knowledge score
Mann-Whitney U	847.500
Wilcoxon W	1312.50
Z	-2.268
Significant (2-tailed)	0.023

A Mann-Whitney U test was employed to compare the knowledge about frequency of menstruation between males and females. The result revealed that there was a significant difference in frequency of menstruation in a month between male and female, U= 847.500, z=-2.268 with the *p*-value of 0.023.

Average menstruation cycle

$H_0$3: There are no significant differences in the knowledge about the average menstruation cycle between male and female

Table 6: Average menstruation cycle

	Knowledge score
Mann-Whitney U	797.500
Wilcoxon W	1262.500
Z	-2.802
Significant (2-tailed)	0.005

A Mann-Whitney U test was employed to compare the knowledge about the average of menstruation cycle between males and females. The Mann-Whitney U test showed that there

was a significant difference in the average menstruation cycle between gender, U= 797.500, z=-2.802 with the *p*-value of 0.005.

Average period length of menstruation

$H_0$4: There are no significant differences in the knowledge about the average period length of menstruation between male and female.

Table 7: Average period length of menstruation

	Knowledge score
Mann-Whitney U	690.500
Wilcoxon W	1155.500
Z	-3.526
Significant (2-tailed)	0.000

A Mann-Whitney U test was employed to compare the knowledge about the period length of menstruation between males and females. The result showed that there was a significant difference in the average period length of menstruation between gender, U= 690.500, z=-3.526 with the *p*-value of 0.000.

The meaning of menstruation knowledge

$H_0$5: There are no significant differences in the knowledge about the meaning of menstruation between male and female.

Table 8: The meaning of menstruation knowledge

	Knowledge score
Mann-Whitney U	725.500
Wilcoxon W	1190.500
Z	-3.543
Significant (2-tailed)	0.000

A Mann-Whitney U test was employed to compare the knowledge about the meaning of menstruation between males and females. The result showed that there was a significant difference in the meaning of menstruation knowledge between gender, U= 725.500, z=-3.543 with the p-value of 0.000.

The Impact of Mood and Emotional Health during Menstruation

$H_0$6: There are no significant differences in the knowledge about the impact of mood and emotional health during menstruation between male and female.

Table 9: The impact of mood and emotional health during menstruation

	Knowledge score
Mann-Whitney U	861.000
Wilcoxon W	1326.000
Z	-2.874
Significant (2-tailed)	0.004

A Mann-Whitney U test was employed to compare the knowledge about the impact of mood and emotional health during menstruation between males and females. The result showed that there was a significant difference in the impact of mood and emotional health during menstruation between gender, U= 861.000, z=-2.874 with the *p*-value of 0.004.

How Much Volume Woman Bleeds during Menstruation

$H_0$7: There are no significant differences in the knowledge about how much volume woman bleeds during menstruation.

Table 10: How much volume woman bleeds during menstruation

	Knowledge score
Mann-Whitney U	743.000
Wilcoxon W	1208.000
Z	-2.974
Significant (2-tailed)	0.003

A Mann-Whitney U test was employed to compare the knowledge about the volume of blood woman bleeds during menstruation between males and females. The result showed that there was a significant difference in the volume woman bleeds during menstruation between gender, U= 743.000, z=-2.974 with the *p*-value of 0.003.

Awareness about Menstruation

$H_0$8: There are no significant differences in the awareness about menstruation between male and female.

Table 11: Awareness about menstruation

	Knowledge score
Mann-Whitney U	499.500
Wilcoxon W	964.500
Z	-4.804
Significant (2-tailed)	0.000

A Mann-Whitney U test was employed to compare the knowledge about the awareness about menstruation between males and females. The result showed that there was a significant difference in the awareness about menstruation between gender, U= 499.500, z=-4.804 with the *p*-value of 0.000.

Discussion

Our research indicates that most students, whether Muslim male and female, have an excellent understanding of the menstruation. Due to their background in health sciences and pharmacy diploma in the field, most students demonstrated a noticeably greater level of knowledge regarding menstruation, which corroborates the findings of a study conducted by Ameada & Garti (2016) that the research revealed that the undergraduate students pursuing health-related programmes possessed good knowledge on menstruation.

In addition, the similar study found a significant association between the study's course with menstrual knowledge. It might be because, in science, students have more exposure to this topic than commerce and management students. This present finding also supported a previous study which concluded that majority of students from Science and Technology course were five times more knowledgeable about menstruation than Commerce and Management students (Ahmad et al., 2021).

Gender disparities among the awareness about menstruation differ significantly based on Mann-whitney test with the *p*-value of 0.000. Undeniably, female students more aware in the menstruation and this was positively associated with the higher mean score of knowledge (4.39) compared to the male students (3.40).

This suggest that female students aware of menstruation by receiving information from family, peers and supportive environment in school. This study has similar association with the study conducted on students from Bangladesh and Myanmar, which found that early exposure to information about the biology of menstruation increases students' confidence when discussing menstruation. Thus, majority of female students feeling confident to discuss menstruation with their mother or female relative and female friends. (Hennegan et al., 2022) (Swe et al., 2022).

This disparities in gender is in line with both studies conducted in Korea and South India that revealed men's knowledge about menstruation was lower than women especially for women who have early education about menstruation at school. (Moon et al., 2020; Deepa et al., 2019). Furthermore, it was found that the men's level of knowledge about menstruation is different for everyone, and it is quite challenging for them to have any awareness or knowledge about menstruation due to limited access to information. They themselves have not experienced it, so it is quite difficult for them to understand about menstruation, and it makes them less eager

to know more about it. (Mason et al., 2017).

Understanding the physical and emotional challenges women face during menstruation can enhance empathy and improve communication between men and women. Our present study revealed that both male and female respondents demonstrated strong interpretations regarding the impact of the menstruation cycle on mood and emotional health, with female students achieving a mean score of 4.80 (SD=0.65) and male students a mean score of 4.46 (SD=0.89). From a biological perspective, the imbalance of progesterone and estrogen hormonal levels is linked to emotional changes during menstruation. However, women frequently encounter mood swings, which can be explained by progesterone, which is more linked to the brain activity involved in changes in mood during menstruation (Sundström Poromaa & Gingnell, 2014). This condition is supported in Islamic teaching by a hadith that emphasizes the significance of delaying making decisions during emotional disturbances, which may worsen during menstruation. Furthermore, this hadith protects women's emotional health and dignity at a period that can be difficult because of physiological changes

Narrated by Ibn 'Abbas: "The Prophet (peace be upon him) said: 'Let not one of you divorce his wife when she is menstruating, nor should he divorce her in a state of anger.'" (Sunan Abi Dawood, Hadith 2185)

Conclusion

In conclusion, this study highlights the significant impact of gender on the knowledge and awareness of menstruation among students at UiTM Cawangan Pulau Pinang, Bertam Campus. The findings reveal that female students possess a greater understanding of menstruation compared to their male counterparts, indicating a clear gender disparity in awareness and knowledge levels. This disparity emphasizes the need for focused educational initiatives that reduce these inequalities, especially for male students, to promote a more inclusive conversation on menstruation. Additionally, the study highlights how crucial it is to take demographic variables like gender and academic program into account when evaluating menstrual knowledge. We can help debunk stigmas and improve menstrual health management by raising knowledge and understanding of menstruation in all genders. In the end, the present study lays the groundwork for further research that will improve menstrual health education in Malaysia and elsewhere while also fostering gender equality.

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