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Research Article

Menstruation-Related Anxiety and Sadness among Palestinian Women

Dr. Mahmud Said

Ph.D. of Social and Clinical Psychology, Senior Educational Psychology, Specialist in Clinical Psychology, Trainer in Traumatic Incident Reduction. Algaleel Center for Psychological Services in Nazareth

Corresponding author
Mahmud Said. Ph.D. of Social and Clinical Psychology, Senior Educational Psychology, Specialist in Clinical Psychology, Trainer in Traumatic Incident Reduction. Algaleel Center for Psychological Services in Nazareth

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Abstract

Background: The menstrual cycle involves a complex interplay of hormones, including estrogen and progesterone that can affect a woman's mood and emotions, and may contribute to feelings of sadness and guilt. Purpose: The study aimed to determine the menstruation-related anxiety and sadness experienced by Palestinian women. Methodology: The study used a descriptive, cross-sectional design. The sample of the study consisted of 512 Palestinian women from different areas. For data collection, the researcher used a self-administered questionnaire. Results: 30.5% of study participants are single, 31.8% are married for 1 – 10 years, 27.1% are married for 11 – 20 years, and 10.5% are married for 21 years and more. 89.4% of married women, 80.1% of single women, 77.8% of divorced women stated that they want to become pregnant and give birth. The overall mean score of anxiety related to menses was 2.78 with mean percent 69.5%, and the mean score of sadness related to menses was 2.22 with mean percent 55.5%. There were statistically no significant differences in levels of anxiety and sadness related to marital status, number of years of being married, number of children, and age of the woman ($P > 0.05$). The study concluded that most of women wanted to have children, and there was a moderate anxiety and sadness associated with menstruation.

Key words: Menstruation, Anxiety, Sadness, Palestinian women

Introduction

Menstruation is a normal part of every woman's life and it is necessary for the uterine lining renewal to prepare it for pregnancy [1]. The menstrual cycle in women is characterized by high variability in cycle length with variable associated physiological and psychological changes along different phases [2].

It's not uncommon for some individuals to experience anxiety and sadness in association with menstruation. This emotional response can be attributed to various factors, including hormonal fluctuations, physical discomfort, and societal influences. Here are some potential reasons for these feelings and suggestions on managing them. Hormone variations associated with some stages of the menstrual cycle have been linked with rise in the prevalence or symptoms of a variety of neurological illnesses and conditions [3]. Ovarian hormonal changes occurring in the premenstrual phase of the menstrual cycle may constitute a neuromodulatory effect that contributes to the development and maintenance of a maladaptive or pathological disorder [4].

Depression and other mood changes often show up in the days before your period starts, but they don't automatically disappear once it begins. They can linger for a few days, if not longer — some people also experience depression after their menses ends. These mood symptoms can absolutely affect woman's day-to-day life. But several factors causes symptoms of depression before, during, and possibly even after menses.
Women who experience menses-related symptoms seldom receive the medical help they need as a result of which, their day-to-day activities are disrupted and cause discomfort, both physical and psychological [5]. The physical discomfort experienced during the menses is significantly related to psychosocial impairment. Titilayo et al. reported that heavy menstrual bleeding affected the daily activities and social relationships among participants [6].

Cultural taboos, stigma, and societal expectations around menstruation can contribute to feelings of shame or embarrassment, leading to anxiety and sadness. The physical and psychosocial experiences associated with menstruation inevitably affects the daily activities and quality of life of women. The sensitivity of the subject and the social taboo associated with menstruation in Arab societies do not allow individuals to discuss the various attributes of this natural phenomenon openly. Therefore, a large proportion of young females remain uneducated and unaware about the many aspects of menstruation, hence making it impossible to improve their menstrual hygiene and overall quality of life [7].

Menses can cause a lot of uncomfortable symptoms. These symptoms vary from woman to woman, but they often extend beyond physical discomfort, like cramps, fatigue, and headaches. It's very common to experience emotional distress during your period, including symptoms of depression, irritability, anxiety, difficulty concentrating, and low mood.

Published studies indicated that psychological alterations are very common in women [8]. The MC is frequently related to a negative change in the psychological status [8-11] demonstrate that women had a greater sensibility to extrinsic stress and negative affect during the LP. The psy-

chological changes in the LP are commonly associated with the action of gonadal hormones, neuroactive steroids, and/or sensibility to a stressor in the neurocircuitry that regulates emotions. However, there are different approaches to understanding these changes.

Several review studies reported menstrual exacerbations of numerous psychiatric symptoms, including addictive behaviors, psychosis, suicidality, anxiety, and posttraumatic stress disorder[12-16]. These reviews increased the scientific understanding of the effects of the menstrual cycle on women's mental health, including the more pointed effects of estrogen and progesterone.

Within the researcher's knowledge, countless studies addressed premenstrual syndrome and menstrual awareness and practices among women, but there is a scarcity of information on the psychological disturbances associated with menses. To further the growing body of research, I conducted this study focusing on assessing anxiety and sadness feeling during the menstruation among Palestinian women.

Goal of the study

The study aimed to determine the menstruation-related anxiety and sadness experienced by Palestinian women.

Methodology

Design and research process

This study used a descriptive, cross-sectional design. The sample of the study consisted of 512 Palestinian women from different areas (single, married, divorced, widows).

Ethical approval

The researcher explained the purpose of the study, and obtained their consent to participate in the study, and they understand that filling the questionnaire is voluntary.

Instruments of the study

For data collection, the researcher used a self-administered questionnaire to measure the level of anxiety and sadness during the menstrual period. Response on the questionnaire items used a 4-points Likert scale (Always, sometimes, seldom, never).

Results

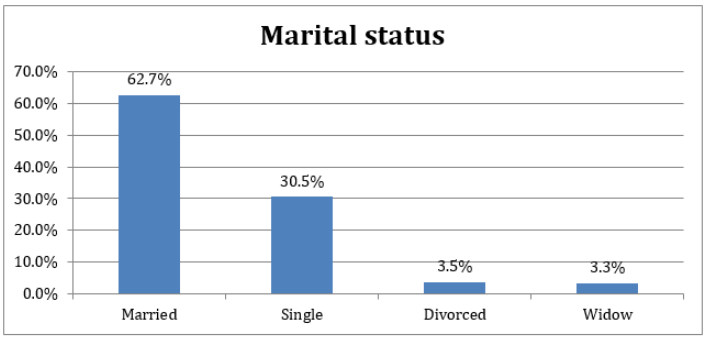

Figure 1. Distribution of study participants by marital status

Figure (1) showed that 321 (62.7%) of study participants are married, 156 (30.5%) are single, 18 (3.5%) are divorced, 17 (3.3%) are widowed.

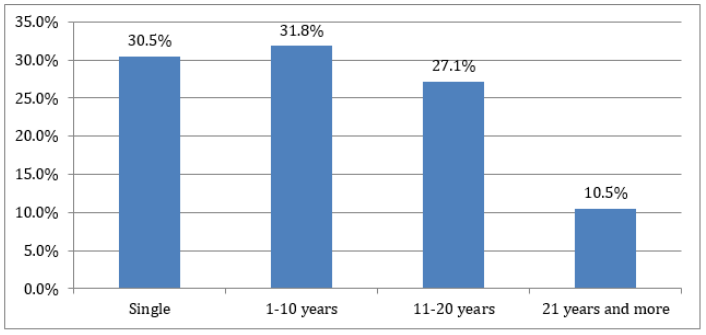

Figure 2. Distribution of study participants by years of being married

Figure (2) showed that 156 (30.5%) of study participants are single, 163 (31.8%) are married for 1 – 10 years, 139 (27.1%) are married for 11 – 20 years, 54 (10.5%) are married for 21 years and more.

Table 1: Sociodemographic characteristics of study participants (n= 512).

Variable	Number	Percentage (%)
Number of children		
No children	218	42.6
One child	47	9.2
2 – 4 children	180	35.2
5 children and more	67	13.1
Total	512	100.0
Current age		
Less than 20 years	71	13.9
20 - 29 years	168	32.8
30 - 39 years	170	33.2
40 years and more	103	20.1
Total	512	100.0
Age at first menstruation		
Less than 15 years	395	77.1
15 years and more	117	22.9
Total	512	100.0

Table (1) showed that 218 (42.6%) of study participants do not have children, 180 (35.2%) have 2 – 4 children, 170 (33.2%) aged 30 – 39 years, 395 (77.1%) had the first menstruation before the age of 15 years, 219 (42.8%) are employed, 425 (83%) have university education.

Table 2: Attitudes towards having children.

Item	Married	Single	Divorced	Widow
If unmarried, do you want to give birth after marriage?				
No	10.6	19.9	22.2	64.7
Yes	89.4	80.1	77.8	35.3
Total	100.0	100.0	100.0	100.0
If you are married but do not have children, would you like to have children?				

No	34.6	39.7	50.0	70.6
Yes	65.4	60.3	50.0	29.4
Total	100.0	100.0	100.0	100.0
If you are married and have children, do you want to have more children?				
No	60.1	56.4	66.7	88.2
Yes	39.9	43.6	33.3	11.8
Total	100.0	100.0	100.0	100.0
Do you think that having no children will decrease your role as a woman or a mother?				
No	77.3	79.5	94.4	88.2
Yes	22.7	20.5	5.6	11.8
Total	100.0	100.0	100.0	100.0

When the participants asked if they were unmarried and want to give birth after marriage, 89.4% of married women, 80.1% of single women, 77.8% of divorced women stated that they want to become pregnant and give birth. Also, when the participants asked if they were married but have no children, 65.4% of married women, 60.3% of single women, and 50% of divorced women stated that they want to have more children. Response to the question if they were married and have children, do you want to have more children, 60.1% of married women, 56.4% of single women, 66.7% of divorced women, and 88.2% of widowed women said that they do not want to have more children. In addition, 77.3% of married women, 79.5% of single women, 94.4% of divorced women, and 88.2% of widowed women reported that having no children will not decrease their value.

Table (3): Level of anxiety (n= 512).

No.	Item	Never %	Seldom %	Sometimes %	Always %	Mean	SD	%
1	I feel sad before the start of menses	21.1	20.5	32.4	26.0	2.63	1.084	65.7
2	I feel sad by the first day of menses	37.1	25.4	25.4	12.1	2.13	1.047	53.2
3	Feeling of sadness during menses leads to panic feeling	26.0	19.5	33.6	20.9	2.49	1.091	62.2
4	Feeling of sadness during menses leads to sleep disturbances	37.1	25.4	25.4	12.1	2.13	1.047	53.2
5	I feel sad during the menses because I did not become pregnant	63.1	11.5	17.4	8.0	1.70	1.019	42.5
6	I feel sad during the menses because I lose my natural role as a mother	62.3	16.0	13.9	7.8	1.67	0.984	41.7
7	Feeling of sadness during menses make me away from friends and relatives and prefer being alone	32.2	24.4	26.8	16.6	2.28	1.086	57.0
8	Feeling of sadness during menses affects my ability to work or study	23.8	21.7	33.8	20.7	2.51	1.069	62.7
9	Feeling of sadness during menses affects my ability to do my duties at home (cocking, cleaning, …)	22.5	21.5	39.3	16.8	2.50	1.018	62.5
10	Feeling of sadness during menses affects my relation with my husband	39.8	18.2	26.0	16.0	2.18	1.126	54.5
Total average						2.22	0.714	55.5

Table (4) presented the results related to the frequency of sadness experienced by women in relation to menstruation and its potential impact on various aspects of their lives.

A substantial percentage (65.7%) report feeling sad before the start of their menses, with mean score indicates a moderate level of sadness (Mean = 2.63). More than half of the respondents (53.2%) feel sad by the first day of their menses, with mean score indicates a moderate level of sadness during this time (Mean = 2.13). A significant portion (62.2%) report that the feeling of sadness during menses leads to a panic feeling, with mean score indicates a moderate impact on panic feelings (Mean = 2.49). Similarly, 53.2% report that sadness during menses leads to sleep disturbances, with mean score indicates a moderate impact on sleep disturbances (Mean = 2.13). A substantial majority (42.5%) feel sad during menses because they did not become pregnant, with mean score indicates a moderate level of sadness related to fertility (Mean = 1.70). A significant majority (41.7%) feel sad during menses because they lose their natural role as a mother, with mean score indicates a moderate impact on the perceived loss of the motherly role (Mean = 1.67).

A notable percentage (57.0%) report that sadness during menses makes them prefer being alone rather than being with friends and relatives, and the mean score indicates a moderate impact on social interactions (Mean = 2.28). A majority (62.7%) feel that sadness during menses affects their ability to work or study, with mean score indicates a moderate impact on work or study (Mean = 2.51). A significant percentage (62.5%) report that sadness during menses affects their ability to perform duties at home (cooking, cleaning, etc.), with mean score indicates a moderate impact on home duties (Mean = 2.50).

More than half of the respondents (54.5%) feel that sadness during menses affects their relationship with their husband, with mean score indicates a moderate impact on marital relationships (Mean = 2.18). The mean score of sadness related to menses was 2.22 with mean percent 55.5%.

Table 5: Differences in anxiety and sadness related to sociodemographic variables.

Variable			Sum of Squares	df	Mean Square	F	P value
Marital status	Anxiety	Between Groups	1.574	3	0.525	1.026	0.381
		Within Groups	259.661	508	0.511		
		Total	261.234	511			
	Sadness	Between Groups	1.185	3	0.395	0.772	0.510
		Within Groups	259.758	508	0.511		
		Total	260.943	511			
Years of marriage	Anxiety	Between Groups	0.353	3	0.118	0.229	0.876
		Within Groups	260.881	508	0.514		
		Total	261.234	511			
	Sadness	Between Groups	0.803	3	0.268	0.522	0.667
		Within Groups	260.140	508	0.512		
		Total	260.943	511			
Number of children	Anxiety	Between Groups	1.626	3	0.542	1.061	0.365
		Within Groups	259.608	508	0.511		
		Total	261.234	511			
	Sadness	Between Groups	2.359	3	0.786	1.545	0.202
		Within Groups	258.583	508	0.509		
		Total	260.943	511			
Current age	Anxiety	Between Groups	3.009	3	1.003	1.973	0.117
		Within Groups	258.226	508	0.508		
		Total	261.234	511			
	Sadness	Between Groups	2.783	3	0.928	1.825	0.142
		Within Groups	258.160	508	0.508		
		Total	160.943	511			

Table (5) showed that there were statistically no significant differences in levels of anxiety and sadness related to marital status, number of years of being married, number of children, and age of the woman ($P > 0.05$).

Association between sadness and the desire to have children

Table 6: Level of sadness among unmarried women and want to have children after marriage.

No.	If you are unmarried, do you want to have children after marriage?	Sometimes %	Always%	Mean %
1	I feel sad before the start of menses	80.1	87.2	83.65
2	I feel sad by the first day of menses	83.8	88.7	86.25
3	Feeling of sadness during menses leads to panic feeling	84.9	80.4	82.65
4	Feeling of sadness during menses leads to sleep disturbances	83.8	88.7	86.25
5	I feel sad during the menses because I did not become pregnant	91.0	95.1	93.05
6	I feel sad during the menses because I lose my natural role as a mother	84.5	90.0	87.25
7	Feeling of sadness during menses make me away from friends and relatives and prefer being alone	75.9	84.7	80.30
8	Feeling of sadness during menses affects my ability to work or study	82.1	84.9	83.50
9	Feeling of sadness during menses affects my ability to do my duties at home (cocking, cleaning, …)	83.1	81.4	82.25
10	Feeling of sadness during menses affects my relation with my husband	90.2	80.5	85.26

Table (6) presented the level of feeling sadness among unmarried women and want to have children after marriage. The results showed that 83.65% of women felt sometimes or always sad before the start of menses, 86.25% felt sad sometimes or always by the first day of menses, 82.65% stated that sadness leads sometimes or always to panic feeling, 86.25% reported that sadness leads sometimes or always to sleep disturbances, 93.05% mentioned that sadness is related to inability to become pregnant, 87.25% felt sad because they lost their natural role as a mother. In addition, 80.30% stated that sadness make the prefer to be alone, 83.50% said that sadness affects their ability to work or study, 82.25% stated that sadness affect their ability to do their duties at home, and 85.26% stated that sadness affects their relation with their husbands.

Table 7: Level of sadness among married women who do not have children.

No.	If you are married but do not have children, would you like to have children?	Sometimes %	Always %	Mean %
1	I feel sad before the start of menses	55.4	70.7	63.0
2	I feel sad by the first day of menses	64.6	72.6	68.6
3	Feeling of sadness during menses leads to panic feeling	59.9	62.6	61.2
4	Feeling of sadness during menses leads to sleep disturbances	64.6	72.6	68.6
5	I feel sad during the menses because I did not become pregnant	75.3	80.5	77.9
6	I feel sad during the menses because I lose my natural role as a mother	66.2	57.5	61.8
7	Feeling of sadness during menses make me away from friends and relatives and prefer being alone	56.2	57.6	56.9
8	Feeling of sadness during menses affects my ability to work or study	63.6	57.5	60.5
9	Feeling of sadness during menses affects my ability to do my duties at home (cocking, cleaning, …)	63.7	52.3	58.0
10	Feeling of sadness during menses affects my relation with my husband	67.7	56.1	61.9

Table (7) presented the level of feeling sadness among married women who do not have children, but they would like to have children. The results showed that 63.0% of women felt sometimes or always sad before the start of menses, 68.6% felt sad sometimes or always by the first day of menses, 61.2% stated that sadness leads sometimes or always to panic feeling, 68.6% reported that sadness leads sometimes or always to sleep disturbances, 77.9% mentioned that sadness is related to inability to become pregnant, 61.85% felt sad because they lost their natural role as a mother. In addition, 56.9% stated that sadness make the prefer to be alone, 60.5% said that sadness affects their ability to work or study, 58% stated that sadness affect their ability to do their duties at home, and 61.9% stated that sadness affects their relation with their husbands. These results reflected that sadness was associated with menses and the desire to become pregnant and have children.

Table 8: Level of sadness among married women who have children and want to have more children.

No.	If you are married and have children, do you want more children?	Sometimes %	Always %	Mean %
1	I feel sad before the start of menses	33.1	56.4	44.75
2	I feel sad by the first day of menses	51.5	50.0	50.75
3	Feeling of sadness during menses leads to panic feeling	48.3	43.9	46.10
4	Feeling of sadness during menses leads to sleep disturbances	51.5	50.0	50.75
5	I feel sad during the menses because I did not become pregnant	44.9	34.1	39.50
6	I feel sad during the menses because I lose my natural role as a mother	50.7	47.5	49.10
7	Feeling of sadness during menses make me away from friends and relatives and prefer being alone	40.9	55.3	48.10
8	Feeling of sadness during menses affects my ability to work or study	42.8	51.9	47.35
9	Feeling of sadness during menses affects my ability to do my duties at home (cocking, cleaning, …)	40.3	51.2	45.75
10	Feeling of sadness during menses affects my relation with my husband	34.6	42.7	38.65

Table (8) presented the level of feeling of sadness among married women who have children, and want more children. The results showed that 44.75% of women felt sometimes or always sad before the start of menses, 50.75% felt sad sometimes or always by the first day of menses, 46.1% stated that sadness leads sometimes or always to panic feeling, 50.75% reported that sadness leads sometimes or always to sleep disturbances, 39.5% mentioned that sadness is related to inability to become pregnant, 49.1% felt sad because they lost their natural role as a mother. In addition, 48.1% stated that sadness make the prefer to be alone, 47.35% said that sadness affects their ability to work or study, 45.75% stated that sadness affect their ability to do their duties at home, and 38.65% stated that sadness affects their relation with their husbands.

Table 9: Summary of sadness among three groups of women and want to have children.

No.	Overall sadness among women	Group 1	Group 2	Group 3
1	I feel sad before the start of menses	83.65	63.0	44.75
2	I feel sad by the first day of menses	86.25	68.6	50.75
3	Feeling of sadness during menses leads to panic feeling	82.65	61.2	46.10
4	Feeling of sadness during menses leads to sleep disturbances	86.25	68.6	50.75
5	I feel sad during the menses because I did not become pregnant	93.05	77.9	39.50
6	I feel sad during the menses because I lose my natural role as a mother	87.25	61.8	49.10

7	Feeling of sadness during menses make me away from friends and relatives and prefer being alone	80.30	56.9	48.10
8	Feeling of sadness during menses affects my ability to work or study	83.50	60.5	47.35
9	Feeling of sadness during menses affects my ability to do my duties at home (cocking, cleaning, …)	82.25	58.0	45.75
10	Feeling of sadness during menses affects my relation with my husband	85.26	61.9	38.65

Group 1: Unmarried and want to have children after marriage. **Group 2:** Married but do not have children, and would like to have children. **Group 3:** Married and have children, and want more children.

Table (9) presented summary of level of sadness accompanied with menses among the three groups of women.

The results extracted from table (9) showed that the highest feeling of sadness was in group (1) and group (2) who did not have children, while lower level of sadness observed in group (3) who have children. It is noticed that in group (1 + 2), high level of sadness observed in item number (5) which attributed the feeling of sadness due to not becoming pregnant, and item number (6) which attributed sadness to lose of women's natural role as a mother.

Discussion

Menstruation is an everyday experience for women and should be acknowledged and understood as a natural bodily function for which our negative attitudes toward menstruation are neither natural, nor inherent [17]. This study aimed to examine the menstrual-related anxiety and sadness among Palestinian women. The exact cause of emotional symptoms during the menstrual cycle is not fully understood, but hormonal fluctuations, particularly changes in estrogen and progesterone levels, are believed to play a role. Additionally, neurotransmitters such as serotonin, which affect mood, may be influenced by hormonal changes.

Anxiety seems to be a common experience throughout various stages of the menstrual cycle. The impact of anxiety on mood and pain is particularly noteworthy. There is a belief among respondents that age may influence the level of anxiety associated with menstruation.

Most of previous studies have examined the psychological distress and quality of life associated with menstruation among women [18]. In addition, [19], reported that the menstrual cycle and its underlying hormones impact symptom expression among women with anxiety and PTSD, as well as psychophysiological and biological processes relevant to anxiety and PTSD.

Menstruation is linked to a range of psychopathological symptoms, such as lower self-esteem, increased anxiety, dysphoria, and feelings of being persecuted [20]. Changes in behavior, like decreased social interaction during menstruation, can lead to feelings of loneliness and potentially contribute to the development of depression [21]. Several reviews have reported that psychopathological symptoms and mental disorders, such as psychoses, suicidal tendencies [22]. PTSD [19], and addictive behaviors [23], tend to worsen during menstruation [24].

Some comprehensive studies have indicated that women might be at a higher risk of suicide during menstruation [22]. The symptoms occurring during menstruation can have a significant impact on mental health and lead to severe consequences [25].

Sadness is a prevalent emotional experience for many individuals throughout various stages of the menstrual cycle. The impact of sadness extends to various aspects of life, including social interactions, work, home duties, and relationships.

The study revealed that feeling of sadness was strongly correlated with the desire of becoming pregnant and having children, and inability to have children make the woman lose her natural role as a mother.

Conclusion

The study revealed that most of women wanted to have children, and there was a moderate anxiety and sadness associated with menstruation.

Implications of the study

Data extracted from this study provides insights into the emotional aspects of the menstrual experience and may serve as a basis for discussions on mental health, well-being, and the need for support and awareness in addressing the emotional challenges associated with menstruation. Understanding and addressing the emotional impact of menstruation is crucial for promoting mental health and well-being. This data underscores the need for open conversations, support systems, and potential interventions to help individuals navigate the emotional aspects of their menstrual experiences.

Acknowledgement

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Limitations of the study

The main limitation of the study included difficulties in contacting and obtain agreement from the targeted women. Future studies with a larger number of participants is essential to make generalization of the results.

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Conflict of interest

There are no conflicts of interest to be declared.

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