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IDENTIFY MENSTRUATION RELATED PROBLEMS AND SUICIDE

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Abstract

Research Motivation: The most common symptoms of premenstrual syndrome are uneasiness, stress, inability to control anger, fatigue, dizziness, increased appetite, anxiety, decrease in concentration, breast tenderness and swelling, muscle and joint pain

Research Objectives: The study aims to identify menstruation related problems of women who are hospitalized due to a suicide attempt.

Methodology: The study was conducted in Emergency Service of Balcali Hospital, Cukurova University. The population consisted of all women between the ages of 15-49 (n=70) who attempted to suicide and applied to the hospital. The data were collected via a questionnaire prepared by the researchers and Menstrual Distress Questionnaire developed by Rudolf H. Moos.

Findings: 65.7% of the participants were between the ages of 15 and 25, and more than half had complaints regarding premenstrual distress for two cycles. It was noted that the highest rate of support came from parents and close relatives of the participants and the rate for professional support was rather low. The analysis of responses to menstrual distress questionnaire revealed that the last menstrual period had the highest average score of 33.57 ± 32.95 . The analysis of sub-dimensions indicated that pain sub-section had the highest average score while autonomic reaction sub-dimension had the lowest average score regarding menstrual distress.

Research Outcomes and Future Scope: The study indicated that more than half of the women who were hospitalized following a suicidal attempt was young and more than half had complaints regarding premenstrual distress for two cycles. It can be recommended for health professionals to evaluate, educate and guide young people about menstruation, potential changes in the body and coping methods.

Keywords

Suicide, Premenstrual syndrome, Menstruation, Support

1. Introduction

Psychological changes related to menstrual cycle were noted by Hippocrates in 600 BC, by Solerno and Troutu in the 11th century, and by many scientists in the Renaissance period and are still valid at the present day (Akdeniz 2004). Despite the variety of problems which may arise during a menstrual cycle, premenstrual syndrome (PMS), premenstrual dysphoric disorder (PMDB) and mood disorders are more common (Akdeniz 2006; Gölünük 2010; Arab 2015).

The term 'premenstrual syndrome' (PMS) refers to cognitive and emotional disorders that arise during the luteal phase of the menstrual cycle and end with the start of menstruation (Lori 2003). Different sources define the beginning and end of PMS differently. According to American Obstetrics and Gynecology Association, for diagnosis of PMS, symptoms should be seen within 5 days prior to the start of the menstruation and end within 4 days following the start of the menstruation (Gokce 2006; Ince 2001; Pinar 2007; Stevinson and Ernst 2001). For PMS diagnosis, one of the physical or psychological symptoms should be seen, repeat for at least two

months in retrospective monitoring and cause significant disorder in functionality (Akdeniz 2004). Since PMS is common for the majority of women at the age of sexual maturity, it is a public health problem. It is referred as significant changes in behaviors that harm women's social relation and regular activities (Akyilmaz 2003).

Epidemiologic studies revealed that while 15-20% of women who have menstruation experienced PMS, the symptoms were significantly hard to cope for 5%. While the symptoms can be experienced at any period of life, it especially occurs in cases of physiologic, metabolic, psychological and hormonal changes (Lete 2011). Women's socio-cultural setting, employment and education status, perception and behavior regarding menstruation and dysmenorrhea were also found to be influential in occurring of PMS. (Dasikan 2014; Demir 2006; Sule 2007). PMS was also found to be in relation with the genetic disposition and it was revealed that in cases when PMS is experienced by one of the twins, the other twin may experience it as well (Dinc 2010).

The most common symptoms of PMS are uneasiness, stress, inability to control anger, fatigue, dizziness, increased appetite, anxiety, decrease in concentration, breast tenderness and swelling, muscle and joint pain (Akdeniz 2006; Kisa 2012).

Limited social support factors and not using effective coping methods may affect women's social relations and life, their life quality, family, school and working environments adversely and cause the worsening of already present psychological problems (Angst 2001; Dinc 2010; Kircan 2012). In coping PMS; correcting wrong beliefs and information of women regarding menstruation, regulating their dietary habits, developing exercising habits, improving stress management methods would reduce the complications that may arise (Kisa 2012). Therefore, the study aims to identify menstruation related problems of women who are hospitalized due to a suicide attempt.

2. Material and Method

2.1 Study Objective and Type

Descriptive and cross-sectional study was conducted in a university hospital with the aim of identifying menstruation related problems of women who are hospitalized due to suicide attempt between the dates of May 2012 and May 2013.

2.2. The Population and Sampling

The study was conducted in Emergency Service of Balcali Hospital, Çukurova University. The population consisted of all women between the ages of 15-49 who attempted to suicide and

applied to the hospital between May 2012 and May 2013. 70 women who were in compliance with the sampling criteria were included in the study. During this time-period, 455 women applied to the Emergency Service due to suicide. 385 were not included in the study. 120 women who did not want to answer the questionnaire, 38 women who did not accept to be hospitalized and were discharged upon their will, 9 pregnant women, 23 women who do not have regular menstruation, 7 women who were recommended for psychiatry service and 157 women who were considered as intoxication (taking medicine by mistake, food poisoning, taking high dose of medicine, being exposed to pesticides or chemicals) rather than suicide were not included in the study (Figure 1).

Sampling criteria

Voluntary participation

Not being recommended for psychiatry service

Having regular menstruation

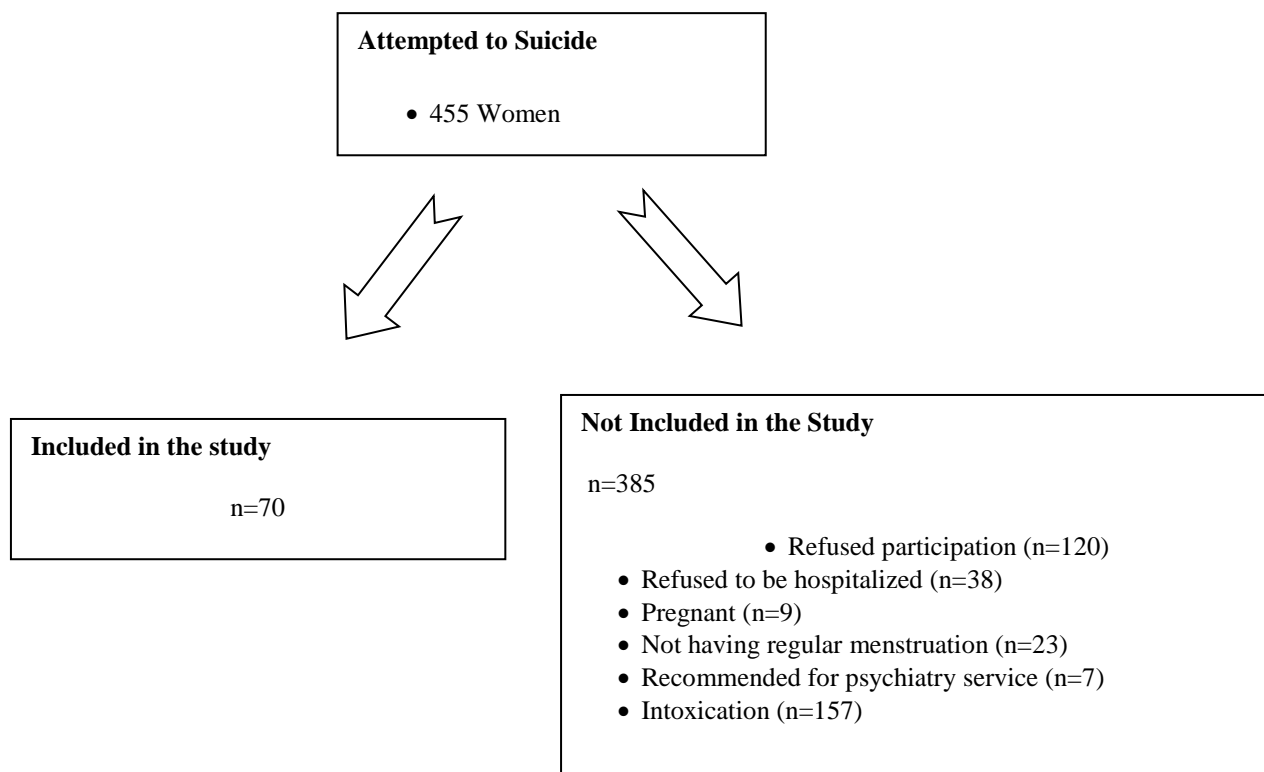


Figure 1: Flowchart of Study

2.3 Confirmation of the Ethical Committee

In order to conduct the study, permission of the unit where the study was conducted and also confirmation of Non-invasive Clinical Research Ethics Committee of Medical Faculty at Cukurova University were obtained prior to data collection.

2.4 Data Collection

The data were collected via a questionnaire prepared by the researchers and Menstrual Distress Questionnaire (MDQ) developed by Rudolf H. Moos.

The data were collected by face-to-face interviews and direct observation. The average time each participant took to answer the questions was 10 minutes.

2.4.1 Questionnaire

The questionnaire prepared by the researchers based on their experiences and literature included a total of 33 questions; 11 questions on socio-demographic features, 6 on social support factors, 5 on traumatic problems experienced in the last year and 10 on intoxication story.

2.4.2 Menstrual Distress Questionnaire

The questionnaire developed by Rudolf H. Moos was adapted to Turkish by Kizilkaya (1994). MDQ consisted of 47 symptoms and eight sub groups (pain, water retention, autonomic reaction, negative affect, concentration disorder, behavioral changes, revival, control) that include these symptoms. The complaints were scored separately for premenstrual and intermenstrual phases based on a 5-point scale ranging from 0 to 4. The points indicate no symptom, low, average, intense and very intense. The highest possible score for both phases were 184. Validity and reliability of the scale were tested with Cronbach alfa and the value was 0.71-0.97 (Kizilkaya 1994).

2.5 Data Analysis

The data were analysed through percentage, arithmetic average, standard deviation and ANOVA tests via SPSS (Statistical Programme for Social Science) 19 for Windows package program (Ozdamar 2003).

3. Results

Table 1 includes the findings regarding socio-demographic features and habits of the participants. 65.7% of the participants were between the ages of 15-25, 48.6% were married, 61.5% were primary school graduates, 64.3% did not have a job, 80% had health insurance, 70% stated to have middle-level income, 74.3% had nuclear family and 55.8% stated the number of family members living in the same household as four or less. When questioned about their habits, 42.9% of participants stated to be a smoker, 11.4% stated consuming alcohol and 2.9% consuming drugs.

The analysis of support the participants received revealed that the highest rate of support came from parents and close relatives and the rate for professional support was rather low table 2.

Table 1: Findings Related to Participants' Socio-Demographic Characteristics and Habits

	n	%
Age		
	n	%
15-25 age	46	65.7
26-35 age	25.7	25.7
36-49 age	8.6	8.6
Marital status		
Married	30	42.9
Single	34	48.6
Divorced	6	8.6
Education		
Primary education (8 years)	43	61.5
High school (12 years)	19	27.1
University	8	11.4
Working status		
Not working	45	64.3
Working	25	35.7
Health Assurance		
Yes	56	80
No	14	20
Income Status		
Bad	15	21.4
Middle	49	70
Good	6	8.5
Family Type		
Extended family	18	25.7
Nuclear family	52	74.3
Number of People Living at Home		
4 and below	39	55.8
5 and more	31	44.2
Smoking Status		
Yes	30	42.9
No	40	57.1
Alcohol Use Status		
Yes	8	11.4
No	62	88.6
Drug Usage Status		
Yes	2	2.9
No	68	97.1

Table 2: Findings of Participants' Support Status

People Supported	Support Getting Situations			
	I'm getting enough support		I'm not getting enough support	
Mom-dad	45	64.3	25	35.7
Near relative	34	48.6	36	41.4
Friend	25	35.7	45	64.3
Partner	19	27.1	51	72.9
Children	11	15.7	59	84.3
Professional Support	11	15.7	59	84.3

The findings related to problems experienced in the last one year by the participants are demonstrated in Table 3. The highest percentage of women, 67.1% stated to have problems related to money and this was followed by health with 64.3% and family problems with 50%.

Table 3: Findings Related to Participants' Problems at the Last Year

Problems at the Last Year	Yes		No	
	n	%	n	%
Economical problems	47	67.1	23	32.9
Health problems (physical / mental)	45	64.3	25	35.7
Family issues	35	50	35	50
Social change (migration / change of work / change of house)	29	41.4	41	58.6
Separation (divorcing /from child /from place)	21	30	49	70

The informants stated that 90% attempted to suicide by hanging themselves and 10% by physically harming themselves, 28.6% attempted to suicide before as well, 20% received psychiatric support, 21.4% used antidepressants and/or antipsychotic drugs and 17.1% had a family member that attempted to commit suicide. Out of those who stated to have a family member that attempted to suicide, 5 participants' fathers, 4 participant's mothers and 3 participants' siblings were noted as having attempted to commit suicide (Table 4).

Table 4: Findings about Participants' suicide patterns

Suicide Attempt Feature	Hanging		Physical harm to the body	
	n	%	n	%
	63	90	7	10
	Yes		No	
	n	%	n	%
Previous suicide attempts	20	28.6	50	71.4
Getting psychiatric support	14	20.0	56	80.0
Using antidepressant and / or antipsychotic medication	15	21.4	55	78.6
The person who attempted suicide in the family	12	17.1	58	82.9

The analysis of responses to menstrual distress questionnaire revealed that the last menstrual period had the highest average score of 33.57 ± 32.95 . The analysis of sub-dimensions indicated that

pain sub-section had the highest average score while autonomic reaction sub-dimension had the lowest average score (Table 5). 65.7% of the participants experienced the problems for two cycles, 30% visited a doctor in order to cope with the problems, 68.6% used pain killers, 65.7% rested, 44.3% applied heat and 40% exercised. Women's age, education status, marital status, employment status, financial level, family type, the number of people living in the household, receiving support and problems experienced within the last year were not significantly correlated with the sub-dimensions of menstrual distress questionnaire ($p>0.05$).

Table 5: Participants' symptoms related to menstrual distress

Sub dimensions	1 week before last menstruation	During the last menstruation	The other days
	$\bar{X} \pm SD$	$\bar{X} \pm SD$	$\bar{X} \pm SD$
Pain	6.24±4.41	6.94±5.93	2.27±3.252
Negative Affect	5.91±6.25	6.83±7.00	4.06±6.46
Behavioral Changes	3.19±4.51	5.54±13.67	1.40±2.80
Concentration Disorder	3.79±5.69	4.23±5.71	2.74±5.36
Control	2.21±3.55	2.81±4.08	1.49±2.32
Edema	2.90±2.66	2.41±2.66	0.89±2.70
Revival	1.91±3.03	2.26±3.52	1.97±3.44
Autonomic Reaction	2.11±3.01	1.86±2.70	0.44±1.27
Total	28.84±26.02	33.57±32.95	15.61±19.95

4. Discussion and Conclusion

The study that included women who were hospitalized in a university hospital due to suicide attempt revealed that more than half of the women were young which refers to ages between 15 and 25. The literature review conducted by Saunders and Keithhawton (2006) in order to analyze the relations between menstrual cycle, phases and suicide attempts based on existing literature revealed a positive relation between menstrual cycle and non-fatal suicidal behavior. In the study, more than half of the women (65.7%) who applied to the hospital as a result of suicide attempt stated to have menstrual problems during their last two cycles.

In a similar fashion to our study, Sokullu's (2009) study on 20 women which aimed to analyze lifestyles of women who complain about premenstrual syndrome, revealed that majority of the participants were sensitive, had a tendency to cry and experienced their emotions intensely even in trivial cases. Egicioglu's (2008) study which aimed to analyze the influence of premenstrual syndrome on life quality of women of reproductive age in Afyon city center on a total of 240 women; 80 housewives, 80 adolescents and 80 health professionals indicated that the most often encountered premenstrual symptoms are angry mood, abdominal distention, fatigue, breast swelling, anxiety, and headache. It was stated that premenstrual syndrome decreases the

life quality of women. Pinar's (2011) study which aimed at analyzing the influence of premenstrual syndrome on life quality based on 316 students that study at a medical faculty of a Turkish university indicated that as the premenstrual syndrome increased, life quality decreases at a statistically significant level ($p < 0.05$).

In the study, the highest percentage of women, 67.1% stated to have problems related to money and this was followed by health with 64.3% and family problems with 50%. In a descriptive study conducted by Pinar (2007) in order to identify the frequency of premenstrual syndrome that included 600 women between the ages of 15 and 49, no relation was found between socio-economic level and premenstrual syndrome. The findings are in line with our study. Limited social support factors and not using effective coping methods may affect women's social relations and life, their life quality, family, school and working environments adversely and cause the worsening of already present psychological problems (Angst 2001; Dinc 2010; Kircan 2012).

The study indicated that more than half of the women who were hospitalized following a suicidal attempt was young and more than half had complaints regarding premenstrual distress for two cycles. It can be recommended for health professionals to evaluate, educate and guide young people about menstruation, potential changes in the body and coping methods.

5. Conflict of Interest

The authors declared no conflicts of interest with respect to the authorship and/or publication of this article.

6. Acknowledgements

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