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Health related quality of life and depression among premenstrual dysphonic disorder (PMDD)

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Abstract---Objective: The purpose of this study was to investigate the impact of positive and negative emotions, quality of life and depression on Premenstrual dysphoric disorder (PMDD) patients. Methodology: Correlation design was used. The sample consisted of a total of 70 female within the age group of 16 to 30 years. Purposive Sample technique was used in this study. Tools: behaviour tools were used like BREFF WHO Quality of life (Shaker, Saxena, 1998), Positive and Negative Affect Schedule (PANAS-SF) by (Watson, D., Clark, L. A., & Tellegen, A. (1988), Hamilton Depression Rating Scale developed by (Hamilton M. A, 1960). Results Descriptive statistics Mean, Standard Deviation (SD) and ANOVA was used. Results revealed that positive emotion is positively correlated with quality of life ($r=.538$, $p<0.01$), whereas it is negatively correlated with depression ($r=-.702$, $p<0.01$) on PMDD. Negative emotion is negatively correlated with quality of life ($r=-.070$, $p<0.01$), whereas it is positively correlated with depression ($r=-.472$, $p<0.01$). It is found that negative emotion is most significant predictor and has its influence on depression. Conclusion Greater awareness of PMDD empowers individuals to feel more comfortable in examining the condition and more capable of noticing the symptoms in themselves or in others. The study proved that the depression, positive negative emotions all affect negatively on PMDD patients. Overall, this research showed that people are unaware of PMDD which isn't restricted to a specific demographic group.

Keywords---depression, positive emotions, negative emotions, quality life.

Introduction

Considering Indian context, PMDD is more severe in women leading urban life than the ones living in rural areas. This difference arises due to the difference in the life style of both. Today is the era of women empowerment. Leading a hectic life to enjoy all perks of independent and confident life, they somewhere forget to take care of themselves. Living the lives with a misconception of taking zero figure as the ideal beauty body type, they tend to avoid the basic requirements of the body including milk, ghee and such dairy products. Secondly, adulteration and hoarding also make people refrain from using these products. While on the other hand, women leading rural lifestyle eat more pure food and their physical activity related to daily routine also keeps them fit. Still, all suffer with PMDD. There can be other factors that might give them stress like unhygienic lifestyle, super studious belief, torturing, or depression-filled married life. All these can be treated with good care. PMS can affect a lady's life and working, it isn't delegated a Disorder and the symptoms can typically act naturally self - managed. Premenstrual dysphoric issue is a delegated psychological issue by the Demonstrative and Measurable Manual of Mental Problems, (DSM-5, 2013). PMDD, earlier known as the late luteal stage dysphoric disorder, was incorporated as a temporary diagnostic category in the informative supplements of the Diagnostic and Statistical Manual of Mental Problems (DSM)- III-R, 1987). It stayed as an addendum in DSM-IV, after being renamed PMDD (DSM-IV, 1994). PMDD was confirmed if, all through the whole week before monthly cycle, at least one of the four center manifestations (depressed mood, uneasiness or strain, emotional responsibility, anger, or irritability) was accounted for as serious, and in any event four extra indications (for an aggregate of five) as moderate to extreme, and on the off chance that they were missing in the week after menses (Halbreich et al., 2007).

Premenstrual dysphoric problem (PMDD) is a serious type of premenstrual physical and mental discomfortness happening to about fourteen days before period (Dante and Facchinetti, 2011). On the other hand, symptom for the most part vanishes not long after the beginning of menses. The Premenstrual dysphoric issue is a state of mood disorder that happens during the premenstrual period of the monthly cycle. While like that of premenstrual disorder (PMS), the side effects of PMDD are considerably more serious and can prompt extraordinary disposition changes that can disturb everyday life and work. Research demonstrates that ladies with premenstrual dysphoric issue may have changes in the qualities that impact how the body measures pressure and sex hormones. These distinctions imply that ladies with PMDD have a more prominent affect-ability to the hormones that impact both state of mind and general being ((Futterman and Rapkin, 2006; Campagne and Campagne, 2007).

PMDD is commonly connected with other disposition related issues, for example, major depression and causes critical life impairment. Depression is a state of mood disorder that includes a tireless sensation of bitterness and loss of interest. It is not the same as the state of mood fluctuation that individuals routinely experience as a part of life. Significant life occasions, like deprivation or the loss of a job, can prompt depression.

Numerous medicines for PMDD have been portrayed in well-known news sources, however few have been assessed in thorough and enormous scope logical investigations. Specialists suggest that ladies with extreme side effects take specific physician recommended meds that can be enhanced with social methodologies and wholesome systems. For ladies with less serious side effects, it may not be important to utilize every one of the three methodologies simultaneously. Wretchedness in ladies might create during various periods of the regenerative cycle (premenstrual dysphoric issue, melancholy during pregnancy, post pregnancy burdensome circumstances, and menopausal discouragement). Psychosocial occasions, for example, job pressure, exploitation, sex-explicit socialization, assimilation adapting style, and distraught societal position have all been viewed as supporters of the expanded weakness of ladies to gloom. Other conceptive occasions like fruitlessness, unsuccessful labor, oral contraceptives, and chemical substitution treatment have been accounted for to cause despondency in ladies. (Rapkin, et al. 2019;Scalea & Pearlstein, 2017)

Depression and health related quality of life

Depression exists on a continuum of seriousness, going from moderately mild, transient conditions of low temperament to extreme, long-term manifestations that significantly affect an individual's personal satisfaction. At the point when an individual's symptoms have reached at the chronic end of the range and require proficient treatment, it's commonly alluded to as clinical depression.

Although depression can take on numerous structures and might be arranged in a few unique manners, there are two essential kinds of clinical depression as characterized by the Diagnostic and statistical Manual of Mental Problems (DSM-5): significant burdensome issue (unipolar depression) and the depression period of bipolar disorder. Women with PMS are more inclined to have impairment in physical functioning and mental wellbeing which lead to significantly lower quality of life, expanded absentee rates from work, diminished word related efficiency, disabled social and interpersonal connections and more perpetual visits to hospital. Proof is more grounded for the hereditary reason for PPD, with positive affiliations found in family studies and in a few qualities related with significant sadness as well as qualities engaged with estrogen flagging yet just when PPD beginning is soon after conveyance (Katherine McEvoy et al., 2017).

We don't know exactly what causes PMDD, but researchers believe that PMDD, like any other mood disorder, can be associated with a fundamental flaw in brain chemistry. Due to this sensitivity, monthly fluctuations in hormones (estrogens and progesterone) adversely affect the function of nerve cells in the brain, causing premenstrual symptoms. Research on the causes and medicines of PMDD is arising, however the proof has shown that the condition is vigorously affected by a hereditary affect-ability to sex hormones. While PMDD is accepted to have biological causes, research has shown that ecological factors, for example, seen pressure can likewise expand the danger and seriousness of the condition. A portion of the significant manifestations of PMDD include: Extreme emotional episodes, Actual indications including bosom delicacy, swelling, and migraines, feeling of sadness, absence of interest in activities, absence of energy and

weakness, sleep disturbances, food longings and binges and trouble focusing or thinking.

Premenstrual condition is connected with liberal weight on QOL in youngsters. Also, growing earnestness in PMS side effects achieves lessened nature of mental prosperity and criticalness, (Taghizadeh et. al., 2008). PMDD is connected with critical weight on both physical and mental pieces of HRQoL. Weight of premenstrual dysphoric issue forces an adverse consequence on wellbeing related personal satisfaction, (Min Yang et al., 2008).

The study discoveries confirm the way that youths with premenstrual issues experience the ill effects of chronic frailty related quality of life. To improve personal satisfaction in female youth's appropriate help ought to be accommodated this populace particularly for the individuals who experience the ill effects of more serious premenstrual issues, (MahinDelara et al., 2012). In light of the discoveries of the current examination, it was inferred that: PMS was exceptionally common among the understudies. PMS was essentially associated with increase of BMI, inactive way of life, openness to passive smoking, positive family history of PMS, extreme coffee drinking, and continuous utilization of fast food, (Eman and Mahfouz 2013). PMS/PMDD is a pervasive, yet under-treated, disorder among clinical understudies in KSA, which adversely influenced their quality of life, (Batanony and Nohair, 2014).

Nurses with PMS have diminished degrees of work-related quality of life in their professional lives. Techniques to assist adapt to cyclic premenstrual manifestations might be utilised, and as a result, profitability and work-related quality of life may increment. (Kahyaoglu and Mestogullari, 2016). When left untreated, PMDD is expected to result in an average loss of QALY of approximately 0.14 years. However, considering the time from onset of illness to menopause and subtracting non-menstrual stages such as pregnancy and lactation, untreated PMDD patients are expected to experience about 3 years of QALY loss over their lifetime. Will be done (Yamada and Kamagata, 2017). This study thought about mental side effects, personal satisfaction, and inability in patients with premenstrual dysphoric problem (PMDD) and premenstrual condition (PMS). We contrasted 40 ladies and PMDD with 43 ladies with PMS. PMDD can prompt low quality of life and psychological wellness issues. Appraisal of patients with PMS and PMDD sickness ought to be more itemized (GülşahBalık et al., 2014).

Premenstrual side effects pressure up to 20% of ladies of childbearing age and are related with relational or proficient brokenness in no less than 38%. Common side effects of the extreme type of PMS and PMS are excessive touchiness, outrage, state of mind changes, misery, strain/uneasiness, stomach distension, chest torment and disquietude. Side effects repeat month to month and last a normal of 6 days per month for the greater part of the conceptive year. In ladies with premenstrual dysphoric problem, the side effects can be essentially as crippling as significant burdensome issue. This audit centers around the study of disease transmission, finding, patient results, personal satisfaction, and illness trouble in PMS (Andrea J Rapkin and Sharon, 9 April 2009). Premenstrual dysphoric issue (PMDD) is portrayed by critical enthusiastic, physical, and social

problems in the late luteal stage that dies down after the beginning of period. Albeit illustrated as another indicative classification for DSM5, the it isn't yet completely comprehended to basic component of PMDD. Past examinations have recommended that PMDD is exacerbated in unpleasant occasions, proposing hypothalamic-pituitary-adrenal pivot dysregulation. Stress, disposition, and cortisol during day-to-day existence in ladies with Premenstrual Dysphoric Disorder (PMDD) (Theresa Beddig et al., 2019).

Research Gap

This research is to find the issues and their impact on the quality of life for women who experience the ill impacts of PMDD. Considering PMDD, women have high levels of health anxiety and troublesome lifestyle. Therefore, one could acknowledge that the psychological impact of PMDD is ruthless, i.e., it likewise influences an individual somatically/physically. Ladies who have transitioned into men still can be living with PMDD. The lack of awareness regarding this issue and the ignorant behavior of the society towards it became one of the basic reasons to research on the same. The orthodox mind set of the Indian society urges the need to spread awareness about PMDD and its impact on the physical, mental and social health of women. They experience the ill impacts of mind-set; they experience extreme emotional turmoil. Their family and social relationship gets upset. Hormone-related disruption in state of mind and bad temperament is also commonly seen in patients with PMDD than other people. PMDD indications start during the luteal stage, or after ovulation, and end soon after period begins. To find the gap in the previous researches on the topic, various papers and researches were considered. (Nagda, Masry, Nelly & Abdelfatah, 2012) studied Premenstrual manifestations are common among young students' nurses, which adversely affected their wellbeing related quality of life. Consequently, ordinary discussion and lifestyle modification should be encouraged for them to have better health-related quality of life after going through the interred literature study, it was found that there are various sections which require research and consideration like depression, quality of life impacted and many other health related issues. The purpose of this study was to investigate the impact of positive and negative emotions, quality of life and depression on Premenstrual dysphoric disorder (PMDD) patients.

Methodology

Design

Correlation design was used in the study.

Sample

The sample consisted of a total of 70 female within the age group of 16 to 30 years. Purposive Sample technique was used in this study.

Inclusion criteria

- Female aged between 16 to 31 years were included in the study.
- The subjects were diagnosed by gynecologist

Exclusion criteria

- We have excluded old women.
- Anyone below 16 years of age.
- Exclude comorbidity disorder.

Tools

BREFWHO quality of life (1996) was developed by the WHOOL in There are total 4 domains, namely:

1. Physical health,
2. Psychological health,
3. Social health,
- 4 Environment.

Total there are 26 items that range from 1-5 and reverse scoring is there, 3negative phased Q3, Q4 and Q26. Scoring will be done according to the domain. This assessment asks how you feel about your quality of life, health, or other areas of your life.

Hamilton Depression Rating Scale was developed by Hamilton M. A rating scale for depression. J Neurol Neurosurg Psychiatry in 1960. This scale is designed to rate the severity of depression in patient. Total there are 21 items but we have to consider only 17 answers. This will tell us if the person is actually suffering from depression or not because of PMDD. Test -retest reliability of the testis 0.79

Positive and negative Affect schedule [PANAS-SF]-PANAS was developed on 1988 by psychologists David Watson, Lee Anna Clark, and Auke Tellegen. In this questionnaire, there are total positive and negative affect schedule in this test. There is total 20 items that range from 1-5[very slightly or not at all to extremely]. For positive responses here are different items and for negative responses there are different items.The PANSS test interrater reliability and test-retest reliability is (0.92 and 0.75).

Results

The analysis result of this study, the acquired information is coded and tabulated in excel. Later descriptive statistics Mean, SD standard deviation, ANOVA was be used.

Mean of Age

The positive mean of 70 samples for Age is 29.96, negative mean is 25.34, depression mean is 16.52, mean for quality of life is 81.49

Table 1.1 Positive Negative Depression Total * Age

AGE		POSITIVE	NEGATIVE	DEPRESSION	Quality of Life
16-19	Mean	29.73	26.64	17.18	84.91
	N	11	11	11	11
	Std. Deviation	6.930	7.187	9.474	17.524
20-23	Mean	28.07	23.43	17.57	77.50
	N	14	14	14	14
	Std. Deviation	9.715	4.586	10.013	13.484
24-27	Mean	30.57	22.71	14.50	84.86
	N	14	14	14	14
	Std. Deviation	10.113	5.567	9.606	18.161
28-31	Mean	30.61	26.94	16.73	80.55
	N	31	31	30	31
	Std. Deviation	6.844	5.977	10.181	12.948
Total	Mean	29.96	25.34	16.52	81.49
	N	70	70	69	70
	Std. Deviation	8.085	6.031	9.766	14.886

Table 1.1: The above table shows average of depression with respective to age found to be 29.73 in positive and 26.64 in negative for the age group 16-19. The table shows average of depression with respective of age found to be 28.07 in positive and 23.43 in negative for the age group 20-23. The table shows average depression with respective of age found to be 30.57 in positive and 22.71 in negative for the age group 24-27. The table shows average of depression with respective of age found to be 30.61 in positive and 26.94 in negative for the age group 28-31.

Mean of Education

The positive mean of 70 samples for education is 29.96, negative mean is 25.34, depression mean is 16.52, mean for quality of life is 81.49

Table 1.2 Positive Negative Depression Total * Education

EDUCATION		POSITIVE	NEGATIVE	DEPRESSION	Quality of Life
primary	Mean	26.00	24.40	22.00	70.60
	N	10	10	10	10
	Std. Deviation	6.733	6.518	11.991	8.809
secondary	Mean	28.84	25.58	17.26	83.63
	N	19	19	19	19

	Std. Deviation	8.585	6.158	9.579	16.833
Tertiary	Mean	31.14	25.24	14.69	82.81
	N	37	37	36	37
	Std. Deviation	8.189	6.171	8.940	14.911
Illitraty	Mean	34.25	27.50	15.75	86.25
	N	4	4	4	4
	Std. Deviation	4.349	3.873	10.145	4.425
Total	Mean	29.96	25.34	16.52	81.49
	N	70	70	69	70
	Std. Deviation	8.085	6.031	9.766	14.886

Table 1.2: The above table shows average of primary with respective of positive [M=26.00], Negative [M=24.40], Depression [M=22.00] and Quality of life [M=70.60]. The table average of secondary with respective of positive [M=28.84], Negative [M=25.58], Depression [M=17.26] and Quality of life [M=83.63]. The table shows average of Tertiary with respective of positive [M=31.14], negative [M=25.24], depression [M=14.69], quality of life [M=82.81]. The table shows average of illiterate with respective positive [M=34.25], negative [M=34.25], depression [M=27.50] and Quality of life [M=86.25].

Regression

Table 1.3: Simple Linear Regression Analysis of Depression

Independent Variable	Dependent Variable	R	R ²	Adjusted R ²	Std Error of Estimate
Positive Emotions	Depression	.702 ^a	.492	.485	7.010
B	-.842				
Std. Error	.104				
β	-.702				
t-value	-8.06				
p-value	.000				

Table 1.3 shows the simple linear regression analysis of depression with positive emotion. The correlation (r) was found to be .702^a and R² was .492 for positive emotion. It indicates that positive emotion contributes 70% of variance to depression. Therefore, it is found that positive emotion is most significant predictor and has its influence on mental health. Hence it can be stated that by establishing optimum level of positive emotion, mental health can be improved

Table 1.4 Simple Linear Regression Analysis

Independent Variable	Dependent Variable	R	R ²	Adjusted R ²	Std Error of Estimate
Negative Emotions	Depression	.785 ^b	.617	.605	6.136
B	-.765				
Std. Error	.093				
t-value	-8.234				
p-value	.000				

Table 1.4 It shows the simple linear regression analysis of depression with negative emotion. The correlation (r) was found to be .785^b and R² was .617 for negative emotion. It indicates that negative emotion contributes 61% of variance to depression. Therefore, it is found that negative emotion is most significant predictor and has its influence on depression. Hence it can be stated that by establishing optimum level of negative emotion, mental health can be improved.

Correlation

Table 1.5 Correlations

	Positive	Negative	Depression	Quality of life
Positive emotion	1	-.181	-.702**	.538**
Negative emotion		1	.472**	-.070
Depression			1	-.390**
Quality of life				1

** . Correlation is significant at the 0.01 level (2-tailed).

Interpretation of Table 1.5: The above table predicts that positive emotion is positively correlated with quality of life ($r=.538$, $p<0.01$), whereas it is negatively correlated with depression ($r=-.702$, $p<0.01$). Negative emotions are positively correlated whereas depression is significantly correlated negatively with quality of life. Negative emotion is negatively correlated with quality of life ($r=-.070$, $p<0.01$), whereas it is positively correlated with depression ($r=.472$, $p<0.01$).

Discussion

The primary goal of the study was to check if and to what extent does PMDD affect the quality of life of women. The study revealed that there is an enormous negative impact of PMDD on its patients. Results showed the positive and negative impact of depression on the patients is different according to their age. PMDD is commonly connected with other disposition related issues, for example, major depression and causes critical life impairment. It is not the same as the state of mood fluctuation that individuals routinely experience as a part of life. Significant life occasions, like deprivation or the loss of a job, can prompt depression. Results showed that depression has varied extents of positive and

negative impact on PMDD patients with respect to the literacy rate, also depending on the level of education. Even after having the capability of doing the work, they are not being able to do it. When a person's condition becomes so severe that it requires serious treatment, the condition is considered as clinical depression. PMDD patients have low level of quality of life some study showed that PMS have diminished degrees of work-related quality of life in their professional lives. Techniques to assist adapt to cyclic premenstrual manifestations might be utilised, and as a result, profitability and work-related quality of life may increment. (Kahyaoglu and Mestogullari, 2016).

Conclusion

Scientific effort can permit more public awareness with the menstrual disorder and expanded information, giving patients enhanced involvement in dealing with their conditions. This study exhibited that there is an absence of information on PMDD and to improve awareness of its prevalence and potential severity. Overall, this research showed that people are unaware of PMDD disorder which isn't restricted to a specific demographic group. Greater awareness of PMDD empowers individuals to feel more comfortable in examining the condition and more capable of noticing the symptoms in themselves or in others. The study proved that the depression, positive negative emotions all affect negatively on PMDD patients.

Limitation

There might be some possible limitation within this research which could be addressed in further research.

- Although a large sample size was obtained.
- There was a lack of male participants, because of the sample biases as the demographic scope of respondent was limited.
- This study was time consuming.
- Old women and adolescent below the age of 16 years were not included in this study because they do not phase this problem.

Research Conflicts

The authors claim that they have no conflict of interest.

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