Considering Premenstrual Dysphoric Disorder as a Differential Diagnosis in the Psychiatric Population An Educational Intervention Project

Sarah McNulty

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Considering Premenstrual Dysphoric Disorder as a Differential Diagnosis in the Psychiatric Population

An Educational Intervention Project

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Abstract

**Background:** The assessment and treatment of Premenstrual Dysphoric Disorder (PMDD) in the female population is an important issue to be examined. Upward to thirty percent of all females’ report symptoms of moderate to severe PMDD. Proper assessment, identification and treatment of PMDD as a differential diagnosis by healthcare providers is essential for the effective treatment PMDD.

**Purpose:** To provide evidenced based education to mental health professionals for the assessment and treatment of PMDD in order to help improve the quality of life for patient’s living with this disorder.

**Methods:** The PMDD education intervention took place at a inpatient psychiatric unit from October 2019 to April 2020 to a multidisciplinary team consisting of psychiatrists, psychologists, nurses, mental health counselors, and social workers during a Grand Rounds presentation at a state-run psychiatric facility in the Northeast. The participants completed a Likert survey that assessed the effectiveness of the presentation and the participant’s attitudes towards the treatment of PMDD.

**Results:** Post intervention, participants reported improved knowledge regarding assessment and evidence based modalities for the treatment of PMDD

**Keywords:** Premenstrual Dysphoric Disorder, Adolescents, Self-harm and Depression
Considering Premenstrual Dysphoric Disorder
as a Differential Diagnosis in the Psychiatric Population

An Educational Intervention Project

Introduction

Up to 80 percent of women experience some form of Premenstrual Dysphoric Disorder (PMDD) (Yonkers et al., 2005). Symptoms occur principally during the late luteal phase of the menstrual cycle, but in the first 2 or 3 days of the follicular phase in about one-third. These symptoms can include: changes in mood, anxiety, decreased interest in pleasurable activities and impaired sleep (American Psychological Association, 2013). This project’s goal of educating mental health providers about PMDD is to increase awareness of the condition and to provide information and education regarding the patient’s menstrual health so that appropriate interventions may be implemented individually. Through ongoing assessment and treatment women who have this condition can have an improved quality of life.

Background

“Premenstrual Dysphoric Disorder is a severe negative reaction to the natural rise and fall of estrogen and progesterone.” (International Association for Premenstrual Dysphoric Disorder, 2019). The symptoms of this disorder include not only physical manifestations such as bloating, acne, and mastalgia, but emotional dysregulation.

According to Halbreich, Borenstein, Pearlstein & Kahn, (2003), almost six percent of young women live with this disorder. When this important disorder is not recognized or treated young women are placed at increased risk of mood instability, self-harm and agitation. Without proper assessment and treatment young women are at risk for impaired well-being and health. Many healthcare providers come into contact with women who suffer with this disorder on a
daily basis. These healthcare providers have conversations, discussions and opportunities for patient education. So for the purpose of the DNP project, education will be done with mental health care providers so that conversations can be had with women about their reproductive well-being and how it relates to mood.

**Problem Statement**

The relationship between the occurrence of Premenstrual Dysphoric Disorder (PMDD) and young women who self-harm and have emotional dysregulation is not clearly understood. The purpose of this DNP project was to provide education to healthcare professionals so that there was an improvement in diagnosis, assessment and treatment of PMDD in the inpatient setting by education about the disorder, treatment standards and utilization of an evidenced based tools (Usher, 2102). It has been hypothesized by medical professional that changes in hormones can affect mood in women during child bearing years (Gosh, 2103). It is questioned whether these fluctuations in mood states can increase the likelihood of self-harm, agitation and mood lability. The DNP student provided education about assessment and treatment as well as how to create a dialogue with patients about PMDD to a multidisciplinary mental health care provider audience.

**Organizational “Gap” Analysis of Project Site**

The project site provides treatment for 360 patients who have not been able to stabilize psychiatrically in a lower level of care. This site serves as the highest level for psychiatric care in the Commonwealth of Massachusetts. The patients admitted have psychiatric diagnoses that range from thought and mood disorders to Post-Traumatic Stress Disorder (PTSD). While PMDD may be part of a differential diagnosis, it is not formally assessed using an evidence based tool. Historically, the presence of this disorder has been minimized (Yonkers et al, 2005).
Currently, nursing staff at the hospital completes a detailed assessment at admission, but does not complete a reproductive health assessment and do not ask questions pertaining to mood and hormonal fluctuations. The goal of this project was to educate mental health professional staff to become familiar with this PMDD as a differential diagnosis in mental health care and for the mental health professional staff to become familiar with evidenced based tools that can be utilized in the inpatient setting, as well as diagnostic criteria and treatment options. These tools included scales that can be used by patients to rate their symptoms, as well as symptom rating scales that can be used in assessment by healthcare providers. In doing, this the health care provider will be better informed to advocate and educate their patient population.

**Review of the Literature**

The relationship between the occurrence of Premenstrual Dysphoric Disorder (PMDD) and young women is not clearly understood as a differential diagnosis. The purpose of this literature review was to examine some of the current evidence based research on the complex relationship between PMDD and related behaviors in young women and support the further need for proper education, assessment and treatment.

Changes in hormones can affect mood states in women of child bearing years (Usher, 2012). It is also now thought these changes may impact the emotional health of the young women and can lead to increased agitation and self-harm behaviors. (Yonkers et al, 2005) For the purpose of the analysis of the quality of the evidence used in the review of literature the *Johns Hopkins Nursing Evidence-Based Practice Model* (JHNEBP) is utilized. The JHNEBP is a tool that uses a three step process to examine the quality of evidence based literature and how it translates to practice (Newhouse, Dearholt, Poe, Pugh, and White, 2005).
The following databases were used to obtain the journal articles reviewed: Google Scholar, PyschINFO, PUB MED. Terms used included *Premenstrual Dysphoric Disorder*, Adolescents, Emotional Dysregulation, Lability and Self-Harm. The results were limited to articles or research studies that have taken place over the past ten years, unless the article is clinically significant (as with the case with Yonkers, et al). Aspects such as culture or nation of origin of publication were included to look at this as shared phenomenon.

Using the final inclusion criteria for the purpose of the literature review, over thirty journal articles were found to be appropriate to the needs of this educational intervention. The final inclusion criteria included articles from scholarly journals that were relevant to effects of PMDD on Mood. All articles included for the purpose of this project were assessed using the JHNEBP

In the evidence based studies that were reviewed, there appears to be a relationship between menstrual cycle, agitation, mood lability and self-harm. In a correlational study looking at the relationship between depression and relationship between Major Depression and PMDD (Corbsa et al, 2008) showed that Major Depression in itself can cause symptoms of PMDD. Furthermore, Corbsa et al, hypothesized that decrease in mood and increase in depression can led to thoughts of self-harm, agitation and suicidal ideation.

Looking beyond a depressed mood state related to menses and self-harm, it can be supported that menses and bipolar disorder can contribute to self-harm actions and agitation. A case study by Gosh (2013), found that in bipolar disorder women could also have premenstrual exacerbations, causing diagnostic confusion. When in a hypomanic or mixed episode state a patient may have showed impaired judgement leading to intentional or unintentional self-harm and agitation.
Saunders and Hawton (2006), evaluate the evidence between the relationship of menses to non-suicidal self-harm behaviors. They contributed this to the role of estrogen and the serotonergic system between the menstrual cycle and non-fatal suicidal behaviors and interactions between estrogen and the serotonergic system. Saunders and Hawton, conducted a systematic review of forty-five separate research studies on the effects of the menstrual cycle and suicidal ideation, self-harm and emotional dysregulation. In review of these studies, they observed that there is a relationship between cycles and self-harm, rather than a causal effect.

According to Faticia et al (2018), the relationship between psychosis and PMDD is evident because of the decline of estrogen during the late luteal phase of the menstrual cycle's late luteal phase, which can worsen psychosis. However, this study does not examine the effects of estrogen on mood and self-harm. But hypothesis the effects of estrogen on mental status decline.

In qualitative study out of Lund University, in the United Kingdom, nineteen participants were interviewed about their healthcare providers understanding about PMDD found that most participants felt that their healthcare providers had a knowledge deficit about the treatment and consequences of PMDD on their patients (Jurvanen, 2017). This study further found that most women experiencing PMDD felt that their healthcare providers did not acknowledge how PMDD affected their daily functioning and work performance.

Current best practice for treatment of this disorder include the use of oral contraceptive and SSRI’s (Yonkers et al, 2005). In a recent publication by the International Association for Premenstrual Disorders (2019), current recommendations include the potential incorporation of antidepressant medications such as Prozac, Paxil, or Celexa, these medications have been shown to have efficacy rate of Strong evidence of in the treatment of PMDD in many randomized
controlled trials are around 60-75%. Use of continuous oral contraceptives have been shown reduce PMDD symptoms in controlled trials 48% of time (Yonkers et al, 2005). Currently, studies are being completed with the use of continuous hormonal release IUDs such as mirena and low dose antipsychotics such as Seroquel.

Why is understanding the relationship between menstruation, mood lability, agitation and self-harm important for the Mental Health Care provider? Barry (2018), believed that by utilizing an evidenced based tool that eventually one can predict changes in mood related to menses and reduced changes in mood, agitation and self-harm behaviors by delaying one’s menses (use of oral contraceptives) or by the addition of a SSRI. When we are able to better understand how lability of mood related to menses impact we can reduce the risk of our patients engaging in self-harm behaviors. This reduction in self-harm behaviors and reduction of symptomology can provide relief from the agonizing nature of not being able to predict or stabilize one’s mood.

Through further study of PMDD in the young female population the Mental Health Care provider can create opportunities for providing education to patients and encourage patients to take ownership for their own health and well-being by embracing their reproductive health.

**Evidence Based Practice:**

Current Evidence Based Practice guidelines do not recognize PMDD as a disorder outside the United States. As of now, the World Health Organization recommends that Premenstrual Dysphoric Disorder be recognized as a medical condition that is in need of further research and treatment (Craner, Sigmon, & McGillicuddy, 2014).

According to Panay (2011), current best practice guidelines recommend that patient’s identified as being diagnosed with PMDD is treated by a multidisciplinary team that incorporates
medications, nutrition, exercise, and Cognitive Behavioral Therapy (CBT) to have the best outcome for management of symptoms.

**Theoretical Framework/Evidence**

The Biopsychosocial theory takes a holistic approach to looking at the individual that encompasses the different components that make up wellness (Alfonso, 2004). Current best practice guidelines state that PMDD should be treated by a multidisciplinary team and that the patient should be treated holistically and that complementary therapies are helpful for maximum alleviation of symptoms and wellness (Panay, 2011). Chrisler (2008) describes the female menstrual cycle as being a “perfect process” that takes in account the female’s physiological status and how it can be affected by behaviors and experiences (pg.65).

According to Walker (1995), when we view PMDD through a Biopsychosocial model, we become better aware of the patient’s individual experiences and we gain a clearer understanding of their lived experience. Biopsychosocial theory takes into account the patient as a whole. It is a holistic approach that appreciates the different dynamics in the patient’s life that effect their health and wellbeing.

**Methods**

A Quality Improvement education intervention was implemented in order to educate mental health care providers regarding Premenstrual Dysphoric Disorder. During a recorded sixty-minute presentation offered at a hospital wide Grand Round, 30 healthcare providers were presented with how to properly assess for PMDD and gained knowledge on differential diagnosis, and appropriate treatment to reduce suffering to patients.
Goals, Objectives and Expected Outcomes

The goals and objectives of this DNP project were:

Goal: Mental Health Care Providers were able to gain knowledge in the signs and symptoms identification, assessment and holistic treatments of PMDD for patients with mental health disorders.

Objectives and Outcomes:

I. Education- The participants were able to verbalize the signs and symptoms of PMDD after completing the Grand Rounds.

II. Assessment- All participants were trained on how to complete a PSST-A.

III. Collaboration- Reinforcement about the importance of assessment and treatment of this disordered by all providers involved in the patient’s treatment team.

Expected Outcome: resulted in increased participant awareness of PMDD as evidenced by the staff being able to verbalize signs and symptoms of PMDD by self-report on Likert survey.

Ethical Considerations/Protection of Human Subjects

The University of Massachusetts, Amherst (UMass) Internal Review Board (IRB) approval was obtained prior to initiating the educational intervention, quality improvement project. The results obtained from the data analysis was aggregated and did not include any potential participant identifiers. The data was scored on a password protected laptop computer that was only accessible by this DNP student. The risks to those participating in the project were no greater than those who are not currently being assessed for PMDD. All participants’ right to privacy of health information was protected by the Health Insurance Portability and Accountability Act of 1996 (HIPPA).
**Implementation and Population**

The implementation phase of this project started September 2019. The DNP student obtained approval via the education coordinator and ground rounds committee to conduct a presentation about PMDD criteria, diagnosis, assessment and treatment. Specific Learning objectives were developed for the presentation with input from the hospital’s grand round committee.

In January 2020, the DNP student conducted a 60-minute power point presentation on PMDD during a Grand Rounds presentation at a state run psychiatric inpatient facility in the Northeast. The audience consisted of psychiatry, psychology, nursing, social work and mental health. All Health Care Providers were eligible to received Continuing Education Units (CEUs) for attending the presentation. Of the 30 participants, seventeen returned completed surveys. The following table (Table 1) represents the breakdown of the Mental Health Providers disciplines that took part in the education intervention.

*Table 1*

*Mental Health Discipline of Participants*

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Participants</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychology</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>4</td>
<td>23.53%</td>
</tr>
<tr>
<td>Nursing</td>
<td>2</td>
<td>11.76%</td>
</tr>
<tr>
<td>OT/Rehab</td>
<td>2</td>
<td>11.76%</td>
</tr>
<tr>
<td>LMHC</td>
<td>1</td>
<td>5.88%</td>
</tr>
<tr>
<td>Social Work</td>
<td>7</td>
<td>41.18%</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>5.88%</td>
</tr>
</tbody>
</table>
The majority of the participants that completed the survey were non-nursing mental health care providers. Of the 17 mental health care providers, 41% (n= 7) identified as Licensed Social workers, 23% Psychiatrist or APRNs (n= 4), 11% (2) Occupational Therapists, and one Licensed Mental Health Counselor.

The Premenstrual Symptom Screening Tool-Adolescent (PSST-A) version was utilized to assist in teaching participants on the assessment of the symptoms of Premenstrual Dysphoria Disorder. The PSST-A is an evidence based and reliable tool that helps healthcare workers evaluate the presence of Premenstrual Symptoms and how these symptoms impact the daily functioning of patients. Additionally, a patient tool kit was disseminated to all participants consisting of resources to assist in the diagnosis, assessment and treatment of patients (see Appendix E). The tool kit contents for patient education included copies of the PSST-A, diary card of symptomology, brochures on PMDD, and listings of web based support groups.

Following the presentation, all members of the multidisciplinary audience received a Healthcare Provider Survey sent to them by the writer via survey monkey shortly after the presentation and also one month later via email to assess change in clinical practice after the educational intervention was conducted.

**Measurement Instruments**

In order to measure the outcomes of this DNP Project, the following instruments were used HealthCare Provider Quest and Follow Up one month post educational intervention Health Care Provider Questionnaire The first instrument was a DNP student developed survey (Appendix D) with eight Likert scale questions. A five point Likert scale of 1 to 5 was used to obtain opinions from the participants. The scores were given based upon the following numbers: 1= strongly disagree; 2= disagree; 3= neither or N/A; 4= agree; and 5= strongly agree. The
survey was designed to illicit the opinions of the nursing staff on the usefulness and benefit of assessment and treatment of PMDD. Additionally, this survey queried the discipline of the audience member, attitudes towards discussing PMDD with their patients, the relevance of PMDD in the treatment of patients, and the usefulness of the grand rounds presentation. The following were the eight questions administered to the participants via Survey Monkey.

1. Overall Rating of Educational Activity presentation quality
2. Do you plan to make any changes in practice based on this educational intervention?
3. Are you able to identify the signs and symptoms of PMDD after the presentation?
4. Do you feel that you are more knowledgeable about the impact of PMDD on your patient’s health?
5. The number of staff that feel that PMDD is an under recognized condition?
6. Did you find the tool kit helpful?
7. Do you feel that your patient’s benefit from being assessed for PMDD?
8. Do you feel more comfortable talking to your patients about their PMDD symptoms after the presentation?

A second follow-up survey was developed by the DNP student and sent out to all participants one month post educational intervention allowing them to provide comments via an anonymous Survey Monkey email on the educational intervention. This survey was to examine how the educational presentation informed their continued practice. Two questions were asked of all participants to identify themes and viewpoints on the treatment of PMDD, which are included below:

1. Have you incorporated assessing for PMDD into your practice based upon what you learned in the presentation?
2. Do you feel more confident in talking to your patients about PMDD since the presentation?

The two surveys were completed anonymously online via Survey Monkey. Descriptive statistics, such as frequency, mean, and median were used to analyze the data. Furthermore, the participants’ responses were analyzed utilizing these descriptive statistics to assess for knowledge improvement after the Grand Rounds presentation. Additionally, the Likert questions in the Health Care Provider questionnaires were scored to quantify the extent to which the Health Care Providers agreed with the questions asked.

Results

The Presentation “Considering Premenstrual Dysphoric Disorder as Differential Diagnosis in the Psychiatric Population” was a sixty-minute educational presentation and intervention that took place at 360 bed inpatient psychiatric hospital in the Northeast. The participants that attended this intervention were mental health providers, working with patients with chronic mental health disorders. The data collected by the survey will be discussed in the subsequent sections which are divided by questions asked of the participants and their responses.

Initial Survey Monkey Results

1. Overall Rating of Educational Activity presentation quality

The majority of participants viewed the presentation favorably, with 16 of the 17 participants reporting that the presentation was excellent with to very good, one out 17 of the participants indicated that the presentation of the educational intervention was fair. As a major goal and objective of the educational intervention, the DNP student wished to see increased awareness and education regarding PMDD amongst mental health care providers. This awareness of the
importance of making changes in practice was demonstrated by the participant’s desire to include assessment for PMDD in their standard of practice.

2. **Do you plan to make any changes in practice based on this educational intervention?**

70% (n=15) of the participants indicated a plan to make changes in their practice to incorporate the assessment of PMDD into the care of patients. While 17% (n=2) of participants did not feel the need to change their practice after the intervention. This may be related to their own practice currently incorporating assessment and treatment of patients with PMDD.

3. **Do you feel that you have improved identification of signs and symptoms of PMDD after Presentation?**

The members of the multidisciplinary audience that attended were able to verbalize the signs and symptoms of PMDD after attending the Ground Rounds as evidenced, by all participants reporting that after the educational intervention that they felt increased awareness of PMDD was shown. Also, all participants (n=17) were able to self-identify at least three signs and symptoms of PMDD. While 88% (n=16) of participants were able to identify and three evidence based approaches to the treatment of PMDD.

4. **Can you identify how PMDD impacts your Patients’ health and wellbeing?**

All participants (n=17) report that they were able to identify two areas that PMDD can impact a patient’s co-morbid psychiatric illness. The participants were also asked if they believed that the information presents at the educational intervention utilized the most current and best evidence available. All participants also reported that they felt that the information that was presents used the best evidenced based materials and literature possible.
5. Do you feel that PMDD is an under recognized disorder that benefits from assessment?
All participants reported that they felt patients could benefit from being assessed for PMDD. Furthermore, 88% (n=16) felt that PMDD is an under recognized disorder that benefits from ongoing assessment and treatment.

6. Do you feel more comfortable in talking to your patients about their PMDD symptoms after the presentation?
All participants (n=17) reported that they felt more comfortable talking to their patients about PMDD symptoms after the presentation. To encourage continued conservation and assessment all participants received educational materials to take with them to help provide education to their patients about this disorder. These materials included record for the patients to assess their own symptoms, a PowerPoint copy of the presentation, a copy of the PSST-A, and patient education materials.

7. Did you find the tool kit helpful?
Regarding the helpfulness of the PMDD tool kit, 82% (n=15) found the “tool kit” helpful and would use the resources provided to assess, treat and educate their patients. Conversely, two participants did not find the tool kit helpful, reporting that the font utilized on the handouts were too small to read.

One month follow up Health Care Provider Survey Monkey Questionnaire

1. Have you incorporated assessing for PMDD into your practice based upon what you learned in the presentation?
At the one month follow up second survey, three of the thirty participants returned a follow up survey, it is unknown why there was limited participation. These results showed that two of the three respondents have incorporated assessment of PMDD into their individual
practice with their patients. Additionally, these same three participants felt more confident in talking to their patients about PMDD as evidenced by reporting increased confidence in their assessment skills.

3. **Do you feel more confident in talking to your patients about PMDD since the presentation?**

Increased interest in the topic of PMDD as a differential diagnosis in the psychiatric population was demonstrated, with all three participants reporting increased interest in continued education about PMDD. However, with limited data one month after the intervention it was difficult to see if the intervention impacted all the practice of the participants.

Further information and dissemination of education related to the care of the PMDD patient needs to be clarified as limited data and feedback was able to be collected after the initial intervention.

**Discussion**

A presentation on PMDD took place during a sixty-minute Ground Rounds at a 360 bed inpatient psychiatric hospital in the Northeast. The goal of this presentation was to provide evidenced based education to mental health professionals for the assessment and treatment of PMDD. It is through education that we can improve the quality of life for patient’s living with PMDD. After the presentation, all participants received a questionnaire to examine their views on PMDD.

The initial survey had good participation with 17 Mental Health Care Providers completing it. These Mental Health Care Providers received CEUs upon completion. However, at the one month follow up, a second survey was emailed to participants with limited returned
surveys by the Health Care Providers. Of the 17 participants, only three returned completed surveys. Moreover, it is believed that the low return rate was due to the lack of incentive for providers to complete the second survey. Nevertheless, the second survey assessing PMDD data resulted in the following themes discussed in subsequent paragraphs.

**Knowledge Deficit in the assessment and treatment of PMDD**

In the initial follow survey, 70% of the participants reported that they would change their practice after the presentation. In the follow up survey, all participants reported that incorporate assessment for PMDD into their individual practice. This response rate was an indication that the Health Care Providers pre intervention knowledge of the assessment of PMDD and treatment was limited. Also, this further indicated that the participants benefited from learning about the impact of PMDD on their patients.

**Under recognition of PMDD by Health Care Providers**

All Health Care Professionals that completed the initial survey reported that they believed that PMDD is an important disorder to assess for and treat for individuals with mental health disorders after the presentation. The Mental Health Providers also endorsed the concept that PMDD is not widely recognized as mental health disorder that impacts patient health and wellbeing. In reviewing the literature, most women experiencing PMDD felt that their healthcare providers did not acknowledge how PMDD affected their lives (Jurvanen, 2017). Through ongoing education of mental health care providers this under recognition could be reduced and the quality of care can be improved.
Education creates confidence in communication

As indicated by the data collected in both the initial and follow up survey, all participants reported gained confidence in talking to their patients about assessment and treatments of PMDD.

Walker (1995), stated that we must see our patients living with PMDD with a holistic and multidisplinary lens so we can communicate empathically with our patients. As evidenced by the participant feedback from survey further education and communication about PMDD is imperative in providing holistic care. Through effective communication patients can be more comfortable in disclosing their symptoms to their providers.

Recommendations

The importance of further study into the phenomenon of PMDD is essential. Through training healthcare providers how to properly assess for PMDD and understand the criteria for PMDD as a differential diagnosis, healthcare providers can provide appropriate treatment and reduce suffering to our patients, this is the goal of nursing. Additionally, it is recommended that ongoing education about the most current evidence based treatments and modalities for PMDD be reviewed on an annual basis with all Mental Health Care Professionals at the facility to maximize the benefits of this intervention.

Premenstrual Dysphoric Disorder is a serious concern to the wellbeing of women of childbearing years. When PMDD is not treated properly there is an increased risk of harm to the patient. PMDD can cause mood instability, self-harm and agitation in some affected patients (Yonkers et al, 2007). For young women who are struggling with mental health issues such as Post-Traumatic Stress Disorder, Bipolar disorder or psychosis, PMDD can intensify these issues.
Conclusion

The assessment and treatment of Premenstrual Dysphoric Disorder (PMDD) is an important issue to be examined. According to research, up to thirty percent of all females’ report symptoms of moderate to severe PMDD. Proper assessment and treatment of PMDD as a differential diagnosis in psychiatric assessment is essential for patients to receive adequate care. Without proper assessment and treatment, patients are at higher risk for impaired job performance and activities of daily living (Jurvanen, 2017).

The goal of this DNP project was to increase awareness about the importance of assessing menstrual health so that appropriate interventions may be implemented. By assessing for and treating PMDD we can improve the quality of life for our patients that may be experiencing mood lability or thoughts of self-harm due to hormonal sensitivity.
References


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Usher, B. (2012). Estrogen fluctuation, estrogen based contraceptives and borderline personality disorder traits (Doctoral dissertation, California State University, Northridge).


Appendix A

Cost Table

<table>
<thead>
<tr>
<th>Time for staff training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reproduction of Tool kits for staff and patient use=$100</td>
</tr>
<tr>
<td>Use of Laptop –Provided by DNP student</td>
</tr>
<tr>
<td>Event space= free providing by hospital</td>
</tr>
<tr>
<td>Total cost for Quality Improvement Project= $100</td>
</tr>
</tbody>
</table>
The Premenstrual Symptoms Screening Tool for Adolescents PSST-A*

(please mark an "X" in the appropriate box)

Do you experience some or any of the following premenstrual symptoms which start before your period and stop within a few days of bleeding?

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Not at all</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Anger/irritability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Anxiety/tension</td>
<td></td>
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<tr>
<td>3. Tearful/increased sensitivity to rejection</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>4. Depressed mood/hopelessness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Decreased interest in work activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Decreased interest in home activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Decreased interest in social activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Difficulty concentrating</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>9. Fatigue/lack of energy</td>
<td></td>
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<td></td>
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<tr>
<td>10. Overeating/food cravings</td>
<td></td>
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</tr>
<tr>
<td>11. Insomnia</td>
<td></td>
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<td></td>
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<tr>
<td>12. Hypersomnia (needing more sleep)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Feeling overwhelmed or out of control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Physical symptoms (including breast tenderness, headaches, joint/muscle pain, bloating, and weight gain)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Have your symptoms, as listed above, interfered with:

<table>
<thead>
<tr>
<th>A. Your school/work efficiency or productivity</th>
<th>Not at all</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Your relationships with friends, classmates/coworkers</td>
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<td></td>
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<tr>
<td>C. Your relationships with your family</td>
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<tr>
<td>D. Your social life activities</td>
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<tr>
<td>E. Your home responsibilities</td>
<td></td>
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</tbody>
</table>

Scoring

The following criteria must be present for a diagnosis of PMDD:

1) at least one of #1, #2, #3, #4 is severe
2) in addition at least four of #1 - #14 are moderate to severe
3) at least one of A, B, C, D, E is severe

The following criteria must be present for a diagnosis of moderate to severe PMS...
## Appendix C

### Timeline

**Table 1**

<table>
<thead>
<tr>
<th>Task</th>
<th>October</th>
<th>November</th>
<th>December</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education and Presentation of Nursing staff on PMDD. Teaching of the PSST-A</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Aggregation of the data</td>
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<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Post intervention meeting with collaborating nurses</td>
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<td>X</td>
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<tr>
<td>Analysis of the results and outcomes</td>
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<tr>
<td>Presentation of the results to nursing and program staff</td>
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<td>X</td>
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</tbody>
</table>
Appendix D

Healthcare Provider views on Premenstrual Dysphoric Disorder Assessment

Please complete the following survey with specific regard to the above enquiry, by placing a circle on the appropriate response that best applies to you. Select only one response per question. The responses are on a 5-point Likert scale with 1= strongly disagree; 2= disagree; 3= neither or N/A; 4= agree; and 5= strongly agree. Please do not write your name or date of birth on this survey. All responses are kept confidential.

1. Do you feel that PMDD is an under recognized condition?
   Strongly disagree disagree neither agree strongly agree

2. Do you think that your patient’s benefit from being assessed for PMDD?
   Strongly disagree disagree neither agree strongly agree

3. Do you feel comfortable talking to a patient about their PMDD symptoms?
   Strongly disagree disagree neither agree strongly agree

4. Do you feel that your knowledgeable about PMDD prior to attending this presentation?
   Strongly disagree disagree neither agree strongly agree

5. Did you find the handouts and tool kit helpful for you and your patients”
   Strongly disagree disagree neither agree strongly agree

6. Do you feel that your patients would benefit from educational materials about PMDD?
   Strongly disagree disagree neither agree strongly agree

7. What is your discipline?
   Psychiatry Psychology OT/Rehab MHC/MHW Nursing

7. Comments
Appendix E

Premenstrual Dysphoric Disorder in the Psychiatric Population

SARAH MCNULTY RN, MS, MSN, DNPc

Disclosure

The presenter has no conflict of interest.

Objectives

The participant will be able to identify signs and symptoms of PMDD.
The participant will learn evidence based strategies to treat PMDD.
The participant will be able to identify how PMDD can impact an predisposed psychiatric conditions.
PMDD and “Insanity”

A study was conducted in 96 females suffering from PMS. Behavioral symptoms appearing during PMS were noticed.

It was found that there is a substantial link between PMS and behavior alterations. Depression, aggression, irritability etc. were recognized as extremely common symptoms of the syndrome.

Considering at this point, these psychological symptoms associated with PMS might form a plea of insanity for some female offenders.


Why should we talk about it?

Why is understanding the relationship between menstruation, mood lability, agitation and self-harm important for the professional nurse?

-When we are able to better understand how lability of mood related to menses impact we can reduce the risk of our patients engaging in self-harm behaviors.
-This reduction in self-harm behaviors and reduction of symptomology can provide relief from the agonizing nature of not being able to predict or stabilize one’s mood.

Living with PMDD

https://youtu.be/1RReFX3xKRE

Do we talk about it?

In a study from Lund University.
Participants interviewed about their healthcare providers understanding about PMDD found that most participants felt that their healthcare providers had a knowledge deficit about the treatment and consequences of PMDD on their patients
It also stated that most women experiencing PMDD felt that their healthcare providers did not acknowledge how PMDD affected their daily functioning and work performance (Jurvainen, 2017).

Premenstrual Dysphoric Disorder

What is PMDD defined as
A condition that symptoms occur principally during the late luteal phase of the menstrual cycle but in the first 2 or 3 days of the follicular phase in about one-third (Fricker et al., 2005).
**PMDD and Genetics**

It is currently well-accepted that vulnerability plays a major role in expression of premenstrual symptoms and.

PMDD is thought to have a heritability range between 30% to 80%

Most of the evidence is derived from large epidemiological twin studies with limited number of retrospective questions.

Finnish mother adolescence-daughter study of 5000 pairs (Kantero and Witholm, 1971) which showed a high correlation between premenstrual tension of mothers and daughters.

If the mother had nervous symptoms (fatigue and/or irritability) 69.8% of the daughters had similar symptoms, 52.5% of the daughters of symptom-free mothers were also symptom free.

**Progesterone and ALLO**

Progesterone and ALLO

Chronic exposure to progesterone and ALLO (a major progesterone metabolite) and rapid withdrawal from oral contraceptives may play a role in the etiology of PMDD.

Most like alcohol or benzodiazepines, ALLO is a potent negative allosteric modulator of GABA receptors and has sedative, anxiolytic, and anticonvulsant properties.

In times of acute stress, increased ALLO is known to provide relief. In women with PMDD, this trend of ALLO increase might not occur.

Patients with PMDD have been reported to have decreased levels of ALLO in the luteal phase.

In one study, women with highly symptomatic PMDD had lower levels of ALLO compared with women with less symptomatic PMDD.

A proband plus family history of hormones challenge study showed the increase in ALLO response was less in PMDD patients compared with controls.

Low-grade ALLO concentrations are reported to be lower in women with premenstrual syndrome (PMS), a milder form of PMDD.
**DSM V Criteria**

**PMDD and ethnicity**

PMDD has been described in diverse cultural settings, even among women who are not generally aware of the disorder. As an example, similar forms of the disorder have been reported in Mediterranean countries, the Middle East, Iceland, Kenya, New Zealand, and also.

In an international survey of 700 women in Europe, South America, and Asia, the frequency of PMDD symptoms was similar across countries and regions. But women in some countries, such as Japan, were less familiar with the term PMDD when compared with European women. Symptoms that are most commonly reported are abdominal bloating, cramps, irritability, moodiness, and fatigue.

In another study, Black women were less likely to experience PMDD than white women. The prevalence of PMDD was 2.5% among Black women versus 4.4% among white women.


---

**What is the risk of not treating and diagnosing**

The presence of underlying hormonal changes in females presents an additional challenge when treating self-harm.

30% of those with PMDD will attempt an act of suicide in their lifetime. While men are more likely to die by an act of suicide, women/AFAB attempt suicide three times more often.

Higher risk of suicide the week before menstrual changes in dopamine activity.

---

**Putative brain structural and functional differences**

Putative brain structural and functional differences

Imaging studies have suggested differences in brain structure in women with PMDD, with a focus on the amygdala and the prefrontal cortex.

Women with PMDD have greater gray matter volume in the posterior cingulate, greater gray matter density of hippocampal cortex, and lower gray matter volume in the white matter.

Studies have shown variability of the amygdala’s response to stress in women with PMDD vs. healthy controls with a possibility of altered amygdala function in PMDD.

Patients with PMDD have abnormal dysfunction of prefrontal cortex related to anticipating negative stimuli but not to the actual exposure during the labelling phase. A positive correlation between this reactivity and premenstrual symptoms was also observed.

Some researchers have suggested that prefrontal cortex dysfunction may be a risk factor for PMDD.

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**History of “PMS”**

Dr. Kathleen Dalton in 1948 London- Medical student

Noticed that migraines disappeared during pregnancy

Related this to changes in progesterone.

First article published talking about Premenstrual syndrome in British journal of medicine 1953.

In 1957, Dalton opened the world’s first PMS clinic at London’s University College Hospital and directed it for more than 30 years.

Later went on to study women who involved in violence to look at correlations.

Also research Post Partum Depression

Characteristics of hormone sensitive females:

- The change in hormonal levels trigger the system. Hormone sensitivity—an abnormal response to normal changes
- Stress related variables. Ramps up risk
- Trauma increases hormone sensitivity (unknown why)
- 2/F would meet diagnosis for postpartum depression


The Role of Trauma in PMDD

- Women who have had childhood physical or emotional abuse are at higher risk for developing PMDD
- Emerging evidence suggests exposure to traumatic events, such as sexual assault, and posttraumatic stress disorder (PTSD) also may increase risk of PMDD

Clear Studies

CLEAR – 1 EXPERIMENTAL DESIGN

Clarification of risk of suicidal thoughts related to hormonal sensitivity.
- Progesterone and estrogen patch: Preventing the withdrawal of ovarian hormones
- Clear 2 study PEM: Does estrogen or progesterone affect suicidality?
- Premenstrual hormonal withdrawal relevant to PME of depression and suicide

Can you test for PMDD

There is no blood or saliva test that can diagnose PMDD. Scientists have been trying to find any type of hormone abnormalities for over 30 years, however, no consistent hormone or hormone metabolism abnormalities have been found. PMDD is an abnormal brain response to normal hormone changes.

www.IAMPO.org

Differential Diagnoses

- Mood and anxiety disorders: There is substantial overlap between premenstrual dysphoric disorder (PMD) and major depressive disorder, and a shared genetic vulnerability. In some instances, patients with premenstrual disorders may have had an episode of a mood or anxiety disorder in the past that has remitted.
- Unipolar depression: women exhibit mood swings, anxiety, and premenstrual symptoms. A reversible dysregulation of the HPA axis is often seen in premenstrual syndrome, thereby increasing the likelihood of misdiagnosis.
- Bipolar disorder: menstrual-related mood symptoms are common in women with bipolar disorder. Women with PMDD may have bipolar symptoms during the luteal phase of the menstrual cycle, and a subset of women meeting criteria for bipolar I disorder also meet criteria for PMDD.

Differential between Menstrual Disorders

PME, or premenstrual exacerbation of an underlying disorder, occurs when a patient has a chronic diagnosis (e.g., depression, anxiety, arthritis).
- Made worse prior to and potentially during their period.
- The symptoms follow a similar trajectory to PMDD, but they never resolve completely.
- Doesn’t resolve with typical PMDD treatment
TRANSGENDER PATIENTS

Menses for transgender male.
Reminder of not being assigned gender that one identifies with at birth
Use language that is sensitive to their gender identity
Similar to the experience of cisgender women, transgender individuals
with PMDD sometimes experience an increase in the severity of feelings
of depression, anxiety, rage, and suicidal ideation when using synthetic
hormones and/or gonadotropin-releasing hormone agonist (GnRH
agonist or GnRH-A).

Assessment

Higher risk for PME

Eating disorders (klump twin studies)- changes across menstrual cycle
in eating d/o behaviors. Examined twins and difference between
identical and fraternal.
Borderline PD- similar looking symptoms. Extreme manifestation out of
PMDD. Chronic PMDD?
Substance abuse- cyclical mood and substance use
PTSD
ADHD

Patient Assessment Tool

Benefits of Reflective Journaling of symptoms

Examine functional impairment brought on by the disorder; family,
relationship and decreased productivity or conflict in the workplace.
To assess if treatment is warranted or beneficial in utilizing treatment
To Examine patterns and look at correlation of symptoms.
Reflective journaling has been shown in studies to be as reliable as
screening tools and help to provide the patient with education about
their bodies and a voice in their treatment.

Mental, J. L., Gruber, L., Beck, L. & Neu, S. (1985). Diagnosis of premenstrual syndrome by a simple, prospective, and
reliable instrument: the calendar of premenstrual experiences. Obstetrics and gynecology, 65(6), 852-857.
Benefits of treatment:
A reduction in self-harm behaviors and resulting from appropriate treatment of PMDD through the use of oral contraceptives and SSRIs
Quality of life improvement through reduction in symptoms
Decreased risk of incidents related to agitation

Current Best Evidence
Current Best Practice suggests the use of oral contraceptives and SSRIs in reducing the symptoms of Premenstrual Dysphoric Disorder. This has not been specifically used to examine the effects of PMDD and Self-harm in the adolescent population (Yonkers et al., 2005)

Chemical Menopause (GnRH Agonists)
Chemical Menopause (GnRH Agonists) are Gonadotropin-releasing hormone analogs (GnRH analogs or GnRH agonists) that have also been used to treat PMDD. These drugs suppress estrogen production by the ovaries by inhibiting the secretion of regulatory hormones from the pituitary gland. As a result, menstrual periods stop, mimicking menopause. Nasal and injection forms of GnRH agonists are available. Examples of GnRH agonists include:
- leuprolide (Lupron)
- nafarelin (Synarel)
- and goserelin (Zoladez)

CBT
Being aware of where you are in the cycle and what symptoms your experiencing and how those symptoms are influencing your life and your relationships
Look at negative thoughts and cognitive distortions
Mindfulness and DBT skills to help with emotional regulation during difficult periods of cycle
Alternative treatments

Using Yoga to help with stress state and feeling comfortable with your body.

Articular acupuncture—changing energy state and increasing blood flow.

Herbal chaste berry some thought that it can help with pmdd, most studies say use 20-80mg a day.

Diet

Increasing whole foods and plant based diet.

Decreasing foods that cause inflammation — stay away from artificial sweeteners, high fructose corn syrup, processed foods.

Tryptophan containing foods can help with serotonin levels in brain.

Nuts seeds, lean proteins, turkey chicken, shellfish. Dark chocolate. Pumpkin seeds.

Vitamins

Vitamin d and calcium can help with mood component and physical symptoms 1000mg a day.

Vitamin B6. Can be toxic in large doses. 10mg a day. Under a 100mg a day.

Summary

Listen to patients and validate the symptoms.

Establish a diagnosis from perspective journaling.

Integrated holistic approach complete mind body approach.

Healthy lifestyles and multi-disciplinary approach.

It is more than just medications.

Include stress management.

Layered treatment approach. Taking care of the body and mind.

It is ok to move onto different approaches is not working within 3-6 cycles.

References


References


Evidence-Based Management of Premenstrual Disorders (PMDs)

Note: this guide is intended primarily as a resource for health care providers. If you are a patient, we recommend you also check out our treatment options page designed for patients at iapmd.org/treatment-options.

Premenstrual disorders such as premenstrual dysphoric disorder (PMDD) and premenstrual exacerbation (PME) of psychiatric disorders are complex to diagnose and treat. Below, we provide guidelines to help health care providers educate and treat their patients effectively.

Assessment and Diagnosis of PMDs: Ultimately, each patient with premenstrual symptoms is unique, and deserves a compassionate health care provider who will work with them to find an effective treatment--or set of treatments--for their unique needs. Given that PME often predicts poor response to first-line PMDD treatments (see below), prospective diagnosis using two months of daily symptom ratings is recommended to differentiate between PMDD (symptoms present only premenstrual), PME (symptoms always present but worsened premenstrual), and non-cyclical symptoms. Daily ratings can also be continued in the context of treatment in order to evaluate effectiveness over time. A daily symptom rating form can be downloaded at https://iapmd.org/provider-resources. Standardized scoring of these daily ratings to determine diagnosis can be accomplished using the C-PASS scoring system available at https://iapmd.org/c-pass. Please note that it is possible to have both PMDD (five symptoms that are present only in the luteal phase) and also PME of other underlying disorders.

Treatment of PMDs: Since this is a relatively new area of medical science, the number of randomized controlled trials for PMDs remain relatively small. However, several treatments have been found to be effective, and more are
currently under investigation. Many patients utilizing IAPMD services have already tried many of the treatments below with no relief, whereas others have tried none. The purpose of this page is not to provide a “one-size-fits-all” recommendation for the treatment of premenstrual disorders; rather, it is to help those seeking information about effective treatments by reviewing the best evidence about general efficacy and safety of each treatment in those with premenstrual disorders.

Please visit iapmd.org for more information and resources. This guide was prepared by the IAPMD Clinical Advisory Board, under the direction of Dr. Tory Eisenlohr-Moul.
# Daily Record of Severity of Problems

Please print and use as many sheets as you need for at least two FULL months of ratings.

Each evening rate the degree to which you experienced each of the problems listed below. Put an ‘x’ in the box which corresponds to the severity: 1 - Not at all, 2 - Minimal, 3 - Mild, 4 - Moderate, 5 - Severe, 6 - Extreme.

### Monthly Rating

| Date       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Felt depressed, sad, "down", or "blue" or felt hopeless or felt worthwhile or guilty |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Felt anxious, tense, "nervous", or "on edge" |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Had mood changes, i.e. suddenly feeling sad or heartburn or was ambivalent to rejection or feelings were easily hurt |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Felt angry, irritable |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Had less interest in usual activities (work, school, friends, hobbies) |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Had difficulty concentrating |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Felt lethargic, tired, or fatigued or had lack of energy |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Had increased appetite or overate or food cravings for specific foods |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Slept more, took naps, found it hard to get up when wanted, or had trouble getting to sleep or staying asleep |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Felt overwhelming or unable to cope, or felt out of control |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Had broad based tremors, breast swelling, blurred vision, weight gain, headaches, joint or muscle pain, or other physical symptoms |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| At work, school, home, or in daily routine, at least one of the problems noted above caused reduction in productivity or inefficiency |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| At least one of the problems noted above caused avoidance of or less participation in hobbies or social activities |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| At least one of the problems noted above interfered with relationships or other |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

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I. Premenstrual Dysphoric Disorder (PMDD)

PMS is related to a variety of physical and psychological symptoms that occur just before your menstrual period. Premenstrual dysphoric disorder (PMDD) is a severe form of PMS.

1. **What is PMS?**

Premenstrual syndrome (PMS) is a medical condition that affects some women of childbearing age. More than one in three women suffer from PMS. One in 20 suffer so severely that their lives are seriously affected. PMS is related to a variety of physical and psychological symptoms that occur just before the menstrual period.

2. **What causes PMS?**

The exact cause of PMS is unknown, but it seems to be related to the fluctuating levels of hormones (including estrogen and progesterone) that occur in preparation for menstruation.

3. **What are the symptoms of PMS?**

There are many symptoms of PMS, and the number and severity of symptoms vary from woman to woman. In addition, the severity of the symptoms can vary from month to month. Common symptoms of PMS include:

- Bloating
- Breast tenderness
- Weight gain
- Trouble concentrating
- Headaches/backaches
- Skin problems/acne
- Fatigue
- Tearfulness
- Irritability/aggression
- Anxiety
- Mood swings and/or depression

4. **How is PMS diagnosed?**

There is no single test to diagnose PMS. It is a clinical diagnosis which is made by discussing your concerns with your doctor. However, there are some strategies your doctor may use to help diagnose PMS. These include:

PMS symptoms diary — Your doctor may ask you to keep a diary to assess the frequency and severity of symptoms. By doing this, you can see if your symptoms correspond to certain times
in your monthly cycle. While your symptoms may vary from month to month, a trend likely will appear after tracking your symptoms for a few months. Sometimes women are surprised to find that the symptoms do not seem to vary with the fluctuation of their hormonal cycles. Women who have many of the emotional symptoms throughout the month may actually suffer from depression and/or anxiety. Making a correct diagnosis is the most important first step towards feeling better.

Thyroid testing — Because thyroid disorders are common in women of childbearing age, and some of the symptoms of PMS—such as weight gain, depression, fatigue—are similar to symptoms of thyroid disorders, your doctor may order a test to evaluate thyroid function. This can help to rule out a thyroid disorder as a cause of your symptoms.

5. **How is PMS treated?**

Treatment for PMS is based on relieving symptoms. Treatment begins with a thorough assessment of your symptoms, as well as the impact of them on your daily life.

Education — You will be better able to deal with your symptoms if you can relate how you’re feeling to your menstrual cycles, knowing that you will feel better once your period starts. While symptoms may vary from month to month, the symptoms diary mentioned above can give you a good idea of how your periods affect your physical health and moods. Learning how to cope with the problems in your life may help relieve the stress and irritability you feel before your period. If you experience severe anxiety, irritability, or depression, counseling and/or medication may be helpful.

Nutrition — A healthy diet is important to overall physical and mental wellness. Making changes in your diet—including reducing the amount of caffeine, salt and sugar and staying well-hydrated with water and light juices—may help relieve symptoms of PMS. A number of vitamin supplements are often taken to try to help PMS symptoms, including vitamin B6, vitamin E, calcium, and magnesium. However, none of these supplements have been shown in well-designed studies to be better than placebo (sugar pills or dummy pills, which can help 30 percent of the time without an active ingredient). Talk to your doctor about the safety of trying calcium or magnesium supplements for you. Excess vitamin E or vitamin B6 is usually discouraged due to studies showing concerns about side effects, especially with vitamin B6. This vitamin can cause permanent nerve damage in women with daily doses in excess of 50 mg per day. It is best to try to get your vitamins by eating a diet rich in unprocessed fruits and vegetables.

Exercise — Like a healthy diet, regular exercise can improve your overall health. It also can help relieve and help you cope with the monthly symptoms associated with PMS, especially dysmenorrhea (painful cramping and bloating).

Medications — Over-the-counter pain relievers—such as aspirin and ibuprofen—may help relieve symptoms such as headache, backache, cramps, and breast tenderness. Make sure you have no contraindications such as peptic ulcer disease or kidney disease before using many pain relievers. Medications may be prescribed in cases of depression or anxiety that are disruptive to a woman’s lifestyle. Birth control pills and other hormonal contraceptives can help by controlling the hormonal fluctuations of the monthly cycle.
6. **Can PMS be prevented?**

PMS itself cannot be prevented, but through education and appropriate treatment of symptoms, most women can find relief. A healthy lifestyle—including exercise and a proper diet—also can help a woman better manage the symptoms of PMS.

7. **What is PMDD?**

Premenstrual dysphoric disorder (PMDD) is a severe form of PMS. The symptoms of PMDD are similar to those of PMS, but are severe enough to interfere with work, social activities, and relationships.

8. **How is PMDD diagnosed?**

PMDD is diagnosed when at least five of the following symptoms occur seven to 10 days before menstruation and go away within a few days of the start of the menstrual period:

- Mood swings
- Marked anger
- Irritability
- Tension
- Decreased interest in usual activities
- Fatigue
- Change in appetite
- Sleep problems
- Physical problems, such as bloating

Before a doctor makes a diagnosis of PMDD, he or she will rule out other emotional disorders—such as major depression or panic disorder—as the cause of the symptoms. In addition, underlying medical or gynecological conditions (such as endometriosis, fibroids, menopause, and hormonal problems) that could account for symptoms must be ruled out.

9. **How common is PMDD?**

PMDD occurs in 3 to 5 percent of menstruating women. Women with a personal or family history of mood disorders—including major depression or postpartum depression—are at greater risk for developing PMDD.

10. **What causes PMDD?**

As with PMS, the exact cause of PMDD is not known. Most researchers, however, believe PMDD is brought about by the hormonal changes related to the menstrual cycle. Recent studies have shown a connection between PMDD and low levels of serotonin, a chemical in the brain that helps transmit nerve signals. Certain brain cells that use serotonin as a messenger are involved in controlling mood, attention, sleep and pain. Therefore, chronic changes in serotonin levels can lead to PMDD symptoms.
11. **How is PMDD diagnosed?**

Clinical evaluation should include a comprehensive review of the patient's symptoms and medical history, a physical exam, a gynecologic exam, and basic laboratory tests as needed. Psychiatric evaluation should focus on symptoms of depression, seasonal variation of depression (looking for worsening in the winter), alcohol and drug use, early victimization and trauma, family history of affective disorder (a group of disorders characterized by a disturbance of mood), alcoholism, and current situational stresses.

12. **How is PMDD treated?**

Many women gain relief from the symptoms of PMDD with education and lifestyle changes including exercise, vitamins, and a caffeine-free diet. Medications, including anti-depressants like selective serotonin reuptake inhibitors (SSRIs), may be used to treat the emotional symptoms of PMDD. Hormonal contraceptives may help, though it is important to be patient until a right fit for the woman’s body chemistry can be found. The optimal hormonal option/method can vary between each person. The FDA has approved the birth control pill Yaz® for the treatment of PMDD. However, other oral contraceptives may also help a woman with PMDD. In addition, individual and group counseling, and stress management can be beneficial in helping a woman cope with PMDD.

13. **Related Institutes & Services**

(1) [Ob/Gyn & Women’s Health Institute](#)

Find the latest information on Women’s Health, including the use of minimally invasive surgical techniques, treatments for infertility, menstrual disorders, urogynecology and pelvic floor disorders, menopause and more.

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14. **References:**

- American Family Physicians. [Diagnosis and Treatment of Premenstrual Dysphoric Disorder](#) Accessed 10/24/2014.

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