

Interrelation of Self-Efficacy and Interpersonal Support in PMDD and PCOS Women

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ABSTRACT

Advancement in research has led to new combinations of syndromes and their comorbidities. Humans are a perfect example of never-ending evolving creatures. Understanding their physiology has opened gateways to comprehend some percentage of human behavior, essentially the contribution of brain functioning along with hormonal releases. The review paper aims to interrelate self-efficacy in women diagnosed with Premenstrual Dysphoric Disorder (PMDD) and Polycystic Ovary Syndrome (PCOS). The effect is particularly seen in the areas of self-efficacy. Both sexes play significant roles in maintaining the human race, but females have been identified as the main bearers of this replication process, and a study on the effect of one of the major cyclic fluctuations of their lives has been deemed necessary. The review elaborates on the deeper and more comprehensive effect of disruptions of the female hormonal cycle in different phases and different spheres of their life including interpersonal support and influence of personality traits having direct scope for future research in the spheres of disclosure of chronic illnesses and the potential to develop services aimed at supporting women with PCOS and PMDD.

Keywords: *Premenstrual Dysphoric Disorder, Polycystic Ovary Syndrome, Self-efficacy, Interpersonal Support, Personality Traits*

For better understanding of the phenomena a female human being goes through it is important to understand the basic structure and function of the female reproductive system, menstrual cycle, hormonal changes, etc. (Panksepp, 2022).

The Female Reproductive System

It helps in providing vivid functions in the female human body. Each ovary produces egg cells known as oocytes, which are then transferred to the fallopian tube wherein the fertilization by sperm occurs. The egg, which is now fertilized, moves to the uterus, where it attaches itself to the thickened uterine wall for further development. In case of no fertilization, the uterine wall sheds as menstrual flow. In addition, it produces female sex hormones which helps in maintaining the reproductive cycle. When the reproductive system gradually stops producing hormones, the menstrual cycles become less frequent and slowly stop. The woman is considered to be menopausal.

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The structure of female genitals is distributed into two parts and thus segregating the organs involved. The external structure commences functions like to protect the internal sex organs from bacteria and other microscopic organisms. Along with that, it helps to enable the sperm to enter the body. The internal structure commences functions like producing eggs, secreting sex hormones, providing a site for fertilization, gestating a fetus, giving birth, breastfeeding etc. Organs included are Labia Majora, Labia Minora, Bartholin's Glands and Clitoris (external); Vagina, Uterus, Ovaries and Fallopian Tube (internal).

Menstrual Cycle

It is a term used for describing the systematic cyclic events occurring within a women's body as an innate response for pregnancy per month. This cycle begins on the first day of the period. On an average, it lasts for 28 days, but as per women to women it may differ from 21 days to 35 days.

Menstrual cycle is regulated by hormones which are secreted by the pituitary gland. Specific phases during the cycle are as follows:

- **The Menses Phase:** This lasts from day 1 to day 5 during which the uterus lining sheds out via vagina in case of non – pregnancy. On an average, women bleed for 3 to 5 days.
- **The Follicular Phase:** This lasts from day 6 to day 14 during which estrogen and follicle stimulating hormone promotes growth of follicles in ovaries and lining of the uterus along with formation of fully mature eggs.
- **Ovulation:** This lasts from day 14 to day 28 characterized by spontaneous increase in luteinizing hormone which furnishes ovulation where the ovary releases its egg.
- **The Luteal Phase:** This lasts from day 15 to day 28 characterized by passing of egg from ovary through fallopian tube to uterus. In this phase, progesterone levels increase to support the uterus lining for attachment of eggs in case of fertilization. If fertilization doesn't occur, levels of progesterone and estrogen lowers and thickened lining of uterus sheds marking the start of the next menstrual cycle.

Menstrual related symptoms and disorders are multidimensional and affect diverse physiologic systems. Menstrual related symptoms have been reported up to eighty percent of women (Hylan et al., 1999; Johnson et al., 1988; Campbell et al., 1997). Severe and debilitating symptoms that reach the severity of a disorder were reported in at least 3 – 10% of these women (Merikangas et al., 1993; Ramcharan et al., 1992; Tovar & Frank, 1990; Andersch et al., 1986).

Premenstrual Dysphoric Disorder

Definition and Diagnosis:

It is a recently added psychological disorder in ICD-11 which is a more distressing, sometimes more damaging form of Premenstrual Syndrome (PMS) affecting 8% of females of reproductive age group living in India (A Dutta, A Sharma; 2021). As per DSM – 5, it affects 1.8% to 5.8% menstruating women.

Initially described as 'premenstrual tension', and attributed to either hormonal imbalances (Frank, 1931), or to intrapsychic conflict exacerbated by women's social role (Horney, 1931), it was renamed 'Premenstrual Syndrome' in 1953, 'Late Luteal Phase Dysphoric disorder in DSM III-R and 'Premenstrual Dysphoric Disorder' in DSM-IV. The timing of PMDD symptoms related to menstruation is found to be in four patterns (Reid,2017):

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- A: Symptoms start around a week before starting of menses and gradually get worse the closer it gets.
- B: Symptoms start after a couple of days of ovulating and gradually get worse as menses approaches.
- C: Symptoms start around ovulation, then a few days of relief, then symptoms return before menses.
- D: Symptoms start pretty much at ovulation and remain all the way through to menses.

It was also found that the rate at which symptoms resolve can vary dramatically too: some people find immediate relief with the onset of menstruation, while others have a slower recovery over a couple of days or find that symptoms only resolve at the end of menstruation.

Influence on Daily Life

The main signs of PMDD impact on daily life is seen more severely at home, relationship with family members, social and work functioning (Chawla et al., 2002). Women along with PMDD and PMS have more impaired work productivity without affecting the work time, in the luteal phase. In a community-based study by Hylan et al., (1999) reported that characterized impairment has been seen at home rather than in social, school, or occupational scenarios. These studies point to the fact that women increase their efforts to cope with their symptoms at their occupational scenarios so as to not interfere with their responsibilities until they are at home with their family. Other influences include deteriorated cognitive functioning, concentration, attention, and memory (Man et al., 1999). Data suggests that premenstrual mood symptoms increase the prevalence of suicidal thoughts and suicidal attempts during premenstrual phase (Baca – Garcia et al., 2004; Wittchen et al., 2002; Chaturvedi et al., 1995). Limitations of these studies is the retrospective diagnosis of the premenstrual symptoms, which influences the interpretability of these findings.

Polycystic Ovary Syndrome

Polycystic Ovary Syndrome (PCOS) falls under hormonal disorder affecting women in reproductive age. PCOS is a health condition that commonly affects teen and young women, it is seen in 1 out of 10 women in their childbearing age. The reproductive system of women is controlled by the complex interplay of primarily five reproductive hormones namely estrogen, gonadotropin-releasing hormone, follicle stimulating hormone, progesterone, and luteinizing hormone. An imbalance within these hormones leads to PCOS.

Psychological Symptoms related to PCOS (Himelein, Thatcher,2006):

- Depression,
- Anxiety,
- Body Dissatisfaction,
- Eating disorders,
- Suppressed sexual satisfaction.

Physiological Symptoms related to PCOS:

- Irregular menses,
- Hirsutism,
- Acne,

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- Male – pattern baldness,
- Polycystic ovaries,
- Weight problems.

As stated earlier it is the most occurring endocrinopathy among women. According to Hahn et al., 2005, PCOS includes symptoms of depression, marital and social maladjustment. It can also be associated with obesity and insulin resistance (Carmina et al., 2010). Diagnostic criteria of PCOS as per NICHD, 1990 suggested the following symptoms simultaneously:

- Oligoovulation and/or anovulation.
- Excess androgen activity
- Polycystic ovaries.

Psychological distress is largely found among PCOS women. It is outlined by the symptoms of depression like loss of interest, sadness, hopelessness along with anxiety symptoms of restlessness and feeling tense (Mirowsky et al., 2002). Some of the somatic symptoms linked are insomnia, headaches, and lack of energy. It reports that women with PCOS have lower self – esteem, intense negative self – image, and have higher levels of depression and psychological distress due to hyper – androgenism (Trent et al., 2002). Depression is associated with increased cortisol levels, sympathetic activity and decreased serotonin levels in the central nervous system; features are also related with insulin resistance (Hollinrake et al., 2007). PCOS is sometimes considered as a lifestyle problem also. Lifestyle depicts an individual way of life, interests, opinions, behaviors, and behavioral orientations laid by a society, culture, group or individual. PCOS patients have markedly high abdominal obesity, mean waist circumference, consumption of calories and fat is high (Afsane et al., 2013). Lack of exercise, unhealthy dietary habits, stress, and vitamin D may trigger PCOS symptomatology (Sedighi et al., 2014).

Self – Efficacy

As per Albert Bandura (1986), self–efficacy is “self–mirrored image because of unique human functionality, for through these humans examine and modify their private questioning and conduct. Those self – critiques embody perception of self – efficacy beliefs in one’s ability to put together and execute the guides of movement required to manipulate conflicting situations. Perceived self–efficacy is a good–sized determinant of average ordinary performance. Self – efficacious humans preserve in thoughts themselves capable of appearing a selected hobby that affects patterns and what sort of strain people experience in the environment. Self –efficacy in the long run determines how a character behaves, thinks, and turns into recommended to be involved with precise roles.” As per Bandura’s social cognitive theory, self–efficacy enables an individual to commence control over their thoughts, feelings, motivation, and actions through a self–system at work. It affects learning variables regulated by self like perceived control, outcome expectation, perceived value of outcome and attribution goals.

Self–efficacy can be inculcated or influenced when an individual has a first–hand experience in mastering a task or controlling an environment, known as Mastery Experiences. Examples set by role models are a second way of creating and strengthening self–efficacy as they watch similar people achieving success through constant hard work. Positive verbal persuasion received by important people like parents, teachers, managers, and coaches also helps in inculcating positive strength for self– efficacy beliefs. Individual’s strength of self – efficacy also depends on their somatic and emotional states in judging their capabilities. It

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helps in reduction of people's stress reactions and alters their negative emotional tendency and misunderstanding of their physical states.

Interpersonal Support

Interpersonal Support are activities or strategies which are provided by a person's first circle like peers, teachers, parents, and community members which increase students' overall interpersonal skills for increased social interaction with one or more individuals. The tasks or skills to be targeted include joint attention, perspective taking, social and pretend play, social engagement, and social problem-solving (Luiselli et al. 2008). It is essential for the overall physical and emotional wellbeing of an individual. As per Joz Motmans et al., 2017, interpersonal support in the form of peer group support is very essential in transition families for coping better. Studies have been found mentioning the negative aspects of social networks and relationships which may contribute to negative health outcomes. For example, relational conflict, role obligations, and unwanted or insensitive advice from a friend may increase stress levels and lead to negative health outcomes (Goldsmith, 2011). Some problems may arise due to variations in perceptions, cultural influences, and other environmental factors. Study by Wolitski et al., 2008 gives evidence for individuals seeking interpersonal support for a stigmatized health condition. "Our social support networks are dynamic and often change dramatically throughout the life span, or due to positive and negative stressful life events, such as the birth of a child or being diagnosed with a life – threatening illness" studied by Burleson et al., 1994. Barriers to interpersonal support/relationships are:

- Situational Barrier – Complex interaction, Lack of time, Long distance, etc.
- Personal Barrier – Ineffective communication, Fear of Rejection, Lack of trust, Feeling of Insecurity, etc.
- Socio – Cultural Barrier – Language, Ethnic and Cultural diversities, etc.

DISCUSSION AND CONCLUSION

Study done by Annie W Lin, Jamie S Dollahite, Jeffery Sobal and Marla E Lujan in 2008 on the topic of "**Health – Related knowledge, beliefs and self – efficacy in women with polycystic ovary syndrome**" with 475 women sample where 255 women were diagnosed with PCOS and 220 without PCOS showed results that women with PCOS were at increased risk for adverse health outcomes but believed that a healthy lifestyle will be less beneficial for the prevention of weight gain as compared to a comparison group.

A study on "**Assessing Self – Efficacy and Self – Help Methods in women with and without Polycystic Ovary Syndrome**" by Samantha L. Kozica, Melanie E. Gibson-Helm, Helena J. Teede & Lisa J. Moran in 2013 with a sample of 74 PCOS women and 90 non – PCOS women showed that PCOS women have decreased engagement in self – help methods along with poorer overall and recent health history with increased prevalence and impact of a chronic illness.

A study done by Sara Shahbazi, Seyed Mousa Kafi Masuleh, Mahnaz Fallahi and Vida Shafti on "**Self – Efficacy, Marital Adjustment, and Quality of Life in Women with PCOS**" in 2015 with 129 PCOS women and 125 healthy women using tests named General Self – Efficacy Scale, World Health Organization's Quality of Life Questionnaire – Short Form (WHOQOL-BREF), and the Dyadic Marital Adjustment Scale showed that in comparison to healthy women, PCOS women indicated decreased performance in some psychological

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aspects. Healthy women had significantly increased marital adjustment and quality of life with not much difference in self – efficacy.

A qualitative study done by Sanna Hundersmarck in 2017 on the topic of “**The Subjective Experience of Premenstrual Dysphoric Disorder (PMDD) - A qualitative study exploring consequences of PMDD symptoms in relation to occupational and private life**” with a sample of 11 women going through PMDD using tests like Semi structured interview assessing areas such as, social impact of PMDD, hardships of PMDD, work related issues due to PMDD (both for participant and workplace) and whether she does something to decrease her symptoms indicated results that women showed decline in social capacity along with increase in irritation, aggression, and paranoid. They reported that having some form of social support/social backing was tremendously helpful. They described fear of stigma and social repercussions due to the association between PMDD and mental illness along with the importance of social acceptance both in professional and private arenas. It was also found that a complex psychological impact from PMDD prevented a person from feeling good about themselves, negative self-image was dominant and feeling like one is redundant.

Another study on the topic of “**Generalized Self – Efficacy, Dispositional Optimism, and Illness Acceptance in Women with PCOS**” by Ewa Rzonca, Grazyna Iwanowicz-Palus, Agnieszka Bien, Artur Wdowiak, Ryszard Szymanski and Gustaw Cholubek in 2018 using tests The General Self – Efficacy Scale, the Life Orientation Test – Revised (LOT-R), the Acceptance of Illness Scale (AIS), and a standardized interview questionnaire gave results that illness acceptance in PCOS patients is more when generalized self – efficacy and dispositional optimism are also increased.

A study done by Kirsten K. Roessler, Dorte Glintborg, Penille Ravn, Camilla Birkebaek and Marianne Andersen in 2012 on “**Supportive relationships - Psychological effects of group counselling in women with polycystic ovary syndrome (PCOS)**” focussed on the examination of group - oriented approach to observe interpersonal communication, relational and emotional aspects in the periods of change in health behavior. The sample included seventeen overweight PCOS women gone through eight weeks of high - intensity aerobic exercise along with group counseling. The result elaborated group cohesion, exchange of narratives of illness and specific aspects of disorder via supportive relationships helped in reducing social isolation also by encouraging individual relationships.

Studies like “**The Role of Disclosure and Social Support on Quality of Life in Women with Polycystic Ovary Syndrome (PCOS)**” by Noelle Citron in 2022 included reflexive thematic analysis of 28 PCOS - diagnosed participants’ interview falling in age range of 19 - 43 regarding their experience of PCOS disclosure and social support avenues. The study illustrated tangible avenues of support to improve quality of life.

A cross – sectional study named “**A Study on the Effect of Premenstrual Syndrome on Interpersonal Relationships and Quality of Life**” in 2019 by Dr. Taniya Kundu, Dr. Arnab Pathak, Dr. Uday Sankar Mandal, Dr. Saswati Nath, D. Mondal, Dr. R. Neogi and Dr. Pallavi Priyam was conducted on 18 – 35 years of age in medical and paramedical students using Premenstrual Syndrome Questionnaire, Inventory of Interpersonal Problems – Short Circumplex Scale and World Health Organisation – Quality of Life Abbreviated Scale incorporated significant positive correlation between severity of PMS Symptoms and interpersonal problems, cold, non – assertive and intrusive traits, anxiety with overly – nurturant traits, depression with cold traits. Negative correlation was found between anxiety

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and the physical health domain of PMS with quality of life, depression, and hormonal domains of quality of life.

Study done by Himelein, Melissa J, Thatcher, Samuel S in 2006 on **“Polycystic Ovary Syndrome and Mental Health: A Review”** implicates the problems associated with body dissatisfaction, decline in sexual satisfaction and quality of life with PCOS diagnosed women. It is mandatory to access and incorporate management and identification of mental health problems related to it along with planning for weight management issues.

Some specific studies like **“Late – Luteal Phase Dysphoric Disorder: Relationship to Personality Disorders”** by Marcia B. Eckerd, Stephen W. Hurt and Sally K. Severino in 2011 having 42 women filled up the Personality Diagnostic Questionnaire – Revised (PDQ – R) in follicular phase and 10 women in late luteal phase revealed significant personality dysfunctions but no significant changes in severity of personality dysfunction across the cyclic phases regardless of the diagnosis.

“Neuroticism – related personality traits are related to symptom severity in patients with premenstrual dysphoric disorder and to the serotonin transporter gene – linked polymorphism 5 - HTTLPR” research done by M. Gingnell, E. Comasco, L. Oreland, M. Fredrikson, I. Sundstrom – Poromaa in 2020 included 30 PMDD patients and 55 asymptomatic healthy controls who were assessed with the Swedish Universities Scale of Personality for personality traits. Results showed that PMDD patients scored higher in neuroticism – related personality traits i.e., psychic trait anxiety, somatic trait anxiety, embitterment, stress susceptibility and mistrust. Patients with one copy of the short allele of the 5 – HTTLPR polymorphism secured more scores on psychic trait anxiety and lack of assertiveness.

Research on **“Personality disorders in women with severe premenstrual syndrome”** in 2011 by S. Sassoon, I. Colrain, F. Baker comprising 33 women with severe PMS and 26 asymptomatic women reported to have increased prevalence of personality disorders specifically odd – eccentric, dramatic – erratic, and anxious – fearful personality disorders traits. OCPD was the commonest character pathology in severe PMS group. It adds to the burden of life functioning in women with severe PMS.

In a study done by Nicole Petersen, Edythe D London, Letty Liang, Dara G Ghahremani, Rachel Gerads, Linda Goldman and Andrea J Rapkin in 2016 on the topic of **“Emotion regulation in women with Premenstrual Dysphoric Disorder”** with a sample of 36 women where 18 was with PMDD and 18 were healthy controls using the Emotional Regulation Questionnaire, Difficulties in Emotion Regulation Scale, Social Connectedness and Perceived Stress Scales indicated results that women with PMDD reported high level of behavioral impulsivity and increased difficulties in regulating emotion and socioemotional functioning.

A similar study was done in Ajmer, India by C. Singh, Jaishree Jain, Kaptan Singh, M. Jain, A. Chaudhary in 2016 on **“A Study of Premenstrual Dysphoric Disorder Prevalence, Phenomenology and Personality Factors in College Going Students”** with a group of 300 nursing students where only 24 matched the diagnostic criteria of DSM – IV TR assessed through Menstrual History Form and Screening Questionnaire and Menstrual Distress ‘A’ form and Eysenck Personality Inventory. Results showed that prevalence is only 8% with most common symptoms being fatigability, lowered interest in usual activities with increased scores on Neuroticism scale of EPI.

“Personality Traits of Suicidality are associated with Premenstrual Syndrome and Premenstrual Dysphoric Disorder in a suicidal women sample” a study done in 2016 by D. Ducasse, I. Jaussent, E. Olie, S. Guillaume, J. Lopez – Castroman, P. Courtet aimed at assessing the relationship between personality dimensions involved in suicidal vulnerability. A sample of 232 hospitalized women with suicidal attempt were examined for a relationship between impulsivity, aggressiveness/hostility, hopelessness, trait anger, affect intensity, emotional lability and PMS/PMDD. An impulsive – aggressive pattern of personality was found where higher the level of anger higher was the risk to suffer from both PMS/PMDD.

Study conducted by Maria Kleinstauber, Katarina Schmelzer, Beate Ditzen, Gerhard Andersson, Wolfgang Hiller, and Cornelia Weise in 2016 on the topic of **“Psychosocial Profile of Women with Premenstrual Syndrome and Healthy Controls: A Comparative Study”** with a sample of 138 women where 90 are with PMS and 48 without PMS using PMS diary, Perceived Sample - 90 women with PMS and 48 without PMS using - PMS diary, Perceived chronic stress, General self-efficacy scale, Relationship assessment scale, Sexual satisfaction scale for women, Eating disorder inventory 2, Somatosensory amplification test, Premenstrual symptoms acceptance questionnaire gave results showing that women going through PMS reported more perceived chronic stress whereas self-efficacy was less, body dissatisfaction was more and no effects on sexual contentment and acceptance of PMS was found.

A qualitative study of 15 women going through PMDD was analyzed through semi – structured interviews under **“Exploring premenstrual dysphoric disorder (PMDD) in the work context: a qualitative study”** by C. Hardy, J. Hardie in 2017 revealed concentration difficulties, self – doubt, paranoia, fatigue, tearfulness, a heightened sensitivity to environment and people in premenstrual phase which was compensated by working overtime and feeling of guilt in postmenstrual phase. The study also highlighted the greater need of awareness on part of organizations, policy makers and health professionals for better support mechanisms for the females going through PMDD.

Demographic specific researches like **“Prevalence of premenstrual syndrome and premenstrual dysphoric disorder among medical students and its impact on their academic and social performance”** by Geeta Shamnani, Vani Gupta, Rekha Jiwane, Shraddha Singh, Sunita Tiwari, Shekhawat Singh Bhartiy in 2018 aimed at assessing the prevalence of different symptoms of PMS and PMDD among medical college girls and its effect on academic and social performance using questionnaires for PMS and PMDD symptoms reported 65% prevalence for PMS and 12% for PMDD with common symptoms as body pain and irritability which effected 12% to absent in class and 32% to avoid joining social functions.

A cross-sectional survey on **“Premenstrual Dysphoric Disorder: Ranking the Symptoms and Severity in Indian College Students”** done by Deepali Bansal, Rajesh Raman, T.S. Sathyanarayana Rao in 2019 aimed at categorization and ranking of symptoms and severity of PMDD in Indian Colleges. Sample of 600 girls were taken whose mean age was 21.12 ± 2.6 years with mostly being unmarried hailing from urban background where 10.2% met the PMDD criteria with mostly being complaining of physical symptoms followed by anger or irritability. PMDD group mentioned relationship problems in the areas of family and co-workers.

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A study of 2019 on the topic of **“Personality Characteristics in Female Students with Premenstrual Dysphoric Disorder and Premenstrual Syndrome”** by M. Izadi and S. Amiri aimed to study the personality characteristics among 210 students with PMS and PMDD using NEO – FFI, Premenstrual Symptoms Screening Tool (PSST) and demographic form indicated that personality characteristics like Neuroticism and Agreeableness are significantly different between students with PMDD and mild/symptom free PMS.

A study done in 2020 – 2021 in Egypt on 755 university students by S.M. Eldeeb, Afaf M. Eladl, Amany Elshabrawy, A. Youssef and M. Ibrahim on **“Prevalence, Phenomenology and Personality Characteristics of Premenstrual Dysphoric Disorder among female students at Zagazig University, Egypt”** revealed a prevalence rate of 21.1% with most common symptoms of being overeating, fatigue, depressed mood/hopelessness and hypersomnia where high neuroticism, low extraversion and agreeableness are significant PMDD risk factors which have a detrimental effect on both academic accomplishments and quality of life.

Study done by Mingzhou Gao, Mingqi Qiao, Li An, Guangbin Wang, Jieqiong Wang, Chunhong Song, Fengqin Wei, Yanhong Yu, Tao Gong, Dongmei Gao in 2021 on the topic of **“Brain reactivity to emotional stimuli in women with Premenstrual Dysphoric Disorder and related personality characteristics”** with a total sample of 86 women where 42 women are with PMDD and 44 healthy controls were kept into two groups using tests of Self – Rating Depression Scales (SDS), Trait Anger Expression Inventory-II (STAXI-II), Eysenck Personality Questionnaire (EPQ), Twenty-Item Toronto Alexithymia Scale (TAS-20) indicated results that females who reported PMDD symptoms were with more neuroticism and psychoticism, less extraversion and social desirability. They also experience difficulties in regulating emotions during the secretory phase of the menstrual cycle.

A study on **“Self – Concept, Depression, and Anxiety levels of Adolescents with Polycystic Ovary Syndrome”** in 2021 by Habip Almis et al. comprising a sample of 153 PCOS patients and 161 healthy adolescents used the personal information form, state – trait anxiety inventory for children, children’s depression inventory, and piers – harris children’s self – concept scale to establish the results that adolescents with PCOS had lower self – concept scores, higher anxiety levels, and increased depressive symptoms than the healthy controls.

A cross sectional study done in 2021 by Serkan Pekcetin, Sevgi Ozdinc and Hilal Ata on the topic of **“Perceived occupational competence and value among university students with premenstrual dysphoric disorder”** with 35 students with PMDD and 35 without PMDD age – matched students evaluated occupational competence using the Occupational Self – Assessment gave results indicating that students with PMDD experiences greater occupational competence challenges than students without PMDD.

Study done by Pooja Thakrar and Rajat Oswal in 2021 on the topic of **“Premenstrual dysphoric disorder: Prevalence, quality of life and disability due to illness among medical and paramedical students”** with a sample of 661 female diagnosed with PMDD using Premenstrual Symptoms Screening Tool (PSST), daily record of severity of problems (DRSP), world health organization quality of life (WHOQOL) and Sheehan Disability Scale (SDS) reported that quality of life among PMDD participants was significantly lower especially in social relationships. PMDD has affected every area of functioning.

“Suicidal Risk in women with Premenstrual Syndrome and Premenstrual Dysphoric Disorder: A Systematic Review and Meta – Analysis” was done by D. Prasad, B.

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Wollenhaupt – Aguiar, Katrina N. Kidd, T. de Azevedo Cardoso and B. Frey in 2021 aiming on experience of substantial functional impairment and decreased quality of life. Results showed that PMDD women are at seven times higher risk for suicide attempt and four times exhibit suicidal ideation.

“Trends in research related to Premenstrual Syndrome and Premenstrual Dysphoric Disorder from 1945 to 2018: A Bibliometric Analysis” done by Mingzhou Gao et al. in 2021 searched out research articles on PMS and PMDD between 1945 and 2018 retrieved from the Web of Science Core Collection (WoSCC). They found 2,833 publications which increased with time where most publications were done by Psychoneuroendocrinology. Prevalence and impact along with association of anxiety and depression with menstrual phases are the latest research frontiers that will prevail in the coming years.

A study done by Yunmei Guo, Ying Liu, Xing Yan, Rui Ding, Huiwen Tan and Lianhong Wang in 2022 on **“Factors affecting the adoption of health-promoting behaviours in patients with Polycystic Ovary Syndrome: A Cross – Sectional Study”** with a total sample size of 366 PCOS women in the age range of 18 – 45 years were assessed using health – promoting lifestyle profile scale, zung’s self – rating anxiety scale, Zung’s self – rating depression scale and self – efficacy through the Managing Chronic Disease 6 – item scale. Result indicated that the sample had poor health – promoting behaviour and that to improve negative emotions, behavioural awareness, and self – efficacy is important for the adoption of health – promoting behaviours.

A recent study of 2022 on **“Effects of Personality Traits on Clinical Outcomes of Premenstrual Dysphoric Disorder”** by Erson Aksu and Elmas Beyazyuz done on 96 women with PMDD assessed through Premenstrual Symptoms Screening Tool, Premenstrual Symptoms Impact Survey, and Basic Personality Traits Inventory indicated there is a significant association with neuroticism among women with PMDD and its impact.

This study paves way for drawing attention towards the existence of both PMDD and PCOS in a female together at a particular moment of time. Very few cases are found with this condition, some due to unawareness and lack of testing and rest because of misdiagnosis of PMDD with some other psychopathology. With correct tools and proper assessment such cases can be found and dealt with. Also, it might be possible that apart from sample size and type of experiment or study conducted a fault may lie in the tools being used for assessment of the variables. There might be a scope for development in psychometrics for developing a sample sensitive tool for better results and accuracy.

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Conflict of Interest

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