Menstruation, Menstrual Distress and Mental Health: A Literature Review

Vandana Singh Malik¹, Vijeta Singh², Hemant Yadav³, Sanjay Kumar⁴, Krishan Kumar⁵ & Rakesh Kumar Behmani⁶

^{1,2,3,4,6}Department of Applied Psychology, Guru Jambheshwar University of Science and Technology (GJUS&T), Hisar, Haryana, India

⁵Department of Psychiatry, Postgraduation Institute of Medical Education and Research (PGIMER), Chandigarh, India

ABSTRACT

The menstrual cycle of a female begins with the onset of menarche which continues till she reaches the menopause. First menstrual cycle is an indicator of pubertal development and start of a reproductive life of a woman. During this period, women face different physical, social and mental problems and menstrual distress could be one of them. But menstrual distress requires attention and care by the females. Some of the common symptoms of menstrual distress are abdominal discomfort, swelling irritability, anxiety, tiredness, and backaches. However, the incomplete and inaccurate information about menstrual cycle in females results to formation of various apprehensions and taboos. Such information leads to ignorance of self-care and hygiene which results in various physical and mental health issues. This paper aims to understand the mental health issues that are caused because of menstruation and menstrual distress.

Keyword- Menstruation, Menstrual Distress, Mental Health

INTRODUCTION

Menstruation, a natural biological phenomenon is synonymous with healthy life of women. The menstrual cycle of a female begins with the onset of menarche which continues till she reaches the menopause. First menstrual cycle is a benchmark of pubertal development and signals the start of a reproductive life of a woman. During this period, women face different physical, social and mental problems and menstrual distress could be one of them. Menstruation or menses is a physiological process where blood and some other substances are released from the uterus through the vagina as the egg did not fertilize. Around seven years of a female's life is spent on menstruating. Female puberty, menarche is considered as a sign of physical maturity and fertility (Lacroix et al., 2022; White, 2008).

Menstrual period is a difficult time in the life of females as it comes with pain, discomfort, cramps, mood swings and other issues. The average onset of menarche is 12.4 years; a young female generally begins to menstruate between the ages of 10 and 16 years (Marques at el., 2022). This also brings about change in regular life of females such as "academic achievement, physical condition, behavioural pattern, diet, exercise, mood and sleep pattern" (Khamdan, 2014). There is severe lack of knowledge among females regarding the to manage a menstrual cycle which result in physical and psychological symptoms like pain, cramps, bloating, cramps, irritability, fatigue and many more issues (Cherenack & Sikkema, 2021). Females also deal with various psychological, social, sanitation, and physical stressors which result in poor health and well-being (Malik et al., 2023b). Sometimes the problems that occur during menstruation are normal while some females disregard the severity of the issues which could lead to menstrual distress and other menstrual issues. This research aims to study the relationship between menstruation, menstrual distress and mental health.

RESEARCH DESIGN

The relevant literature was searched from various databases such as Google Scholar, ResearchGate, PubMed/Medline, Web of Science, and Scopus. Different keywords associated with the theme of the paper were searched. We developed an analytic framework using a combination of broad categories: menstruation, menstrual cycle, menstrual distress, and mental health. We used the "and" identifier to connect each menstruations terms to each menstrual distress and mental health.

REVIEW OF LITERATURE

Menstruation

Menstruation is a periodic vaginal blood loss with the shedding of uterine mucose in absence of pregnancy. The length of the cycle various from women to women with the average being 28 days. The first day of menstruation is counted as the day of the menstrual cycle (Thiyagarajan et al., 2021). The menstrual cycle begins in a women's life at the onset of menarche till the menopause (Marques et al., 2022). Various studies depict that the menstrual symptoms differ in prevalence across the cultures around the world (Keyes et al., 2002; Lu, 2001).

Females use a tampon, pad, menstrual cup, period underwear and other material to deal with the situation. Most young adolescent as well as women require changing their pad, tampons, or menstrual cup about 3-6 times a day. Social, cultural and religious factors have a larger effect on womens' mental health as in some cases these are highly restrictive and disrespecting. Females are highly embarrassed to talk about menstruation in public, amongst family, classrooms, and community gatherings (Davis et al., 2018; Malik et al., 2023a; Mason et al., 2013; UNICEF, 2022).

Menstrual distress

A wide range of negative emotional states are included in the broad concept of distress. Distress is determined by a number of biological, cognitive, and social mechanisms that support person-environment. Menstrual distress is a gynaecological problem where symptoms such as irritable behaviour, anxiousness, headache, fatigue, low mood, lack of concentration, weight gain, sore breast, heaviness, body pain, muscle ache, abdominal discomfort, and social isolation are observed (Rapkin, 2005; Thomas & Narayan, 2006). Menstrual distress represents the entire adverse symptoms of menstruation which are severe and not normal to menstruation such as irregularity, amenorrhea, high intensity pain and uneasiness, pathological behaviours, performance deterioration and negative affect. Menstrual distress is quite common issue dealt by adolescent girls. Around 75 to 94% of females go through the symptoms of distress (Choi et al., 2015; Shahr-Jerdy et al., 2012). Dysmenorrhea is one of the major problems which is faced by around 70.2% Indian females (Omidvar, 2016).

Menstrual distress is adjunct to physical problems and psychological issues like emotional fluctuation, anxiety and depression (McPherson, 2004). Menstrual irregularity is associated with greater probability of chronic diseases including type-2 diabetes, CVD (cardio-vascular disease), migraines, breast cancer, and ovarian cancer (Malik et al., 2021). Sanitation, physical, social and psychological stressors also lead to development of menstrual

distress level. Distress takes place when a person faces severe stress. Other reasons of menstrual distress could be personality factors, environmental factors, psychiatric illness, impoverished diet, incorrect posture, low levels of physical activity, vitamin or mineral deficiency, and other health determinants (Malik et al., 2023a). Along with the physical females also deal with psychological discomfort such as emotional fluctuation, mood swings, depression, anxiety, etc. Stress is a leading cause of irregularity in the menstrual cycle (Malik et al., 2021).

Menstruating females do not participate in pooja, and not touch the holy books. They are asked to stop watering the plants, and are not allowed to enter the kitchen and also advised to not to take bath (Patil et al., 2011; Singh, 2006). Females face various restrictions at home and in the society when they are menstruating. One of prominent restriction in urban areas is denial of entry to puja rooms while in rural areas they are banned from entering in the kitchen in the so called those particular days (Puri & Kapoor, 2006). Various cultures in the world regard menstruating women as impure, dirty, and sinful (Rozin & Fallon, 1987). Such restrictions further contribute to the distress (Bharadwaj et al., 2004; Clayton, 2008; Drakshayani et al., 1994). The menstruation-based taboos existing in the society influence the emotional state, lifestyle and most essentially, the health of girls as well females (Garg, 2015).

Concept of mental health

Our social and psychological well-being is indicator of our mental health. It helps in maintaining stress and coping with other problems of life. WHO states that "Mental health is a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully and can make a contribution to his or her community." Some symptoms of poor mental health are: withdrawal from routine life, over or under sleeping, over-eating or under-eating, low energy and various other symptoms.

Relationship between Mental Health and Menstruation

Various researches are trying to explore how menstruation disrupts mental health in recent times. There is close relationship between menstruation and mental health. Females have to deal with various mental health issues such as depression, anxiety, over thinking, and eating disorders during menstruation (McPherson, & Korfine, 2004). Since a long period of time, menstruation has been surrounded by myths and taboos. But these menstrual myths and taboos have not vanished and are prevalent in modern times as well. These myths impact the

life of adolescent females in negative manner by influencing their attitudes, emotions, lifestyle and health and they even have to face discrimination and health issues owing to these misconceptions.

Various cultures of the world including the Indian culture have spread a negative atmosphere around the word menstruation. When girls are going through menstruating, they are stopped from entering the temples, watering the plants, and not allowed in the kitchen at home. Various restrictions are made regarding diet and some even advised against taking bath (Patil et al., 2011; Singh, 2006). Menstrual disorders are very much prevalent among young females; amenorrhea, dysmenorrhea, and dysfunctional uterine bleeding are the top three problems (Greydanus & McAnamey, 1982). Premenstrual symptoms were associated with stress and poor mental health (Lee et al., 2005).

A study observed that around 70% of mothers believe menstruation to be impure and dirty and 70% of girls are unaware of menstruation until they start bleeding on the start of menarche (Avasarala & Panchangam, 2008). Studies across various states of India also indicate a lack of awareness regarding menstrual hygiene, the data discloses Tamil Nadu (79%), Uttar Pradesh (66%), Rajasthan (56%) and West Bengal (51%) unawareness among adolescent girls (Moos, 1968; World Health Organization, 1996). Lack of discussion makes it more of a taboo and this affects the physical health but also the psychological health. The absence of knowledge regarding menstruation and menstrual hygiene puts a lot of pressure on girls and the manner in which they face the situation. And it's a major cause of the school drop-outs and absenteeism among the female adolescents. In such cases, the psychological impact on mental health seem to be more disturbing (Walial et al., 2015).

Menstrual Distress and Mental Health

Keyes (2002) described positive health "as a state in which an individual feels positive emotion of life and functions well psychologically and socially." These persons have positive outlook for life, take life as a challenge and are also actively engaged with others in society (Joshanloo et al., 2008). Menstrual distress is encompasses physical distress and psychological difficulties including emotional fluctuations, mood swings, anxiety, depression, etc (McPherson et al., 2004). This discomfort affects human mental health. Yonkers et al. (2003) observed similar comorbidity between PMS and major depression.

Menstrual problems cause distress and have been found to be associated with depression. The stigma connected with menstruation leads to failure of satisfaction of menstrual health needs which causes low levels of mental health (Kowalski & Chapple,

2000). The severity of PMS symptoms was also related with increased symptoms of stress, anxiety and depression (Prabhavati et al., 2017; Abu Alwafa et al., 2021). A study on Japanese medical students revealed that menstrual symptoms as well as nutrition were linked with psychological distress. Here, it appears that school doctors and nurses can lay imperative role in building the mental health by fostering healthy habits of taking a proper nutritional diet and examining the presence of menstrual symptoms (Fukushima et al., 2020).

CONCLUSION

Lack of awareness regarding menstruation and hygiene practices among females can be found to be responsible for the distress and mental health issues during menstruation. Young adolescents as well as adult females are prone to menstrual difficulties, the dysmenorrhoea and menstrual distress being the most prevalent. Malnutrition and sedentary lifestyle are peripheral aspects of menstrual difficulties. "Embarrassment" linked with menstruation is the foremost intricacy in the quest for finding correct information and resolving doubts. Organisation of educated and knowledgeable discussions related with menstrual problems can help females to manage menstrual and gynaecological issues in better way. Inclusion of proper nutrients, yoga, exercise etc could make life of females better by reducing the risk of menstrual issues.

Girls usually seek advice from their mother and female family members. This signifies the importance of maternal and female education. Educated females can play a larger role in combating menstrual health difficulties. The role of healthy parenting is prominent to keep better mental health of the children, warmth, care and communication helps in development of healthy coping mechanisms (Singh et al., 2021; Singh et al., 2018). Good environment by parents will help these females in enhancement of their well-being life satisfaction and self-esteem (Behamani & Singh, 2018; Chauhan et al., 2023; Kalonia et al., 2021). Little girls are vulnerable during puberty and changes that come through make them susceptible to various issues and they expect from parents, whether mother or father to support and understand their life, thoughts and ideas. Parents need to open for communication to these girls.

Female teachers need to be especially provided basic menstruation knowledge and they ought to discuss with all young adolescent children about their problems. All adolescent girls need to have sessions with a health counsellor or health professional to discuss their difficulties and misunderstanding. All public and private schools as well as colleges need to appoint health counsellors to attend to health issues of young adolescent females which could

ultimately remove taboos and apprehensions regarding menstruation. Regular awareness campaigns and health camps need to organized to monitor the health of females. This would really help in females feeling safe, healthy and confident as they have to come across various challenges in daily life. Various government policies need to properly enforced to help the females grow and become empowered. Taking some of these steps could contribute in making mental health and menstrual health better for the females.

Conflict of Interests: The author declared no conflict of interests.

REFERENCES

- Abu Alwafa, R., Badrasawi, M., & Haj Hamad, R. (2021). Prevalence of premenstrual syndrome and its association with psychosocial and lifestyle variables: a cross-sectional study from Palestine. *BMC Women's Health*, 21(1), 233. https://doi.org/10.1186/s12905-021-01374-6
- Avasarala, A. K., & Panchangam, S. (2008). Dysmenorrhoea in different settings: Are the rural and urban adolescent girls perceiving and managing the dysmenorrhoea problem differently? *Indian journal of community medicine: official publication of Indian Association*.https://doi.org/10.4103/0970-0218.43231.
- Behmani, R. K., & Singh, V. (2018). Influence of parenting style on life satisfaction of the adolescents: A review. *IAHRW International Journal of Social Sciences Review*, 6 (2), 226, 230.
- Bharadwaj, S., & Patkar, A. (2004). Menstrual hygiene and management in developing countries: Taking stock. *Mumbai: Junction Social, Mumbai, India.*
- Chauhan, R., Nancy, Poonam. (2023). Role of Parenting Style of Mothers of Rural India in Self Esteem of Children. *International Journal of Indian Psychology*, 11(1).https://doi.org/10.25215/1101.062
- Cherenack, E. M., & Sikkema, K. J. (2021). Puberty- and Menstruation-Related Stressors Are Associated with Depression, Anxiety, and Reproductive Tract Infection Symptoms Among Adolescent Girls in Tanzania. International Journal of Behavioral Medicine. https://doi.org/10.1007/s12529-021-10005-1
- Choi, N. Y. (2015). The Effects of a Menstrual Distress Coping Education Program for Young Adult Females. In *The 7th 2015 International Interdisciplinary Workshop Series, ASTL103, JeJu*.
- Cicognani, E., Pirini, C., Keyes, C., Joshanloo, M., Rostami, R., & Nosratabadi, M. (2008). Social participation, sense of community and social well being: A study on American, Italian and Iranian university students. *Social indicators research*, 89, 97-112.https://doi.org/10.1007/s11205-007-9222-3
- Clayton, A. H. (2008). Symptoms related to the menstrual cycle: Diagnosis, prevalence, and treatment. *Journal of Psychiatric Practice*, 14(1), 13–21.https://doi.org/10.1097/01.pra.0000308491.54885.f8
- Davis, J., Macintyre, A., Odagiri, M., Suriastini, W., Cordova, A., Huggett, C., ... & Kennedy, E. (2018). Menstrual hygiene management and school absenteeism among adolescent students in Indonesia: evidence from a cross-sectional school-based survey. *Tropical Medicine & International Health*, 23(12), 1350-1363.https://doi.org/10.1111/tmi.13159
- Drakshayani, D. K., Venkata, R. P. (1994). A study on menstrual hygiene among rural adolescent girls. *Indian Journal of Medical Science*, 48(6), 139–143.

- Fukushima, K., Fukushima, N., Sato, H., Yokota, J., & Uchida, K. (2020). Association between nutritional level, menstrual-related symptoms, and mental health in female medical students. *PloS one*, 15(7), e0235909.
- Garg, S., & Anand, T. (2015). Menstruation related myths in India: strategies for combating it. *Journal of family medicine and primary care*, 4(2), 184–186.https://doi.org/10.4103/2249-4863.154627
- Greydanus, D. E., & McAnarney, E. R. (1982). Menstruation and its disorders in adolescence. *Current Problems in Paediatrics*, 12,1-61.
- Kalonia, N., Garhwal, K., & Singh, V. (2022). Life Satisfaction and Resilience as a Predictor of Psychological Well-being among Youth. *The International Journal of Indian Psychology*. 10(4). 1004-1010. http://doi.org/10.25215/1004.098
- Keyes, C. L., Shmotkin, D., & Ryff, C. D. (2002). Optimizing well-being: The empirical encounter of two traditions. *Journal of Personality and Social Psychology*, 82(6), 1007.
- Khamdan, Y. H. (2014). The Impact of Menstrual Period on Physical Condition, Academic Performance and Habits of Medical Students. *Journal of Women's Health Care*, 03(05). https://doi.org/10.4172/2167-0420.1000185
- Kowalski, R. M., & Chapple, T. (2000). The social stigma of menstruation: Fact or fiction?. *Psychology of Women Quarterly*, 24(1), 74-80.
- Lacroix, A. E., Gondal, H., Shumway, K. R., & Langaker, M. D. (2022). Physiology, menarche. In *StatPearls [Internet]*. StatPearls Publishing.
- Lee, A. M., Wei, R., Chung, K. F., Hui, K. T., Ip, S. K., Leung, H. L., ... & Wong, T. C. (2005). Premenstrual symptoms among Chinese female undergraduates: relationship with stress and mental health. *Hong Kong Journal of Gynaecology, Obstetrics and Midwifery*, 5(1). 10-21.
- Lu, Z. J. (2001). The relationship between menstrual attitudes and menstrual symptoms among Taiwanese women. *Journal of Advanced Nursing*, 33(5), 621–628. https://doi.org/10.1046/j.1365-2648.2001.01705.x
- Malik, V. S., Kumar, K., Kumar, A., & Behmani, R. K. (2021). Effect of Stress on Menstrual Cycle in Young Adolescent Female during COVID-19 Lockdown in India. *International Journal of All Research Education and Scientific Methods*, 9(10),984-990. ISSN:2455-6211.
- Malik, V. S., Kumar, K., Behmani, R. K., & Kumar, S. (2023a). Stressor of Menstruation in Adolescence, Young Adulthood, and Adulthood. In B. Parimal & K. Gupta (Eds.), *Perspectives on Coping Strategies for Menstrual and Premenstrual Distress* (pp. 30-42). IGI Global. https://doi.org/10.4018/978-1-6684-5088-8.ch003
- Malik, V. S., Behmani, S., Singh, V., Behmani, R. K., Kumar, S., & Kumar, K. (2023b). The Effects of a Menstrual Distress Coping Education Program for Adolescents and Young Adult Females. In B. Parimal & K. Gupta (Eds.), *Perspectives on Coping Strategies for Menstrual and Premenstrual Distress* (pp. 156-174). IGI Global. https://doi.org/10.4018/978-1-6684-5088-8.ch009
- Marques P, Madeira T, Gama A. (2022). *Menstrual cycle among adolescents: girls' awareness and influencer of age at menarche and overweight*. Rev Paul Pediater, 40;e2020494. https://doi.org/10.1590/1984-0462/2022/40/2020494
- Mason, L., Nyothach, E., Alexander, K., Odhiambo, F. O., Eleveld, A., Vulule, J., ... & Phillips-Howard, P. A. (2013). 'We keep it secret so no one should know'—A qualitative study to explore young schoolgirls attitudes and experiences with menstruation in rural Western Kenya. *PloS one*, 8(11), e79132.10.1371/journal.pone.0079132
- McPherson, M. E., & Korfine, L. (2004). Menstruation across time: Menarche, menstrual attitudes, experiences, and behaviors. *Women's Health Issues*, 14(6), 193-200.https://doi.org/10.1016/j.whi.2004.08.006

- Moos, R. H. (1968). The development of a menstrual distress questionnaire. *Psychosomatic medicine*, 30(6), 853-867.
- Omidvar, S., Bakouei, F., Amiri, F. N., & Begum, K. (2016). Primary dysmenorrhea and menstrual symptoms in Indian female students: prevalence, impact and management. *Global journal of health science*, 8(8), 135.
- Patil, R., Agarwal, L., Khan, M. I., Gupta, S. K., Vedapriya, D. R., Raghavia, M., & Mittal, A. (2011). Beliefs about menstruation: a study from rural Pondicherry. *Indian Journal of Medical Specialties*, 2(1), 23-26.
- Prabhavathi, K., Kumar, T. G., Hemamalini, R. V., Poornima, K. N., & Saravanan, A. (2018). Study of psychological predictors and sleep quality in different grades of premenstrual syndrome. *National Journal of Physiology, Pharmacy and Pharmacology*, 8(3), 353-357.https://doi.org/10.5455/njppp.2017.7.0935427102017
- Puri, S., & Kapoor, S. (2006). Taboos and Myths associated with women health among rural and urban adolescent girls in Punjab. *Indian Journal of Community Medicine*, 31,168–70.
- Quraishi, S. R., Waghachavare, V. B., Gore, A. D., & Dhumale, G. B. (2015). Are Menstrual Problems Associated with the Mental Health? A Cross Sectional Study among the Graduation College Girls, *IMJM The International Medical journal Malaysia*. 14(2).
- Rapkin, A. J. (2005). New treatment approaches for premenstrual disorders. *AThe American Journal of Managed Care*, 11(16 Suppl), S480-S491.
- Rozin, P., & Fallon, A. E. (1987). A perspective on disgust. Psychological Review, 94, 23–41. https://doi.org/10.1037/0033-295x.94.1.23
- Shahr-Jerdy, S., Hosseini, R. S., & Gh, M. E. (2012). Effects of stretching exercises on primary dysmenorrhea in adolescent girls. *Biomedical Human Kinetics*, 4(1), 127-32.
- Singh, A. J. (2006). Place of menstruation in the reproductive lives of women of rural North India. *Indian Journal of Community Medicine*, 31(1), 10.
- Singh, V. & Behmani, R.K. (2018). Role of Parenting Style in Mental Health and Coping Style of the Adolescents. *Remarking An Analisation*, 3(8), 32-38
- Singh, V., Gera, T., & Behmani, R. K. (2021). Parenting Styles and Mental Health of Adolescents. *Journal of Psychology and Behavior Studies*, 1(1), 41-46. 10.32996/jpbs.2021.1.1.6
- Thiyagarajan, D. K., Basit, H., & Jeanmonod, R. (2021). Physiology, menstrual cycle. In *StatPearls* [*Internet*]. StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK500020/
- Thomas, I., & Narayanan, G. (2006). Psycho-social correlates of perimenstrual distress. *Journal of the Indian Academy of Applied Psychology*, 32(1), 71-80.
- UNICEF. (n.d.). Menstrual hygiene. https://www.unicef.org/wash/menstrual-hygiene
- Walia, D. K., Yadav, R. J., Pandey, A., & Bakshi, R. K. (2015). Menstrual patterns among school going adolescent girls in chandigarh and rural areas of himachal pradesh, north India. *National Journal of Community Medicine*, 6(04), 583-586.
- White, L.R. (2008). Newly Postmenarcheal Adolescents' Understanding of Menarche and Menstruation Across Race and Income Level as Defined by Qualification Status for Free or Reduced Lunches. Unpublished MD Thesis [University of Pittsburgh, School of Education.]. http://d-scholarship.pitt.edu/id/eprint/9671
- World Health Organization. (1996). *Programming for adolescent health and development. WHO Technical Report Series No.886*,. https://www.thecitizen.in/index.php/en/NewsDetail/index/7/7836/Menstruation-Keeps-Girls-From-School-In-India-20-Drop-Out-Reaching-Puberty.
- Yonkers KA, Pearlstein T, Rosenheck RA. Premenstrual disorders: bridging research and clinical reality. *Archives of Women's Mental Health*. 2003;6(4), 287–92. http://doi.org/10.1007/s00737-003-0026-4.