Intersection of Menstrual and Menopausal Health with Mental Health: Implications for General Practice

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Menstruation and menopause are crucial aspects of women's health that have historically received insufficient research funding and discussion in the medical setting, leading to unmet healthcare needs. In particular, the intersection between these reproductive processes and mental health has been under-appreciated. However, there is increasing recognition of the complex interplay of biological, psychological, and social factors that drive this intersection (1). Addressing these factors is essential for improving women's health and reducing the gender health gap, whereby women spend 25% more of their lives in poor health than men and are more likely to be diagnosed with common mental health conditions (2). Despite the high prevalence of health disorders that disproportionately affect women, these conditions receive less research funding than other health issues (3). Addressing this research gap and additional health needs would improve the health of women and girls, contribute to gender equality, and could boost the global economy by an estimated $1 trillion by 2040 (2).

The relationship between menstrual and mental health

Menstrual disorders like endometriosis and polycystic ovarian syndrome (PCOS), along with symptoms including irregular periods, heavy bleeding, and severe pain, significantly impact quality of life and wellbeing (4). These conditions often lead to absenteeism from school and work and are linked to higher incidences of mental health issues (5). Approximately 20-40% of menstruating individuals experience premenstrual syndrome (PMS), while a much smaller proportion (<3%) suffer from severe, debilitating premenstrual symptoms classified as premenstrual dysphoric disorder (PMDD) (6). Symptoms of a range

of common mental health conditions have been reported to worsen during certain phases of the menstrual cycle, such as the premenstrual phase (7).

The relationship between menstrual and mental health is highly complex, involving biological, psychological, social, and political factors. This complexity is further compounded by changes throughout the life course. For instance, around menarche, physical, cognitive, and social changes can affect body image and self-esteem, and early menarche is linked to a higher risk of depression in adolescence (8). Similarly, at menopause, physical and psychosocial factors can influence mood and depressive symptoms (9). Socioeconomic and cultural contexts also play a role; for example, limited access to menstrual products and clean facilities can worsen menstrual symptoms' impact on mental health. Additionally, social stigma and taboo around menstruation can exacerbate negative mental health outcomes (5).

Supporting overstretched GPs to manage this complex intersection

A staggering 1 in 20 women aged 30-49 years in the UK consult their GP each year due to heavy menstrual bleeding (HMB) (10), but this is likely to be the tip of the iceberg. In a 2015 general population survey of >4500 women in five European countries, 46% of those with HMB (n=1225) had never consulted a clinician (11). Contributing factors include social stigma and taboo around menstruation, and uncertainty about what a “normal” menstrual experience should entail (1). As gatekeepers to the healthcare system in the UK, and experts at managing patients with complex health needs, GPs have a unique role in the identification and management of these highly prevalent menstrual and menopausal health issues and their impact on mental health by opportunistic health enquiries. However, the current workload burden on primary care does not support this, with 71% of UK GPs describing their job as extremely or very stressful. Other challenges include limited GP consultation time, lack of specific training for conditions such as PMDD or menopause and undefined referral options with ongoing debates regarding the ideal team to manage these patients i.e., general practice, gynaecology or psychiatry. Despite these challenges, recent initiatives in a small number of GP surgeries have attempted to support women by introducing ‘menopause champions’ and social prescribing interventions, such as Menstrual Cycle Support.

With low health seeking behaviour for menstrual health, overstretched GPs cannot be expected to both identify and manage these patients alone. A multidisciplinary approach is required, integrating primary, secondary care and mental health services, while considering differences in populations and local context, to develop services that best meet these needs. A societal shift is also needed to increase awareness and reduce stigma around menstrual and menopausal health, which are normal stages of the female reproductive life course.

Interdisciplinary research may be the key

High quality research can help overcome some of these challenges by providing the evidence base needed to support new treatments and changes to clinical practice. Research can also inform development of new education and social policy initiatives to improve menstrual literacy and support the public discourse around menstruation. Traditionally, research has focused separately on either menstrual or mental health, often from a narrow perspective, with minimal interdisciplinary collaboration. This fragmented approach fails to address the full complexity of their interplay, thereby reducing the identification and effectiveness of potential interventions. If we are to understand and reduce any adverse relationship

between menstrual and mental health, research and services need to integrate diverse perspectives and methods.

The 4M Consortium: facilitating interdisciplinary collaborative research

The Menarche Menstruation Menopause and Mental Health (4M) Consortium was established in 2021 to promote interdisciplinary research at the intersection of menstrual/menopausal and mental health (12). Our vision is a world in which menstrual and menopausal experiences do not negatively impact mental health and social well-being. We believe that decisions and practices around individuals' menstrual and mental health should be informed by scientific understanding and listening to the needs and lived experiences of those individuals. Therefore, our mission is to facilitate interdisciplinary, stakeholder-informed, impact-focused, inclusive research that aims to develop a better understanding of the complex mechanisms that link menstrual and mental health across the life course and in different contexts, and how the relationship can be improved. To do this, we provide opportunities for researchers from multiple disciplines and career stages to meet and work with each other. We also foster collaboration with non-academic partners, including patients, healthcare providers, industry, the third sector, and policy makers, who can provide a unique insight into research needs and help ensure research findings are effectively used to benefit women and society. As part of this, we recently hosted our inaugural international conference in Exeter, which was attended by over 150 researchers and non-academic partners (including GPs) from 14 countries and six continents. Some of the key takeaway messages from the conference are particularly relevant to GPs. There was a recurrent discussion around the balance between 'normalising' menstruation to reduce societal stigma, and not minimising or dismissing distressing menstrual symptoms in clinical consultations. It was highlighted that GPs can help research efforts by encouraging research participant recruitment in primary care and by drawing on their clinical experience to highlight the evidence gaps to inform future research. GP involvement was noted as key to translating research outputs into routine clinical practice interventions. In addition, primary care datasets (such as the Clinical Practice Research Datalink; CPRD) are valuable sources of population-representative reproductive and mental health data that can help overcome common research challenges, such as small, racially and socioeconomically homogenous samples. However, currently a record of menopause is found for under 19% of women aged 50 or over in CPRD, suggesting a significant under-recording given that we would expect nearly 50% of women to be post-menopausal by age 50. To improve primary care data on women's health, GPs could routinely ask women during consultations about their menstrual health.
We invite GPs to **join the 4M consortium** via our website (www.4mhealth.uk) to help us achieve a world where menstrual experiences do not negatively impact mental health and social wellbeing.

References

1. Critchley HOD, Babayev E, Bulun SE, Clark S, Garcia-Grau I, Gregersen PK, et al. Menstruation: science and society. Am J Obstet Gynecol. 2020 Nov;223(5):624–64.

2. Ellingrud K, Perez L, Petersen A, Sartori V. Closing the women's health gap: a $1 trillion opportunity to improve lives and economies [Internet]. McKinsey Health Institute Report;

Available from: https://www.mckinsey.com/mhi/our-insights/closing-the-womens-health-gap-a-1-trillion-dollar-opportunity-to-improve-lives-and-economies#/

3. Mirin AA. Gender Disparity in the Funding of Diseases by the U.S. National Institutes of Health. J Womens Health. 2021 Jul 1;30(7):956–63.

4. Schoep ME, Nieboer TE, Van Der Zanden M, Braat DDM, Nap AW. The impact of menstrual symptoms on everyday life: a survey among 42,879 women. Am J Obstet Gynecol. 2019 Jun;220(6):569.e1-569.e7.

5. Barrington DJ, Robinson HJ, Wilson E, Hennegan J. Experiences of menstruation in high income countries: A systematic review, qualitative evidence synthesis and comparison to low- and middle-income countries. Mavhu W, editor. PLOS ONE. 2021 Jul 21;16(7):e0255001.

6. Matsumoto T, Asakura H, Hayashi T. Biopsychosocial aspects of premenstrual syndrome and premenstrual dysphoric disorder. Gynecol Endocrinol. 2013 Jan;29(1):67–73.

7. Nolan LN, Hughes L. Premenstrual exacerbation of mental health disorders: a systematic review of prospective studies. Arch Womens Ment Health. 2022 Oct;25(5):831–52.

8. Prince C, Joinson C, Kwong ASF, Fraser A, Heron J. The relationship between timing of onset of menarche and depressive symptoms from adolescence to adulthood. Epidemiol Psychiatr Sci. 2023;32:e60.

9. Badawy Y, Spector A, Li Z, Desai R. The risk of depression in the menopausal stages: A systematic review and meta-analysis. J Affect Disord. 2024 Jul;357:126–33.

10. Middleton LJ, Champaneria R, Daniels JP, Bhattacharya S, Cooper KG, Hilken NH, et al. Hysterectomy, endometrial destruction, and levonorgestrel releasing intrauterine system (Mirena) for heavy menstrual bleeding: systematic review and meta-analysis of data from individual patients. BMJ. 2010 Aug 16;341(aug16 1):c3929–c3929.

11. Fraser IS, Mansour D, Breymann C, Hoffman C, Mezzacasa A, Petraglia F. Prevalence of heavy menstrual bleeding and experiences of affected women in a European patient survey. Int J Gynecol Obstet. 2015 Mar;128(3):196–200.

12. Sharp GC, De Giorgio L. Menarche, Menstruation, Menopause and Mental Health (4M): a consortium facilitating interdisciplinary research at the intersection of menstrual and mental health. Front Glob Womens Health. 2023 Aug 29;4:1258973.