



Menopause

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This study underscores the independent and substantial impact of depressive symptoms on the physical performance of postmenopausal women. These findings emphasize the importance of addressing both mental health and physical well-being when providing care and support for this demographic.

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and Pamela J. Schreiner, PhD

This prospective examination of risk factors for vasomotor symptoms (VMS) beginning in early adulthood found that risk factors for VMS could be identified while women were in their 20s and were not entirely explained by risk factor levels later in life.

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Peteneinu Rulu, PhD, Elizabeth R. Bertone-Johnson, PhD, Jason Kamilar, PhD,
Meenal Dhall, PhD, and Lynnette Leidy Sievert, PhD

This study found a significant positive association between household stress, the emotional instability factor, and the mood disturbances factor, as evidenced by fingernail cortisol levels. These results highlight the importance of considering multiple sources of stress when assessing their impact on emotional and physiological well-being.

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Does hormone therapy exacerbate other venous thromboembolism risk factors?

Laura Porterfield, MD, MPH, John W. Davis, BA, Susan C. Weller, PhD, Lu Chen, MS,
and Gregg Wilkinson, PhD

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Mina Amiri, PhD, Maryam Rahmati, PhD, Faegheh Firouzi, MD, Fereidoun Azizi, MD,
and Fahimeh Ramezani Tehrani, MD

This study demonstrates that age at natural menopause is significantly associated with polycystic ovary syndrome (PCOS) in women, suggesting that PCOS patients may have a longer reproductive lifespan than those without PCOS. This may have implications for the fertility and reproductive health of women with PCOS.

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Sleep and rest-activity rhythms for women at different menopausal statuses: the role of mental health

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Hsiao-Han Tang, MS, Po-Ching Kuo, MS, Yi-Chieh Yang, MD, and Hsin-Ping Hsu, PhD

Depressive symptoms were linked to actigraphy-based high sleep latency, high wake after sleep onset, and poor sleep efficiency. Furthermore, women with higher levels of loneliness showed a greater relative amplitude of rest-activity rhythms, specifically in premenopausal women and not menopausal women.

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Treatment-induced menopause symptoms among women with breast cancer undergoing chemotherapy in China: a comparison to age- and menopause status-matched controls

Di Zhao, MD, Qinghua Ma, RN, Guopeng Li, MD, Rui Qin, MD, Yingtao Meng, RN, MM, and Ping Li, PhD

This study investigated differences in the occurrence and severity of menopause symptoms between women with breast cancer undergoing chemotherapy and comparison women in China after adjusting for age and menopause status. In addition, this study explored multiple factors influencing menopause symptoms in Chinese women with breast cancer undergoing chemotherapy.

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The efficacy of purified pollen extract for reducing vasomotor symptoms in women: a systematic review and meta-analysis

Erica L. Acquarulo, PA-S, Emily C. Hernandez, PA-S, Fatbardha Kodzodziku, MBA, PA-C, and Eric C. Nemec, PharmD, MEd

This meta-analysis suggests that when purified pollen extract was assessed in a controlled setting, it was not an effective intervention; however, it did not have any major adverse events associated with its use.

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Prolactinoma in postmenopausal women: a systematic review

Marcela Souza Carneiro, MD, Ticiana Aparecida Alves de Mira, PT, PhD,

Daniela Angerame Yela, MD, PhD, and Cristina Laguna Benetti-Pinto, MD, PhD

Microadenomas diagnosed before menopause can be followed up without treatment.

Prolactinomas diagnosed after menopause are typically macroadenomas.

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EDITORIAL

Effective menopause education methods: addressing the needs of current medical trainees

Jennifer T. Allen, MD, FACOG, MSCP

Current evidence suggests that menopause education is lacking in primary care residencies. In 2023, a needs assessment survey of obstetrics and gynecology (ObGyn) program directors (PDs) revealed that menopause education and resources vary across residency programs, with the majority lacking a dedicated menopause curriculum. Only 31% of ObGyn programs have a menopause curriculum, and almost all PDs (92.9%) strongly agreed that residents nationwide should have access to a standardized menopause curriculum.¹

One major challenge in implementing a standardized curriculum is the ever-changing landscape of medical education. Today, most residents in training belong to Generation Z (born after 1995). Learner attributes for Gen Z are in stark contrast to the previous Millennial (“Y”) generation, but more than that, they provide new challenges for educators.² A scoping review published in 2021 revealed that technology, campus resources, and self-care strategies must be carefully integrated and planned to ensure an optimal and safe learning environment for students.³ Whereas Millennials are able to work independently, the new generation requires more guidance, especially when working with peers.⁴ Although iGen (internet generation) students are “digital natives” who grew up around technology, they prefer blended activities that mix online with in-person collaborations.⁵ Yet, because they are accustomed to obtaining information through online searches, they are able to find and synthesize information rapidly.⁶ When learners use instructor-provided material, the majority prefer lecture-style videos or audio presentations, simulations, and case studies to group exercises and assigned readings.⁷

In this issue of *Menopause*, Vesco et al⁸ analyzed a podcast-based menopause curriculum to enhance knowledge and preparedness of resident trainees across specialties. Two hundred residents (43 ObGyn, 86 internal medicine, 71 family medicine) participated in the study from 2019 to 2020. University and community learning environments in Oregon were represented by the

six participating multispecialty residency programs, making the findings more generalizable to primary care resident trainees across the country. Approximately 58% of participants completed both the pre- and postcurriculum assessments. These assessments included the same 15 multiple-choice questions to measure knowledge of menopause symptoms and treatment. Knowledge-based test answers improved from 60.8% correct (precurriculum) to 79.1% correct (postcurriculum) with a 95% confidence interval of 15.4 to 21.2.⁸ Greater improvement in scores was noted for residents who listened to all six podcasts ($P < 0.001$) and attended the in-person case-based classroom session ($P = 0.003$).⁸ Resident self-ratings of knowledge, comfort, and preparedness also improved following the curriculum.

The mixed format of the curriculum (flipped classroom approach with podcasts and case-based learning) is unique and creative. The podcasts are short (less than 15 min each), yet informative, yielding easy applicability for GenZ medical students and residents. Topics include (1) etiology and physiology of menopause; (2) hormone therapy risks and benefits; (3) hormone therapy for vasomotor symptoms; (4) nonhormone therapy for vasomotor symptoms; (5) genitourinary syndrome of menopause, treatment of menopause in breast cancer patients; and (6) abnormal uterine bleeding. The content is evidence based and follows up-to-date position statements and guidelines published by The Menopause Society and The Endocrine Society. Podcasts are accessible online to the public at <https://research.kpchr.org/Portals/0/projects/menopod/index.html>.⁸ The case-based session is composed of PowerPoint slides designed to be discussed over a 2-h period. The case slides are very practical and easy to follow and can readily be adopted by an educator hosting a menopause in-person teaching session.

Although the podcast, case-based curriculum is very promising, there were several limitations to the study. There was no sample size determination before the study as the authors used a convenience sample, subject to local availability, time, and budget. The curriculum was integrated into the six programs according to their individual structure and schedules. In addition, the COVID-19 pandemic was realized at the time of the study, causing in-person sessions to convert to virtual formats to meet health and safety institutional policies. Therefore, the curriculum was not implemented in precisely the same way among specialties and programs. The authors did analyze the results by program, however, and found similar baseline metrics and response

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