EPP0239
Working memory capacity in naturally cycling women and oral contraceptive users

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Introduction: Miyake and Friedman's model (2012) presents three core executive functions: inhibition, updating and shifting. Updating refers to working memory (WM) because it involves passive storage but also active manipulation of information. According to a review by Hampson (2018), the literature is consistent on the fact that 17b-estradiol (the most prevalent type of estrogen in women of reproductive age) is associated with improved WM. Levels of estradiol are at their highest in the follicular phase of the menstrual cycle. The use of OC is linked with a noticeable decrease in levels of estradiol and progesterone (Hampson, 2020). Nevertheless, combined OC contain synthetic steroids, usually ethinylestradiol and progestins which can be androgenic or anti-androgenic. Androgenic progestins are derived from testosterone while anti-androgenic progestins block androgen receptors (Raudrant & Rabe, 2003). The review by Beltz (2022) concluded that the use of androgenic OC is linked to an enhanced performance in spatial WM whereas anti-androgenic OC are linked with an impaired performance. When it comes to verbal WM, OC use is related to an enhancement in performance, irrespective of androgenicity.
Objectives: To measure the differences in WM capacity between NC women and OC users at two times points in one menstrual cycle (follicular and luteal phases for NC women).
Methods: 78 women (18-45; *M*= 28.93, *SD*=6.81), including one group of NC women (*N*=40) and one group taking OC (*N*=38), were tested twice over the course of one menstrual cycle. The NC women were tested during their follicular and luteal phases while the OC users were tested during the active phase of their OC. They completed an automated version of the Operation Span task (OSPAN; Unsworth et al., 2005). The OSPAN task involves completing simple math problems while simultaneously trying to remember a series of randomly generated letters.
Results: There was no difference in WM capacity between NC women and OC users. However, we found a significant difference in the number of math errors (speed or accuracy) made by NC women. The number of math errors was higher (*M*=5.12) during the luteal phase than during the follicular phase (*M*=2.68). Moreover, we also found a significant difference in the number of math errors made by OC users (*M*=4.00) and NC women (*M*=2.68) in their follicular phase. The difference disappeared when the OC users were compared to NC women in their luteal phase.
Conclusions: We found no difference in WM capacity between NC women and OC users. However, we found that NC women made more math errors during the luteal phase than during the follicular phase and that OC users made more errors than NC women in their follicular phase. The follicular phase has an increased level of estradiol whereas OC users experience a decrease in their levels of estradiol. Estradiol levels could be linked with math performance.

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Old Age Psychiatry

EPP0240
Bipolar Disorder in the Elderly: Clinical Insights and Therapeutic Challenges

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Introduction: Bipolar Disorder (BD) is a mood disorder characterized by recurrent episodes of mania, hypomania, and depression. While it often manifests in early adulthood, it can persist or emerge in later life, posing unique diagnostic and therapeutic challenges in the elderly population. This abstract explores the clinical aspects, diagnostic intricacies, and therapeutic considerations of BD in older adults.
Objectives: This study aims to shed light on the epidemiology and clinical presentation of BD in the elderly, discuss the diagnostic challenges, and address the complexities of treatment and management in this age group.
Methods: A comprehensive review of the literature was conducted, encompassing epidemiological studies, clinical trials, case reports, and expert guidelines from the past decade. The search was performed using medical databases such as PubMed and Medline.
Results: BD in the elderly presents with a range of clinical complexities that differentiate it from presentations in younger adults. These complexities include atypical features as elderly individuals may exhibit less overt manic or hypomanic symptoms, resembling irritability rather than euphoria; depressive episodes can be more prevalent and prolonged, leading to potential misdiagnosis as unipolar depression; medical comorbidities: older adults with BD often have more medical conditions, complicating treatment; cognitive impairment: cognitive decline, including mild cognitive impairment and dementia, is common and distinguishing it from neurodegenerative conditions requires specialized assessment; mixed episodes, in older adults may experience mixed episodes, requiring intensive treatment; diagnostic challenges: overlapping symptoms with other disorders make accurate diagnosis challenging. Treatment includes mood stabilizers like lithium, valproate, or lamotrigine, and atypical antipsychotics like quetiapine or aripiprazole. Treatment response varies, requiring consideration of age-related pharmacokinetics, pharmacodynamics, and drug interactions. Non-pharmacological interventions, including psychoeducation, tailored cognitive-behavioural therapies, and psychosocial support, are essential.
Conclusions: In summary, BD in the elderly demands a customized, multidisciplinary approach to navigate diagnostic complexities and optimize treatment, considering comorbidities and cognitive factors. Enhanced clinical awareness and holistic care are essential for effective management in this population.

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