

Project Details	
Project Code	NMH27Br Joinson
Title	Mental health through the menopause transition
Research Theme	Neuroscience & Mental Health
Project Type	Dry lab
Summary	The menopause transition is a period of increased risk of mental health problems, but there is poor understanding of which women are most at risk. This PhD project will advance understanding of biopsychosocial factors that drive increases in mental health problems at the menopause transition and identify protective factors that might mitigate against poor mental health. The project will apply causal inference methods to existing population-based cohort data and will generate new qualitative data from in-depth interviews aimed at understanding factors that make women more or less likely to experience poor mental health during the menopause transition.
Description	Background: Despite the increased media coverage about menopause, there is poor understanding of why this transition is associated with an increased risk of mental health problems, and which women are most at risk of poor mental health. Increases in depression and anxiety during menopause are often attributed to hormonal changes, but other biopsychosocial factors over the life course could be contributing to poor mental health and wellbeing. Aims: The aim of this PhD project is to advance understanding of the life course determinants of mental health and well-being during the menopause transition. The project will take advantage of existing data from women participating in the Avon Longitudinal Study of Parents and Children (ALSPAC). The ALSPAC Mothers Cohort is a UK population-based cohort of women who have been followed for over 30 years. Causal inference methods will be used to examine biopsychosocial mechanisms that drive increases in mental health problems at the menopause transition, as well as protective factors that might mitigate against poor mental health. The project will also generate new qualitative data from in-depth interviews with women to understand the influences of individual and societal factors and prior life experiences in shaping mental health and well-being during the menopause transition. Data: A major strength of the project is the availability of repeated prospectively collected data on menstrual bleeding patterns which enable the identification of women's age at menopause and menopausal stage [1]. Previous studies have mostly relied on retrospective recall of age at menopause which is susceptible to recall error. Mental health (depression, anxiety, wellbeing) has been assessed in ALSPAC using validated questionnaires, and there is a wealth of data on biopsychosocial factors. Statistical analysis will include multivariable regression, and training will also be provided in more advanced statistical methods (including multiple imputation and causal mediation approaches) and qualitative methods. Key research questions:

	What biopsychosocial factors influence mental health during the menopause transition? What protective factors mitigate against poor mental health during the menopause transition? What is the role of individual and societal factors and prior life experiences in shaping mental health and well-being during the menopause transition? Specific objectives: (i) To review the literature on biopsychosocial factors that influence mental health through the menopause transition. (ii) To use causal inference methods to understand biopsychosocial factors that lead to better or worse mental health outcomes during the menopause transition. (iii) To conduct in-depth qualitative interviews with women who are in the perimenopausal period to explore biopsychosocial factors that shape their mental health during this transition. Areas where the PhD student can take ownership and steer the project: The student will take ownership of the project through the selection of biopsychosocial factors on which they will focus their project. Possibilities include socioeconomic factors (e.g. educational attainment, occupational social class); stress and trauma (adverse childhood experiences, stressful life events in adulthood); lifestyle factors (e.g. physical activity, diet, alcohol use and smoking); physical health (e.g. body mass index, chronic inflammation, sleep problems, urinary incontinence), and relationships (e.g. presence of supportive relationships; quality of relationship with partner, sexual relationships). [1] Knight R, Fraser A, Joinson C, Soares A. Estimating age of menopause in mothers in the ALSPAC Study: A data note. Wellcome Open Res. 2025 Nov 10;10:631. doi:10.12688/wellcomeopenres.24760.1. eCollection 2025.
Can be completed part time?	Yes
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