

Perinatal mental healthcare and COVID-19: a mixed-methods evaluation of current care provision and the promise of digital mental health tools

Nayra A. Martin-Key^{1*}, Benedetta Spadaro¹, Thea Schei², & Sabine Bahn^{1,2}

¹Cambridge Centre for Neuropsychiatric Research, Department of Chemical Engineering and Biotechnology, University of Cambridge, UK
²Psyomics, Ltd, Cambridge, UK

*nam57@cam.ac.uk

Background

- Perinatal mental health symptoms commonly remain underdiagnosed in maternity care settings in the UK [1], with the COVID-19 pandemic having further disrupted access to support and caused widespread distress.
- Digital technologies may offer an innovative way to support clinicians in recognising mental health concerns of expectant families during the perinatal period. However, little is known about the acceptability, and perceived facilitators and barriers to using such technologies.

Methods

- 829 women, 103 partners, and 90 midwives completed an online survey.
- Quantitative data were explored using descriptive statistics. Open-ended response data were first investigated using thematic analysis. Resultant themes were then mapped onto the components of the Capability, Opportunity, and Motivation Model of Behavior (COM-B model) [2].

Objectives

-  To investigate the current state of perinatal mental healthcare provision in the UK, particularly through the COVID-19 pandemic.
-  To determine midwives' and users' (women and partners) interest in using a digital mental health assessment throughout the perinatal period.
-  To assess the perceived facilitators and barriers to using a digital mental health assessment to screen, diagnose, and triage perinatal mental health concerns.

Results

1 Perinatal mental healthcare provision

- The provision of perinatal mental healthcare support was limited and varied across respondents, particularly throughout the COVID-19 pandemic.
- 60% of midwives reported not using standardised questions or questionnaires to screen for perinatal mental health symptoms.
- Mental healthcare support following a miscarriage/termination or difficult birth was largely overlooked, particularly when it came to partners.
- Only half of midwives reported using remote tools throughout the pandemic to support the needs of women who may be at risk of perinatal mental health difficulties.

3 Key facilitators and barriers to using a digital tool

-  **Physical opportunities** → flexibility and convenience, accessibility, improved parity of care
- Automatic motivation** → reduced anxiety and stress, increased sense of privacy
- Social opportunities** → normalisation of mental health, reduced stigma
-  **Physical opportunities** → poor internet connectivity in remote or rural locations limiting access
- Reflective motivation** → impersonal
- Psychological capability** → comprehension difficulties, poor self-reflection, and difficulties expressing and acknowledging mental health concerns

2 Interest in using a digital tool

- There was a strong interest in using a digital mental health assessment throughout the perinatal period (Figure 1).

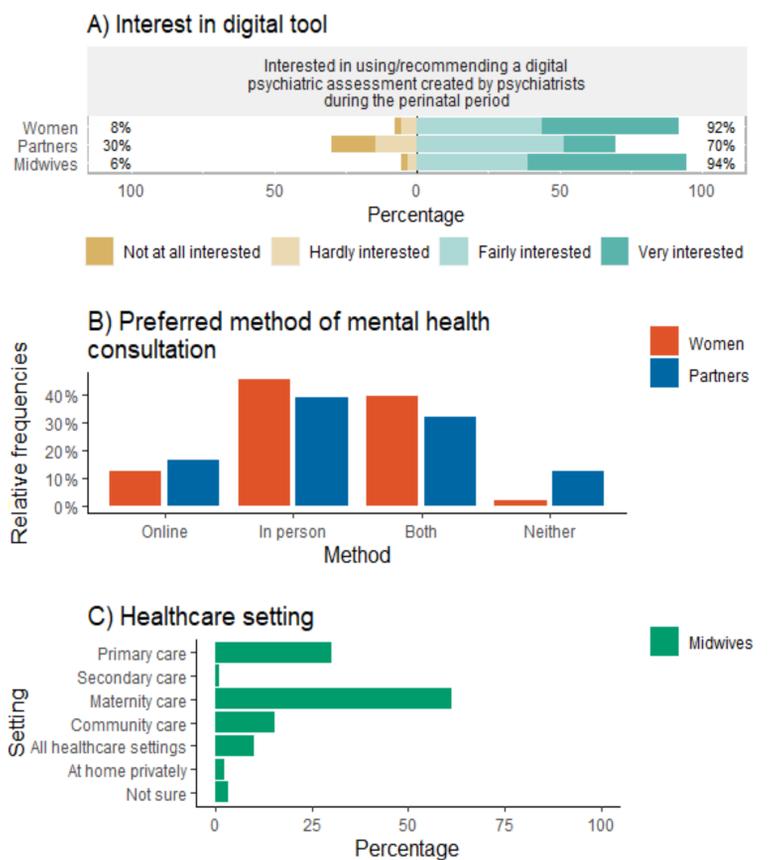


Figure 1. Interest in using a digital mental health assessment throughout the perinatal period (panel A). Women's and partners' preferred method of follow-up consultation (panel B). Midwives' responses as to where they see the digital tool working best (panel C).

Conclusions

- The findings from the current study highlight the **urgent need to improve and standardise perinatal mental healthcare provision**.
- There was a strong interest in using a digital tool throughout the perinatal period. **Adopting a co-designing approach to development**, where all potential users (e.g., women and their families, midwives, mental health specialists) and stakeholders are regarded as collaborators, could help overcome barriers to using a digital mental health assessment to screen, diagnose, and triage perinatal mental health concerns.
- This study provides **proof-of-concept support for the development of a digital mental health assessment** to inform clinical decision-making for perinatal mental health concerns.