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A framework for developing spouse-inclusive digital applications in preventing perinatal depression and anxiety

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Abstract

Objective: Digital approaches have proven effective in alleviating symptoms of perinatal depression and anxiety. However, current online applications for perinatal mental health often exclude the role of spouses in the intervention. This study aimed to develop a spouse-inclusive framework for digital self-management of perinatal depression and anxiety based on the women, spouses, and experts' viewpoints. **Methods:** The spouse-inclusive framework was developed through two phases of study. In phase I, using a generic qualitative research design, in-depth interviews were conducted with 20 perinatal women (with symptoms of depression and anxiety) and 15 men (spouses) in the obstetrics

and gynecology clinics in Sultan Ahmad Shah Medical Centre and Hospital Canselor Tuanku Muhriz. Findings from phase I were used to develop the spouse-inclusive framework, guided by the Digital Self-Care Framework by the WHO and existing literature review. In phase II, two rounds of expert reviews were conducted: the first round involved Content Validity Index (CVI) validation, and the second round consisted of focus-group discussion (FGD) sessions to refine the proposed framework. Results: We proposed a framework known as i-PartnerPulse, which included three main sections: functions (participants' profile, activity planning & reminder, goal setting & reward system, success stories), aimed at enhancing user motivation during app usage; contents (assessment, intervention, and further action), aimed to educate both parties on the spouse's role, psychoeducation, and essential skills; approaches (good user experience, interactive user interface, sharing session, stress busters), aimed to engage users consistently. A total of 10 experts in psychology, healthcare, and technology validated the framework with an average CVI of 0.88, indicating the validity of the framework. Conclusion: The findings suggest that a spouse-inclusive framework can be effectively used to develop self-care applications for perinatal depression and anxiety. Researchers, academics, and software developers can utilize this framework to create comprehensive interventions aimed at empowering patients and addressing the risks of depression and anxiety during the perinatal period.

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Author keywords

Anxiety; Depression; Digital technology; Mobile application; Perinatal; Spouse; Women

Indexed keywords

EMTREE medical terms

adult; anxiety; Article; content validity; Depression, Anxiety and Stress Scale-21; Edinburgh Postnatal Depression Scale; female; human; male; mental health; perinatal depression; perinatal period; psychoeducation; qualitative research; self care; spouse inclusive digital application

Device trade names

Commercial names given to devices, used for branding and differentiation in the market, commonly referenced in scientific and clinical research.

NVivo software

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