

RESEARCH ARTICLE

**ROLE OF MENTAL HEALTH E-BOOK: BOOSTING KNOWLEDGE AND
MENTAL WELLNESS POSTPARTUM MOTHER**
**(PERAN MENTAL HEALTH E-BOOK: MENINGKATKAN PENGETAHUAN DAN
KESEJAHTERAAN MENTAL IBU NIFAS)**

Sophia¹, Galih Jatnika², Adinda Maharani Geraldin³, Rosmawati³

¹Midwifery Program Study, Science and Health Tecnology Faculty, Universitas Jenderal
Achmad Yani, Cimahi, West Java, Indonesia

²Nursing Program Study, Science and Health Tecnology Faculty, Universitas Jenderal
Achmad Yani, Cimahi, West Java, Indonesia

³Midwifery Program Study, Health Science Faculty, YPIB Majalengka University, West Java,
Indonesia

Corresponding email: sophia@lecture.unjani.ac.id

ABSTRACT

The postpartum period is a critical phase characterized by physical and psychological changes that put mothers at risk of mental health disorders, such as anxiety and depression. Low mental health literacy among postpartum mothers can exacerbate these conditions. E-book-based education serves as an alternative medium that is practical, engaging, and easily accessible to improve health literacy while supporting psychological well-being. This study aims to determine the effect of a mental health e-book on the knowledge and mental well-being of postpartum mothers. This research employed a pre-experimental design with a one-group pretest-posttest approach involving 31 postpartum mothers selected via accidental sampling from August to September 2025 at TPMB Bdn. Isti Dariah, SST., M.KM, Cimahi City. The research instruments included an e-book, a knowledge questionnaire, and the Edinburgh Postnatal Depression Scale (EPDS) to assess mental well-being. Data analysis was conducted using the paired sample t-test. The results showed that prior to the intervention, 67.7% of respondents had poor knowledge and 54.8% experienced abnormal mental health status. Following the intervention, the percentage of respondents with poor knowledge decreased to 22.6%, and abnormal mental health status decreased to 19.4%. Statistical analysis confirmed that mental health e-book education is effective in increasing knowledge ($p = 0.000$) and improving the mental well-being of postpartum mothers ($p = 0.000$). It is recommended that postpartum mothers utilize mental health e-books to better understand emotional changes, enhance psychological adaptation, and prevent postpartum mental health disorders.

Keywords: e-book, knowledge, mental health, postpartum

ABSTRAK

Periode kritis bagi ibu nifas ditandai dengan perubahan fisik dan psikologis sehingga berisiko terjadi gangguan mental seperti kecemasan dan depresi. Rendahnya pengetahuan ibu nifas mengenai kesehatan mental dapat memperburuk kondisi tersebut. Edukasi berbasis e-book hadir sebagai media alternatif yang praktis, menarik, dan mudah diakses untuk meningkatkan literasi kesehatan sekaligus mendukung kondisi psikologis. Penelitian ini bertujuan untuk mengetahui pengaruh edukasi mental health e-book terhadap pengetahuan dan kesejahteraan mental ibu nifas. Penelitian ini menggunakan preeksperimental design with one group pretest-posttest pada 31 ibu nifas yang diambil dengan teknik accidental sampling mulai bulan Agustus-September 2025 di TPMB Bdn. Isti Dariah, SST., M.KM Kota Cimahi. Pemberian e-book yang berisi 5 BAB, dibaca 1 bab per hari selama 5 hari dengan durasi 30 menit/sesi. Instrumen penelitian kuesioner untuk pengetahuan dan Edinburgh Postnatal Depression Scale (EPDS) untuk menilai kesejahteraan mental. Analisis data dilakukan dengan uji paired sample t-test. Hasil penelitian menunjukkan sebelum intervensi, 67,7% responden memiliki pengetahuan kurang dan 54,8% kesehatan mental tidak normal. Pengetahuan yang kurang mengalami penurunan menjadi 22,6% dan kesehatan mental tidak normal menurun menjadi 19,4% setelah intervensi. Hasil uji statistik menunjukkan adanya pengaruh edukasi mental health e-book terhadap pengetahuan ($p = 0,000$) dan kesejahteraan mental ($p = 0,000$). Edukasi dengan mental health e-book terbukti efektif meningkatkan pengetahuan dan kesejahteraan mental ibu nifas. Disarankan ibu nifas memanfaatkan mental health e-book untuk memahami perubahan emosional, meningkatkan adaptasi psikologis, dan mencegah gangguan kesehatan mental masa nifas.

Kata Kunci: e-book, kesehatan mental, nifas, pengetahuan

INTRODUCTION

The postpartum period is a critical phase characterized by physical, hormonal, and psychological changes that may increase the risk of mental health disorders, such as anxiety and postpartum depression. Globally, the prevalence of postpartum depression in developing countries is approximately 20%, while in Indonesia it is reported to be significantly higher, ranging from 50% to 70%. Untreated psychological changes during the postpartum period may progress from baby blues to postpartum depression.^{1,2} Low levels of maternal knowledge and limited access to mental health education further exacerbate this

condition and negatively affect parenting practices, infant development, and maternal quality of life.³

The World Health Organization (WHO) states that approximately 10–20% of mothers experience mental health disorders, such as baby blues or postpartum depression. Key factors contributing to these conditions include a lack of access to relevant education, limitations in consulting with healthcare professionals, and low awareness among women regarding the importance of maintaining mental health. Furthermore, a study indicated that one in seven mothers suffers from postpartum mental disorders. If left untreated, these

conditions can negatively impact the quality of caregiving, infant development, and overall family well-being.³

Efforts to safeguard women's health include increasing understanding of the importance of mental health. Knowledge plays a crucial role in supporting a mother's psychological condition after childbirth. With adequate understanding, postpartum mothers feel more prepared, confident, and capable of facing various challenges, which ultimately impacts their mental health from pregnancy through delivery. Mental health knowledge and literacy play an important role in supporting mothers' emotional adaptation. However, several studies indicate that mothers' levels of mental health knowledge remain low, and conventional educational approaches have not fully met their needs. Adequate mental health literacy enables mothers to recognize early symptoms, understand emotional management strategies, and prevent psychological disorders. With the advancement of digital technology, e-books have emerged as an engaging and easily accessible educational medium and have been shown to improve understanding and reduce anxiety.^{4,5} Furthermore, evidence suggests that brief educational interventions lasting 30–60 minutes are effective in increasing knowledge.⁶

Although numerous studies support the effectiveness of digital media for

postpartum mothers, research that specifically examines the use of e-books to improve knowledge and mental health status remains limited. Therefore, this study aims to investigate the role of mental health e-book-based education in enhancing knowledge and mental well-being among postpartum mothers.⁷

MATERIALS AND METHODS

This study employed a quantitative approach with a pre-experimental design using a one-group pretest–posttest method. The research was conducted at TPMB Isti Dariah, SST., M.KM, Cimahi, from June to September 2025. The study sample consisted of 31 postpartum mothers within 1–2 days after delivery, selected using accidental sampling.

The research instruments included a validated knowledge questionnaire with a Cronbach's alpha reliability coefficient greater than 0.6 and the Edinburgh Postnatal Depression Scale (EPDS), consisting of 10 items of question, to assess mental well-being.

The intervention consisted of e-book-based education comprising five chapters covering postpartum maternal mental health, the concept of the postpartum period, Mental health fundamentals, Mental health disorders, The impact, support, and management of mental health disorders. The content was structured page-by-page to

be easily understandable and non-fatiguing, particularly for mothers reading while caring for their infants. Participants were instructed to read one chapter per day over five days, with an estimated reading duration of approximately 30 minutes per session. Knowledge and mental well-being were measured prior to the distribution of the e-book and one day after the completion of all reading sessions.

This study received ethical approval from the Research Ethics Committee of Universitas Jenderal Achmad Yani, with approval number 77/KEPK/FITKes-Unjani/VIII/2025.

RESULT AND DISCUSSION

The results of this study consisted of univariate analysis to describe the levels of knowledge and mental well-being before and after the intervention. Bivariate analysis was conducted to examine the effect of mental health e-book-based education on the knowledge and mental well-being of postpartum mothers. Based on Table 1, among the 31 respondents, 67.7% had poor knowledge prior to the educational intervention, which decreased to 22.6% after the intervention.

Table 1 Frequency distribution of postpartum mothers’ knowledge before and after mental health E-Book education

Knowledge	Before		After	
	F	%	F	%
Good	1	3.2	8	25.8
Adequate	9	29.0	16	51.6
Poor	21	67.7	7	22.6
Total	31	100.0	31	100.0

Based on the indicators and sub-indicators of the questionnaire, it can be concluded that several important aspects of knowledge remain insufficient among the respondents. In the indicator concerning the definition of the postpartum period and adaptation phases, the majority of respondents did not understand that the postpartum period lasts approximately six weeks (42 days) after childbirth, rather than only a few days. Furthermore, respondents

were unable to accurately identify the psychological adaptation phases experienced by postpartum mothers, namely the *taking-in*, *taking-hold*, and *letting-go* phases. Knowledge gaps were also evident in the mental health indicator. Postpartum mothers tended to associate mental health solely with the absence of disorders or stress, without comprehensively understanding the broader concept of psychological well-being. In

fact, mental health encompasses the ability to regulate emotions, adapt to role changes and new life situations, establish healthy social relationships, and maintain overall psychological well-being. These findings indicate the need for more comprehensive educational interventions regarding the postpartum period and maternal mental health to improve respondents' understanding in accordance with established theoretical concepts.

The overall level of mental health literacy among postpartum mothers remains low. This condition may be attributed to the limited dissemination of information specifically addressing mental health disorders during the postpartum period, both by healthcare providers and

information media. In general, the community is more familiar with physical issues during the postpartum period, such as bleeding or wound care, than with psychological concerns.^{1,7}

However, this finding differs from previous studies. Most earlier research assessed postpartum mothers' knowledge in a general context, such as nutrition or infant care, or focused on perceptions and self-efficacy. In contrast, the present study specifically focused on postpartum mothers' knowledge of mental health, including more detailed indicators such as the definition of positive mental health, postpartum psychological disorders, and phases of psychological adaptation.⁸

Table 2 Frequency distribution of postpartum mothers' mental wellness before and after mental health E-book education

Mental Wellness	Before		After	
	<i>F</i>	<i>%</i>	<i>F</i>	<i>%</i>
Abnormal	17	54,8	6	19,4
Normal	14	45,2	25	80,6
Total	31	100.0	31	100.0

Based on the results presented in Table 2, prior to the educational intervention, the majority of respondents exhibited abnormal mental well-being (54.8%), which decreased to 19.4% after the intervention.

Mental health problems can be defined as an individual's inability to adapt to environmental demands or conditions,

resulting in limitations in optimal functioning.^{8,9} Following the e-book-based educational intervention, postpartum mothers' mental well-being showed a significant improvement. When analyzed by domain, improvements were particularly evident in the domains of anxiety and worry, as well as sleep disturbances. Respondents began to understand that

changes in sleep patterns are a normal part of the postpartum period, and they reported feeling calmer after receiving information on emotional management strategies. Positive changes were also observed in the domain of happiness, with more respondents indicating that they were able to enjoy daily activities again after receiving the education. Nevertheless, certain domains remain suboptimal. Several

respondents continued to demonstrate high scores in the domains of feeling easily guilty, self-blame, and feeling overwhelmed by the maternal role. This finding may be explained by the fact that feelings of guilt are often associated with deeper psychological factors, such as personality traits, social expectations, or traumatic childbirth experiences.^{10,11,2}

Table 3 The role of mental health e-book education in postpartum mothers’ knowledge

Knowledge	Mean	Min	Max	SD	P Value
Before	12.00	6	18	2.817	0.000
after	14.97	11	21	2.073	

The statistical test results presented in Table 3 show a p-value of 0.000 ($p < 0.05$), indicating a significant difference before and after the educational intervention. It can therefore be concluded that the use of a mental health e-book–based educational intervention played a significant role in improving postpartum mother’s knowledge.

These findings are consistent with the study, which demonstrated an increase in postpartum mother’s knowledge and attitudes following e-booklet–based education. The use of e-booklets enabled postpartum mothers to become better informed and to make more rational decisions regarding their reproductive health. E-booklets, when used as a

counseling medium, represent an effective alternative for enhancing maternal knowledge.¹²

The provision of e-book-based education has been proven to have a significant influence on increasing knowledge while simultaneously reducing anxiety levels among respondents. This is evidenced by a distinct improvement in the intervention group, where mothers who received e-book-based education showed better understanding of the material compared to their condition prior to the intervention. Researchers state that e-book based education can enhance the knowledge of postpartum mothers due to the following factors systematic presentation: information is organized logically, making it easier for

mothers to understand and retain the material provided, engaging format: The content is presented in an attractive manner that captures the reader's interest, ease of access: The digital format is easily

accessible, which facilitates better comprehension of health information. Ultimately, this increase in knowledge has a positive impact on the readiness of mothers to navigate the postpartum period.¹³

Table 4 The role of mental health e-book education in postpartum mothers’ mental wellness

Mental Wellness	N	Mean	Min	Max	SD	P Value
Before	31	13.71	9	21	3.298	0.000
After	31	10.74	7	18	2.380	

Based on Table 4, the mean mental well-being score decreased from 13.71 before the intervention to 10.74 after the intervention. This change reflects an improvement in psychological symptoms commonly experienced during the postpartum period, which are dynamic in nature and may fluctuate over days to weeks. During the taking-hold phase (days 3–10 postpartum), mothers are more receptive to information and are actively adapting to their new maternal role.

Improvements in EPDS scores within a 7-day period are more likely to reflect a reduction in acute symptoms such as baby blues, which typically resolve within 1–2 weeks, rather than severe postpartum depression, which requires a longer recovery period.¹⁴

The improvement in mental well-being may be influenced by several mechanisms. First, increased mental health

literacy through e-book-based education helps mothers better understand normal emotional changes, thereby reducing anxiety and worry. Second, the repetition effect of digital information allows flexible and repeated access, enhancing knowledge retention in accordance with information processing theory. Third, indirect emotional support may occur, as digital education can create a sense of accompaniment that helps reduce stress. Fourth, the intervention aligns well with the taking-hold phase, during which mothers are highly responsive to educational input.^{6,15,16}

Nevertheless, the research findings also revealed a contrasting phenomenon, wherein several respondents who were initially in the 'normal' category shifted to the 'abnormal' category following the intervention. Although the number was minimal, this suggests that not all factors can be controlled through e-book-based

educational interventions. Several potential causes include external factors such as a lack of support from husbands or families, domestic conflict, and high economic burdens. Psychosocial factors, such as poor partner relationships and low social support, are strong predictors of postpartum depression. Furthermore, individual psychological factors, such as traumatic birthing experiences or a history of prior anxiety disorders, play a significant role. These conditions align with findings stating that a history of mood disorders is a primary risk factor for the occurrence of postpartum depression.^{17,18,19}

Regarding the limitations of e-book-based interventions, while effective for increasing knowledge and reducing mild to moderate symptoms, digital education cannot fully replace face-to-face counseling or more intensive psychological therapy. This is consistent with the assertion that patients with severe postpartum depression require a combination of interventions, including counseling, family support, and even pharmacotherapy if necessary. Consequently, it can be understood that while many respondents achieved normal mental well-being due to improved mental health literacy, the effectiveness of information delivery via e-book, and perceived psychological support post-education, the cases of respondents transitioning from normal to abnormal

indicate that external and personal factors maintain a profound influence on the mental health status of postpartum mothers, independent of the educational interventions provided.^{20,4}

Therefore, although e-book-based education is effective in improving knowledge and alleviating mild to moderate psychological symptoms, it should be integrated with family and community support, as well as access to professional mental health services, to achieve optimal outcomes.²¹

CONCLUSION

Mental health e-book-based education has been shown to play a significant role in improving postpartum mother's knowledge and mental well-being. It is recommended that postpartum mothers utilizing mental health e-books for better understand emotional changes, enhance psychological adaptation, and prevent postpartum mental health disorders.

CONFLICT OF INTERERST

The authors declare that there is no conflict of interest regarding the publication of this article.

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