WHATSAPP-BASED DIGITAL SELF-ACCEPTANCE TRAINING ON EMOTIONAL REGULATION AND MATERNITY BLUES AMONG POSTPARTUM MOTHERS IN PADALARANG DISTRICT

Silva Dwi Rahmizani[1], Rivana Indriani [2]
[12]Department of Midwifery, Institut Kesehatan Rajawali, Indonesia
Corresponding Email: [1]*silva.rahmizani@gmail.com

ABSTRACT

Postpartum emotional problems remain a significant maternal mental health issue, especially during the early postpartum period. Emotional instability may interfere with maternal adaptation and increase the risk of maternity blues. In Padalarang District, postpartum psychological support services are still limited, while digital mental health interventions remain underdeveloped. This study aimed to describe the level of emotional regulation and maternity blues among postpartum mothers in Padalarang District, analyze the effect of WhatsApp-based Digital Self-Acceptance Training on emotional regulation, and identify differences in maternity blues reduction between intervention and control groups. This study used a quasi-experimental two-group pretest-posttest design. A total of 60 postpartum mothers were recruited using purposive sampling and divided into intervention and control groups. The intervention group received a 7-day WhatsApp-based Digital Self-Acceptance Training program consisting of emotional education videos, guided reflection, emotional journaling, positive affirmations, and motivational support. Data were collected using the Emotion Regulation Questionnaire (ERQ) and Edinburgh Postnatal Depression Scale (EPDS). Statistical analysis was conducted using descriptive statistics, paired t-test, and independent t-test with significance level $p < 0.05$. The results showed that postpartum mothers initially demonstrated moderate emotional regulation and moderate maternity blues symptoms. After intervention, emotional regulation scores in the intervention group significantly increased from 48.2 to 71.4 with $p = 0.001$. Meanwhile, maternity blues scores significantly decreased from 16.1 to 7.2 with $p = 0.002$ compared to the control group. The findings indicate that WhatsApp-based Digital Self-Acceptance Training effectively improves emotional regulation and reduces maternity blues symptoms among postpartum mothers in Padalarang District.

Keywords: Postpartum mothers, maternity blues, emotional regulation, self-acceptance, WhatsApp intervention

INTRODUCTION

Anxiety and emotional instability in pregnant and postpartum women are common mental health issues that negatively impact the well-being of both mother and infant (Araji et al., 2020). Globally, approximately 10% of pregnant women and 13% of postpartum women experience mental disorders. These rates are significantly higher in developing countries, reaching 15.6% during pregnancy and 19.8% after childbirth (Organization, 2025).

The postpartum period is a critical phase characterized by significant physiological, psychological, and social changes. Adapting to a new maternal role, drastic hormonal shifts, physical exhaustion after delivery, and the demands of infant care often trigger mild psychological disorders known as maternity blues or postpartum blues (Tosto et al., 2023). In Asia, the prevalence of "baby blues" is reported to range between 26% and 85%. According to 2024 BKKBN data, approximately 57% of mothers in Indonesia experience symptoms of baby blues, making Indonesia one of the countries with the highest prevalence in Asia. Regionally,

the West Java Provincial Health Office reported in 2023 that the prevalence of postpartum blues reached 50–80%. Meanwhile, data from Padalarang District showed a prevalence of 42% to 50% for the mild category and approximately 35% for the severe category, which approaches clinical depression (Nasional, 2024).

Anxiety is a core component of maternity blues and serves as a critical risk factor for the development of more severe psychological disorders (Manjunath et al., 2011). Concerns regarding parenting abilities, changes in self-image, and apprehension about the future often trigger profound anxiety, accompanied by negative emotions such as sadness, irritability, and helplessness. Without appropriate and accessible psychological intervention, this condition risks progressing into postpartum depression, which impacts the quality of caregiving, mother-infant bonding, child growth and development, and long-term family health (Saharoy et al., 2023).

As a non-pharmacological preventive measure, various interventions have been developed to reduce anxiety during the perinatal period, including exercise, massage, aromatherapy, and relaxation techniques. Research conducted by the proposer in 2025 demonstrated that chamomile and ylang-ylang aromatherapy have a significant effect on reducing anxiety in pregnant women. The proposer's previous study in 2023 also proved that Benson relaxation and autogenic relaxation are effective in lowering anxiety levels in pregnant women (Rahmizani & Asih, 2025; Rahmizani & Lestari, 2023). These findings emphasize that women in the perinatal period are highly responsive to structured non-pharmacological interventions.

Although the subjects of previous studies were pregnant women, those results remain relevant to the condition of postpartum mothers, as pregnancy and the postpartum period constitute a continuous perinatal phase. Untreated anxiety during pregnancy has the potential to persist into the postpartum period and contribute to the emergence of maternity blues (Rikhaniarti et al., 2025). Therefore, the success of aromatherapy and relaxation interventions in pregnant women provides a strong scientific basis suggesting that postpartum mothers could also benefit from non-pharmacological, self-management-based approaches.

METHOD

Participant Characteristics and Research Design

This study used a quasi-experimental two-group pretest-posttest design. The study was conducted in Padalarang District, West Java, Indonesia.

Participants were postpartum mothers within 1–14 days after delivery. A total of 60 postpartum mothers participated in this study. Thirty participants were assigned to the intervention group and thirty participants were assigned to the control group.

Eligibility and Exclusion Criteria

The inclusion criteria included postpartum mothers who were physically stable, able to communicate effectively, willing to participate, and able to use WhatsApp applications.
Participants with severe postpartum complications, psychiatric disorders, or inability to access smartphones were excluded from the study.

Sampling Procedures

Participants were recruited using purposive sampling techniques from community health centers in Padalarang District.

All eligible participants were informed about the objectives and procedures of the study before signing informed consent forms.

Sample Size, Power, and Precision

The intended sample size was 60 postpartum mothers divided equally into intervention and control groups.

Sample size determination was based on previous quasi-experimental studies examining psychological interventions among postpartum mothers with a significance level of 95%.

Measures and Covariates

Emotion regulation was measured using the Emotion Regulation Questionnaire (ERQ), while maternity blues symptoms were measured using the Edinburgh Postnatal Depression Scale (EPDS).

Both instruments demonstrated good psychometric properties with Cronbach alpha values above 0.80.

Covariates included maternal age, educational level, occupation, and parity.

Intervention Procedures

The intervention group received WhatsApp-based Digital Self-Acceptance Training for seven consecutive days.

The intervention consisted of:

- Emotional education videos
- Guided self-reflection
- Emotional journaling
- Positive affirmations
- Motivational messages
- Guided audio reflection
- Self-acceptance exercises

The control group received routine postpartum care without additional intervention.

Data Collection Procedures

Data collection was conducted online using Google Forms before and after intervention.

Researchers provided guidance regarding questionnaire completion and monitored participant adherence throughout the intervention period.

Data Analysis

Descriptive statistics were used to analyze demographic characteristics.

Paired t-tests were conducted to evaluate differences between pretest and posttest scores within groups, while independent t-tests were used to compare outcomes between groups.

Statistical significance was determined at $p < 0.05$.

RESULTS AND DISCUSSION

Respondent Characteristics

The average age of participants was 27.8 years. Most participants were high school graduates and the majority were housewives. Approximately 55% of participants were primipara mothers.

Table 1
Characteristics of Participants

Variable	Frequency	Percentage
High School Education	36	60%

Diploma/Bachelor	24	40%
Housewives	42	70%
Working Mothers	18	30%
Primipara	33	55%
Multipara	27	45%

Emotion Regulation Scores

Table 2
Emotion Regulation Scores Before and After Intervention

Group	Pretest Mean	Posttest Mean	p-value
Intervention	48.2	71.4	0.001
Control	49.1	54.0	0.087

The intervention group showed significant improvement in emotion regulation scores after receiving WhatsApp-based Digital Self-Acceptance Training. Participants became more capable of identifying and managing emotional responses adaptively.

The self-acceptance approach helped mothers understand emotional experiences without excessive self-judgment. Emotional journaling and guided reflections strengthened emotional awareness and coping mechanisms.

These findings are consistent with previous studies reporting that digital mindfulness and psychological interventions improve emotional adaptation among postpartum mothers.

Maternity Blues Scores

Table 3
Maternity Blues Scores Before and After Intervention

Group	Pretest Mean	Posttest Mean	p-value
Intervention	16.1	7.2	0.002
Control	15.8	13.9	0.121

The results demonstrated significant reduction in maternity blues symptoms in the intervention group.

Participants reported feeling calmer, emotionally supported, and more confident in adapting to motherhood after completing the intervention.

WhatsApp also increased intervention accessibility because participants could access emotional support materials anytime according to their schedules.

The findings indicate that simple digital interventions may become practical mental health strategies for postpartum care in community settings.

The novelty of this study lies in combining self-acceptance approaches with accessible WhatsApp-based digital intervention specifically designed for postpartum mothers.

LIMITATION OF THE STUDY

This study had several limitations. First, the sample size was relatively small and limited to one district area. Second, the intervention duration was relatively short. Third, data collection relied on self-reported online questionnaires that may introduce response bias.

Future studies should involve larger populations, multicenter designs, and longer intervention periods.

CONCLUSIONS AND SUGGESTIONS

WhatsApp-based Digital Self-Acceptance Training significantly improved emotion regulation and reduced maternity blues symptoms among postpartum mothers in Padalarang District.

This intervention demonstrates strong potential as an accessible, flexible, and community-based digital mental health strategy for postpartum care.

Healthcare institutions are encouraged to integrate digital emotional support into routine postpartum services. Future studies are recommended to develop larger randomized controlled trials and evaluate long-term intervention effectiveness.

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Conflict of Interest Statement

The authors declare no conflict of interest related to this study.

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