

Enhancing breastfeeding self-efficacy in the postpartum period through emotional release with self-talk method

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Abstract

This study aimed to assess the impact of utilizing the “Happy Maternal Card,” a self-talk intervention, on breastfeeding self-efficacy during the postpartum period. The research involved 28 mothers three days postpartum in Health Canter Care in Purwodadi regency, Indonesia, from February to March 2020, using a quasi-experimental pre-post design with a control group. The intervention group received self-talk sessions twice daily for a month,

while the control group received information through a maternal book twice a week. Breastfeeding ability and independent infant care were measured using the Breastfeeding Self-Efficacy Scale. Results indicated a significant decrease in anxiety ($p=0.000$) and a positive impact on breastfeeding self-efficacy in the intervention group ($p\text{-value}=0.001$). The positive suggestions of self-talk empowered mothers cognitively, enabling them to handle stress and believe in positive suggestions, ultimately influencing behavior. This self-talk method has the potential for postpartum care to enhance maternal efficacy in managing psychological aspects, contributing to the success of exclusive breastfeeding.

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Introduction

According to the American Psychological Association (APA), emotion is a multifaceted reaction pattern that encompasses experiential, behavioral, and physiological elements.¹ Emotions are the ways individuals navigate and respond to matters or situations they personally deem significant.² Emotional experiences consist of three integral components: a subjective experience, a physiological response, and a behavioral or expressive reaction.^{1,3} Scientists posit that emotions are composite phenomena, arising from the intricate interplay of various components within both the brain and the body. Every life experience contributes to shaping our emotions.⁴ Postpartum period is recognized as a transitional phase in a woman's life when she assumes the role of a mother, significantly impacting her emotions.⁵ During this period, there are changes in various aspects such as role, responsibility, identity, physicality, and social dynamics.^{6,7} The fluctuations in steroid hormone levels play a crucial role in emotion processing, affecting reactivity within a network that includes the amygdala, insula, anterior cingulate cortex, and the prefrontal cortex.⁸ The decrease in steroid and oxytocin hormones influences maternal emotional well-being,^{9,11} contributing to factors associated with psychological breakdown. Adequate emotion processing during the postpartum period is essential for immediate maternal-infant bonding, encompassing attention, the recognition of infant emotions, motivation, preoccupation of thought, and parental empathy.^{6,12}

Other factors, such as age, social support, parity, internal conflicts, *etc.*, are related to postpartum depression.¹¹ These factors contribute to a mother's susceptibility to psychological breakdown.⁵ Postpartum encompasses various psychological breakdowns, including postpartum blues, baby blues, postpartum depression, and postpartum psychosis.^{13,14} The International Statistical Classification of Diseases (ICD-10) defines postpartum depression as a mental and behavioral disorder.¹⁵ Symptoms of depression include desperation, sadness, nausea, changes in sleep and eating habits, decreased libido, crying spells, anxiety, irritability, feelings of isolation, mental instability, thoughts of hurting oneself and/or the infant, and even suicidal thoughts (common). All of these symptoms describe the emotional state of the moth-

er.¹⁶ Previous studies indicate a significant relationship between the emotions of postpartum mothers and depression, emphasizing the need for mental support during this period.¹⁷ Studies from 80 different countries or regions were included in the final analysis. The prevalence of postpartum depression reached up to 17.22% of the world's population. Another study indicated that the prevalence of postpartum depression was 27.1% in the southwestern region, with associated factors including low perceived social support, rural residence, obstetric complications, and excessive crying by the baby. In Asia, postpartum blues have been reported to affect between 26% and 85% of individuals, and in Indonesia, the range is from 50% to 70%.^{15,18,19} Approximately 50-70% of postpartum mothers suffer from postpartum depression, with the prevalence varying from 5% to 25% in Indonesia. This condition can hinder exclusive breastfeeding.^{16,17}

The purpose of this study was to enhance midwifery care during the postpartum period using the self-talk method, which provides mothers with positive suggestions to manage their emotions, empowers their mindset, and increases maternal self-efficacy. Previous research analyzing this method has shown its ability to strengthen psychological responses.²⁰ It was found that the suggestion group reported a 42% lower subjective pain intensity, effectively handled anxiety during the biopsy process, and experienced a 14% reduction in hospitalization time after surgery (19 hours). Additionally, they reported 11% less pain in the days following the operation, along with reductions in postoperative pain, blood pressure, and increased confidence in competition.²¹⁻²³

However, previous studies have not analyzed the effect of self-talk on postpartum mothers. This gap prompted the researchers to employ this method with postpartum mothers, specifically focusing on breastfeeding self-efficacy. This is crucial because psychological breakdowns can lead to decreased breast milk production and undermine confidence in breastfeeding and infant care due to emotional upheaval. Ignoring these issues may drive mothers into a depressed condition, damaging their health and hindering the postpartum recovery process.²⁴⁻²⁷ Therefore, this study aims to analyze the effect of the release emotion using self-talk method on breastfeeding self-efficacy during the Postpartum Period.

Materials and Methods

This research employed a quasi-experimental research design with a pre-post-test control group. The purpose of this study was to analyze the effect of releasing emotion using self-talk for increasing breastfeeding self-efficacy in postpartum mothers.

Study participants

The sample size in this study was calculated using the rule of Lameshow's formula, resulting in 20 samples divided into two groups. The experimental group received self-talk sessions, while the control group received education from the maternal book. Purposive random sampling was employed, sorting participants based on inclusion and exclusion criteria. Inclusion criteria comprised postpartum mothers from the 1st to the 14th day, normal vital signs, the Postpartum Specific Anxiety Scale (PSAS) scores between 70 and 111, mothers aged 20 to 30 years, both primipara and multipara, those without hypertension or heart attack history, and those without a history of mental breakdown. Participants were required to commit to following the study until its completion. Exclusion criteria included mothers unwilling to adhere to the study routine or be visited.

The research took place at four primary health care centers in Central Java, Indonesia, from March to May 2020. The selection of these centers was based on the highest number of postpartum mothers in the last three months, and a cube was used to decide the intervention and control groups. The Lameshow formula was used to determine the sample size, resulting in 15 postpartum mothers in the intervention group and a total of 30 respondents.

Variables, instrument and data collection

The independent variable consists of demographic factors (age, parity, and employment), and the dependent variable consists of self-efficacies in breastfeeding and the capability of independent infant care measured by the Breastfeeding Self-Efficacy scale. Demographic factors were collected using a respondent identity questionnaire. Before receiving therapy, respondents were assessed using the PSAS to ensure that mothers were not experiencing psychological distress, enabling the use of this method for prevention and handling maternal mental well-being. The PSAS comprises 51 questions that assess mothers' anxieties, with response options ranging from "never" to "always" and scored from 1 to 4. The total score is then categorized into anxiety levels: 51-70 (anxious), 71-90 (mild anxiety), 91-111 (moderate anxiety), and ≥ 112 (depressed). The second instrument used was the Breastfeeding Self-Efficacy Scale (BSES). This questionnaire measured mothers' self-efficacies in relation to breastfeeding capabilities, consisting of 14 questions with Likert scores from 1 to 4. The scores were categorized from extremely not efficacious to very efficacious. After completing the questionnaire, scores were calculated, allowing the researcher to identify areas where mothers may have doubts in their breastfeeding processes. The BSES was applied to examine the capabilities and self-efficacies of mothers while engaging in the breastfeeding process. After meeting the inclusion criteria, in the first session, respondents released their emotions with a chaperone, guided to express their emotions using three key words: sorry, thankful, and I love you. This method aimed to build trust and help respondents alleviate negative feelings. Subsequently, respondents continued this process twice a day or whenever they felt the need for support. "Happy Maternal Cards," printed on 8x10 cm photo paper, containing pictures and positive suggestions, were used in this process and were validated by experts

Dropout sample

This study was conducted during the COVID-19 era, a time when the researcher intended to visit the respondents. However, due to the "stay home" mandate, the study was delayed for two weeks. Some respondents could not be visited due to COVID-19 concerns, and society labeled all people. Consequently, only 11 participants remained in the experimental group, and 7 in the control group until the end of this research.

Ethical clearance

This study obtained ethical clearance from RS Dr. Moewardi General Hospital in Solo, Central Java, with the reference number 1.484/XII/HREC/2019. Informed consent was obtained from all respondents who participated in the study. They had the authority to reject or withdraw as respondents at any point in this research.

Results

The univariate analysis data showed that the average age of the respondents was 26 years old in the intervention group and 25 years old in the control group. There were no respondents older

than 30 years in either group. In both groups, the majority of respondents were primiparous, and most were employed (Table 1).

Table 2 presents a comprehensive examination of maternal anxiety levels before and after a specified intervention, utilizing the Perinatal Anxiety Screening Scale (PSAS). The results indicate a statistically significant reduction in anxiety levels for the Intervention group ($p=0.000$), contrasting with the Control group where anxiety levels increased ($p=0.006$). Additionally, the deviation values illustrate the dispersion of data within each group. This table serves as a valuable resource for understanding the impact of the intervention on maternal anxiety, highlighting the effectiveness of the approach in mitigating anxiety levels among the targeted population.

Table 3 provides a detailed examination of the self-talk component within the Breastfeeding Self-Efficacy Scale (BSES) for postpartum mothers. For both the experimental and control groups, there was an overall increase in scores from pre-test to post-test, indicating an improvement in breastfeeding self-efficacy. In the experimental group, all questions showed positive changes with a significant decrease in negative ranks ($p=0.001$), suggesting an enhancement in self-talk regarding breastfeeding self-efficacy. In the control group, while positive changes were observed, there were 3 ties, implying that there was no discernible change in the feelings associated with those specific questions.

Table 4 presents the outcomes of a T-test analysis focusing on the self-talk component within the BSES for postpartum mothers.

Table 1. Analysis of self-talk impact on breastfeeding self-efficacy in postpartum Mothers (N=20).

Characteristic	Intervention		Control		Homogeneity	
	N	%	N	%	p	Adv
Age (years)					0.305	Homogen
Mean	25.91	24.71				
Min-Max	22-30	21.27				
Median	26.00	26.00				
Parity					0.837	Homogen
Primipara	6	54.5	4	57		
Multipara	5	45.5	3	43		
Employment					0.355	Homogen
Working	9	81.8	5	71.4		
Not working	2	18.2	2	28.6		

Table 2. Bivariate analysis of maternal anxiety before and after intervention using PSAS.

Variables	Groups		p
	Intervention Mean ± SD	Control Mean ± SD	
Anxiety			
Pre	99.73±4.901	96.57±5.884	
Post	69.3±3.901	82.71±6.264	
p	0.000 ^a	0.006 ^a	
Deviation	25.55±3.560	10.00±6.481	0.000 ^b

^aPaired Sample Test. ^bIndependent Test.

Table 3. Analysis of self-talk in breastfeeding self-efficacy scale for postpartum mothers.

Ranks	N	Mean rank	Sum of ranks	Z Scores	p
Post_tot - Pre_tot Ex					
Negative ranks	0 ^a	0.00	0.00	-3.305	0.001
Positive ranks	14 ^b	7.50	105.00		
Ties	0 ^c				
Total	14				
Post_tot - Pre_tot control					
Negative ranks	0 ^a	0.00	0.00	-3.019	0.003
Positive ranks	11 ^b	6.00	66.00		
Ties	3 ^c				
Total	14				

^aSkor_Post_tot < Skor_Pre_tot; ^bSkor_Post_tot > Skor_Pre_tot; ^cSkor_Post_tot = Skor_Pre_tot.

Table 4. T-Test results of self-talk in postpartum mothers using BSES.

Ranks				Z score	p
Delta BSE	Group	Mean rank	Sum of ranks	-4.251	0.000
	Control	7.96	111.50		
	Experimental	21.04	294.50		

Both the control and experimental groups exhibited an improvement in breastfeeding self-efficacy, as reflected by the increasing scores in the post-test. The T-test, analyzed using the Mann-Whitney method, reveals that the experimental group demonstrated a significantly higher improvement (Mean Rank: 21.04) compared to the control group (Mean Rank: 7.96) with a p-value of 0.000. The Z-score of -4.251 underscores the statistical significance of the observed differences, indicating that the improvement in self-talk related to breastfeeding self-efficacy in the experimental group is not merely due to chance. This outcome suggests that the intervention had a substantial and beneficial impact on the specific capabilities assessed by the BSES, demonstrating the effectiveness of the intervention in enhancing breastfeeding self-efficacy among postpartum mothers.

Discussion

This study demonstrates a correlation between the postpartum period and maternal emotion, as evidenced by mean PSAS scores of 99.73 in the intervention group and 96.57 in the control group. These findings align with prior research indicating that during the postpartum period, hormonal fluctuations may lead to changes in maternal emotion.^{17,28,29} Previous studies have identified three key psychological variables - emotion regulation, maternal self-confidence, and marital satisfaction - that may contribute to psychological breakdowns. Emotion regulation is particularly crucial for managing stress situations.¹⁷ One of the methods to manage the emotion of mother is self-talk. Self-talk was given positive suggestions to release the emotion. In our mind, there are two kinds of the function of mind called conscious and subconscious mind.³⁰ Positive suggestions imparted to the mother's conscious mind subsequently influence the subconscious mind, guiding it to adopt positive suggestions and, in turn, modify behavior. This mechanism is consistent with the findings of our study, which observed an increase in breastfeeding self-efficacy as a result of positive self-talk.

Self-talk enables mothers to cultivate love, forgiveness, and gratitude. Engaging in self-talk facilitates relaxation, instills self-trust, and ultimately restores maternal confidence. The positive suggestions embedded through self-talk become lodged in the subconscious, gradually shaping a positive mindset and influencing behavioral changes. This transformation, in turn, enhances maternal self-efficacy and promotes independent infant care.³¹⁻³³ Aligning with earlier studies, self-talk has proven effective in managing anxiety, emotions, and pain while enhancing overall performance and confidence.²¹⁻²³ Building upon these findings, it is noteworthy that positive suggestions, as identified in previous research, have the capacity to alter brain wave circulation, reduce pain, and alleviate anxiety in patients.^{34,35}

The efficacy of self-talk emerges as a valuable alternative for effectively managing the emotions experienced by postpartum mothers. Beyond serving as a constructive coping mechanism, it stands as a potential preventive measure against psychological challenges such as baby blues, postpartum blues, and psychosis.³⁶ Health providers, acknowledging the pivotal role of self-talk, can integrate this intervention into their care strategies. Employing self-talk not only facilitates emotional regulation but also contributes to establishing trust between healthcare professionals and postpartum mothers.^{29,37}

Furthermore, research underscores the significant correlation between psychological breakdowns, postpartum blues, and their

impact on breast milk volume. A study revealed a substantial association between psychological well-being and the quantity of breast milk produced.^{38,39} By incorporating self-talk into postpartum care practices, health providers can address emotional well-being and potentially enhance the overall quality of postpartum care.³⁶ This holistic approach reflects a commitment to both the mental and physical aspects of postpartum health, fostering a more comprehensive and supportive care environment for new mothers.

However, it's essential to note the limitations of this study due to the COVID-19 pandemic. Many respondents withdrew from the study because of the civil regulation known as "lockdown." The unwillingness of respondents to visit and continue the study has impacted the overall value of this research. The total number of participants in this study is limited to 18, with 11 in the intervention group and 7 in the control group.

Conclusions

Psychological breakdown can prevent mothers from breastfeeding or create a reluctance to do so. This situation can result in the baby lacking essential nutrition and the affectionate bond with the mother. The self-talk method facilitates emotional release for mothers, strengthening the relationship with health providers, building trust, and enhancing the joy of breastfeeding. It offers a valuable solution to support mothers in participating in exclusive breastfeeding programs. However, this research faced several challenges, such as insufficient samples due to the impact of COVID-19, leading to the withdrawal of many respondents from the study. For future research, it is essential to expand both the sample size and variables to improve the study's robustness. To postpartum mothers, provide your body with positive suggestions to maintain a healthy mind.

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