



Socialization of the 'NAMISIKU' Application for the Prevention of Postpartum Depression in Mothers

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Abstract

Postpartum depression is a condition that must be given serious attention because it affects not only the mother, but also the child, and harmony within the family. Therefore, healthcare providers, families, and the community need to have an understanding of how to detect and manage this condition effectively. This community service aims to improve mental health literacy and digital skills of postpartum mothers through the use of the NAMISIKU application. The activity was carried out using a participatory approach with the following stages : a) socialization and education, b) training and application usage, c) monitoring and evaluation. The results show that there was an increase in mental health literacy among postpartum mothers, as indicated by a 70% improvement in knowledge related to postpartum depression symptoms and the importance of social support, based on pre-test and post-test results. In addition, training on the use of the NAMISIKU application successfully enhanced participants' skills in accessing and utilizing digital features, with most postpartum mothers able to operate the application independently. The participants also responded positively, expressing satisfaction with its content, design, and usefulness in recognizing emotional symptoms and finding appropriate information. The conclusion is that the program showed a 70% increase in understanding, a 90% improvement in application usage skills, and an 80% level of participant satisfaction, indicating that the NAMISIKU application has strong potential as a screening and educational tool for the prevention of postpartum depression.

Keywords: Mental Health, NAMISIKU, Postpartum Depression.

Abstrak

Depresi pascapersalinan merupakan kondisi yang harus mendapat perhatian serius karena berdampak tidak hanya pada ibu, tetapi juga pada anak serta keharmonisan dalam keluarga. Oleh karena itu, tenaga kesehatan, keluarga, dan masyarakat perlu memiliki pemahaman tentang cara mendeteksi dan menangani kondisi ini secara efektif. Pengabdian kepada masyarakat ini bertujuan untuk meningkatkan literasi kesehatan mental dan keterampilan digital ibu pascapersalinan melalui penggunaan aplikasi NAMISIKU. Kegiatan dilaksanakan dengan menggunakan pendekatan partisipatif melalui tahapan sebagai berikut: a) sosialisasi dan edukasi, b) pelatihan dan penggunaan aplikasi, c) monitoring dan evaluasi. Hasil penelitian menunjukkan bahwa terdapat peningkatan literasi kesehatan mental pada ibu pascapersalinan, yang ditunjukkan oleh peningkatan pengetahuan sebesar 70% terkait gejala depresi pascapersalinan dan pentingnya dukungan sosial, berdasarkan hasil pre-test dan post-test. Selain itu, pelatihan penggunaan aplikasi NAMISIKU berhasil meningkatkan keterampilan peserta dalam mengakses dan memanfaatkan fitur digital, dengan sebagian besar ibu pascapersalinan mampu mengoperasikan aplikasi secara mandiri. Para peserta juga memberikan respons positif dengan menyatakan kepuasan terhadap isi, desain, dan manfaat aplikasi dalam mengenali gejala emosional serta menemukan informasi yang tepat. Kesimpulannya, hasil kegiatan menunjukkan peningkatan pemahaman sebesar 70%, peningkatan keterampilan penggunaan aplikasi sebesar 90%, serta tingkat kepuasan peserta sebesar 80%, yang menunjukkan bahwa aplikasi NAMISIKU memiliki potensi yang kuat sebagai alat skrining dan edukasi dalam pencegahan depresi pascapersalinan.

Kata Kunci: Kesehatan Mental, NAMISIKU, Depresi Pascapersalinan.

A. INTRODUCTION

The postpartum period is a vulnerable time for mothers after childbirth, both physically and psychologically. One of the common problems faced by postpartum mothers is postpartum depression (PPD). This type of depression can have a negative impact on the mother's health, the baby's development, and the quality of family relationships. Therefore, prevention and early intervention efforts are essential to reduce the risk of depression in postpartum mothers (Syarif, 2022). Various factors can contribute to the onset of postpartum depression, including hormonal changes, lack of social support, stress from caring for a baby, and other psychosocial factors (Kurniasari, 2019). Without proper treatment, this condition can worsen, hinder emotional bonding between mother and baby, and negatively affect the overall quality of family life. Thus, technology-based interventions that are easily accessible have become an innovative solution to support the mental health of postpartum mothers (Syarif et al., 2024).

In a previous study, researchers developed an Android-based application called "NAMISIKU." The word "NAMISIKU" comes from the Wolio language, meaning "MY FEELING." This term is a metaphorical expression describing the emotions someone is currently experiencing. Based on observations conducted during a study in 2024, there were two cases of mothers experiencing baby blues. Partners mentioned that the services provided were mostly medical, while psychological care was not comprehensively addressed. Due to these incidents, the local health center had not found a solution, although midwives had increased the frequency of postpartum visits. However, the local area midwife coordinator stated that such measures may not be effective in closely monitoring the mother's psychological changes.

This community service program holds significant urgency considering the negative impact of postpartum depression on the well-being of both mother and baby. If not properly addressed, this condition can affect the child's development and increase the risk of long-term psychological disorders such as psychosis, where the mother may have suicidal thoughts or intentions to harm the baby, thus disrupting the overall functioning of the family (Pollock et al., 2020). Therefore, a technology-based intervention that is easily accessible to postpartum mothers is essential (Wang et al., 2021). In response to this issue, the application is expected to serve as a tool for education and monitoring of postpartum mothers' mental health. The application offers several features, such as information on postpartum mental health, guidance for family and spousal support, and a screening tool to detect symptoms of depression (Fadli, & Sunardi, 2018; Liu, Tronick, & Lester, 2023). With these features, the app aims to help mothers recognize early signs of depression and take appropriate preventive steps.

However, the benefits of the application cannot be fully realized without widespread socialization and education for both postpartum mothers and healthcare workers. Many postpartum mothers are still unaware of the importance of monitoring mental health after childbirth, and the lack of information can hinder early prevention and treatment. Therefore, a more proactive approach is needed to introduce and promote the use of the "NAMISIKU" application within the community.

The implementation of a socialization program for the "NAMISIKU" application is expected to increase awareness and understanding among postpartum mothers about the importance of mental health, as well as provide education on how to use the application as a tool to help manage psychological problems after childbirth. Through this program, it is hoped that postpartum mothers will become more independent in managing their health and receive adequate support from their surroundings, especially from their husbands and families, thereby reducing the incidence of postpartum depression.

In addition, this program also supports the implementation of technology in healthcare services, particularly in monitoring and preventing mental health disorders in postpartum mothers. Through the socialization of the "NAMISIKU" application, it is expected that a more inclusive and technology-based health ecosystem can be established.

B. METHODS AND IMPLEMENTATION

The community service program will be implemented at the Community Health Center (*Puskesmas*) and Integrated Health Posts (*Posyandu*) located within the working area of Waborobo

Health Center. These settings were selected due to their strategic role as primary healthcare providers and their close interaction with maternal and child health services at the community level.

The target participants of this program include postpartum mothers who have given birth within the last six months, as this period is considered critical for the development of postpartum depression (PPD). In addition, healthcare providers working at the Puskesmas and Posyandu such as midwives, nurses, and community health cadres will be involved to strengthen their capacity in early detection and management of PPD. Families of postpartum mothers are also included as essential support systems, given their significant influence on maternal mental health and recovery.

This program adopts a participatory approach consisting of three main stages: socialization and education, application usage training, and monitoring and evaluation. During the socialization and education stage, counseling sessions will be conducted to raise awareness about the importance of mental health after childbirth. Participants will also be introduced to the “NAMISIKU” application, including its functions and benefits in supporting postpartum mental health monitoring.

The second stage involves training on the use of the application. Healthcare workers will receive comprehensive training on the features of the “NAMISIKU” application, including procedures for early screening and initial intervention for postpartum mothers at risk of depression. Furthermore, postpartum mothers will participate in simulation sessions designed to enhance their ability to independently access information and perform self-assessments using the application.

The monitoring and evaluation stage will assess the effectiveness of the program. Participants’ knowledge of postpartum mental health will be measured before and after the intervention using structured questionnaires. In addition, user satisfaction and perceived effectiveness of the application will be evaluated through feedback surveys. Changes in postpartum depression risk will also be monitored by analyzing Edinburgh Postnatal Depression Scale (EPDS) scores among postpartum mothers throughout the program period.

The success of this program will be determined based on several indicators. First, at least seventy percent of participants are expected to demonstrate improved understanding of postpartum depression, as evidenced by pre-test and post-test results. Second, a minimum of sixty percent of postpartum mothers are expected to actively use the “NAMISIKU” application during the implementation period. Third, at least half of the postpartum mothers identified as being at risk of PPD are expected to show a reduction in their EPDS scores after using the application.

This community service initiative emphasizes innovation in maternal mental health through the integration of digital technology. The expected outcomes include increased awareness and digital literacy among postpartum mothers and healthcare providers, optimization of the use of the “NAMISIKU” application, and improved access to information related to the prevention and early management of postpartum depression. Additionally, this program aims to strengthen collaboration with industrial, business, and workforce sectors (IDUKA) in supporting maternal and child health services. User feedback collected during the program will also be utilized to further refine and enhance the features of the “NAMISIKU” application, ensuring its sustainability and alignment with user needs.

C. RESULTS AND DISCUSSION

Table 1. Analysis of Mental Health Literacy Improvement.

Intervention	Understand	Do Not Understand	Total
Post-test	10	1	11
Pre-test	4	5	9
Total	14	6	20

Based on Table 1, it is shown that 10 respondents who initially did not understand the topic gained understanding after the socialization. The improvement in mental health literacy reached 70% (14 out of 20 respondents).

Table 2. Analysis of the Effectiveness of the NAMISIKU Application Training.

Intervention	Understand	Do Not Understand	Total
Before	3	17	20
After	18	2	20

Based on Table 2, it is shown that 18 respondents who initially did not understand gained understanding after being given training on the use of the NAMISIKU application. The effectiveness of respondents' understanding reached 90%.

Table 3. Evaluation of the Use of the "NAMISIKU" Application.

	Satisfied	Not Satisfied	Total
Not Willing	4	3	7
Willing	12	1	13
Total	16	4	20

Based on Table 3, 12 respondents expressed willingness to use the application at home, indicating a satisfaction level of 80%.

Mental Health Literacy Improvement

Improving mental health literacy was one of the primary goals of this program. Evaluation results showed that the majority of postpartum mothers experienced a significant increase in their understanding of the concept of postpartum depression (PPD). Of the 20 respondents, only 4 were categorized as "understanding" before the socialization, but this number increased to 10 respondents afterward. This indicates that the interactive counseling method, supported by digital application media, significantly enhanced the knowledge of postpartum mothers. This is in line with a study conducted by (Wang et al., 2021) which states that structured education regarding maternal mental health is effective in reducing stigma and increasing mothers' awareness of seeking professional help. Improving literacy is crucial, as a good understanding serves as the initial step in the early detection of postpartum psychological disorders.

The socialization effort focused not only on the definition of postpartum depression but also on risk factors, signs and symptoms, and the importance of family support in promoting maternal mental health. The success of this socialization is also supported by the findings of (Abdillah & Putri, 2020) which reveal that community-based psychoeducational interventions are capable of shifting mothers' perceptions regarding depressive symptoms, which are often misidentified as ordinary fatigue. Furthermore Fazraningtyas (2019) emphasizes that adequate informational support during pregnancy and the postpartum period contributes significantly to minimizing the risk of postpartum affective disorders by strengthening individual coping mechanisms

The education used simple language and visual media integrated into the NAMISIKU app, making it easier for participants to understand. A study by Ruan et al. (2020) reported that educational efforts using digital visual approaches are more effective in increasing patient understanding compared to conventional lectures. This program also involved healthcare workers and community health cadres as facilitators to answer participants' questions, strengthening the interactive aspect of the socialization.

Moreover, mental health literacy plays a vital role in the early prevention of PPD. When mothers possess adequate knowledge about the psychological conditions that may arise after childbirth, they are more likely to remain alert and conduct early detection of depressive symptoms. This aligns with the findings of Nyarko et al. (2025), which state that empowering mothers with knowledge is one of the most effective strategies in reducing the prevalence of PPD. Thus, this community service activity significantly contributed to building postpartum mothers' critical awareness of their own mental well-being.

Training on the Use of the NAMISIKU Application

Training in the use of the NAMISIKU application was a key component of the program. Prior to the training, most participants stated that they did not know how to access or use the application, with only 3 respondents categorized as "understanding." However, after the training, 18 respondents

stated that they “understood” how to use the app. This demonstrates a significant increase in technical understanding of the application, indicating that hands-on simulation and assistance effectively built postpartum mothers’ skills in using health technology. The training did not only teach technical aspects of app usage but also helped participants understand features such as the Edinburgh Postnatal Depression Scale (EPDS), access to mental health information, and stress coping tips (El-Hachem et al., 2014). Participants also practiced using the application on their own phones under the guidance of the implementation team. According to (Wright et al., 2024), the successful adoption of health apps largely depends on intensive educational interventions that help users feel confident and comfortable using the technology.

In addition to technical mastery, this training emphasized the sustainability of application use in daily life. Facilitators assisted participants in exploring educational features designed to involve the roles of husbands and families, as social support is a key factor in preventing the worsening of postpartum depression symptoms. By providing hands-on simulations on how to share EPDS screening results with healthcare providers or immediate family, participants are expected to not only be digitally proficient but also have the courage to seek professional help if their screening scores indicate a high risk (Sari et al., 2021)

Furthermore, the success of this training is reflected in the improvement of respondents’ understanding, which reached 90% after intensive mentoring sessions. The focus on “hands-on” methods or direct practice proved capable of overcoming the psychological barriers of participants who initially felt hesitant toward new health technology. This is in line with the findings of (Fortin et al., 2021), who state that the successful adoption of health applications relies heavily on intensive educational interventions that help users feel confident and comfortable in operating the technology. These results confirm that a participatory approach involving healthcare workers and cadres as local mentors is highly effective in ensuring that the NAMISIKU application is widely accepted as an inclusive and user-friendly self-monitoring tool for mental health. The success of the NAMISIKU training in this study reinforces the theory proposed by (Savitri et al., 2022), which states that the perceived ease of use of a health application correlates positively with the improvement of digital health literacy in the community, particularly in monitoring psychological conditions independently.

It is also important to note that the training considered the educational backgrounds and ages of the postpartum mothers. Participants with low digital literacy received more intensive guidance, and the NAMISIKU app was designed to be usable even without an internet connection, thus ensuring accessibility. This supports the principle of technological inclusivity emphasized by (Ueda et al., 2021; Li et al., 2019), which highlights the importance of user-friendly health apps, particularly for vulnerable groups such as postpartum mothers in areas with limited infrastructure

Evaluation and User Feedback on the Application

The evaluation of the use and user satisfaction with the NAMISIKU application showed highly positive results. Out of the 20 postpartum mothers who participated, 12 stated that they were willing and “satisfied” with the application. This indicates that the more frequently the application is used, the greater the benefits perceived by the users, particularly in recognizing and managing emotional changes during the postpartum period.

The NAMISIKU application provides features such as educational content about PPD, the EPDS questionnaire, family support tips, and relaxation activity guides. Users found these features practical and relevant to their conditions. According to (Pollock et al., 2020), the effectiveness of digital psychology-based applications greatly depends on contextual content that matches user needs. Positive feedback also highlighted the advantage of app-based approaches that can be accessed at any time, without relying on visits to health facilities (Wang et al., 2021; Sarlak et al., 2025).

Nevertheless, some challenges remain to be addressed, such as low digital literacy among participants over the age of 35 and limitations in smartphone ownership. Some participants suggested further development of the app to include features like online consultation or educational videos. These challenges are critical evaluation points for the future development of NAMISIKU. As emphasizes, for digital applications to be truly inclusive, feature updates must be tailored to user

characteristics, including offering visually friendly versions for mothers with limited technological literacy.

This community service program has several limitations. First, the relatively short duration of implementation was insufficient to capture the long-term impact of the NAMISIKU application. In addition, variations in digital literacy, particularly among participants over the age of 35, as well as limited access to smartphones, may have affected the effectiveness of the program. Therefore, future programs are recommended to be conducted over a longer monitoring period and to employ more comprehensive evaluation methods in order to better assess the sustainability and clinical impact of the application.

CONCLUSION

This community service program has been successfully implemented in accordance with the established objectives. The results indicate an improvement in mental health literacy among postpartum mothers, as evidenced by a 70% increase in knowledge based on pre-test and post-test results, particularly in recognizing symptoms of postpartum depression and understanding the importance of social support. Furthermore, training on the use of the NAMISIKU application was proven to enhance participants' skills in accessing and utilizing digital features to monitor psychological conditions after childbirth, with most mothers able to operate the application independently. Participants also provided positive feedback on the application, particularly regarding its content, design, and usefulness in helping them recognize emotional symptoms and obtain appropriate information. Therefore, the NAMISIKU application has strong potential as a screening and educational tool to support community- and technology-based mental health services.

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