



### Empowering Pregnant Women Through Psychoeducation with A Combination of Mindfulness to Improve Mental Health



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#### Abstract

The maternal mortality rate in East Java in 2022 was 499 maternal deaths. Blitar Regency reached 17 deaths and Blitar City only had 3 maternal deaths. Tulungrejo Village, Wates District, Blitar is the place of this community service. The geographical location of Tulungrejo Village is in the mountains of southern Blitar. In 2023, 25 women were married at the age of under 19 years and had their first child at the age of 18, 20 people. Early marriage can cause mental health problems, due to psychological unpreparedness for marriage, facing pregnancy at a young age, and unpreparedness of reproductive organs, which can increase the risk of developing eclampsia or eclampsia. The interventions to reduce maternal mortality were by improving maternal mental health through psychoeducation combined with mindfulness. There were stages in implementing community service activities: the first stage was to socialize the community service program with the Head of Tulungrejo Village, the Secretary, the Head of the Welfare Section, and midwives in the Tulungrejo Village area. The second stage was psychoeducation training with a combination of mindfulness. The third stage was the application of technology with the "SHE" application. The fourth stage included mentoring and evaluation of pregnant women. The fifth stage was the stage of sustainability of the pregnant women's empowerment program. The results of this service show that the differences before and after the treatment of psychoeducation training with a combination of mindfulness are depression, anxiety, and stress  $p\text{-value} = 0.000 \geq \alpha 0.05$ . Psychoeducation training combined with mindfulness, can help pregnant women reduce fear and anxiety so that they can accept the conditions they experience. Mindfulness activities are simple activities that can be used by pregnant women every morning or evening to regulate breathing rhythm so that anxiety can decrease, and the "SHE" application is also used at any time without paying or re-updating.

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## INTRODUCTION

Psychological well-being is an important component to support the mental health status of pregnant women at a good level. Pregnant women who have good psychological well-being will have positive attitudes and emotions. This will encourage increased knowledge, attitudes, and behavior of mothers regarding health care during pregnancy. The maternal mortality rate in East Java in 2021 was 234.7 per 100,000 live births, in 2022 it decreased to 93.00 per 100,000 live births, this has exceeded the target of the East Java Provincial Government's Strategic Plan (Renstra) for 2022 of 96.42 per 100,000 live births ([Dinas Kesehatan provinsi Jawa Timur, 2023](#)). However, it has not yet met the Sustainable Development Goals target of 70 per 100,000 live births ([Susiana, 2019](#)). When compared with ASEAN countries, the maternal mortality rate in Indonesia is ranked second compared to Malaysia, Brunei Darussalam, Thailand, and Vietnam with a maternal mortality rate of under 100 per 100 thousand live births ([Daisy, 2024](#)). The main causes of high maternal mortality rates vary from health facility service factors to socio-economic factors. Direct causes of maternal death are hypertensive disorders in pregnancy (31.90%), obstetric hemorrhage (26.90%), non-obstetric complications (18.5%), other obstetric complications (11.80%), pregnancy-related infections (4.20%), abortion (5%) and other causes (1.70%) ([Mariani Mariani & Hartono, 2023](#)). Predisposing factors for hypertensive disorders in pregnancy throughout the world, such as the family history of preeclampsia, preeclampsia in previous pregnancies, multifetal pregnancies, obesity, nulliparity, diabetes, chronic hypertension, and early pregnancy, but women who marry at a young age have a higher risk of dying during childbirth ([Kementrian Perencanaan Pembangunan Nasional, 2023](#)). The maternal mortality rate in East Java in 2022 was 499 maternal deaths, Blitar district had 17 deaths and the city had only 3 maternal deaths ([Dinas Kesehatan provinsi Jawa Timur, 2023](#)). Although East Java is not the highest province with maternal mortality rates, prevention needs to be carried out to achieve 0 maternal deaths. Based on the maternal mortality period in 2022, out of 17 deaths, the most occurred in the postpartum period with 10 deaths, the pregnancy period with 4 deaths, and the delivery period with 3 maternal deaths. The causes of death were due to bleeding, hypertension,

infection, and heart and blood vessel disorders ([Dinas Kesehatan Kabupaten Blitar, 2023](#)).

The location of this community service was Tulungrejo Village, Wates District, Blitar. The geographical location of Tulungrejo Village is in the southern Blitar mountains which are limestone mountains, water is hard to get, rice fields are rain-fed, most of the villagers' livelihoods are as farmers in the fields, and some become civil servants, entrepreneurs of laying hens and ducks. The Tulungrejo village area contains forestry and plantation land. Tulungrejo Village still has strong Javanese or Javanese traditions such as the village cleanliness tradition, cooperation involving many villagers because the villagers highly uphold the values of family and mutual cooperation, as well as the tradition of marrying off girls early after graduating from high school/equivalent. In 2023, 25 women had married at the age of under 19 years and had their first child at the age of 18 as many as 20 people. Early marriage can result in mental health problems, due to psychological unpreparedness for marriage, facing pregnancy at a young age, and unpreparedness of the reproductive organs, which can increase the risk of eclampsia or eclampsia which can result in abortion ([Trisiani & Hikmawati, 2021](#)). According to the Tulungrejo Village Midwife in 2023, 6 pregnant women experienced abortions with a gestational age of 6-14 weeks, then in January-March 2024 there were 3 pregnant women who experienced abortions, which caused vaginal bleeding. In addition to early pregnancy, 5 women had their first pregnancy (primigravida) at the age of 35 in 2024, where this age can cause a high risk of developing hypertension or eclampsia/preeclampsia if pregnancy occurs. Therefore, intervention is needed to reduce the maternal mortality rate so that support is needed from various parties.



**Picture 1.** Tulungrejo village integrated health post activities



**Picture 2.** road conditions in Tulungrejo Village

Interventions to reduce maternal mortality rates include improving maternal mental health, namely through psychoeducation combined with mindfulness. Psychoeducation is a treatment strategy that can be applied to individual settings to further develop coping skills to manage various problems and develop sources of support from the environment ([Anwar & Djuidiyah, 2021](#)). Mindfulness with deep breathing techniques starts from the present experience, the body scanning stage, and then to the acceptance stage so that pregnant women can create space to accept uncomfortable feelings and emotions and begin to make peace with some uncomfortable things ([Reza et al., 2023](#)). In addition to these interventions, the community service workers also practice batik skills, namely Blitar's signature splash batik, where batik activities are a therapy to shape the soul to achieve emotional intelligence because they train discipline, focus, concentration, and patience ([Jais et al., 2022](#)). Then pregnant women will be taught how to promote and market so that it can be used as economic income. According to the village midwife, interventions or programs to improve mental health in pregnant women have never been done, the posyandu for pregnant women only provides pregnancy checks and vitamins, so the psychoeducation intervention combined with mindfulness is the first intervention carried out in the village, so it is necessary to train midwives and cadres of the Tulungrejo village posyandu as facilitators for pregnant women.

## METHOD

Community service activities were carried out in Tulungrejo Village, Wates District, Blitar Regency, this activity was carried out from June to September 2024. The number of respondents was 25 pregnant women. There are 5 stages in implementing community service activities, including: the first stage is to socialize the community service program with the Head of

Tulungrejo Village, the Secretary, the Head of the Welfare Section, and midwives in the Tulungrejo Village area. Then, recruiting experts to make batik and planning batik motifs that are adjusted to the symbol or logo of Tulungrejo village. The second stage is psychoeducation training with a combination of mindfulness. The implementation of this second stage is divided into 4 sessions, namely problem identification, knowledge management, stress management, depression, burden/obstacles with mindfulness, and evaluation. The third stage is the application of technology by implementing the "SHE" application to measure the mental health experienced by pregnant women. The fourth stage is mentoring and evaluating pregnant women regarding the development of their mental health, this activity is carried out by students assisted by posyandu cadres. The fifth stage is the continuation stage of the pregnant women empowerment program to improve mental health through psychoeducation activities with a combination of mindfulness. The sustainability of the program by increasing the productivity of pregnant women to support the family economy so that mothers become independent, the service team held a training to make batik with the motif of the symbol or logo of Tulungrejo village, batik will be made on quality fabric, so that it will have a high selling value. The instrument used to measure the mental health of pregnant women uses the DASS questionnaire (Depression, Anxiety and Stress). Analysis to determine the difference in depression, anxiety and stress before and after the intervention using Wilcoxon.

## RESULTS

The implementation of community service activities in Tulungrejo Village, Blitar Regency was carried out to solve the problems in Tulungrejo Village, namely the mental health of pregnant women. This activity has gone through 5 stages, namely: socialization and recruitment, psychoeducation training with a combination of mindfulness for pregnant women, application of technology using the "SHE" application, mentoring and evaluation, and sustainability of community service programs.

**Table 1.** Distribusi frekuensi karakteristik responden (n=25)

Respondent Characteristics	Category	Σ	%
Age	≤ 20 years	14	56
	21-25 years	7	28
	26-30 years	2	8
	≥ 31 years	2	8
Age at marriage	≤ 20 years	19	76
	21-25 years	4	16
	26-31 years	2	8
last education	Junior High School	7	28
	Senior High School	18	72
Residence	Own house	7	28
	parents' house	18	72
Parity	None	17	68
	1 – 2	7	28
	≥ 3	1	4
Knowledge of pregnant women before intervention	Good	5	20
	Enough	8	32
	Poor	12	48
Knowledge of pregnant women after intervention	Good	18	72
	Enough	7	28
	Poor	0	0

From the table above, it is proven that around 56% are aged ≤ 20 years, 76% when married were aged ≤ 20 years, 72% had a high school education / equivalent, 72% still live with their parents, and 68% are their first pregnancy, the knowledge of

pregnant women before the intervention was carried out was 20% in the good category and after the intervention was carried out 72% in the good category.

**Table 2.** Frequency Distribution of Depression, Anxiety, and Stress Categories in Psychoeducation and Mindfulness Training (n=25)

Variable	Category																P-value
	Before intervention								After intervention								
	Normal		Mild		Moderate		Severe		Normal		Mild		Moderate		Severe		
Σ	%	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%		
Depression	1	64	4	16	5	20	0	0	25	100	0	0	0	0	0	0	0.000
Anxiety	0	0	0	0	19	76	6	24	22	88	3	12	0	0	0	0	0.000
Stress	6	24	16	64	3	12	0	0	22	88	3	12	0	0	0	0	0.000

The table above shows the differences before and after the psychoeducation training treatment with a combination of mindfulness, namely depression, anxiety, and stress p-value = 0.000 ≥ 0.05.

## DISCUSSION

Community empowerment through psychoeducation training with a combination of mindfulness held in Tulungrejo Village, Wates District, Blitar Regency is very popular with the community, especially pregnant women, this is because this training was first carried out by pregnant women. Community empowerment activities were carried out in 5 stages. The first stage

was conducting socialization and recruitment of experts as resource persons and trainers for batik making and marketing. Trainer batik form Bati Turi Blitar. At this stage, an agreement was reached on the start time for psychoeducation training with a combination of mindfulness attended by 25 pregnant women.

The second stage is conducting psychoeducation training with a combination of mindfulness which is carried out for 4 sessions including the identification of problems of pregnant women, during this first session there is "trust" between the companion and the pregnant woman so that the pregnant woman expresses the problems she is facing; knowledge management, in this second

session the pregnant woman is given information about danger signs of pregnancy, maintaining mental health during pregnancy. In this second session, the pregnant woman is very interactive, there is a positive feedback process, and tells the conditions and feelings she is currently feeling; in the third session, mindfulness is carried out which is interpreted as meditation in yoga. Pregnant women do yoga meditation techniques, starting with doing several yoga movements and ending with meditation, in meditation, the pregnant woman regulates her breathing slowly and follows the rhythm so that the body and mind feel comfortable, psychological burdens and obstacles can be reduced. The fourth session is an evaluation. In this session, the devotee explores the potential that has negative and positive impacts. In this session, the pregnant woman finds self-confidence and positive hopes that can reduce anxiety, stress, and depression during pregnancy.



**Picture 3.** Psychoeducation and mindfulness training activities

The third stage is implementing technology using the "SHE" application as a preventive measure to overcome anxiety problems during pregnancy. The "SHE" application contains anxiety level screening tests and tips for overcoming anxiety, this application can be downloaded on an Android phone and is easy to operate. The application is also used by the service team in assisting pregnant women to assess the level of maternal anxiety so that it is expected to prevent excessive anxiety, stress, and depression in pregnancy. Assistance for pregnant women as a form of psychological support to provide peace and comfort so that complications in pregnancy do not occur and can prepare them for their new role as mothers.



**Picture 4.** Downloading and using the "SHE" application

The fourth stage of mentoring and evaluation. At this stage, mentoring of pregnant women and evaluation were carried out using the DASS questionnaire. The results obtained were that the level of knowledge of pregnant women before the psychoeducation and mindfulness activities was 48% in the poor category, but after this activity, the level of knowledge increased to 72% in the Good category and 28% in the sufficient category. This is because when this community service activity was held, pregnant women were active and interactive, as well as the community service team provided mentoring to monitor the condition of pregnant women and provided explanations about high risks and prevention during pregnancy, as well as monitoring pregnant women to always do mindfulness at home in the morning or evening to overcome anxiety, depression, and stress during pregnancy. Then the psychoeducation activity with a combination of mindfulness showed a significant difference between depression before and after treatment of  $p\text{-value } 0.000 \leq \alpha 0.05$ . Psychoeducation training combined with mindfulness, can help pregnant women reduce fear and anxiety so that they can accept the conditions they experience ([Kristyaningrum & Moordiningsih, 2022](#)). At the stage of providing psychoeducation, the process of identifying problems in pregnant women, managing knowledge, and revealing psychological problems is carried out so that psychoeducation involves communicating structured information about mental health problems and how these problems can be improved ([Mhango et al.,](#)

2024). A study in Surakarta, Indonesia showed that psychoeducation significantly reduced depressive symptoms in pregnant women after intervention (Kusumawati et al., 2023). Mindfulness conducted over 8 45-minute sessions has been shown to reduce anxiety levels, improve the mental well-being of pregnant women, and reduce the risk of postpartum depression (Hassdenteufel et al., 2023; Sun et al., 2023).

The fifth stage of the program's sustainability by making batik to train pregnant women to focus so that they can manage anxiety, stress, and depression. In Javanese society, to balance the soul, they do meditation or mindfulness and the tradition of batik. It is hoped that pregnant women can make batik after finishing housework or during their free time. The skill of making batik is focused on alleviating feelings of anxiety and depression during pregnancy. Pregnant women who are directly involved in making batik can regulate emotions, patience, and process cognitive. Batik with a typical Tulungrejo village motif can be used as a new commodity and can improve the economy of pregnant women. This is because most pregnant women are housewives who do not have an income so the results of this batik can be sold both online and offline which can improve the family economy.

## CONCLUSION

The conclusion of the results of this community service activity is a decrease in anxiety to the normal category by 88%, a decrease in depression in the normal category by around 100%, and stress in the normal category by around 88% in pregnant women with psychoeducation activities with a combination of mindfulness, the use of the "SHE" application as a preventive measure for pregnant women to overcome anxiety, mentoring pregnant women and the making and marketing of Tulungrejo batik.

## SUGGESTION

Psychoeducation combined with mindfulness is one of the actions to reduce anxiety, depression, and stress experienced by pregnant women. Mindfulness activities are simple activities that can be used by pregnant women every morning or evening to regulate breathing rhythm so that anxiety can decrease, and the "SHE" application is also used by pregnant women at any time without paying or re-updating.

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## CONFLICTS OF INTEREST

The devotees stated that there was no conflict of interest in this activity. The entire process of devotion to publication was carried out by the devotees with the cooperation agreement of the partner, namely Tulungrejo Village, Wates District, Blitar Regency.

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