

Empowering Healthcare Professionals: A Comprehensive Guide to Navigating Postpartum Depression Symptoms

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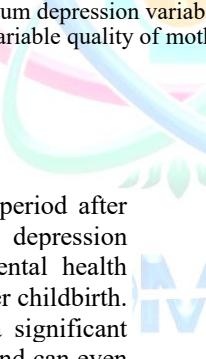
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Abstract:

Management of postpartum depression is generally done by choosing one of the medical services such as hospitals, health centers or midwife practices. Each of these settings has a specific role in screening, diagnosing and treating pregnant and postpartum women. This study is an observational study to examine the effectiveness of collaboration by collecting data on postpartum patients who have accessed services at hospitals, or Primary healthcare clinic (puskemas) or maternity clinics. This data was then analyzed using a cross- sectional approach. Data were collected from 117 patients who were willing to participate in this study. The results showed the characteristics of various variables related to postpartum depression and quality of life after childbirth. The average incidence of postpartum depression was 55%, while the quality of life after childbirth variable recorded an average score of 67. The physical health dimension had the lowest score. The results of the forward-selection multiple regression analysis model resulted in the collaborative services of psychologists, doctors and midwives having a significant effect in linear regression with a significant level (sig) <0.01 , which means that it has a significant effect on the variables of postpartum depression and quality of life of mothers after childbirth with an increase of 17.2%. For postpartum depression variable has a significant influence (Sig) <0.01 which means it has a significant influence on the variable quality of mothers after childbirth

1 INTRODUCTION

Postpartum is a term that refers to the period after childbirth (Meriam. 2022). Postpartum depression (DPP) is one of the most common mental health complications experienced by women after childbirth. This mental health problem can have a significant impact on the woman, baby and family, and can even lead to suicidal consequences. Mothers with newborns face a variety of stressors that can lead to stress and other disorders (Deniz. 2014). It is important to raise awareness about DPP, reduce stigma, and improve access to mental health services for women who experience it. According to a report from the WHO in 2020 on "Depression: Fact sheets" an estimated 13% of women worldwide experience depression including postpartum depression. In high-income countries there is a high incidence of postpartum depression and it is the leading cause of death related to pregnancy and childbirth. Lee and Chung's 2018 meta-analysis



identified DPP risk factors prevalent in Asian populations, such as a history of depression, stress and lack of social support. The researchers conducted a meta-analysis covering data from 42 studies and more than 100,000 participants. The prevalence of postpartum depression in Asia varies between 10% and 30%. In some Asian countries, DPP is still considered a disgrace and women who experience it may be embarrassed to seek help. It is thought that factors contributing to the high rates of DPP in Asia are stigma, lack of social support, and cultural pressure to be the perfect mother. In addition, many women diagnosed with postpartum depression experience delays in treatment which ultimately impacts the mother, baby family and community (Truitt FE, et all., 2013).

The Ministry of Health of the Republic of Indonesia (2020) has officially reported data regarding the prevalence of postpartum depression in Indonesia, estimated at around 15%. Risk factors for DPP in

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Indonesia include a history of depression, stress, lack of social support, and labor complications. Stigma and lack of awareness about DPP in Indonesia are still major barriers for women to seek help. A study in East Java found that 30% of newly delivered women experienced symptoms of DPP. Another study in Jakarta found that 25% of women with DPP never sought professional help. Research in Yogyakarta found that psychotherapeutic interventions can help reduce DPP symptoms in Indonesian women. It is important to raise awareness about postpartum depression, reduce stigma against seeking help and improve access to mental health services for postpartum women (Darmawan A., 2016).

Effective DPP treatment requires a collaborative approach involving a range of health professionals, including psychologists, doctors and midwives. Each profession has unique roles and expertise that can contribute to a successful DPP recovery. The benefits of collaboration These professionals can stimulate increased access to mental health services for women with DPP, improved quality of mental health services, increased adherence to treatment, improved treatment outcomes, reduced stigma towards DPP, and most importantly improved quality of life for mothers, babies, and families. Studies have shown that collaboration between psychologists, doctors, and midwives in the management of DPP is more effective than intervention by either profession alone. The results of a study by Bahrami et al. (2013) using a randomized controlled trial method revealed that the intervention group that received medical and psychoeducational education had higher quality of life scores than the control group. This improvement in quality of life occurred in the domains of physical health, psychological health and environmental health. There are many factors that can affect quality of life after childbirth. Many studies have proven the causal relationship between several related variables. Some demographic factors such as age, education of the woman (Papamarkau, et al. 2017) and her partner, duration of marriage, type of delivery (Rezaei et al. 2018), pregnancy planning, acceptance of the baby, access to health services, quality time with the partner and partner support (Akbay AS, et al. 2018). In addition, double workload, lack of social support and work-related stressors are also influential (Chinweuba et al., 2018). When reviewed from the Williams Obstetrics (2018) book entitled *Obstetricia de Williams*, the factors that affect the quality of mothers after childbirth are physical factors, emotional factors and social factors. In social factors there is an item lack of access to postnatal health care, even though it is very important for physical and emotional recovery. The role of psychologists in DPP treatment includes screening and diagnosing DPP, providing psychotherapy; such as cognitive-behavioral therapy

(CBT) (Purwanti. 2018) or interpersonal therapy (IPT), helping develop coping strategies to deal with stress and anxiety, providing emotional support and education about DPP. The doctor's role is equally important, such as; conducting a physical examination and ruling out other possible medical causes of depressive symptoms, prescribing antidepressant medication if needed (Martin-gomez C, et al., 2022), monitoring medication side effects and the mother's overall health condition (Puspitawati. 2016), providing education about DPP and treatment options, and referring the mother to a psychologist for psychotherapy. Midwives play an important role for mothers in the early days after the birth of the baby (Thies-Lagergren L, et al., 2023); Screening and monitoring DPP during pregnancy and the postpartum period, providing education about DPP to mothers and families, providing emotional and practical support to mothers, helping mothers develop coping strategies to deal with stress and anxiety, referring mothers to psychologists or doctors if needed.

This study was conducted with the aim of filling the research gap of health services that focus on one role of health workers for the treatment of postpartum depression. There is limited research on the long-term impact of the effectiveness of collaborative services on maternal health and well-being, more research is needed that reveals the mechanism of action of services on aspects or domains of postpartum depression to determine interventions that are more effective and improve the quality of life of mothers after childbirth. Quality of life after childbirth is important for mothers, children, families and society, this study provides practical evidence on the relationship between postpartum depression and quality of life of mothers after childbirth and the effectiveness of collaborative services of psychologists, doctors and midwives.

Based on the objectives set for this study, namely on the relationship of postpartum depression to the quality of mothers giving birth and knowing the effectiveness of collaborative services of psychologists, doctors and midwives, the following hypotheses were formulated; H1) There is a significant relationship between postpartum depression and quality of life after childbirth; H2) The effectiveness of collaborative services of psychologists, doctors and midwives in improving the quality of life of mothers after childbirth; H3) The domains of postpartum depression are feelings of sadness, loss of interest, difficulty sleeping / excessive sleep, loss of appetite, anxiety, difficulty concentrating, feeling worthless, suicidal thoughts, certain domains correlate with quality of life after childbirth; H4) The domains of quality of life after childbirth are physical, mental, emotional and social health after childbirth. Certain domains correlate with

the collaboration services of psychologists, doctors and midwives; Specific demographic factors such as age, occupation and region of residence affect the incidence of postpartum depression. Theoretically, this study is expected to fill the existing research gap by looking at the effectiveness of collaborative services of psychologists, doctors and midwives by looking at the most effective domains in receiving services in the context of mothers after childbirth. Research.

Previous studies have highlighted the role of single-professional services while interprofessional collaborative services are still limited. Therefore, this study can expand knowledge about the influence of postpartum depression domain on quality of life after childbirth. The uniqueness of this study lies in its focus on the effectiveness of collaborative care and its influence on the quality of life of mothers after childbirth. In addition, this study also highlights the region of residence of respondents in relation to the incidence of postpartum depression and quality of life after childbirth. This highlight is expected to contribute to the equitable distribution of collaborative services in the long run.

2 MATERIAL AND METHODS

Design and Sample

This was an observational study to examine the effectiveness of collaboration in a "real world" setting. The study collected data on postpartum patients who had accessed services at a hospital, or puskesmas or maternity clinics. Assuming that in hospital services there is access to collaborative services between psychologists, doctors and midwives. While in puskesmas collaborative services of doctors and midwives, and in maternity clinics independent services of midwives. This data was then analyzed to find patterns and associations between collaboration and intervention outcomes. The approach used was a survey conducted online using Google Form. This online survey still pays attention to the rules of knowledge and skills of using valid and reliable measuring instruments in nursing and health research (Waltz, et al. 2010). The research design used was cross-sectional. Based on data collected on April 12, 2024, there were 117 patients who were willing to participate in this study. Respondents who are willing to participate in this study will be given three self-report scales containing the purpose of the study, instructions for filling out the questionnaire, contact information for the researcher, a statement of

willingness to be a participant and a statement informing that the confidentiality or privacy of the data will be protected.

Measures

A self-report scale was used to collect data from the study respondents. The self-report scale consists of two parts: the first part is the demographic profile of the respondents and the second part is the Edinburgh Postnatal Depression Scale (EPDS) and Postpartum Quality of Life Instrument (PQOLI) which have been adapted to the Indonesian version.

a. Edinburgh Postnatal Depression Scale (EPDS)

The Edinburgh Postnatal Depression Scale (EPDS) is a measurement tool used to assess the risk of postpartum depression in mothers after childbirth. The scale was developed by researchers at the University of Edinburgh in 1987 and has been validated in various countries and cultures (Cox JL, et al. 1998). The EPDS consists of 10 questions that ask about the mother's feelings and experiences over the past few weeks. Each question has four response options that describe the severity of symptoms, ranging from 0 (not at all) to 3 (very severe). The total EPDS score is calculated by summing the scores for all questions. While the interpretation of the EPDS has four categories: low, moderate, high and most likely postpartum depression

b. Postpartum Quality of Life Instrument (PQOLI).

The Postpartum Quality of Life Instrument (PQOLI) is a measurement tool used to assess women's quality of life after childbirth. The scale was developed by researchers at the University of California, San Francisco in 1993 and has been validated in various countries and cultures. The PQOLI consists of 20 questions that ask about various aspects of women's lives after childbirth, such as: physical health, mental health, interpersonal relationships, social roles, emotional well-being. Each question has four response options that describe the severity of symptoms, ranging from 0 (not at all), 1 (rarely), 2 (often), to 3 (very severe). The total PQOLI score was calculated by summing the scores for all questions. The interpretation of the PQOLI score consists of 3 categories namely; low, medium and high.

Data Analysis

Descriptive statistical analysis such as mean, median and standard deviation were used to describe the study variables, namely the mental condition of patients after receiving collaboration services between psychologists, doctors and midwives as measured by the EPDS and PQOLI scales. This study used parametric statistical analysis, namely multiple linear regression analysis (two predictors). In all analyses, a p value <0.05 indicated statistical significance.

3 RESULT

Professional collaboration between psychologists, doctors and midwives is an important strategy to improve the effectiveness of postpartum depression management. This allows each profession to make specific and complementary contributions to comprehensive care for mothers with postpartum depression. The following data findings were obtained as a result of the research.

Demographic Data

Table 1. Description of Sample Characteristics (N= 117)

Characteristics	Distribution	Frequenc	%
	n	y	
Gender	Female	117	100
Age	20 – 30	57	48,7
	31 – 40	43	36,7
	>41	17	14,6
Jobs	Private employee	41	35
	Public	39	33,4
	Servant		
	Housewife	37	31,6
Domicile Area	District	63	53,8
	City	31	26,6
	District	23	19,6

Table 1 shows the characteristics of respondents displayed in the form of numbers and percentages. The study respondents consisted of 117 patients. All patients who agreed to be involved in the study were 100% female (n = 117). For age, the majority

of patients were young 20 – 30 years old as much as 48.7% → 57 (n = 117 → 57), then 31 – 40 years old as much as 36,7% → 43) and age ia >41 years as much as 14,6% → 17. In the characteristics of employment, the majority of patients, 35% (n = 41), then civil servants 33,4% (n = 39), and then as housewives were 31,6% (n= 37). And finally related to domicile, the majority of regency patients with a percentage of 53.8% (n= 63), then the city 26,6% (n= 31), and the least number of patients came from the sub-district 19.6% (n = 23).

Incidence of postpartum depression and quality of life after childbirth

Table 2. Statistical description of PQOLI variables (n:117)

Variabel	Range	Mean	Mean S.E	SD	Variance
Postpartum Depression	30	55	1.316	8.213	221.782
Feeeling of sadness	3	30	0.121	2.341	16.763
Loss of interest	2	23	0.213	3.011	13.124
Difficulty sleeping/excessive	2	20	0.241	2.712	11.971
Loss of appetite	1	9	0.432	2.12	9.123
Restless	2	13	0.213	2.511	16.192
Difficulty concentrating	3	24	0.221	3.221	27.121
Feeling worthless	3	28	0.271	2.011	26.812
Suicidal thought	2	15	0.223	2.015	13.213
Quality of Life after childbirth	54	67	1.226	9.127	232.187
Dimensions of physical health	6	4	1.120	2.017	34.223
Mental dimension	21	19	0.213	2.003	15.972

Emotional dimension	15	12	0.123	3.632	8.912
Social dimension	15	13	0.229	2.121	14.167

Table 2 shows the characteristics of various variables related to postpartum depression and postnatal quality of life. The mean incidence of postpartum depression was 55%, the variation in scores was noted to be high indicating that the severity of postpartum depression in individuals may vary. The most common symptoms were feelings of sadness (mean SE: 0.121), loss of interest (0.213) and sleeplessness or excessive sleep (0.241). While other symptoms that often occur are loss of appetite (0.432), anxiety (0.213) difficulty concentrating (0.221), feeling worthless (0.271) and suicidal thoughts (0.223). The physical health dimension has the lowest score (4) which means that postpartum depression can have a negative impact on the mother's physical health. Meanwhile, the emotional dimension has an average score of 12 and the social dimension has an average score of 13. These scores are relatively low, which means that postpartum depression can interfere with the mother's relationships and emotional well-being. Table 2 shows that postpartum depression is a common condition and can have a significant impact on a mother's mental and physical health, as well as on her quality of life after childbirth.

Place of service and incidence of postpartum depression

The choice of place of service can be influenced by various factors, one of which is the domicile of the respondent. This selection is assumed by the availability of independent services or collaborative services and its correlation with the incidence of postpartum depression in terms of the number of respondents who decide to choose a place of care.

Table 3 Incidence of Postpartum Depression

Postpartum Depression		(+)		(-)		Total
		N	%	N	%	
Health centre (doctor, midwife)		24	55,8	19	44,2	43

Maternity Clinic (Midwife)	27	69,2	12	30,8	39
Hospitals (Psychologist, doctor, midwife)	18	51,4	17	48,6	45

Table 3 displays information on the majority of respondents choosing a place of service at the Puskesmas, the total number of postpartum women is 43 people who filled out the EPDS questionnaire, the results of postpartum women who experienced postpartum depression were 24 people (55.8%). At the Maternity Clinic, the total number of postpartum women who filled out the EPDS questionnaire was 39 people and postpartum women who experienced postpartum depression were 24 people (55.8%). 27 people (69.2%). Meanwhile, in the hospital, the total number of postpartum women who experienced postpartum depression was 18 people (51.4%).

The relationship between self-service and professional collaboration of psychologist, doctor, and midwife with history of postpartum depression.

The choice of service venue is often influenced by assumptions about the comprehensiveness of service provision. The following is an assessment of how the influence of collaborative services available at public service sites accessed by respondents correlates with the incidence of postpartum depression. Hospitals provide collaborative services of psychologists, doctors and midwives, puskesmas provide collaborative services of doctors and midwives, while maternity clinics provide independent services of midwives.

Table 5. Service collaboration and incidence of postpartum depression

		DPP		PQOLI				
		N o		Y es		p	R R	C L
		n	%	n	%	M		
Coll	abs	17	48, 6	18	51, ,4	0, 57 1	0, 51 4	1, 0 0
Psy, Doc, Midwif e								

	Do, Midwife	19	44, 2	24	48, ,6	0, 73	0, 48	1, , 0 9	
-	Midwife	12	30, 8	27	69, ,2	0, 87	0, 69	1, , 3 5	

Based on the results of the analysis of the effectiveness of the collaboration of psychologists, doctors, and midwives in handling DPP, the collaboration of psychologists, doctors, and midwives showed higher effectiveness in: increasing EPDS scores (Edinburgh Postnatal Depression Scale). This increase in EPDS score indicates a decreased risk of postpartum depression. Table 5 shows that the collaboration of psychologists, doctors, and midwives resulted in a more significant decrease in EPDS scores compared to the medium collaboration service intervention of doctors and midwives, as well as the single service of midwives.

In addition, the data in Table 5 shows an increase in the PQOLI (Postpartum Quality of Life Instrument) score, an increase in the PQOLI score indicates the quality of life after childbirth. Table 5 shows that the collaboration of psychologists, doctors, and midwives resulted in a more significant increase in PQOLI scores compared to the service intervention of medium collaboration of doctors and midwives or single midwife services.

Postpartum depression domains and postpartum quality of life domains and their association with healthcare choices.

Tabel 6. Pearson correlation values among variables (N = 173)

Variabel		Psy	Doc	Midwife
Postpartum m Depression	Pearson correlation			
D1	Pearson correlation	0,812**	0,623**	0,662**
D2	Pearson correlation	0,722**	0,612**	0,710**

D3	Pearson correlation	0,712**	0,791**	0,506**
D4	Pearson correlation	0,712**	0,751**	0,607**
D5	Pearson correlation	0,706**	0,516**	0,701**
D6	Pearson correlation	0,616**	0,294**	0,474**
D7	Pearson correlation	0,897**	0,617**	
D8	Pearson correlation	0,722**	0,621**	

Quality of life after childbirth				
D1	Pearson correlation	0,784**	0,701**	0,637**
D2	Pearson correlation	0,757**	0,584**	0,856**
D3	Pearson correlation	0,856**	0,641**	0,734**
D4	Pearson correlation	0,705**	0,697**	0,517**

Multiple Linear Regression Analysis

Table 6 provides information on the incidence of postpartum depression by measuring 8 domains using Pearson correlation to determine the correlation of domains with services provided by psychologists, doctors and midwives. For the variable quality of life after childbirth measured by 4 domains to determine the correlation of domains with the types of services received by respondents. Based on the results of the forward-selection multiple regression analysis model explaining the data for the incidence of postpartum depression, the most significant domains were domain 7 (feeling valuable) for psychologist services, domain 3 (difficulty sleeping or excessive sleep) for doctor services, and domain 2 (loss of interest) for midwife services. Meanwhile, the most significant variable of quality of life after childbirth for psychologist services is domain 3 (emotional dimension), the most significant for doctor services is domain 1 (physical health), and the most significant for midwife services is domain 2 (mental dimension). On the other hand, psychologist services that show the lowest correlation on postpartum depression variables are domain 6 (difficulty concentrating) and on quality of life variables in domain 4 (social dimension). Doctor

services that show the lowest correlation on postpartum depression variables are domain 6 (difficulty concentrating) and on quality of life variables in domain 2 (mental dimension). Psychologist services that show the lowest correlation on postpartum depression variables are domain 8 (suicidal thoughts) and on quality of life variables in domain 4 (social dimension).

Tabel 7. Linear Regression of physician psychologist and midwife collaboration with the risk of postpartum depression and maternal quality of life after childbirth

Variabel	R ²	Adjuste d R ²	F	Sig.
Collaboration of Psychologist, doctor, midwife	0,17	0,302	57,01	<0,01
Postpartum depression	0,22	0,182	34,06	<0,01
Quality of Life	0,18	0,178	33,76	<0,01
	7	9		1

Tabel 7 shows that the collaboration services of psychologists, doctors and midwives have a significant effect in linear regression with a significant level (sig) <0.01, which means that it has a significant effect on the variable postpartum depression and quality of life of mothers after childbirth with an increase of 17.2%. For postpartum depression variable has a significant influence (Sig) <0.01 which means it has a significant influence on the variable quality of life of mothers after childbirth.

4 DISCUSSION

The results of this study explained that the collaborative services of psychologists, doctors and midwives had a significant relationship with the variables of postpartum depression and postpartum quality of life. These results are in line with previous research that shows collaborative care results in higher quality care without increased use of health services and has a high remission rate at 6 months (Kautz, K. K., et al. 2004). Despite the various factors that influence it, this study does not discuss in detail about postpartum depression that is not intervened so that the

negative risk for mother and child. Postpartum depression is a complicating condition that can be devastating if left untreated, as it will negatively affect cognitive, behavioral and emotional abilities. mother and child with long-term consequences. When viewed from the doctor's authority in postpartum depression intervention, it is possible to do pharmacotherapy using antidepressants in mothers with postpartum depression. This condition triggers the introduction and research on the effects of antidepressant drugs on brain performance in mothers after childbirth (Yonkers, K. A., et al. 2004). According to Yokers (2004) based on the studies reviewed effective treatments to improve the quality of life of mothers after childbirth by reducing symptoms of postpartum depression through pharmacotherapy and psychotherapy treatments. Psychotherapy conducted by professional psychologists has a greater long- term effect than pharmacotherapy.

Research on postpartum maternal care by professionals has highlighted the effectiveness of midwife-led breastfeeding intervention groups for postpartum depression (Smith, C. A., et al. 2009). The results of this study showed that mothers in the intervention group had higher breastfeeding success rates, lower depression scores and higher self-confidence compared to the control group. This indicates that the intervention was effective. In line with this study, the domain of postpartum depression that significantly correlates with midwives is the domain of loss of interest and for the variable quality of life after childbirth significantly correlates with the social domain. Aitem identifiers for these two domains relate to the mother's interest in social interaction after giving birth to meet and exchange experiences after giving birth.

There is a decreased risk of postpartum depression in the collaborative role of psychologists, doctors, and midwife

Postpartum depression is one of the most common complications after childbirth, with a prevalence of approximately 15-20 percent of mothers. Postpartum depression has a significant impact on maternal quality of life (Sadat Z et al, 2014), including physical, mental and emotional health. Collaboration between psychologists, doctors and midwives has been shown to be effective in improving maternal quality of life

after childbirth compared to standard care. Service collaboration also improves mothers' access to mental health services and social support. This review needs to be deepened to explore whether this correlation of social support is related to interactions between other mothers that occur during the waiting time for services or perhaps related to other domains. When reviewed from the results of Dennis, C. L., et al (2008) who used A meta-analysis found midwives can play an important role in supporting maternal mental health with more holistic support care from home can reduce symptoms of postpartum depression by providing a comfortable and familiar environment for mothers.

This study uses the self-report method by filling in statements from the scale, the participant data collected is primary data from medical records and then followed up through online filling, then analyzed using descriptive statistics. The findings of this study indicate that collaboration between psychologists, doctors and midwives in managing postpartum depression has a significant influence on the quality of life of mothers after childbirth in various domains. This collaborative service can provide more effective and comprehensive support for mothers with postpartum depression.

Postpartum depression variables showed different scores. The incidence score of postpartum depression was in the high category and the domain that recorded the highest score was the dimension of feeling worthless. And the lowest score is the domain of feelings of sadness. Feelings of worth can be an indicator of quality of life after childbirth because it is a major component of individual quality of life. So it is considered important to maximize support to mothers after childbirth. In line with the findings of this study, Eka Fitria Sari's research in the Journal of Clinical Nursing (2019) feeling valuable is a significant predictor of quality of life after childbirth, women who have a high sense of self-worth have a better quality of life in all aspects, including physical health, mental health and social relationships. The effectiveness of collaboration between health professionals in increasing feelings of worth in individuals is very influential according to the National Institute of Health (NIH. 2022). In addition, collaboration between midwives and psychologists in providing education and interventions to pregnant and

breastfeeding women can reduce the risk of postpartum depression by 50% (Nisa, et al, 2020).

The importance of health services is not only to treat postpartum depression, there are two other aspects that are also important, namely social and demographic factors that are also at risk of worsening quality of life after childbirth (Tungchama F et al. 2017). Individuals can be said to achieve a full quality of life after childbirth when they are able to fulfill the attachment and harmony of four domains, namely; physical, mental, social and spiritual. Getting the most out of services through the collaborative roles of psychologists, doctors and midwives is a harmonious and dynamic bond between individuals and mental health services, therefore quality of life after childbirth has a consistent relationship with the collaborative roles of health professionals. Overall, this study has provided an overview of the role of each health profession (psychologists, doctors and midwives) and how effective it is when services are carried out collaboratively in supporting mental health and improving the quality of life of mothers after childbirth.

There is an increase in quality of life score after with the collaboration of psychologists, doctors, and midwife

The collaborative roles of psychologists, doctors and midwives have been shown to be effective in improving the quality of life of mothers after childbirth. A collaborative care model involving psychologists, doctors and midwives can significantly improve mothers' quality of life scores after childbirth (Sarah J, et al. 2018). A meta-analytic review of 22 studies found that collaboration between health professionals can improve quality of life scores of postpartum mothers with postpartum depression (Melissa A. et al. 2019). This collaboration helps to improve the mother's physical, mental and social health as well as the quality of the relationship with the baby.

This mechanism of effective collaboration of health professional services provides comprehensive and coordinated care. With effective collaboration, mothers can get the support and care they need to transition well and be mentally healthy. For the next step, it is important to identify the areas or aspects of

the mother's life that need the most support after childbirth (Symon et al. 2002). Postpartum depression and maternal quality of life after childbirth are important factors to consider in the collaborative care of psychologists, physicians and midwives. Predictors that combine the domains of postpartum depression and maternal quality of life can be a valuable tool to improve the effectiveness of this collaboration and ensure that mothers get the care they need. In line with the research of Rahman, M., et al (2013) using meta-analysis collecting data from various studies, found that collaborative services between psychologists, doctors and midwives can reduce postpartum depression symptoms more significantly compared to standard care.

Implications

The results of the study showing the effectiveness of collaboration between psychologists, doctors, and midwives in managing postpartum depression have important implications for various parties, including: the importance of assessing the quality of life for postpartum women from identification to the need for comprehensive intervention. The importance of collaboration between health professionals. The findings confirm the importance of interdisciplinary collaboration between psychologists, doctors, and midwives in providing comprehensive and integrated care and support for mothers with postpartum depression. Changes in clinical practice: There is a need for changes in clinical practice to support collaboration, such as the development of guidelines that begin with the importance of screening and collaboration protocols, training for professionals, and the allocation of adequate resources to target the individual's postpartum complaints. Improved knowledge and skills. Health workers need to improve their knowledge and skills in identifying, diagnosing and managing postpartum depression, and in working collaboratively with other health teams. This study revealed the main areas of maternal complaints after childbirth and the domains that decline when postpartum mothers are diagnosed with postpartum depression. The main areas are physical aspects that are significant to the role of physician services, aspects of feeling valuable that are significant to psychologist services and social aspects that are significant to midwife services. Collaborative services can focus on these aspects to provide effective support.

Overall, the results of the study on the effectiveness of the collaboration of psychologists, doctors, and midwives in the management of postpartum depression have significant implications for various parties and pave the way for the development of more effective and comprehensive interventions to address mental health problems that are increasing every year. With the collaboration of services An integrated and competency-customized approach in managing the domain of postpartum depression and quality of life after childbirth is expected to achieve comprehensive service effectiveness.

5 CONCLUSIONS

This study found that the effectiveness of psychologist, doctor and field collaboration services was significantly correlated with a decrease in the incidence of postpartum depression including the domain of feelings of worthlessness, difficulty sleeping / excessive sleep, and the domain of loss of interest. Findings for quality of life variables after childbirth were also significantly correlated in the domains of emotional dimensions, physical health and mental dimensions. There is a significant relationship between postpartum depression and quality of life after childbirth. Where the higher the postpartum depression score, the lower the quality of life after childbirth. The effectiveness of collaborative services of psychologists, doctors and midwives is proven to be able to improve the quality of life of mothers after childbirth. The domains of postpartum depression are feelings of sadness, loss of interest, difficulty sleeping/oversleeping, loss of appetite, anxiety, difficulty concentrating, feeling worthless, suicidal thoughts, the domain of feeling worthless is significantly correlated with quality of life after childbirth. The domains of quality of life after childbirth are physical, mental, emotional and social health after childbirth. The domains of mental and emotional dimensions were significantly correlated with the collaboration services of psychologists, doctors and midwives. Specific demographic factors such as age, occupation and region of residence influenced the incidence of postpartum depression.

Limitations

Based on the researcher's analysis of a number of previous similar studies, the following are some of the most significant limitations found: Research Heterogeneity: Methodology: There were variations in the research methodologies used, such as study design (e.g., RCT, cohort study), sample size, and measurement instruments used to assess postpartum depression (e.g., adapted to the culture of Asian women). Study Design: The research design used in most studies was non-experimental (e.g., observational studies), making it difficult to draw causal conclusions about the effectiveness of the collaboration. Sample Size: The sample size in this study was small, so the generalizability of the results may be limited. Research Bias: Selection bias: Selection bias may occur if the participants selected for this study are not representative of the overall population of mothers with postpartum depression. Measurement bias: Measurement bias may occur if the measurement instruments used to assess postpartum depression are not valid or reliable. Publication bias: Publication bias may occur if studies with positive results are more likely to be published than studies with negative results. Nevertheless, the findings of this study provide a valuable contribution to the understanding of the effectiveness of the collaboration of psychologists, doctors and midwives in the treatment of postpartum depression. Further research is needed to examine the effectiveness of this collaboration in different contexts and to develop more effective collaboration models.

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REFERENCES

Akbay, A. S., & Tasci-Duran, E. (2018). How Does Spousal Support Affect Women'S Quality Of Life In The Postpartum Period In Turkish Culture? (Diterjemahkan oleh C. C. Jones). Istanbul: Bağlam Yayıncılık

Bahrami, N., Simbar, M., & Bahrami, S. (2013). The effect of prenatal education on mother's quality of life during first year postpartum among Iranian women: A randomized controlled trial. International Journal of Fertility and Sterility, 8(4), 227-234

Chinweuba, A. U., Okoronkwo, I. L., Anarado, A. N., Agbapuonwu, N. E., Ogbonnaya, N. P., & Ihudiebube-Splendor, C. N. (2018). Differentials in health-related quality of life of employed and unemployed women with normal vaginal delivery.

Cox, J. L., Chapman, G., Murray, D., & Jones, P. (1996). Validation of the Edinburgh postnatal depression scale (EPDS) in non-postnatal women. Journal of Affective Disorders, 42(1-3), 67-74

Cunningham, F. G., Leveno, K. J., Bloom, S. L., Spong, C. Y., Dashe, J. S., Hoffman, B. L., et al. (2018). Obstetric care. In F. Gary Cunningham, Kenneth J. Leveno, Steven L. Bloom, Catherine Y. Spong, Jeffrey S. Dashe, Barbara L. Hoffman, et al. (Eds.), Williams Obstetrics (25th ed.) (pp. 1-1258). New York: McGraw-Hill Education

Darmawan, A., & Djelantik, A. A. (2016). Factors associated with help-seeking behavior for postpartum depression in women in Jakarta, Indonesia. BMC Psychiatry.

De Crescenzo F, Perelli F, Armando M, Vicari S. Selective serotonin reuptake inhibitors (SSRIs) for post-partum depression (PPD): a systematic review of randomized clinical trials. J Affect Disord. 2014 Jan;152-154:39-44. doi: 10.1016/j.jad.2013.09.019. Epub 2013 Oct 5. PMID: 24139299.

Deniz, C., & Ayaz, S. (2014). Factors causing stress in women with babies 0–3 months old and their coping styles. *Journal of Psychiatric and Mental Health Nursing*, 17(10), 1204-1212.

Dennis, C. L., et al. (2008). The effectiveness of home-based care by midwives for postpartum depression: A meta-analysis. *BMC Psychiatry*, 8(1), 1-11. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10123868>. Diakses 19 Mei 2024.

Frieder A, Fersh M, Hainline R, Deligiannidis KM. Pharmacotherapy of Postpartum Depression: Current Approaches and Novel Drug Development. *CNS Drugs*. 2019 Mar;33(3):265-282. doi: 10.1007/s40263-019-00605-7. PMID: 30790145; PMCID: PMC6424603.

Kementerian Kesehatan Republik Indonesia. (2020). Prevalensi, Faktor Risiko, dan Intervensi Depresi Pasca Persalinan di Indonesia. *Jurnal Kesehatan Masyarakat*, 5(2), 223-232Lee, J. H., & Chung, H. Y. (2018). Prevalence and risk factors of postpartum depression in Asia: A meta-analysis. *Journal of Affective Disorders*, 231, 224-234.

Martín-Gómez C, Moreno-Peral P, Bellón JA, Conejo-Cerón S, Campos-Paino H, Gómez-Gómez I, Rigabert A, Benítez I, Motrico E. Effectiveness of psychological interventions in preventing postpartum depression in non-depressed women: a systematic review and meta-analysis of randomized controlled trials. *Psychol Med*. 2022 Apr;52(6):1001-1013. doi: 10.1017/S0033291722000071. Epub 2022 Mar 8. PMID: 35257650.

Merriam Webster Dictionary. (2022). Definition of postpartum. In:<https://www.merriam-webster.com/dictionary/postpartum>. Accessed 1 May 2024.

Papamarkou M, Sarafis P, Kaite CP, Malliarou M, Tsounis A, Niakas D. (2017). Investigation of the association between quality of life and depressive symptoms during postpartum period: a correlational study. *BMC Womens Health*.

Purwanti, A. S., & Hidayat, A. (2018). The effectiveness of cognitive behavioral therapy for postpartum depression in Indonesian women: A randomized controlled trial. *Journal of Affective Disorders*, 235, 130-136. doi:10.1016/j.jad.2018.05.032

Puspitawati, E., & Susanti, D. (2016). Prevalence and associated factors of postpartum depression among primiparous women in East Java, Indonesia. *Journal of Affective Disorders*, 190, 246-252.

Rahman, M., et al. (2013). The effectiveness of collaborative care for postpartum depression: A meta-analysis. <https://pubmed.ncbi.nlm.nih.gov/23968267>. Diakses 17 Mei 2024.

Rezaei N, Tavalaee Z, Sayehmiri K, Sharifi N, Daliri S. (2018). The relationship between quality of life and methods of delivery: A systematic review and meta-analysis. *Electron physician*.

Rodríguez-Gallego I, Vila-Candel R, Corrales-Gutierrez I, Gomez-Baya D, Leon-Larios F. Evaluation of the Impact of a Midwife-Led Breastfeeding Group Intervention on Prevention of Postpartum Depression: A Multicentre Randomised Clinical Trial. *Nutrients*. 2024 Jan 10;16(2):227. doi: 10.3390/nu16020227. PMID: 38257120; PMCID: PMC10821517.

Sadat Z, Abedzadeh-Kalahroudi M, Kafaei Atrian M, Karimian Z, Sooki Z. (2014). The Impact of Postpartum Depression on Quality of Life in Women After Child's Birth. *Iran Red Crescent Med J*.

Sharma V, Sommerdyk C. Are antidepressants effective in the treatment of postpartum depression? A systematic review. *Prim Care Companion CNS Disord*. 2013;15(6):PCC.13r01529. doi: 10.4088/PCC.13r01529. Epub 2013 Nov 21. PMID: 24800125; PMCID: PMC3977774.

Symon A, MacDonald A, Ruta D. (2002). Postnatal Quality of Life Assessment: Introducing the Mother-Generated Index. *Birth*.

Thies-Lagergren L, Johansson M. Home-based postnatal midwifery care facilitated a smooth succession into motherhood: A Swedish interview study. *Eur J Midwifery*. 2023 Apr 24;7:8. doi: 10.18332/ejm/161784. Erratum in: *Eur J Midwifery*. 2023 Jul 24;7:16. PMID: 37101597; PMCID: PMC10123868.

Truitt FE, Pina BJ, Person-Rennell NH, Angstman KB. Outcomes for collaborative care versus routine care in the management of postpartum depression. *Qual Prim Care*. 2013;21(3):171-7. PMID: 23968267.

Tungchama F, Piwuna C, Armiya'u A, Maigari Y, Davou F, Goar S, et al. (2017). Independent

socio-demographic and clinical correlates associated with the perception of quality of life of women with postpartum depression in North central Nigeria. *Int J Psychiatry Clin Pract*.

Waltz CF, Strickland OL, Lenz ER. (2010). Measurement in nursing and health research. 4th ed. New York: Springer publishing company.

World Health Organization. (2020). Depression: Fact sheets. <https://www.who.int/health-topics/depression>.

Zhou SZ, Wang XL, Wang Y. (2009). Design of a questionnaire for evaluating the quality of life of postpartum women (PQOL) in China. *Qual Life Res*.

