



Midwives' Knowledge, Attitudes, and Skills in Screening Maternal Health Postpartum

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Abstrak

Perinatal Mental Health (PMH) merupakan masalah kesehatan mental pada wanita hamil dan pasca melahirkan. Studi ini bertujuan untuk menganalisis pengetahuan, sikap, dan keterampilan bidan dalam melaksanakan skrining kesehatan mental bagi ibu postpartum. Penelitian ini menggunakan desain *Cross-Sectional* yang mensurvei 102 bidan. Pengambilan sampel dilakukan menggunakan *Consecutive Sampling*. Data penelitian dikumpulkan secara elektronik menggunakan kuesioner, yang didistribusikan melalui *WhatsApp* menggunakan teknik *Snowball* untuk mengevaluasi karakteristik, pengetahuan, sikap, dan keterampilan. Data dianalisis menggunakan SPSS versi 27 dan diuji menggunakan uji Chi-square dengan signifikansi pada $p < 0,05$. Sebanyak 52% menunjukkan tingkat pengetahuan yang tinggi, 51% memiliki sikap positif terhadap skrining PMH, dan 24,5% menunjukkan keterampilan yang baik di bidang ini. Analisis statistik mengungkapkan adanya korelasi signifikan antara sikap bidan dengan keterampilan, dan hanya karakteristik pelaksanaan skrining yang memiliki hubungan signifikan dengan pengetahuan bidan dengan nilai p sebesar 0,001. Penting untuk memberikan pelatihan bagi bidan dalam pelaksanaan skrining PMH untuk ibu postpartum guna memastikan hasil perawatan yang optimal.

Kata Kunci: Bauran Pemasaran, Kepuasan Pasien, Rumah Sakit

Abstract

Perinatal Mental Health (PMH) is a mental health issue in pregnant women and postpartum. This study aims to analyze the knowledge, attitudes, and skills of midwives in implementing mental health screenings for postpartum mothers. This research utilized a cross-sectional design that surveyed 102 midwives. The sampling was conducted using *Consecutive Sampling*. Research data were collected electronically using a questionnaire, distributed via *WhatsApp* using *Snowball* sampling to evaluate the characteristics, knowledge, attitudes, and skills. Data were analyzed using SPSS version 27 and tested using the Chi-square test with significant at $p < 0.05$. Amount 52% demonstrated a high level of knowledge, 51% have a positive attitude toward PMH screening and 24,5% presented proficient skills in this area. Statistical analysis reveals a significant correlation between midwives' attitudes with skills, and only the characteristics of screening implementation had a significant relationship with midwives' knowledge with a p -value of 0.001. It is essential to provide training for midwives in the implementation of PMH screening for postpartum mothers to ensure optimal care outcomes.

Keywords: Knowledge, Attitude, Skills, Screening, Perinatal Mental Health.

INTRODUCTION

Mental health is a condition when an individual feels healthy and happy, able to accept others, deals life's problems as they should, and has a positive attitude towards themselves or others (WHO, 2022). Mental disorders do not only occur in the common population, but also in vulnerable groups, one of which is postpartum mothers. Perinatal mental health (PMH) is a mental health issue that occurs in pregnant women after childbirth. Mental health disorders in postpartum mothers can affect not only the mother, but also have an impact on the baby. The impact on babies is that they will experience disturbances in growth and development, such as cognitive development, emotional and mental developments, as well as motor development (Simcock et al., 2018) (Sadat et al., 2014) (Daehn et al., 2022).

For mothers, the impact is in the form of mental health issues, that can lead to self-harm, endanger the baby, and in the worst case, suicide or infanticide. In this condition, suicide is the second leading cause of death for women during the postpartum period, accounting for 20% of deaths in the first year after childbirth (Van Niel & Payne, 2020). A result study in 2021 shows that mothers are at risk of experiencing postpartum mental health issues at a rate of about 26-85% in Southeast Asia. Meanwhile in Indonesia, the figure ranges from 50% to 75% (Ali Mustofa et al., 2021). There was also an increase in the results of the National Basic Health Research in 2018, ranging from approximately 39.8% to 64.8%. According

to these data in Indonesia, the proportion of postpartum mothers at risk of experiencing mental health issues is 10.2% (Kemenkes, 2018).

The study results show that many healthcare professionals are not able to recognize the signs and symptoms of mental health issues effectively (Cantwell, 2021), (Cena et al., 2020). Several factors that influence the success of screening include demographic factors, income, education level, health insurance, prospective participants to be screened, healthcare personnel or the healthcare system, and program policies. Factors related to prospective participants and healthcare personnel include knowledge and attitudes. Furthermore, there is a correlation between healthcare personnel and the healthcare system with the practice of screening implementation (Gimeno Garca, 2012), (Nithianandan et al., 2016). According to various factors that influence the implementation of mental health screening, it is necessary to undertake intervention efforts with the aim to address these issues.

Intervention efforts include interventions that can be provided to prospective participants, healthcare personnel, and the health service system. Interventions for healthcare workers are audits, provision of incentives, and enhancement of knowledge, awareness, and attitudes among healthcare personnel. Increasing awareness and attitudes of healthcare workers towards the implementation of screening can utilize a self-leadership program. Interventions at

the healthcare service level can involve capacity building, cost reduction, clinic development, utilization of internet-based platforms, and simplification of screening components (Premji et al., 2021), (Nithianandan et al., 2016), (Gureje et al., 2015). In green theory, it is stated that several factors influencing a person's behavior are knowledge and attitude (Purnama, 2017)

According to 2018 Riskesda data, there are 5 (five) major regions in Indonesia that experience the highest mental health problems, namely Sumatra, East Nusa Tenggara, West Nusa Tenggara, Java and Sulawesi. The prevalence of experiencing mental health problems in the Sumatra region is an average of 8.34%, the Java region is an average of 10.13%, the West Nusa Tenggara region is 12.8%, the Sulawesi region is an average of 13.45 and the highest is the East Nusa Tenggara region. 15.7%. (Kementerian Kesehatan RI, 2018) The difference between this research and others lies in the area taken as the research location. In this study, samples were taken to represent several areas that have significant mental health problems. Previous research focused on only 1 research location. This research will describe the knowledge, attitudes and skills of midwives in several regions in Indonesia that have mental health problems. Therefore, this study aims to analyze the knowledge, attitudes, and skills of midwives in implementing mental health screenings for postpartum mothers So that it will be an input for choosing a place at the next research location.

METHOD

Research design and design

This type of research is quantitative using a cross-sectional design.

Time and place of research

Time frame for data collection that lasted one week, from December 10 to December 16, 2023 with the goggle form. The time required to collect a sample of 102 midwives.

Research variables

The variables studied were the characteristics (age, education, work experiences, and Implementation of Screening), knowledge, attitudes and skills of midwives in examining the health of postpartum mothers.

Sampling techniques along with details and determination of criteria

A total of 102 midwives surveyed, with inclusion criteria involved midwives working in maternal and child health care rooms in Indonesian community health centers, are actively employed, willing to be respondents, and have a smartphone. The sampling method employed Consecutive Sampling method. Determining the large sample used the Lameshow formula through the following formula: (S.K.Lwanga & S.Lameshow, 2002)

$$n = \frac{z_{1-\alpha/2}^2 P(1-P)}{d^2}$$

The *p*-value used the proportion of the population (the proportion of the number of midwives working in community health centers in Indonesia, which was calculated based on the proportion of the number of midwives from the 2021 Republic of

Indonesia Health Profile data, and the p -value is 0,4. Based on the results of the sample size calculation, the minimum sample size was 92 midwives. The number was added by 10% to anticipate data dropping out or missing, so that the total quantitative sample in stage I became 102 midwives. The questionnaire consisted of 4 (four) sections and was distributed via Google Forms using the Snowball method through the WhatsApp application. The first part included demographic information about midwives (age, education, workplace, and length of employment). In the second part, the researcher used question items for the knowledge variable. Then, the third part was about attitudes, and the fourth part was midwifery skills

Data collection techniques and data sources

Assessment of Knowledge

The knowledge variable consisted of seven questions. The scoring scale is 0-1, with a score of 1 for answering "Yes" and 0 for answering "No." The total score ranged from 0 to 7. Knowledge questions included midwives' understanding of PMH screening guidelines, the algorithm chart for PMH case management, the scope of the PMH algorithm, the depression triad, the PMH period, PMH screening, and anxiety screening.

Assessment of Attitude

The attitude consisted of four questions, with a scale of 0-2. Rated 0 if Undecided, 1 if Disagree, and 2 if Agree. The total score ranges from 0 to 8. Attitude questions included the importance of postpartum mental health screening for mothers, the need for screening to be aligned with

guidelines, screening adjusted according to the management algorithm for mental health cases, as well as attitudes towards the coverage of mental health services.

Assessment of Skills

The skills consisted of four questions, on a scale of 0-1. The assessment scores 0 if the midwife answers No, and 1 if the midwife answers Yes. The score ranges from 0 to 4. Questions were related to midwives' skills in implementing PMH, PMH screening based on case management algorithms, PMH classification, and the scope of PMH.

Analyze

The questionnaire has been tested for validity using the Product Moment test with a value of <0.05 . Reliability testing was conducted using Cronbach's Alpha, which is greater than 0.6. The data were analyzed using SPSS version 27 and tested with the Chi-square test. Significance was found at a p -value of <0.05 .

RESULT AND DISCUSSION

1. Distribution and Characteristics of Respondents

Table 1 appears to describe the distribution of respondents and characteristics, the implementation of screening, knowledge, attitudes, and midwives' skills. Respondents were spread across six regions of Indonesia, although the distribution was not even. There were two major regions that contributed the most data, namely NTB and Central Java, accounting for 39.21% and 47.05%, respectively. The

distribution of these regions fairly represented several areas in Indonesia.

Out of 102 midwives surveyed, the majority were in early adulthood, accounting for 76.5% (n=78). The education level of mothers was more than 50% non-professional, at 94.1% (n=96). The majority of midwives have more than 5 years of service, at 84.3% (n=86). The midwives who conducted the PMH screening were 42.2% (n=43). As many as 52% (n=53) of midwives have high knowledge. Midwives have a positive attitude at 51% (n=52). This is not in line with the skills of midwives, the majority of whom have poor skills at 75.5% (n=77).

2. Knowledge, Attitudes, and Skills of Midwives in Conducting Screening

Table 2 shows the relationship between the level of knowledge and attitudes of midwives and the midwives' skills in carrying out mental health screening on postpartum mothers. Midwife knowledge does not have a significant relationship with midwife skills in conducting mental health screening on postpartum women, with a p value > 0.05 , namely 0.244. However, the midwife's attitude obtained a p value < 0.05 , namely 0.001 (OR 1.926). Midwives who have a positive attitude have a 1.926 times greater chance of performing skills well compared to midwives who have a negative attitude.

The correlation between the characteristics of midwives and their knowledge, attitudes, and skills is shown in Table 3. Among several characteristics, such as age, education, work experience, and screening implementation, only midwives who have previously conducted screenings have a significant correlation with knowledge, with a p-value of 0.0001 (OR 14.063). Midwives who have previously conducted screenings are 14.063 times more likely to have high knowledge compared to those who have never performed screenings

Table 1. Distribution of Respondents in Indonesia

Region	F	%
West Nusa Tenggara (NTB)	40	39,21
Central Java	48	47,05
Sulawesi	2	1,96
Sumatra	1	0,98
Kalimantan	1	0,98
Yogyakarta	1	0,98

Characteristics	F	%
Age		
Early adulthood 35-45	78	76,5
Late adulthood > 45	24	23,5
Education		
Non-professional	96	94,1
Professional	6	5,9
Work experiences		
≤ 5 years	16	15,7
> 5years	86	84,3
Implementation of Screening		
No	43	42,2
Yes	59	57,8
Knowledge		
Low	49	48,0
High	53	52,0
Attitude		
Negative	50	49,0
Positive	52	51,0
Skills		
Bad	77	75,5
Good	25	24,5

Table 2. The Correlation between Knowledge Level and Attitude with Skills

Level of Knowledge	Skills				Total	%	p-value (OR)
	Bad		Good				
	f	%	f	%			
Low knowledge	39	79,6	10	20,4	49	100	0,244
High knowledge	38	71,7	15	28,9	53	100	
	77	75,5	25	24,5	102	100	(1,539)
Attitude	Bad		Good		Total	%	p-value
	f	%	f	%			
Negative	50	100	0	0,00	50	100	0,001
Positive	27	51,9	25	48,1	52	100	
	77	75,5	25	24,5	102	100	(1,926)

Table 3. The Correlation between Characteristics and the Knowledge, Attitudes, and Skills of Midwives

Characteristics	Knowledge		Total (%)	P-value (OR)	Attitude		Total (%)	P-value (OR)	Skill		Total (%)	Pvalue (OR)
Age	Low n (%)	High n (%)			Negative n (%)	Positive n (%)			Bad n (%)	Good n (%)		
Early adulthood 35-45	41 (52,6)	37 (47,4)	78 (100)		39 (50,0)	39 (50,0)	78 (100)		62 (79,5)	16 (20,5)	78 (100)	0,080
Late adulthood > 45	8 (33,3)	16 (12,5)	24 (100)	0,078	11 (45,8)	13 (54,2)	24 (100)	0,451	15 (62,5)	9 (37,5)	24 (100)	(2,325)
	49 (48)	53 (52,0)	102 (100)	(2,216)	50 (49,0)	52 (51,0)	102 (100)	(1,182)	77 (75,5)	25 (24,5)	102 (100)	
Education												
Non-Professional	46 (47,9)	50 (52,1)	96 (100)		48 (50,0)	48 (50,0)	96 (100)		71 (74,0)	25 (26,0)	96 (100)	
Professional	3 (50,0)	3 (50,0)	6 (100)	0,921	2 (33,3)	4 (66,7)	6 (100)	0,428	6 (100)	0 (0,0)	6 (100)	0,150
	49 (48,0)	53 (52,0)	102 (100)	(0,920)	50 (49,0)	52 (51,0)	102 (100)	(2,000)	77 (75,5)	25 (24,5)	102 (100)	(0,740)
Work Experiences												
≤ 5 years	11 (68,8)	5 (31,3)	16 (100)		8 (50,0)	8 (50,0)	16 (100)		13 (81,3)	3 (18,8)	16 (100)	
> 5 years	38 (44,2)	48 (55,8)	86(100)	0.062	42 (48,8)	44 (51,2)	86 (100)	0,573	64 (74,4)	22 (25,6)	86 (100)	0,755
	49 (48,0)	53 (52,0)	102 (100)	(2,779)	50 (49,0)	52 (51,0)	102 (100)	(1,084)	77 (75,5)	25 (24,5)	102 (100)	(1,490)
Implementation of Screening												
No	35 (81,4)	8 (18,6)	43 (100)		22 (47,5)	21 (48,8)	43 (100)		34 (79,5)	9 (20,9)	43 (100)	
Yes	14 (23,7)	45 (76,3)	59 (100)	0,001	28 (47,5)	31 (52,5)	59 (100)	0,433	43 (72,9)	16 (27,1)	59 (100)	0,316
	49 (48,0)	53 (52,0)	102 (100)	(14,063)	50 (49,0)	52 (51,0)	102 (100)	(1,160)	77 (75,5)	25 (24,5)	102 (100)	(1,406)

Distribution of Region

Administratively, the Unitary State of the Republic of Indonesia (NKRI) is divided into provincial regions. These provinces are divided into regencies and cities. According to the Minister of Home Affairs Decision Number 050-145 of 2022 regarding the Provision and Updating of Codes, Data on Administrative Government Areas, and Islands for the Year 2021, Indonesia is divided into 34 (thirty-four) provinces. The questionnaire has been distributed in several regions of Indonesia, specifically in three provinces: NTB, Central Java, and Yogyakarta, along with three islands: Kalimantan, Sumatra, and Sulawesi (Kemenkes RI, 2020), (Gimeno Garca, 2012), (Nithianandan et al., 2016). The research results show that there are two regions The people who fill out the Google form the most are Java and West Nusa Tenggara. The Java region is the capital city of Indonesia and West Nusa Tenggara is one of the tourist attractions in Indonesia which is visited by many tourists. From 2018 West Nusa Tenggara Riskesda data, it was found that mental health problems were more common in urban areas. (Kemenkes, 2018) However, from the results of previous research, not many health workers in both urban and rural areas carry out mental health screening, especially on postpartum mothers. (Premji et al., 2021)

Charcteritic of the Respondents Midwife Age

In Table 1, the characteristics of respondents based on age show that the majority fall into the early adulthood category (35-45 years) at 76.5% (n=78). Early adulthood is a stage where an

individual gains learning through the independence they possess. At this stage, it is a good level of maturity for someone in their thinking. (IGerm, 2010), (Youseflu et al., 2023). This age is a time when a person experiences several changes ranging from roles to different developmental tasks, so good adjustments are needed. (Nurhazlina Mohd. Ariffin, Miftahul Jannah, 2021), (Darmayanthi & Lestari, 2019) Successful adjustment is one of the internal factors in individuals that influences human behavior, including health workers. Changes in health behavior can be achieved through education or health promotion which begins with the provision of health information. Before an individual adopts a new behavior, the individual must first understand the benefits that will be obtained. (Soekidjo Notoatmodjo, 2014) The study results indicate that in early adulthood, many healthcare professionals are already capable of receiving training and applying it in the workplace (Ransing et al., 2020), (Xiao et al., 2023)

Midwife Education

The characteristics of respondents in the education level category show that only a small portion pursued midwifery professional education, amounting to 5.9% (n=6), indicating that healthcare workers have not yet reached the professional education stage. The results of this study are in line with research conducted in India, which states that healthcare workers who have pursued higher education support mental health promotion by only 22% (Ransing et al., 2020). The implementation of maternity services provided by healthcare professionals is greatly

determined by the education system (Fiona Bogossian et al., 2023). There are several factors that cause midwives to not continue their professional education, including a lack of desire for self-development, insufficient external motivation, policies, workplace conditions, and professional organizations.

Work Experiences

The research results indicate that the majority of respondents fall into the category of having worked for more than five years, amounting to 84.3% (n=86). The study also shows that the length of work experience among healthcare workers can influence their attitudes towards the mental health of postpartum mothers. Healthcare workers with longer work experience tend to have a positive attitude and are more cautious in communicating during depression screenings for postpartum mothers (Ransing et al., 2020), (Xiao et al., 2023), (Al-abri et al., 2023).

Implementation of Screening

The implementation of PMH screening conducted by midwives is presented in Table 1. The midwives performing PMH screening have not yet reached 100%. The study results indicate that postpartum mothers who are not adequately screened cannot receive proper care. This happens because healthcare workers are unable to recognize the signs of mental health issues (Cantwell, 2021), (Cena et al., 2020). In conducting screenings, there are several factors that influence midwives, including demographics, income, education level, insurance, prospective participants, healthcare personnel, and the healthcare

service system (Gimeno Garca, 2012), (Premji et al., 2021)

Midwives' Knowledge about PMH Screening

The research results in Table 1 show that out of 102 respondents, 52% (n=53) of midwives have high knowledge about screening. The understanding of mental health by professional staff becomes one of the risk factors for the mental health of mothers postpartum (Insan et al., 2022), (Ransing et al., 2020), (Manjrekar & Patil, 2018), (Williams et al., 2018). The study results indicate that there are still many healthcare professionals who have a limited understanding of maternal mental health after childbirth. Healthcare professionals believe that maternal mental health post-delivery is not an important issue to be aware of, and this understanding can vary from country to country (Williams et al., 2018), (Ransing et al., 2020), (Branquinho et al., 2022b).

In Table 2, the research results indicate that there is a significant correlation between midwives' knowledge and their skills in conducting early detection screening of maternal mental health postpartum. Research shows that the knowledge and skills of healthcare workers are barriers to the successful implementation of screening. High knowledge among healthcare workers can instill confidence in their ability to perform screening skills (Nithianandan et al., 2016), (Premji et al., 2021), (Xiao et al., 2023).

Of the several variables, only knowledge has a significant correlation with one of the midwife characteristics, namely the implementation of screening.

These results align with other studies that indicate if limited work experience can affect midwives' skills and knowledge in providing quality services. Longer work experience can enhance midwives' competencies, including in early detection while delivering midwifery services (Prastyoningsih et al., 2022), (Simanullang & Dioso, 2020). The shorter the work experience will have an impact on poor service quality results (Xiao et al., 2023), (Branquinho et al., 2022b).

The Attitude of Midwives towards PMH Screening

Table 1 shows that the attitudes of midwives towards early mental health screening for postpartum mothers indicate that more than 50% have a positive attitude, which exhibited by healthcare providers towards mental health screening for postpartum mothers and can provide support for obtaining better mental health care (Mccauley et al., 2020), (Branquinho et al., 2022a). Support from healthcare professionals can be provided in the form of early screening (Prastyoningsih et al., 2022), (Simanullang & Dioso, 2020).

Although the midwives' attitudes have a significant correlation with their skills in conducting screenings, but there is no significant correlation with the characteristics of the midwives. The recommendations from the study indicate that a positive attitude among healthcare workers can enhance health services, including postpartum maternal health screenings (Nithianandan et al., 2016), (Branquinho et al., 2022a), (Xiao et al., 2023). This is supported by other research that there is a correlation between

healthcare personnel and the healthcare system with the practice of screening implementation (Gimeno Garca, 2012) (Nithianandan et al., 2016). There are several obstacles that affect midwives' attitudes in conducting screenings, such as a lack of support from various parties, the organization they work for, time constraints, and limited resources. The absence of adequate support can make midwives feel burdened when implementing what they have learned from new knowledge while conducting postpartum maternal health screenings (Baker et al., 2020), (WHO, 2024).

Skills

The skills of midwives in conducting screenings are mostly not good or bad. Several factors that influence midwives' skills in performing screenings include knowledge, attitudes, screening components, policies, culture, and supporting facilities (Premji et al., 2021), (Nithianandan et al., 2016). Lack of knowledge will impact the confidence of healthcare workers in effectively conducting screenings. Additionally, cultural factors within the community, including among healthcare workers, lead to the perception that maternal mental health post-delivery is not an important issue or a focus during postpartum examinations (Ransing et al., 2020), (Williams et al., 2018). Other survey results indicate that there are several obstacles affecting the skills of health workers when providing health services, namely the insufficient number of health personnel, time effectiveness, training attended, age, motivation, length of service, and the health

service system (Mariam Nasir et al., 2017), (Ninik Christian, 2015).

CONCLUSION

Midwives' knowledge about mental health screening for postpartum mothers is still lacking, only around 52%. This is in line with the positive attitude of midwives towards PMH screening of only 51%, and appropriate skills of 24.5%. Only the midwife's attitude has a significant relationship with the midwife's skills in conducting screening with a p value <0.05 of 0.001.

It is important to provide training to midwives in implementing PMH screening so that it can increase midwives' knowledge, attitudes and skills in carrying out mental health screening on postpartum mothers to ensure optimal service results.

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