



ANALYSIS OF FACTORS RELATED TO REFERRAL CASES IN CHILDBIRTH

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ABSTRACT

Various factors can affect the number of referrals and the quality of referrals. This increase in referral rate can be an indication that the implementation of the referral system has not gone well. These indicators can be divided into indicators from the midwife's side, namely education and length of work, and indicators from the family in the form of support provided and speed of decision making. The purpose of this study was to analyze the effect of midwife education, midwives' tenure, and family support on referral success. This study is a type of intervention research with a cross sectional design. The location used for this study is at the Cikande Health Center in November-December 2023. The samples used in this study, using total sampling with samples were 30 obstetric referral cases. The data was collected by questionnaire. The independent variables were midwives' education, midwives' length of service, and family support. The dependent variable is referral success. The test used is the Chi Square test. The results of p value $0.007 < 0.05$ which indicate that education has a significant relationship with referral success, p value $0.023 < 0.05$ which indicates that midwives' tenure has a significant relationship with referral success, and p value $0.001 < 0.05$ which indicates that the support provided by family has a very significant relationship with referral success.

Keywords: childbirth; education; family support; referral

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INTRODUCTION

Health services in Indonesia are carried out in stages according to medical needs starting from basic health services, namely puskesmas. Second-level health services can only be provided upon referral from first-level health services. Third-level health services can only be provided upon referral from second-level or first-level health services. The referral system must be carried out by BPJS participants except in emergencies, disasters, patient health problems and geographical considerations. The referral recipient must provide information to the referrer regarding the development of the patient's condition after completing providing services or commonly referred to as referral back.(Nurlinawati, 2019).The referral system is a health service that regulates the delegation of duties and responsibilities of health services reciprocally, both vertically and horizontally. In accordance with the Regulation of the Minister of Health of the Republic of Indonesia No. 01 of 2012 concerning the Referral System for Individual Health Services, vertical referrals, namely referrals made between health services at different levels, can be made from lower service levels to higher service levels. While horizontal referrals are referrals made between health services at one level if the referrer is unable to provide health services in accordance with patient needs due to limited facilities, equipment and / or personnel that are temporary or permanent (Ramadhani, 2020).

Regarding referral issues, BPJS Kesehatan complained that there is still a high number of puskesmas carrying out unnecessary referral actions (non-specialty diseases) to Advanced Health Facilities (FKTL) or hospitals. It was recorded that 14.6 million participants of the JKN program managed by BPJS Kesehatan sought treatment at first-level health facilities (FKTP), such as puskesmas, primary clinics, and private practice doctors. Of that total, as many as 2.2 million patients sought treatment at FKTP, especially at puskesmas, around 15.3% of whom were referred to FKTL. The results of the evaluation and monitoring conducted by BPJS Kesehatan, of the total referred patients, 214,706 cases of which proved not to need to be referred to hospitals, simply treated at the FKTP level. (Sinulingga, 2019)

Various factors can affect the number of referrals and the quality of referrals. This increase in referral rate can be an indication that the implementation of the referral system has not gone well. This is because the puskesmas should be a gate keeper must be able to handle 144 diagnoses and filter referrals. This high number of referrals will also have a negative impact on many parties, one of which is the burden obtained by FKRTL to be heavier. In addition, there may be an increase in the fees that must be paid by BPJS to FKRTL (. In addition, the implementation of referrals is also still one of the weaknesses of health services in Indonesia because it is not precise and fast. Maternal and infant deaths are caused by services at health facilities that have not been maximized or there is a delay in referral services for mothers and babies which results in very late patients arriving at referral service facilities (Nissa, 2022). (Rahmadiliyani, 2018)

In Indonesia, the term "3 late" is well known which is the cause of maternal and infant deaths, namely late decision making at the family level, late reaching health care facilities and late getting help at the health facility level. Late decision making usually occurs because mothers prefer to give birth at home, there are cost or transportation constraints, and problems with access to health facilities that are not affordable (geographical). The second late, late reaching health facilities usually occurs due to transportation problems, the absence of a formal referral network between village midwives and hospitals, and the absence of referral protocols. (Handayani, 2023) Delays in getting adequate help in health facilities occur due to the low quality of obstetric and neonatal care in various facilities, the perception of low services for patients with social insurance such as BPJS, and the provision of referrals that are not common. From the 3 late, if studied further, we will find a problem in the referral system. Therefore, improvements are needed in the existing referral system so that an effective and efficient referral system is achieved. (Susiloningtyas, 2020)

The success of referrals can be judged from the accuracy of the previous 3 indicators, namely the right decision-making time, fast family approval, and also handling immediately after arriving at the intended health care facility. Previous research has reported several factors that influence referral success, among others: midwife knowledge, midwife education, midwife work mass, and family support (Coal, 2018). (Susiloningtyas, Sistem Rujukan Dalam Sistem Pelayanan Kesehatan Maternal Perinatal di Indonesia, 2020) These indicators can be divided into indicators from the midwife's side, namely education and length of work, and indicators from the family in the form of support provided and speed of decision making. Previous research conducted by reported that the supporting factors for referral success are aspects of education and time that can affect the improvement of one's skill abilities. The longer a person's working period and the higher his education, the level of skills regarding his field of work will increase. The productivity of a midwife who has been working for a long time can be directly proportional to the increase in experience and wisdom in making the right decisions. (Supriani, 2018)

In addition, the study reported that family support had a significant influence p value = 0.034 $< \alpha = 0.05$ in referral decision making, because most high-risk patients still rely on family support in deciding to make early referral to hospital. Without family support, patients may not have enough drive or motivation to make early referrals, and this can lead to delays in the provision of necessary medical care. (Desti, 2023) Based on a preliminary study conducted by researchers at the Cikande Health Center, Serang-Banten. It was recorded that from January to October 2023, the Cikande Health Center had carried out 303 obstetric case referrals to several hospitals in the Serang area. This result is quite surprising that on average every day the Cikande Health Center refers 1-2 cases. The purpose of this study is to analyze the effect of midwife education, midwives' tenure, and family support on the success of referrals at the Cikande Serang Health Center in 2023.

METHOD

This study is a type of intervention research with a *cross sectional design*. The location used for this study is at the Cikande Health Center in November-December 2023. The samples used in this study, using *total sampling* with samples were 30 obstetric referral cases. The independent variables were midwives' education, midwives' length of service, and family support. The dependent variable is referral success. The assessment of referral success is a referral that meets the criteria for proper diagnosis, fast in decision making (< 60 minutes) and fast handling at the destination health facility. The instruments used are questionnaire that has been tested for validity and reliability. The bivariate analysis used in this study is to determine whether there is a relationship between two or more variables, in this study there are 4 variables (independent and dependent variables) then the test used is the *chi square test*.

RESULTS

Table 1, it can be seen that the majority of midwives in the Cikande Health Center area have sufficient education, namely equivalent to a bachelor or diploma 4 (D4) as many as 16 people (53.3%). However, midwives with diploma 3 education also have a considerable number of 14 people (46.7%).

Table 1
Frequency Distribution of Midwife Education (n=30)

Categories Midwife Education	f	%
Diploma 3 (DII)	14	46.7
Diploma IV/ Bachelor of Midwifery	16	53.3

The majority of midwives in the Cikande Health Center area have had a long working period of more than 5 years, as many as 17 people (56.7%) the longest working period reaches 20 years. Midwives who are relatively young and have a working period of less than 5 years are also quite a lot, namely 13 people (43.3%).

Table 2.
Frequency Distribution of Midwives' Working Period (n=30)

Midwife Employment Category	f	%
Less than 5 years old	13	43.3
More than or equal to 5 years	17	56.7

The family support frequency distribution table provides data that the majority of respondents' families support the referral process of 20 people (66.7%). However, there are still families of patients who are still lacking in providing support, which sometimes slows down the referral process, which is 10 people (33.3%).

Table 3.
Family Support Frequency Distribution (n=30)

Category Family Support	f	%
Less Support	10	33.3
Good support	20	66.7

The dependent variable can be categorized as referral success refers to recognition and evidence in the field for timeliness and also ease of licensing, proper diagnosis, fast decision making (< 60 minutes) and fast handling at the destination health facility. Based on the results of the study, the majority of referrals were categorized as successful as many as 19 cases (63.3%) and 11 other cases (36.7%) still experienced obstacles such as the time between the decision made by the midwife to the process of departure of patients to the referral location or diagnosis between the Puskesmas and the referral location that was not suitable.

Table 4.
Referral Success Frequency Distribution (n=30)

Referral Success Categories	f	%
Referral Is Hampered	11	36.7
Successful Referral	19	63.3

Table 5.
Cross-Tabulation and Analysis of the Relationship between Midwife Education and Referral Success (n=30)

Referral Categories	Categories Midwife Education				Total		P-Value
	D3		D4/ S1		f	%	
Hampered	9	30	2	6.7	11	36.7	0.007
Succeed	5	16.7	14	46.6	19	63.3	
Total	14	46.7	16	53.3	30	100	

Cross-tabulation between midwife education and successful referrals showed that almost all midwives with D4 education or equivalent midwifery graduates were able to make successful or timely referrals, namely as many as 14 people (46.6%) out of 19 people. While midwives with diploma 3 education tend to take longer to determine and depart, referring 9 people (30%) from 11 people. The results of p value $0.007 < 0.05$ which indicate that education has a significant relationship with referral success.

Table 6.
Cross-Tabulation and Analysis of the Relationship between Midwife Employment and Referral Success (n=30)

Referral Categories	Midwife Employment Category				Total		P-Value
	Less than 5 years old		More than equal to 5 years		f	%	
Hampered	8	26.6	3	10	11	36.7	0.023
Succeed	5	16.7	14	46.7	19	63.3	
Total	13	43.3	17	56.7	30	100	

Cross-tabulation between midwives' tenure and referral success shows that the majority of midwives who are more senior or with a minimum of 5 years of service are able to make successful or timely referrals of 14 people (46.6%) out of 19 people. While midwives working for less than 5 years tend to take longer in determining and departing to refer to 8 people (26.6%) from 11 people. Based on the results of chi square analysis, the p value results of $0.023 < 0.05$ indicate that the midwife's tenure has a significant relationship with referral success

Table 7.
Cross-Tabulation and Analysis of the Relationship between Family Support and Referral Success (n=30)

Referral Categories	Family Support				Total		P-Value
	Less Support		Good Support		f	%	
	f	%	f	%			
Hampered	8	26.6	3	10	11	36.7	0.001
Succeed	2	6.7	17	56.7	19	63.3	
Total	10	33.3	17	66.7	30	100	

Table 7, the results of cross-tabulation between family support and referral success showed that the majority of patients' families supported the referral process so that they were able to make successful or timely referrals, which was 19 people (63.3%). However, there are still families of patients who are less supportive and tend to make the referral process take longer at 11 people (36.7%) than 11 people. Based on the results of chi square analysis, p value results of $0.001 < 0.05$ are obtained which indicate that the support provided by the family has a very significant relationship with the success of referrals.

DISCUSSION

Analysis of the Effect of Midwife Education with Referral Success

Based on the results of chi square analysis, p value results of $0.007 < 0.05$ indicate that education has a significant relationship with referral success. The higher the midwife's education, the higher the referral success rate. This result is in line with research conducted by that there is a significant influence between the education of midwives and the success of diagnosis and early detection of obstetric and gynecological emergencies p value 0.000, this is because the level of knowledge and compliance possessed by midwives with higher education is considered much better than midwives with lower education. (Al Huriah, 2018) Mastery of knowledge, attitudes and behaviors is influenced and has a positive correlation with experience, maturation, environment, situation and education. In other words, midwives who have a high level of education and longer working years are believed to have the ability to make appropriate obstetric case referrals. This can theoretically be explained that aspects of intelligence, structured education and work experience are very important areas for the formation of one's behavior. Behavior actually comes from other aspects of behavior, both internal and external (Ginting, 2023)

Education is an indicator that reflects a person's ability to be able to complete a job, the consistency of midwives in providing care and the accuracy of this diagnosis is supported by midwife education at least has completed midwifery diploma 3 (DIII) education where in D III education has been given a theory about the use of partographs, otherwise less education will inhibit the development of one's attitude towards the values introduced. Education level is a major factor in the ability to digest and understand information (Sabesal, 2022) The level of education also reflects the length of the learning process. The large number of respondents with Diploma IV or undergraduate education is expected to improve the quality of labor carried out, especially in monitoring each case and the condition of the patient. This is related to the level of intelligence that midwives have in assessing and understanding signs of symptoms during labor (Mardiyana, 2019)

Analysis of the Effect of Midwife's Working Period with Referral Success

Based on the results of chi square analysis, the p value results of $0.023 < 0.05$ indicate that the midwife's tenure has a significant relationship with referral success. The longer the midwife pursues her professional work or at least works 5 years, the higher the referral success rate will be. This result is in line with research (Iswanti, 2018) which reported that midwivs with

long working periods were 89.8% and carried out universal precautions on childbirth aid well as much as 84.1%. There is a significant relationship between working time and universal precaution implementation with a pvalue of 0.004. The working period of the midwife will greatly affect emotional stability and also wisdom in delivering the results of the analysis, Working time is an indicator that can affect the improvement of one's skill abilities. The longer a person's working life, usually the level of skills regarding his field of work will increase. The productivity of someone who has been working in a company for a long time, meaning that with age, may increase because of more experience and more wisdom in making decisions (Iswanti, 2018)

The length of work of midwives themselves also contributes to supporting midwives' compliance with partograph filling, as many as 70.8% of midwives have worked for more than 10 years. So there has been a lot of experience gained. Experience is an event that someone has experienced in interacting with the environment (Supriani, 2018). Work experience is the background that indirectly determines the performance and behavior of personnel. The length of service and experience in managing cases will relate and affect a person's skills. Learning experiences during work will be able to develop decision-making skills which are a manifestation of scientific and ethical reasoning integration that departs from real problems in the field of midwifery (Iswanti, 2018). The IBI Center makes a policy for Recertification carried out through portfolio assessment, namely for 5 (five) years must obtain a total of 25 (twenty-five) professional credits, 2 (two) professional credits of which are obtained through Midwifery Update (MU) organized by professional organizations (Wahyuni, 2023)

Analysis of the Effect of Family Support on Referral Success

Based on the results of chi square analysis, p value results of $0.001 < 0.05$ are obtained which indicate that the support provided by the family has a very significant relationship with the success of referrals. The better the support provided by the higher the success rate and accuracy of referrals. This result is in line with qualitative research conducted by which explains that factors that influence the occurrence of delays in referring are family support including: customs and husband's work. Low educational status or lack of knowledge in family members resulted in most having the perception that normal maternity pregnancies and signs of maternal danger were still considered reasonable, so action in referring has not been a priority. Most pregnant women are more concerned with following the customary process than making referrals even though they already know the complications of pregnancy in her. People's views on pregnancy, childbirth and postpartum are common for women when pregnant and giving birth.(Bata, 2019)

The success of referrals can be judged from the accuracy of the previous 3 indicators, namely the right decision-making time, fast family approval, and also handling immediately after arriving at the intended health care facility. Previous research has reported several factors that affect the success of referrals, including: midwife knowledge, midwife education, midwife work mass, and support (Bata, 2019). The family serves as a collector and disseminator of information about the world. Explain about giving suggestions, suggestions, information that can be used to reveal a problem. The benefit of this support is that it can suppress the emergence of a stressor because the information provided can contribute to specific suggestion actions in individuals. Aspects of this support are advice, proposals, suggestions, guidance and information (Arini, 2020)

CONCLUSION

Based on the results of the analysis, it can be concluded that the higher the midwife's education, the higher the referral success rate. The longer the midwife pursues her professional work or at least works for 5 years, the higher the referral success rate, and the better the support provided by the referral success rate and accuracy will be higher. It is hoped that this research can be used as input for midwifery practice in various health service settings in educational, social and community institutions, as well as independent midwife practice which can be used as a source of information in carrying out preventive and collaborative efforts with families or local midwives to maintain the patient's condition and minimize complications due to obstetric emergencies.

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