



# Analysis of the Implementation of the Referral System (Baksokuda) in Mandiri Midwife Practice

Sherkia Ichtiarsi Prakasiwi<sup>1</sup>(✉) and Umi Khasanah<sup>2</sup>

<sup>1</sup> Faculty of Nursing and Health, Universitas Muhammadiyah Semarang, Semarang, Indonesia  
sherkia@unimus.ac.id

<sup>2</sup> Doctoral Program in Development Extension/Community Empowerment Studies, Universitas  
Sebelas Maret, Surakarta, Indonesia

**Abstract.** Maternal and neonatal emergencies are cases that need to be treated immediately because they have a very high risk. Threats if not treated immediately can threaten the life of the mother and baby. Maternal Mortality Rate and Infant Mortality Rate in Indonesia are still high. Maternal mortality in Indonesia is still dominated by three main causes of death, namely bleeding, hypertension in pregnancy (HDK), and infection. In handling patients, midwives cannot work independently in handling emergency cases, so collaboration with other health workers, authorities, places of service and qualified facilities is needed. An appropriate and fast referral system is an effective and efficient step so that patients get optimal first aid and services. The procedure for making a referral is to begin with diagnosing the patient, giving informed consent, communicating with the referral site, making an introduction letter for a delivery referral, preparing transportation, reaccompanying the patient during referral, and handing over responsibility to the hospital. This study explores how midwives make referrals to BAKSOKUDA standards in their Independent Midwife Practices. Data were taken using a questionnaire and carried out at one time. The results of this study are that most of the midwives have not made referrals according to BAKSOKUDA standards, the administrative procedures have been carried out optimally by midwives, most of the midwives do not understand the clinical procedures of the referral system, lack of knowledge about initial screening of referrals regarding emergency patients.

**Keywords:** referral system · midwife's independent practice · emergency

## 1 Introduction

Data from the White Paper on National Health System Reform issued by the Ministry of National Development Planning/Bappenas in March 2022 stated that Indonesia's Maternal Mortality Rate was 305 per 100,000 births (as the 2019 base line) and the target to be achieved in 2024 was 183 per 100,000 live births [1]. In Central Java, there was a decline in maternal mortality during the 2016–2019 period, but in 2020 it is seen starting to rise again from 76.9 to 98.6 per 100,000 live births, although lower than in

2016 [2]. Several factors that cause maternal mortality in Indonesia include low access and quality of health facilities, lack of reproductive knowledge, delays in detecting health complications to the occurrence of overlapping regulations, all of which cause problems.

There are two causes of maternal death, namely direct and indirect causes. The biggest direct cause of maternal death is other causes such as bleeding, gestational hypertension, infections and bleeding disorders. While the indirect causes of maternal death are 3 too late and 4 too late, late in making decisions which causes late to get treatment, late to get to the referral site and when to get treatment because of limited advice and human resources, while 4 is too young (age less than 18 years old), too old (more than 35 years old), too close (less than 2 years of gestation), too many (more than 4 children) [6].

The Health Service Referral System is the implementation of health services that regulates the delegation of duties and responsibilities of reciprocal health services, both vertically and horizontally. Health services are carried out in stages, according to medical needs starting from the first level of health services. Second-level health services can only be provided upon referral from first-level health services [3].

The increasing number of referrals that do not match the referral standard results in the accumulation of patients in certain PPKs so that the quality of services decreases [4]. With a good referral system, basic patient services at First Level Health Facilities (FKTP) are expected to be completed. If it is not handled, it can be referred to the second level and if it is still problematic, it can be referred to the third level facility [5].

Midwives as the main decision maker for patients are required to think quickly and precisely. There are several factors that cause delays in making decisions, these factors are not only from the family, namely husbands or other family members, but midwives can also be late in making decisions to refer to this which has an impact on causing death. The midwife's decision to refer maternity mothers can be quick and appropriate depending on the quality possessed by the midwife which can be seen from the level of knowledge, skill level, attitude, belief, and infrastructure in the place of practice.

For example, some of the negligence of the midwife in relation to the referral system, such as delivery in a breech position, the midwife must immediately refer, but some facts in the field of the patient were not immediately referred. Some of the factors that cause errors in referring are the midwife's error in ordering to take her to the hospital without a referral letter, which is the reason for the delay of the patient to be treated. The referral system (BAKSOKUDA) is the availability of all qualified components to refer, the availability of midwives, tools, family, letters, drugs, vehicles, money and prayers. With the preparation of a solid referral from the midwife, it is hoped that it can reduce the maternal mortality rate in the city of Semarang.

## 2 Methods

This research uses descriptive observational research with a cross sectional approach with descriptive statistical methods with frequency or percentage data. Referral system data is taken once and at a time using a questionnaire that is poured through the google form. The sample in this study were 5 midwives in the Midwife Independent Practice in the Semarang City area. This study uses a consecutive sampling technique, namely

the selection of samples by determining subjects who meet the research criteria to be included in the study for a certain period of time, so that the number of respondents can be met.

In data collection, questionnaires were distributed through a google form containing several questions about the referral system in place in practice. Questions include the characteristics of respondents, the referral system based on BAKSOKUDA, administrative procedures and clinical procedures. These questions were explored to obtain information on the referral system in each of the midwife's practice areas.

### **3 Result and Discussion**

#### **3.1 Maternal and Neonatal Referral Records in the Last 3 Months**

The referral system is a health service delivery system that carries out the delegation of reciprocal responsibility for a case of a disease or health problem vertically in the sense of a unit with less capability to a more capable unit or horizontally in the sense of between units of the same level of ability. The number of maternal and neonatal referrals in the last 3 months to respondents, mostly shows 1–10 referrals to 3 respondents. This shows that midwives already have the awareness to refer cases that are not under their authority.

#### **3.2 Implementation of Referrals (BAKSOKUDA) by Midwives**

Emergency cases are cases which if not treated immediately will result in severe pain, even death. Emergency cases are the main cause of death. In providing management of emergency cases, not all of them can be done independently by midwives. This depends on the authority of the midwife, the place of service and the existing health facilities. Due to limitations in a system, but health workers must still be able to provide maximum assistance to a case, referrals need to be made to get help and services optimally in an effort to save lives.

According to Permenkes 001 of 2012, which among others begins with diagnosing patients, informed consent, communication with referral places, making delivery referrals, preparing transportation, referring patients by accompanying them, handing over responsibility to the hospital, referral recipients are responsible for continued services and Referees are required to notify the patient's progress after providing health services.

The findings from the research on the implementation of the BAKSOKUDA-based referral system in the Independent Practice of Midwives in the City of Semarang are as follows:

1. Midwives always accompany when referring patients, most of the midwives are certified for handling maternal and neonatal emergencies
2. Equipment when referring includes a set of tools according to the case, parturition set, oxygen, infusion set, emergency medicine.
3. The patient's companions when referred are the midwife, husband, and family.
4. The midwife's referral letter contains the patient's identity, complaints, examination results, actions that have been taken, treatment that has been carried out

5. Medications that are brought when referring are basic and emergency medicines.
6. The transportation used in referring is the patient's vehicle and the midwife's vehicle.
7. The costs used in referring are facilities owned by patients such as BPJS, Mandiri (general patients) and other insurances.

### 3.3 Administration Procedure

What patients must prepare when they are referred are ID cards, KIA books, family planning cards. Midwives use the partograph to monitor the progress of labor. The informed choice is given to the patient before the informed choice is given. All midwives have carried out administrative procedures to the fullest, and everything is going well.

### 3.4 Clinical Procedure

The clinical procedure of a referral system is through initial screening using the Poedi Rochjati score. Researchers tried to explore the knowledge of the midwives using these scores. The Poedji Rochjati Score Card (KSPR) is a simple method for early detection of risk factors in pregnant women. Through this card, it can be seen whether the condition of pregnant women has low, high or even very high risk. With the Poedji Rochjati scorecard, pregnant women at risk can be found early and safe deliveries can be planned for both mother and baby.

The data above shows that most of the respondents answered disagree with the statement "Patients with a score <12, can be treated at the Puskesmas", whereas if the total screening score is <12 then the patient must be referred to the Puskesmas. Pregnant women with a score of 6–10 or <12 (KRT) based on the Poedji Rochjati Score Card including the initial score of pregnant women, too old, pregnant 35 years, pregnant again for too long ( $\geq 10$  years), too soon to get pregnant again (<2 years), too many children, 4 or more, too old, 35 years, had failed pregnancies, had cesarean section, and were pregnant with twins 2 or more (Table 1).

Table 2 explains that most respondents do not agree with the statement "Patients with a score of 12 then the patient is immediately referred to the hospital" even though the condition of the patient with a score of 12 must be immediately referred to the hospital. This shows that most of the midwives lack knowledge about early screening of pregnant women. For scores >12 (KRST) based on the Poedji Rochjati scorecard, including the initial score of pregnant women, too old, 35 years, had failed pregnancies, and had cesarean section.

**Table 1.** Knowledge of the midwife, if the patient with a score <12, can be handled at the Puskesmas.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Don't agree	3	60.0	60.0	60.0
	Strongly agree	2	40.0	40.0	100.0
	Total	5	100.0	100.0	

**Table 2.** Knowledge if the patient with a score 12 then the patient is immediately referred to the hospital

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Don't agree	4	80.0	80.0	60.0
	Strongly agree	1	20.0	20.0	100.0
	Total	5	100.0	100.0	

Health services for pregnant women or antenatal care are carried out in a comprehensive, quality manner that is provided to all pregnant women. These services are provided by trained doctors, midwives and nurses, integrated antenatal care includes 18 types of examinations, namely general condition, body temperature, blood pressure, weight, upper arm circumference, uterine fundal height, fetal presentation, fetal heart rate, hemoglobin examination, blood group, urine protein, urine reduction, malaria blood, smear, syphilis blood, HIV serology, and ultrasound examination [6].

Efforts to minimize emergency maternal neonates are to carry out antenatal care, as well as continuous services through promotion of health promotion, preventive, curative, and rehabilitative. Early detection (screening) as early as possible in early pregnancy can be carried out by health or non-health workers such as PKK, posyandu cadres, youth organizations, pregnant women themselves, husbands or families in order to recognize high-risk pregnancies. Midwives' knowledge about initial screening is still very minimal, so this greatly affects the implementation of referrals in accordance with established National regulations.

#### 4 Conclusion

The results of this study most of the midwives have not made referrals according to BAKSOKUDA standards, the administrative procedures have been carried out optimally by midwives, most of the midwives do not understand the clinical procedures of the referral system, lack of knowledge about initial screening of referrals for emergency patients.

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