Inequity in Applying Midwifery Standards of Practice by Midwives on Early Detection and Management of Maternal Neonatal Emergency in Denpasar City and Fakfak District, Papua Indonesia

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Abstract: *Inequity n the application of health service standards is still a major issue in the community. The inequity is affected by the inequality of availability of the resources. The purpose of this study is to explore the main factors of gap in the implementation of midwifery services in terms of midwife's ability to detect early conditions of pathology and emergency at the health center and in other health facilities using critical thinking analysis. The type of research is quantitative and qualitative research (mixed method). The study sample is all midwife of mother and child health service and family planning fulfilling inclusion criteria in area of Health Care Center (Puskesmas) II Denapasar Barat, Puskesmas I Denpasar Timur in Denpasar City and Puskesmas Distrik Fakfak, Puskesmas Distrik Fak Fak Tengah, Fakfak Regency. We found that a big gap between human resources especialy about competency of midwifes in Puskesmas of Fakfak Regency and Denpasar City. The main obstacle in referring clients to the hospital is that no pick up drivers are available. There is a significant difference in the knowledge, attitude, motivation and skills of midwives in Puskesmas of Fakfak Regency and those in Puskesmas of Denpasar City regarding the competence of early detection and management of pathology, emergencies and critical thinking (p<0.05). We found that a total of 9 newborn deaths at Puskesmas Fakfak Tengah were caused by asphyxia during the January to July 2019 period. Improving the midwives competence and awareness in management of pathology and emergencies through monitoring activity, standardize evaluation and training routinely. Policies that make by policy maker in the field of maternal and child health are prepared based on evidence and can reach the roots of priority problem.*

Keywords: inequity, critical thinking competency, early detection, pathology and emergency management

1. Introduction

According to the World Health Organization (WHO) in 2016, there were seven key facts regarding the incidence of maternal deaths including: 1) nearly 830 women who could have been preventable in relation to pregnancy and childbirth; 2) 99% of maternal deaths occur in developing countries; 3) maternal deaths are higher in women living in rural areas and poverty; 4) young people will be at higher risk of complications and death from pregnancy compared to other women; 5) assistance by trained personnel before, during labor and after birth the baby can save the life of the mother and her baby; 6) a decrease in maternal deaths worldwide decreased by 44% between 1990-2015; and 7) the target to reduce the maternal mortality ratio to less than 70 per 100, 000 live births which is the target of Sustainable Development Goals or SDGs (1).

The condition of the quantity of basic health care facilities in the form of community health centers (Puskesmas) in Indonesia until 2016 there are still inequalities by region (2). That is because the number of Puskesmas is determined by the population. The highest number of Puskesmas and the ratio of population from 2012 to 2016 was DKI Jakarta (340 Puskesmas: 0.99 ratio), followed by Bali (120 Puskesmas: 0.86 ratio) and West Java (1, 050 Puskesmas: 0.66 ratio). Conversely, conditions turned around in the regions of West Papua and Papua, where the number of Puskesmas was sufficient but the ratio was still low (151 Puskesmas: 5.07 ratio and 393 Puskesmas: 3.68 ratio).

Maternal and infant deaths are actually the result of complications during pregnancy until the puerperium which can actually be prevented and overcome if there are personnel, adequate infrastructure and infrastructure. Risk factors related to the incidence of death and illness in mothers and infants are not only caused by obstetric causes, but there are other problems in the form of non-obstetric factors. Knowledge and awareness factors, culture, costs, distance to health facilities, availability and quality of maternal health services also influence the need for health services. The attitudes of health workers, especially midwives, doctors, motivation, knowledge and practice are other factors that influence the dynamics of service needs that form an important basis for improving maternal and infant health (3).

Based on this, the researcher is interested in further researching the inequity or the main injustice that triggers the still high gaps or gaps in the application of Antenatal care service standards in the City of Denpasar with Fakfak Regency especially those relating to knowledge, attitudes, motivation and skills of midwives to detect pathological conditions and managing emergencies at the puskesmas and other basic health service facilities and other supporting factors (socio-cultural and economic characteristics).

Midwives will be given media about early detection of pathology and emergency conditions based on critical thinking compiled by researchers based on previous research results, in the form of pocket book media, videos

and skill sheets. Critical thinking is an effort for midwives to take an action based on scientific and critical thinking, as well as systematic.

The general objective is to explore the main gaps in the implementation of midwifery services in terms of the quality of midwives in conducting early detection of conditionalities and emergencies in puskesmas and other basic service facilities using critical thinking between Denpasar City and Fakfak Regency.

2. Theoretical Background

Inequity is a systematic and potentially irreparable difference between population groups defined socially, economically, or geographically. Identity is often termed unfairness, but unfairness cannot be measured and is not useful in policy or evaluation. Inequity can occur horizontally and vertically, horizontal inequity if there are indications that people with the same needs do not get access to the same resources. Vertical inequality occurs when people with greater needs are not provided with greater resources (4).According to the Commission on Social Determinants of Health (CSDH) in WHO (2010), stated that there are determinants that affect inequity and inequality in health services including maternal and infant health. The intended determinants are: political and socio-economic context (government, macroeconomic policies, social policies, public policies, culture and social values) that affect welfare and justice in health (5).

Based on the results of the WHO consensus regarding efforts to reduce maternal and infant mortality rates, an in-depth analysis is made related to the availability of skilled birth attendants in addition to skills in carrying out basic programs in the promotion of overall reproductive health (6, 7). The problem faced is that midwives are not equipped with specific skills and competencies, especially life saving skills that is the reason why the international goals for improving health for mothers and newborns cannot be achieved.

3. Material and Experiment

The research design was in the form of quantitative research with an observational study approach is cross-sectional study. This study will assess the factors that contribute to the inequity of the application of midwifery service standards in Fakfak Regency and Denpasar City. The study populations of this study were all midwives who served in health care centers and other basic health service facilities including inpatient puskesmas in Denpasar City and in Fakfak Regency. The research sample was the total selected sample, namely all midwives as midwives implementing the maternal child health and family planning services at health care center, head of health department in Fakfak Regency, member of the regional legislative assembly in Fakfak Regency especially Health Commission.

Variables raised included independent variable (level of midwife knowledge, attitude, motivation, skills, facilities and infrastructure to support standardized midwifery services, and incentives for midwives), dependent variable is inequity in midwifery services and the ability to do early detection and maternal and newborn emergencies. Research instrument used self-reported questionnaire (vignette questionnaire), observation sheet to observe the ability of midwives in the early detection of pathological conditions and obstetric emergencies and the equipment availability for maternal and neonatal health care. Data collection was conducted since July until September 2019.

4. Result

The number of pregnant women involved in each health care center was 10 people, bringing the total number of pregnant women to 40 people. The results obtained that of 10 pregnant women who ANC in health care center of Fakfak all aged between> 20-≤35 years or in the range of healthy reproductive age (100%). A total of six pregnant women out of ten people (60%) of ANC in health care center of Fakfak age range> 20-≤35 years, and the remaining four people (40%) aged <20 years and ≥35 years. The ANC pregnant women at Denpasat Timur I health care center and Denpasar Barat II were nine (90%) of healthy reproductive age (> 20-≤35 respectively) and the remaining one (10%) aged ≥35 years.

The lowest midwife income at health care center of Denpasar Timur I was 2 million rupiahs and the highest was 3.2 million rupiahs with an average of 2.75 million rupiahs. The lowest midwife's income at health care center of Denpasar Barat II is one million rupiah and the highest is 5 million rupiah with an average monthly rate of 2.88 million rupiah.

Pathology and emergency cases that were most often detected by midwives at health care center until the time of data collection took place were cases of pregnant women with anemia, the highest was detected in health care center of Denpasar Timur I (15 people), in health care center of Fakfak Tengah and Denpasar Barat II (9 people). Other conditions that have been detected are premature rupture of membrane, hypertension / preeclamptia and high-risk pregnancies in addition to triple elimination (+) reactive, deformity, prolonged labor, gemeli, serotinus and Low Birth Weight.

Based on observations regarding the completeness of the equipment in the Maternal and Neonatal Health (MNH) and family planning examination room and the delivery room, it was found that there were 40 types of equipment in Fakfak PKM that were in good condition and suitable for use, whereas in the middle Fakfak PKM there were 35 types of equipment in good condition and proper to use. A total of 16 types of equipment are not available in Fakfak Tengah and 10 types in Fakfak Health care Center, mainly newborn resuscitation tools for emergency management of newborns (infant resuscitators).The amount of damage to equipment for maternal and child health services in Denpasar is less than in Fakfak. The picture 1 below describes the results of observations on the condition of equipment at the Health Care Center of Fakfak and Fakfak Tengah.
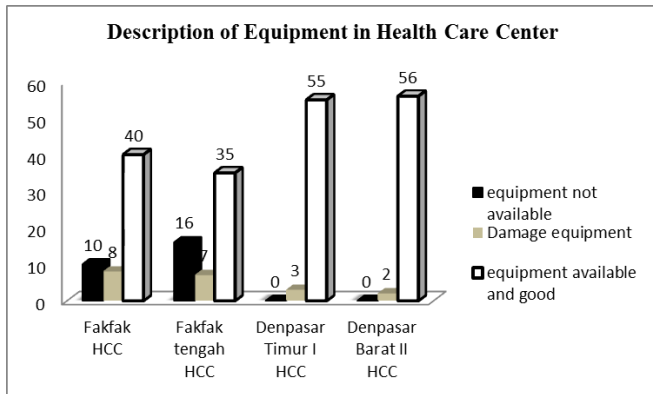
Figure 1: Number of Maternal Neonatal Health Equipment Availability in Health Care Center of Fakfak and Denpasar (2019)

There was a significant difference in score on knowledge, attitudes, and motivation of midwives in Fakfak health care center with Fakfak Tengah health care center (p <0.05). The results of the analysis of the knowledge, motivation and skills of midwives at the East Denpasar Health Center I and West Denpasar Health Center II found that there were very significant differences (p <0.05).In the table 1 below, the results of the analysis of differences in the scores of knowledge, attitudes, motivation and skills of midwives among four health care centers.

Table 1.Difference of Knowledge Score, Attitude, Motivation and Skills of Midwives between Health Care Centers of Fakfak and Denpasar (2019)

Health Care Centers of Fakfak and Fakfak Tengah			Health Care Centers of Denpasar Timur I and Denpasar Barat II
Variables	df	sig	df sig
Knowledge		**0, 009***	36 **0, 002***
Attitude	35	**0, 008***	0, 133
Motivation		**0, 008***	**0, 004***
Skill		0, 322	**0, 001***

5. Discussion

The characteristics of midwives involved in this study do not differ too much when viewed in terms of age, length of work, income, and education. Characteristics of midwives who work at health care center play an important role in providing services at the health care center. Age affects cognitive abilities, work attitudes and skills of midwives in providing MCH services. Older age is associated with more experience in the form of cases that have been handled. According to WHO (2010), stated that several factors that influence the behavior of health providers including midwives in providing services are age, belief values, norms and local cultural values, empathy attitude to clients, and trainings that have been followed, regular supervision training, and adequate incentives (5).

Facilities and infrastructure including tools and medicines at the puskesmas are still considered to be inadequate, especially at Health Care Center of Fakfak Tengah. From the results of observations and interviews with midwives, it is known that the equipments and medicines for the management of newborn asphyxia are not optimal, so that in Health care Center of Fakfak Tengah up to July 2019

there have been 9 newborn deaths and almost half of newborn deaths are caused by asphyxia in addition to difficulties in reconciliation.

The global strategies launched by the United Nations (UN) to address conditions faced by women throughout the life cycle of a Survive or endure to end deaths that could have been prevented; Thrive ensures health and well-being; and Transform or ensure the availability of a clean and safe environment. Quality maternal and newborn health services if the services provided are based on best evidence or evidence best practice (8, 9, 10), poor service is associated with increased health risks and low health impacts including increased maternal and newborn deaths (11).

There are various factors that affect the quality of health in general, including the still high rates of maternal and infant mortality, especially in developing countries, namely as a result of complications during pregnancy that continue until the time the baby is born which can be prevented or even not handled properly (12).

Inequity including unequal infrastructure, including adequate infrastructure and human resources in the health sector between regions in Indonesia, is one of the predictors of the high rate of maternal and infant mortality. In developed countries, it is evident that all pregnant women make at least four times a pregnancy visit that is handled by trained personnel until the time of delivery and childbirth. Whereas, in poor countries, only 40% of all pregnant women receive antenatal care (13).Efforts to reduce maternal, neonatal and child mortality by providing quality care since pregnancy, childbirth, newborns, neonates, the puerperium and even throughout the life cycle of women. There are three main foundations in the quality of care referred to by WHO, namely: quality, equity and dignity (14).

According to World Bank (2016), it is suggested that to achieve the "Every Women Every Child" global strategy for the Women's Health and Adolescent Health program, an evidence-based antenatal program approach is needed. It is hoped that pregnancy is a positive experience for all women and they must get health care by respecting the dignity of women (1, 13).

6. Conclusions

Midwives' skills in implementing or providing care to clients are influenced by internal and external components. Midwife skills reflect one aspect of midwife competence. The most basic midwife competencies are related to three main components, namely: midwives must be safe service providers, have a good attitude, and be effective communicators. Based on this, midwives are required to have adequate levels or degrees of self-sufficiency, to continuously improve and update their knowledge in practical applications, and to have a high awareness of themselves and their professionalism.

The problem faced is that midwives are not equipped with specific skills and competencies, especially life saving

skills, so that international goals for improving health for mothers and newborns cannot be achieved. Thus, outcomes and impacts or impacts in the form of maternal and child health are directly affected by health system factors which are certainly closely related to health planning or policy, proper governance, preparation and availability of health resources (human resources, infrastructure, drugs, medical devices and supporting infrastructure).

7. Acknowledgments

8. Conflict of Interest

There is no conflict of intersrt in the preparation of the results of this study.

9. Permission / Ethical Clearance and Funding

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