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Utilization of The Place of Delivery Based on Childbirth Assurance and Community Habits

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ABSTRACT

Background: Phenomenon in Indonesia is still many mothers gave birth are not using health facilities and helped by traditional birth attendants (TBA), which can have an impact on high maternal mortality. South Central Timor Districts is one of regencies in East Nusa Tenggara Province with the highest maternal mortality rate is 290/100,000 live births. **Methods**: The type of this research was observational analytic with cross sectional design. The sample zize was 95 respondents, selected using systematic random sampling. The categorical data were analyzed using descriptive statistics in the form of frequency and percentage, then analyzed using Chi-square test and logistic regression test. **Results**: The p-value of childbirth assurance was 0.003 (OR 0.098, 95% CI: 0.019 to 0.509), the p-value of the distance of residence was 0.498 (OR 1.822 95% CI 0.428 to 7.761), p-value of the travel time was 0.710 (OR 1.292 95% CI 0.299 to 5.583), the p-value of customs of the people in choosing the place of labor was 0.010 (13.833 OR 95% CI 2.282 to 83.861). The result of logistic regression test showed that childbirth assurance and customs of the people in choosing where labor was the strongest determinant to use birth place. **Conclusion**: Childbirth assurance and community habits in choosing the place of delivery had a significant correlation with the use of delivery place. While the distance of residence and travel time are not significant to the use of delivery place.

Keywords: place of delivery; childbirth assurance; community habits

INTRODUCTION

Background

Maternal mortality mostly occurred during childbirth, which is in the postpartum period and postpartum, with the main causes for bleeding, eclampsia, and infections [(1),(2)]. Three main causes contributed approximately 60.0% of the total number of maternal deaths. In addition, a factor of three late (three delay) is too late recognize danger signs and take a decision, too late of access to health facilities and too late to get help at health facilities contributed to high maternal mortality.

Most of the women experiencing delays know the danger signs, take decisions and delayed access to health facility, caused due social factors, poverty and demographics[(3)]. Stated that the majority of maternal deaths could be prevented if women had access to health care facilities and take advantage skilled care during pregnancy, childbirth and puerperal[(4).]

Based on the Health Profile of East Nusa Tenggara Province in 2014, the maternal mortality rate of 169/100,000 live births. The maternal mortality rate since 2010 to 2014 tended to decrease even though the gap is still quite far from the target of the national maternal mortality rate[(5)]. Central South Timor Districts which is one of the districts with the highest maternal mortality rate is 290/100,000 live births. This was due to

implementation of the Maternal and Child Health Revolution program not supported by internal factor among other things health facility are has not been adequate and not in accordance with the standards needs of the community and still more concentrated in urban areas than in rural and human resources that are less competent.

The number and percentage of maternal and percentage of labor in health facility from 2010 (60.2%) to 2013 (86.0%) continued to rise, and in 2014 decreased (77.9%), whereas labor of health facilities has decreased (in 2013: 13.9%) but in 2014 actually increased (22.1%). These circumstances due to increased childbirth by TBAs. The percentage is still very low when compared to the national target. Whereas in South Central Timor District, the percentage of birth mothers in health facility continued to increase since the year 2010-2013, while from 2014 until October percentage is also still quite high (84.7%). But still there are labor TBAs (15.3%). This shows that there are still many areas that use TBAs, especially in the villages. The condition is due to social and cultural factors in each region that still contribute to or influence on society and maternity tradition by TBAs[(6).]

Distance to public health facility are too far away (both physical and social), high tariffs, and service is not satisfactory, resulting in low use of health facility. Results of research showed that a third of respondents who had a place to stay five kilometers they walk to the nearest health facility. Each increment kilometers in walking distance to the nearest health facility, resulting in a reduction of service labor in health facility by 22.0% (AOR= 0.78, 95% CI: 0.64 to 0.96)[(7)].

Purpose

The purpose of this study was to determine the relationship between childbirth assurance, distance of residence, travel time and habits of the community in choosing the place of delivery.

METHODS

Location, Time and Type of Research

This study was conducted in South Central Timor Regency, East Nusa Tenggara Province, Indonesia, starting in April to July 2016. The type of research was analytic observational research with cross sectional design.

Subjects

The sample size was 95 mothers giving birth, selected using systematic random sampling. The inclusion criteria for this study were all women giving birth in health facility or non-health facility, eminently remain more than one year, and willing to become respondents, while the exclusion criteria were mothers who were not in place when the research.

Variables and Data Analysis

Research variables measured in this study include the independent variables were the childbirth assurance, distance of residence, travel time, and community habits in choosing the place of delivery, while the the dependent variable was the use of a labor. Data were collected using questionnaires. The categorical data were analyzed using descriptive statistics in the form of frequency and percentage, then analyzed using Chi-square test and logistic regression test.

RESULTS

The results of the frequency distribution can be seen in Table 1. The majority of respondents (69.5%) using a childbirth assurance to obtain service labor in health facility. For a distance of residence, both near and far had the same percentage ranged between 46.3% - 53.7%. While the travel time, the majority (71.6%) of respondents said quickly. Community habits in choosing the place of delivery was health facility (93.7%), while the use of delivery place was health facility (90.5%).

Relationship between childbirth assurance, distance of residence, travel time and community habits in choosing the place of delivery with the use of delivery place, can be seen in Table 2. As Table 2 shows that, indicate that the childbirth assurance and community habits in choosing the place of delivery had a significant

correlation with the utilization of delivery place, with a p-value of <0.05. While the distance of residence and travel time had no significant correlation with the utilization of delivery place, with p-value of >0.05.

Table 1. The distribution of childbirth assurance, community habits in choosing the place of delivery, distance of residence, travel time and the use of delivery place.

Variables	Frequency	Percentage
Childbirth assurance:		
1. Own cost	29	30.5
2. Use childbirth assurance	66	69.5
Residence distance:		
1. Near	44	46.3
2. Far	51	53.7
Travel time:		
1. Fast	68	71.6
2. Long time	27	28.4
Habits of the people in choosing the place of birth:		
1. Health facility	89	93.7
2. Non health facility	6	6.3
Use place of birth:		
1. Health facility	86	90.5
2. Non health facility	9	9.5

Table 2. Relationship childbirth assurance, residence distance, travel time and customs of the people in choosing the place of birth by the use of home labor (n = 95)

Variables	The use of delivery place				Total		p-value	OR (95% CI)
	Health facility		Non health facility					
	f	%	f	%	f	%		
Childbirth assurance								
• Own cost	22	75.9	7	24.1	29	100	0.003*	0.098
• Use childbirth assurance	64	97.0	2	3.0	66	100		(0.019-0.509)
Residence distance								
• Near	41	93.2	3	6.8	44	100	0.498	1.822
• Far	45	88.2	6	11.8	51	100		(0.428-7.761)
Travel time								
• Fast	62	91.2	6	8.8	68	100	0.710	1.292
• Long time	24	88.9	3	11.1	27	100		(0.299-5.583)
Community habbit in choosing the place of delivery								
• Health facility	83	93.3	6	6.7	89	100	0.010*	
• Non health facility	3	50.0	3	50.0	6	100		13.833 (2.282-83.861)

*significant: p-value <0.05

Table 3. The results of logistic regression analysis

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	0.948	0.192		4.930	0.000	0.566	1.330
	Childbirth assurance	-0.170	0.061	-0.268	-2.774	.007	-0.292	-0.048
	Distance of residence	0.054	0.060	0.091	0.890	.376	-0.066	0.173
	Community Habits in choosing the place of delivery	0.373	0.119	0.310	3.139	.002	0.137	0.610
	Travel time	-0.034	0.068	-0.052	-0.498	.620	-0.170	0.102

a. Dependent Variable: The use of delivery place

As Table 3 shows that, indicate that childbirth assurance and community habits in choosing place of delivery had a significant effect on the utilization of delivery place, with p-value <0.05.

DISCUSSION

Childbirth Assurance and the Use of Delivery Place

Based on the results, only 69.5% of respondents who own and use a childbirth assurance and the majority of respondents (97.0%) use childbirth assurance to deliver at a health facility, while respondents who do not have childbirth assurance, they are many maternity in non-health facility at their own expense. The results show also that, the childbirth assurance has a significant correlation with the use of delivery place. Multivariate analysis showed that health insurance is an important determinant for the use of delivery place.

Government efforts to reduce maternal mortality in Indonesia is implementing various policies and one of them is a childbirth assurance. Childbirth assurance is a childbirth assurance financing which includes antenatal care, labor assistance, post-partum care, including family planning services after labor and service of newborn baby. According to the Basic Health Research in 2013, found that 50.5% of Indonesia's population do not yet have health insurance, health insurance or Insurance Indonesian Armed Forces by 6.0%, social security workers: 4.4%, private health insurance and health care benefits companies respectively by 1.7%, the public health insurance: 28.9% and health insurance areas 9.6%[(8)].

Research results showed that health insurance has a significant association with the use of the service[9]. The results of the same study conducted namely that having health insurance factor OR three times more likely for a woman to maternity health facilities, so we get the mother and baby survived. The influence of health insurance in the use of maternal health services is closely linked to the extent to which a comprehensive benefits package includes antenatal care, prenatal care, and services related to childbirth[10]. Most of the studies were reviewed to provide information on maternal health services associated with the use of insurance. Differences in the package of benefits, such as insurance that only covers emergency obstetric care to comprehensive insurance covers costs associated with the labor and antenatal care and prenatal care, may vary affect healthcare-seeking behavior for pregnant women insured[11].

Evidence on the relationship between health insurance and the use of maternal health services is relatively consistent across the studies that have used a rigorous research methodology and different. Studies in the United States, generating directions relationships consistent with the evidence from randomized controlled randomize, which demonstrate the positive impact of health insurance on the use of general health services[12]. Different studies that after controlling for demographic and socioeconomic characteristics, the result that the insurance program was associated with increased likelihood mother for antenatal care at least four times (OR 1.04; 95% CI 1.01 -1.06) and make visits during the first trimester of pregnancy (OR 1.03; 95% CI 1.01 to 1.06). While antenatal care at the clinic midwife is not significant. These two outcomes are associated with only a slight increase for the possibility of women giving birth in health facility, and this increase was not statistically significant. Research shows that all the 200 respondents indicated a willingness to use the insurance system is programmed. There are differences in the cost of services between public and private facility that were analyzed at the 95% confidence level (p-value < 0.001). This shows that the average cost of services in private health care facility is significantly higher than in primary health facility[13].

Distance of Residence and the Use of Delivery Place

Based on the results of research, the distance of residence is not significantly associated with the use of delivery place. The research result shows that both respondents within a place to stay near or far from health facility but the percentage of labor in health facility, both are nearly equal, whereas the non-maternity in a small percentage of health facilities.

Accessibility aspect is not always related to the distance factor, but more to do with ease to reach a location[14]. Access to health care means that the health care provided health personnel to the community is not hindered by the geographical situation (distance, travel time, modes of transport and physical barriers else that can hinder a person's health services), economic (ability to pay for health care), social (associated with a can or non-receipt of health care services in the social or cultural values, beliefs and behaviors), organization (the extent to which the health service is set to provide convenience or comfort to the patient), and the language barrier (using language or dialect understood by the patient). Based on research found that affordability and acceptance within health services related to the shortage of women in service labor, lack of cultural competence and communication[15].

These results are in contrast to some previous studies, namely that the distance to the health facility as an important factor that may hinder mother to services labor and makes the mother not to seek treatment[16]. Factors distance from home to the clinic, transportation, transportation costs, services in health facility, the attitude of officers and the availability of personnel who provide services affecting mothers to utilize health services[17]. While qualitative research found that the determinants identified from the mother during pregnancy and childbirth in terms of use of health services is due to the influence among other things: 1) a lack of education about the importance of health, 2) distance, cost and transportation, 3) the natural process of birth, 4) religious beliefs and cultures, and 5) the influence of the family[18]. Distance is an important barrier for labor in health facility in rural Ghana, namely that only 68.0% of women who stay one kilometer from a health facility that is likely to deliver at the nearest health facility, while women with distance from the house more distant (25 kilometers), decided not to seek care or can not access health facility for childbirth. This condition may increase the rate of maternal and infant mortality[19].

Travel Time and the Use of Delivery Place

The results of research indicate that the travel time was not significantly associated with the use delivery place. The research result shows that the travel time both near and far not become a barrier for respondents to keep birth in a health facility. According to Health Research in 2013 that the travel time from the residence to the government hospital was fastest in 16-30 minutes of 34.4%, the lowest > 60 minutes is 18.5%. Meanwhile,

to the centre of the public health, doctor's office, maternity hospital practice mostly in travel time ≤ 15 minutes[8].

These results are in contrast to recent research which found that the time factor influencing the behavior mileage women to utilize health care facilities. Labor in health facility is an important aspect of the strategy to reduce maternal mortality and newborn. The results of logistic regression showed that the travel time of five minutes to the nearest emergency obstetric care facility associated with a decrease of 30.0% (OR 0.655, 95% CI: 0.529 to .811) for possible labor in emergency obstetric care facility rather than at home[20]. Moreover, the impact of travel time varies substantially between communities, NGOs and private facility. takes about five minutes from the center of private emergency obstetric care result in decreased 32.9% for the possibility of giving birth in private facilities, while for the public and emergency obstetric care facility Non-Government Organisation, the impact is lower (28.2 and 28.6% for each facility)[21].

On average, women spend 62-68 minute ride to the clinic for labor by using modes of transport vary include cars, trucks, taxis and motorcycles. The use of modes of transport to a medical facility associated with the generation of women. Low-income women are less likely to use motor transport, they walk into a health facility with a time of 94 minutes. While high income only takes 34 minutes. It can be concluded that the time factor with the use of modes of transport have influenced the decision of women to give birth in health facility not adequate[22,23].

Community Habits in Choosing the Place of Delivery and the Use of Delivery Place

Research results show that, the community habits in choosing the place of delivery has a significant correlation with the use of delivery place, with the strong relationship. The ability to seek health care deals with the concept of personal and social values, culture, gender and autonomy that will determine the intention to obtain medical care[14].

Habits of the people who helped give birth at home with the TBAs is still a cultural habit or hereditary in the family. This relates to public confidence in the TBAs is still quite strong and is associated with the postpartum home, there are still people's habit to perform “tatobi” and bake up to forty-two days. Habit or culture can lead to risks and complications in the mother and baby. Habit is an act or acts committed repeatedly hereditary in a relatively long time and may be referred to as culture. Habits in society is accepted as a binding rule, although not defined by the government and influence the behavior of everyday people. Society will try to behave according to the customs in order to be accepted in the community. Results of research shows that, cultural beliefs, values and traditions can significantly affect individual attitudes toward childbirth[24].

Confidence is identified as a comprehensive concept influencing the place of labor. Women who choose to give birth in health facility are first rate, have beliefs about childbirth, their ability to give birth, the ability of midwives, the mechanism of labor of the facility, while women who choose to give birth in hospital maternity does not express confidence in labor, their ability to give birth, the mechanism of labor of the facility, although they believe the midwives attending births[25].

Moreover hospital with access to medical care remains an option because when a woman planning a maternity hospital, they assume that the risk labor, and worried about excessive intervention, yet in fact this is an important form of rescue to the mother and baby. Using sociocultural theory, it can be said that the planning point of labor is associated with a culture, a history of childbirth, safe motherhood, and subsequently influenced by reasons of risk factors, and responsibility, so it needs to be positioned as a normative cultural practices and acceptable[26].

CONCLUSION

Childbirth assurance and the community habits in choosing the place of delivery has a significant connection with the use of delivery place in a health facility. While the distance of residence and travel time are not significant to the use of a birth in a health facility, it is because of the health facility in the district of South Central Timor, as a whole can be achieved by using the mode of transportation in the area.

The first suggestion, childbirth assurance is found to have an important influence on the utilization of labor in health facility in the district of South Central Timor, efforts to increase the ownership of childbirth assurance for all communities to be used in the utilization of health services especially the utilization of labor in health facility. The second suggestion is the habits of the people in choosing where labor does not need to be removed but it is necessary to deliver information about the benefits of labor in health facility so that it can be a reference for the community to do with the selection of the proper labor. Third, within the residence and travel time are not a barrier to utilizing maternal labor in health facility, need to be improved means of transport and infrastructure for the better so that people can easily and quickly to achieve the intended health facility.

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