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CHARACTERISTIC OF USING PARTUS HELPER IN INDONESIA

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ABSTRACT

The number of death mom (AKI) in Indonesia was high. This was caused the scope of partus by health staff hadn't been proper yet and the lower scope of handling the obstetric case. From all estimations of obstetric complication cases, only 10 percent were handled, so that there was still many of mom deaths because their partus process weren't handled by the health staffs, especially if the partus was done by baby shaman of family members. The using of service could be influenced by individual's or family's characteristics such as demography, social structure and belief toward health. Other factor was the sources that enable in using the health service such as individual or family and society sources, needs which were desired and needs of evaluation result of using the health service. The aim of this research was to know the characteristic of using partus helper in Indonesia.

This is kind of observational research with cross sectional study design. The data used in this research was result of Susenas 2003 conducted by BPS. Numbers of sample were 220.896 households included urban and sub urban area. The analyses used in this research were 1). Univariable analysis used frequency distribution, 2). Bivariable analysis, statistic test used was chi square with meaning level $p < 0,05$, confidence interval (CI) 95 percent, 3). Multivariable analysis, statistic test used was logistic regression with meaning level $p < 0,05$ and CI 95 percent.

The result showed that parity, mom's education, husband's education, domicile, were significantly influenced toward the using of partus helper ($p < 0,05$).

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The variables of mom's education and domicile were dominant variables that influenced to the using of partus helper. It needed of distribution of accessibility to the health facility for all citizens especially in the sub urban area, increasing of people's knowledge through counseling especially for the pregnant moms with lower education about the important of handling pregnant and partus process by professional health staffs.

INTRODUCTION

Based on the Demography Survey and Indonesia Health (SDKI) 2002/2003 the number of death mom (AKI) in Indonesia was in the number of 307 death per 100.000 live birth during 1998 - 2002. From five million births in Indonesia, it were estimated that 20.000 moms death caused by complication of pregnancy or childbirth each year. This number was still high enough compared with AKI in other countries on ASEAN members. The risk of moms death because in Indonesia was 1 of 65, compared with 1 of 1.000 in Thailand, and 1 and 1.700 in Singapore and 1 of 660 in Malaysia.¹

The high of death number in Indonesia was because the scope of partus by health staff hadn't been proper yet and the lower scope of handling the obstetric case. From all estimations of obstetric complication cases, only 10 percent were handled, so that there was still many of mom deaths because their partus process weren't handled by the health staffs, especially if the partus was done by baby shaman of family members.²

As the continuance of *safe motherhood* program, *Making Pregnancy Safer* (MPS) strategy had been arranged in order to faster the decreasing of pain and mom and new born baby death to achieve healthy Indonesia 2010. Special attention in this program was group of people with lower income both in the urban area and sub urban and also people in the remote area through Social Safety Net-Health Area/Program Jaring Pengaman Sosial-Bidang Kesehatan (JPS-BK). This program had been started since 1998 by providing basic health service and freely local midwife.³

Some results of research in Indonesia reported that the scope of partus helped by the health staffs hadn't been obtained the target determined, it was still under 80 percent.^{4,5,6,7,8}

Generally, the misdistribution using of health service for moms and newborn babies was tightly related with poverty, geographic factor, and social development. Poor and uneducated moms experienced special difficulties in using the health facilities because of the limited cost and didn't know about it.⁹

The using of service could be influenced by individual's or family's characteristics such as demography, social structure and belief toward health. Other factor was the sources that possible in using the health service such as individual or family and society sources. Else, needs which were desired and needs of evaluation result of using the health service.¹⁰

Hypothesis in this research stated that there was meaningful correlation between characteristics (mom's age, mom's education, paritas, husband's education, domicile) with the using of partus helper.

METHODS

This was observational research with design of (*cross sectional study*). Cross sectional study took a picture of event and disease's characteristics, and explanation factors that occurred in certain population.¹¹ The aim of this research was to study the characteristic in choosing the partus helper. Those variables were observed all together at one time.

The research used data from Susenas result held by BPS. The collected information related to any aspects of people's social economic life, included demography, health, education, work force, fertility, planned family (KB), housing and settlement, and consumption and expenditure.

Numbers of samples were 220.896 households included urban areas and sub urban areas. The samples used were result of census data by using questionnaires. Populations of this research were all households which had child ≤ 1 year and the samples were total population with subject of households in the criteria of: households which had child ≤ 1 year and with the status was not blood child and un married couple.

The analysis used in this research were 1) Univariable analysis, where the variable analyzed descriptively by using frequency distribution included mom's characteristics; the choosing of partus helper either *nakes* or *non-nakes*. 2) Bivariable analysis, it used to know the correlation between independent variable (mom's age, education, parity, husband's education, place) with dependent variable (the choosing of partus helper). The statistic test used in this research was *chi square* with meaning level of $p < 0,05$. In order to know the correlation strength between those variables, it was seen from the value of *odds ratio* (OR) and OR value was also used to count the risk possibility, that were how many time of the risk's increasing or decreasing at the population with *confidence interval* (CI) of 95 percent. 3). Multivariable analysis done in order to know the

correlation between independent variable and dependent variable and all together controlled other variable. This research used statistic test of logistic regression with meaning level of $p < 0,05$ and CI 95 percent.

RESULTS

1. Univariable Analysis

Table 1. Characteristics: mom's age, education, parity, husband's education, domicile, and partus helper in Indonesia.

Variable	Non Nakes		Nakes		Total
	f	%	f	%	
Mom's Age					
- High Risk	1362	32.9	2778	67.1	4140
- Low Risk	2896	30.0	6760	70.0	9656
Mom's Education					
- Low	3915	39.0	6121	61.0	10036
- High	343	9.1	3417	90.9	3760
Parity					
- High Risk	2215	32.4	4615	67.6	6830
- Low Risk	2043	29.3	4923	70.7	6966
Husband's Education					
- Low	4201	32.7	8629	67.3	12830
- High	57	5.9	909	94.1	966
Domicile					
- Sub Urban	3532	43.9	4506	56.1	8038
- Urban	726	12.6	5032	87.4	5758

The using of health service in order to help partus process in Indonesia mostly helped by midwife of 7924 (57.43%), continued by baby shaman of 3926 (28.45%), doctor of 1383 (10.02%), family/relative of 288 (0.20%), other nakes were 231 (1.67%) and 44 (0.31%) were other personels.

Mom's age of 20-34 years old at the time of getting partus had the biggest proportion of 10745 (77.9%), the age less than 20 years old were 645 (4.7%) and the age more than 34 years old were 2436 (17.7%). The choosing of nakes as their partus helper were at the age of 20-34 years old that were 6760 (70.%) and for the age of <20 and >34 years old who choosed nakes were 2772 (67.1%).

2. Analisis Bivariabel

Table 2. Correlation Between Characteristic and Partus Helper in Indonesia

The most proportion of mom's education were in the group of elementary school of 5476 (29.69%), continued with Junior High School were 4778 (34.63%), didn't have certificate were 2253 (16.33%), while for the Senior High School were 1263 (9.15%), DI/DII were 345 (2.50%), DIII/bachelor were only 8 (0.06%). The proportion of Junior High School degree who choose nakes were 3417 (90.9%) and non-nakes were 343 (9.1%) while the proportion of under Senior High School group who choose nakes were 6121 (61.0%) and non-nakes were 3915 (39.0%).

There were varied proportion for number of birth live. The biggest proportion was at the number of 2-3 children that were 6967 (50.50%) and non-compared with 1 child that were 3657 (26.50%) and more than 3 children were 3151 (22.83%). The most number was (13 children) who ever born by 1 mom, 12 children by 12 moms, 11 children by 25 moms, and 10 children by 53 moms.

The proportion of husband's education mostly grouped in Junior High School (SMP) that were 5115 (39.97%), continued with Elementary School (SD) that were 4485 (32.50%), didn't have certificate were 2062 (14.94%), Senior High School (SMU) were 1497 (10.85%), DI/DII were 614 (4.45%), and the least proportion were DIII/bachelor (sarmud) only 23 (0.16%). Based on the level of husband's education, the choosing of partus helper with nakes were the most at the level of Junior High School (SMP)/on an equal that were 4107 (29.76%). For the Elementary (SD) level were 2575 (18.66%), Senior High School/SMU were 1266 (9.17%), DI/DII were 586 (4.24%), DIII/bachelor were 23 (0.16%) choose nakes and whose husband didn't have any certificate were 951 (6.89%).

The difference proportion between the families who lived in the urban dan sub urban were 2280 (16.52%) with the highest proportion was in the sub urban that were 8038 (58.26%) and in the urban area were 5758 (41.73%). The proportion of choosing nakes for helping the partus in the urban area were 5032 (87.4%) and non nakes were 726 (12.6%). In the sub urban area, the proportion of choosing nakes for helping the partus were 4506 (56.1%) and non nakes 3532 (43.9%).

Variable	Partus Helper		X^2	p	OR	IK 95%	
	Non Nakes	Nakes					
	Mom's Age	High Risk					1362
	Low	2896	6760				

	Risk						
Mom's Education	Low	3915	6121	1143,61	0,001	6,37	5,662-7,170
	High	343	3417				
Parity	High Risk	2215	4615	15,49	0,001	1,15	1,077-1,236
	Low Risk	2043	4923				
Husband's Education	Low	4201	8629	302,10	0,001	7,76	5,926-10,172
	High	57	909				
Domicile	Sub Urban	3532	4506	1542	0,001	5,43	4,968-5,941
	Urban	726	5032				

Bivaribale analysis in this research used statistic test of *chi square* (X^2) at the meaning level $p < 0,05$. The risk of choosing partus helper based on the value of *odds ratio* (OR) with *confidence interval* (CI) or trust interval was (IK) 95 percent.

The mom's age had significant correlation with the choosing of partus helper ($X^2 = 11.33$ dan $p = 0.001$). Mom's age < 20 years old and > 34 years old had risk of 1.14 (IK 95% = 1.058-1.237) choose the partus helper by non nakes compared with moms with age of 20-34 years old.

Mom's education had significant correlation with partus helper ($X^2 = 1143.61$ and $p = 0.001$). Mom's education \leq SMP had risk of 6.37 times higher (IK 95% = 5.662-7.170) choose partus helper by non nakes compared with mom's education \geq SMU.

Table 3. Result of Multivariable Analysis of Logistic Regression about The Using of Partus Helper in Indonesia

Variable	β	p	OR	CI 95%	
				Lower	Uper
Mom's Age	-.062	0.181	0.94	0.859	1.029
Mom's Education	1.29	0.001	3.63	3.201	4.135
Parity	.118	0.05	1.12	1.035	1.224
Husband's Education	.812	0.001	2.25	1.682	3.016
Domicile	1.386	0.001	3.99	3.642	4.387

DISCUSSIONS

According to Andersen (1995), individual or family's characteristics such as demography, social structure and trust to the health could influence the using of service. Else, the sources which were enable using the health service such individual or family sources and society source, the needs that were considered and the needs of evaluation result of using the health service. The result of bivariat and multivariate test in this

Parity had significant correlation with partus helper ($X^2 = 15.49$ and $p = 0.001$). Parity 1 and > 3 had risk 1.15 times higher (IK 95% = 1.076-1.244) choose partus helper by non nakes compared with mom with education \geq SMU.

Husband's education had significant correlation with partus helper ($X^2 = 302.10$ dan $p = 0.001$). Husband's education \leq SMP had risk.76 times higher (IK 95% = 5.926-10.172) choose partus helper by non nakes compared with mom with husband's education \geq SMU.

Domicile had significant correlation with the choosing of partus helper ($X^2 = 1542.03$ and $p = 0.001$). Family's domicile in the sub urban had possibility of 5.43 times higher (IK 95% = 4.968-5941) choose the partus helper by memilih non nakes compared with they who wer lived in urban area.

3. Multivariable Analysis

Tthe result of logistic regression showed that parity, mom's education, husband's education, and domicile were significantly influenced toward the using of partus helper ($p < 0,05$). The variable of mom's education and domicile were dominant variables that influenced toward the using of partus helper because it had the highest value of OR. Determination coefficient (R^2) at the analysis result was 16.7%.

research showed that mom's characteristics (age, education, parity, husband's education, and domicile) were related to the using of partus helper.

The analysis result of mom's age variable had significant correlation with partus helper. It was similar with the previous research, mom's age < 20 years old and > 35 years old had higher risk in choosing the partus helper from non nakes (Hakimi, 1999).

Stewart (1998) said that someone's high level of education significantly could increase the using of service from the health staffs. The result of bivariat analysis in this research showed that the level of mom's and husband's education had significant correlation with the using of partus helper. A mom/husband with higher level of education was tended to choose the partus helper from nakes.

According to Sudijo (1998), education factor influenced the using of partus helper from health staff. It was stated that level of education hold important role for a couple in planning the using of partus helper. While, according to Bolam, *et al.* (1998), the using of health service for mom in getting partus was more from the them with higher education level. Level of education

could influence knowledge and make it easier in receiving information about health (Tinkes and Koblinsky, 1993).

From the analysis result between parity and the using of partus helper showed that there was any meaningful correlation. Number of parity of partus became one consideration in choosing the partus helper. This might be because there were any difficulties that ever experienced at the previous partus process (Hakimi, 1999).

The difference in using the health service at the health staff between urban and sub urban people showed that there was misdistribution of people's access toward the service in Indonesia (Thabarany & Pujianti, 2000). It must be recognized that at present, the health facilities was relatively provided more in the city than in the village. The result of bivariat analysis in this research showed that domicile (village/city) had meaningful correlation in using partus helper, where the household which stayed in the village had risk 5.43 times higher in choosing the helper of non health staff than the household which stayed in the city.

The sub urban belief in Indonesia toward baby shaman was high and the aid cost was low (BPS, 2000). The social conditions, such as education leve., habit or tradition, and economic problem were factors that influenced the using of partus helper (Yulfira, 1996).

Hardeman *et al.*(2004), aslo said that the using of health service in the sub urban area was very low because the access and quality of service served was very limited.

It was different with the research by Nahar and Costello (1998), the using of mom's health service in the area of Bangladesh was low (less than 15%) compared with other countries in South Asia such as India. This was related to the culture and economic reasons.

CONCLUSION

Based on the analysis result and discussion in this research, it could be concluded that factors of low education background and domiciles in the village were the most dominant factors that influenced in the using of partus helper non-nakes.

Suggestion

It needed development/expansion of scope of health service especially the using of partus helper by health staffs through: a). distribution of accessibility to the health facilities for all citizens mainly in the village; the increasing of societies' knowledge through

counseling especially for pregnant moms with lower education background about the importance of handling the pregnant and partus process by professional health staffs.

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