Correlation Between Components of Gender Development to Women of Childbearing Age Couples Morbidity in Remote Indigenous Community of Suku Anak Dalam at Sungai Terap Area and Nyogan of Jambi Province, Indonesia

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Abstract: Results of MDGS in 2015 declares that maternal mortality rate (MMR) in Indonesia still at 305/100.000 live births level, which still far away from the target of 105/100.000 live births. Maternal morbidity and mortality rates are more risky at those with low social, cultural, political, and economic status, especially at the remote indigenous community and is having low accessibility to health, for example, the Suku Anak Dalam (SAD). The aim of this study is to determine the correlation gender development index (GDI) to women of childbearing age couples (PUS) morbidity in remote indigenous community of Suku Anak Dalam (SAD) at Sungai Terap Area and Nyogan of Jambi Province. This study was a quantitative study with observational study design by using a cross sectional approach which conducted in March until July. Samples were chosen with total population technique which means all remote indigenous community (RIC) that were in the field at the data collection time who fulfill the inclusion criteria were chosen as samples. Data were taken primarily and secondarily, then were analyzed by univariate and bivariate analysis. Prevalence of morbidity rates were 67,2%, and there was a correlation between knowledge level with women of childbearing age couples morbidity (*p value* = 0,012; 95% CI= 0,022-0,672, OR= 0,122)). There was no correlation between, age, education record and family outcome.It is necessary to optimize the empowerment program in order to improve the community knowledge related to disease prevention efforts, so that the maternal morbidity and mortality in remote indigenous community of Suku Anak Dalam (SAD) at Sungai Terap Area and Nyogan of Jambi Province can be reduced.

Keywords: morbidity, indigenous community, knowledge

I. INTRODUCTION

Results of MDGs in 2015 declare that maternal mortality rate (MMR) in Indonesia still at 305/100.000 live births level, which is still far away from the target of 105/100.000 live births. Morbidity rate have more risk of happening on populations with background social status, culture, politics and low economy. The result estimated target population of the program in Indonesian health development in 2017 show that more 10,3 million pregnant women and maternity women as well as more than 4,7 million infant in Indonesia most part (>60%) live in the countryside (Kemenkes, 2017).

Maternal mortality rate (AKI) predisposing factor is the high morbidity rate which refers to the level of disease and disability that characterizes the population. According to demographers, death has traditionally been the end result of morbidity. Analyze data on average coverage of services between Jambi Province and Batanghari District, and compare with the fact that there are still some remote indigenous community groups (KAT) that have not yet been empowered and are being empowered. The results of a preliminary study of Remote Indigenous Communities (KAT) found that KAT who were in the process of

empowerment and who had not yet been empowered almost did not have a population identification card (KTP) and Family Card (KK). Because the population does not have a valid population record and limited budget and lack of coordination between service agencies in KAT risk groups, the service burden is unclear.

The Province of Jambi's health profile in 2017 shows that family planning (KB) coverage is active on couples of childbreading age (PUS) 68,02% higher than national average ie 63,22%, the proportion of maternal women assisted by health workers is 90.73 percent, the achievement of giving blood tablets (TTD) exceeds the target of 85.05%, the coverage of PMT in SEZ pregnant women is 91.72% higher than the national average of only 82 , 83%, even better is that all puskesmas in Jambi Province (100%) have already carried out P4K services. For the Batang Hari district the proportion of maternal women assisted by health workers in 2014 was 95.41% higher than the average coverage of Jambi Province and several indicators of service to mothers of EFA were above the average coverage of Jambi Province, (Jambi Province Health Profile 2017) .

Mother and child health problems related to culture often occur in communities that live in remote areas and have low health accessibility, one of which is in remote indigenous communities (KAT). Remote Indigenous Communities (KAT) have the characteristics of small, closed and homogeneous communities; social institutions based on kinship relations;

geographically remote and relatively difficult to reach; still living with the economic system subsystems; simple equipment and technology; dependence on the environment and local natural resources is relatively high; limited access to social, economic and political services. (PERPRES Number 186 Year 2014).

To analyze the number of morbidity in KAT caused by medical and non-medical factors (cultural, social and cultural), it is necessary to conduct research related to empowerment programs and gender-based development indexes on morbidity in KAT women couples of childbreading age (PUS) in the Province Jambi.

II. METHODS

This research is use quantitative research with *Observational* design through *Cross Sectional* approach which is carried out from March to July. The sample in this study is the total population, which means that all KAT communities encountered in the field at the time of data collection were sampled with the condition that they met the inclusion criteria. Data were taken primary and secondary and analyzed univariately and bivariately.

III. RESULTS

1. Correlation Between Empowerment Programs and Pain Rates for Women of Fertile Age (PUS) in KAT Communities

Table 1. Frequency Distribution of Empowerment in SAD Communities

Empowerment	Frequency	
	(n)	(%)
Never	13	20,3
Ever	47	73,4
Often	4	6,3
Total	64	100

Based on the results of the above table, the results obtained from 64 respondents obtained results in the category of empowerment in the Suku Anak Dalam community, greater in the category of empowerment that has been given that is equal to 73.4% (47 respondents) which in that category empowerment is carried out 1-2 times in one last year.

Table 2. Frequency Distribution of Empowerment Officers

Empowerment Officers	Frequency	
	(n)	**(%)**
Unable to Empower Officers	12	18,8
Government agencies	32	50,0
Non-governmental organization	3	4,7
Government Agencies and NGOs	17	26,6
Total	64	100

Based on the results of the table above, the results of the 64 respondents studied obtained results in the category of empowerment officers in the Suku Anak Dalam community. The community was given more empowerment from government agencies, namely 50% (32 respondents).

Table 3. Correlation between Woman of Fertile Age Couple with Morbidity Rate

Empowerment	Morbidity Rate				P value	Odds Ratio (OR)	95% CI
	Ill		Illness				
	N	**%**	**N**	**%**			
Never	10	76,9	3	23,1	0,538	3,333	0,319 – 34,830
Ever	31	66,0	16	34,0	0,607	1,938	0,249 – 15,061
Often	2	50,0	2	50,0			
Total	43	67,2	21	32,8			

Based on the results in the table above shows the results of the analysis of the correlation of empowerment variables with Morbidity rate in the Suku Anak Dalam community, which of the 64 respondents were examined. The percentage to ever get an empowerment program was greater for respondents who were sick at 66.0% (31 respondents) compared to respondents who were not sick at 34.0% (16 respondents). Whereas the percentage of respondents who have never received an empowerment program is greater for sick respondents, which is 76.9% (10 respondents) compared to respondents who are not sick, namely 23.1% (3 respondents). Based on the results of statistical tests with *Chi-square* obtained *p-value* = 0.538 and 0.607 which concluded that there was no correlation between empowerment and morbidity rate in the Suku Anak Dalam community. In the table, it is known that the large value of the correlation risk between Empowerment and morbidity. Odds Ratio value of 3.333 with a 95% confidence interval, with this it can be concluded that Empowerment that

has never been done has a 3.333 times chance of illness compared to empowerment that has been and is often done. And the Odds Ratio value is 1,938 with a 95% confidence interval, it can be concluded that respondents with empowerment who have never done it have a sick chance of 1,938

times compared to people who have and often do empowerment.

2. Correlation Between Gender Development Components (IPG) and the Pain Rate of Fertile Age Women (PUS) in KAT Communities

Table 4. Correlation between Female Infertile Age Couples and Morbidity Rate

Women Couples Of Childbreading Age (PUS)	Morbidity Rate				*P value*	*Risk Ratio (RR)*	95% CI
	Ill		Illness				
	N	%	N	%	0,215	1,525	1,271 – 1,829
Not PUS	3	100	0	0,0			
PUS	40	65,6	21	34,4			
Total	43	67,2	21	32,8			

Based on the results in the table above shows the results of the analysis of the correlation between variables of fertile age couples (PUS) with morbidity rate (Morbidity) in the Suku Anak Dalam community, which of the 64 respondents were examined. The percentage for Fertile Age Couples is greater for sick respondents, which is 65.6% (40 respondents) compared to respondents who are not sick, which is 34.4% (21 respondents). Whereas the percentage of respondents who were not Fertile Age Pairs was greater in the respondents who

were sick at 100% (3 respondents) compared to respondents who were not sick at 0% (0 respondents). Based on the results of statistical tests with *Chi-square* obtained *p-value* = 0.215 which concluded there was no correlation between Fertile Age Couples with morbidity rate in the Suku Anak Dalam community. In the *odd ratio* test it was obtained a value of 1.525 with a 95% confidence interval, from these results it was concluded that responder in women who are not Fertile Age Pairs has a 1.525 times chance compared to respondents in women of Fertile Age Pairs.

Table 5. Correlation of Educational History with Morbidity Rate

Educational History	Morbidity Rate				*P value*	*Odds Ratio (OR)*	95% CI
	Ill		Illness				
	N	%	N	%			
Not School	22	71,0	9	29,0			
School	21	63,6	12	36,4	0,532	1,397	0,488 – 3,995
	43	67,2	21	32,8			

Based on the results in the table above shows the results of the analysis of the correlation between educational history variables and morbidity rate in the Suku Anak Dalam community, which of the 64 respondents studied. The percentage for schools which is greater occurs in the morbidity category of pain that is 63.6% (21 respondents) compared to respondents who are not sick that is 36.4% (12 respondents). Whereas the percentage of respondents who did not go to school occurred in the morbidity which was in the sick category that was 71% (22 respondents) compared to respondents who were not sick, which was 29% (9 respondents). Based on the results of statistical tests with *Chi-square* obtained *p-value* = 0.532 which concluded that there was no correlation between educational history with morbidity rate in the Suku Anak Dalam community. In the *odd ratio* test, it was obtained a value of 1.397 with a 95% confidence interval, from these results it was concluded that respondents in those who did not go to school had a 1.397 chance compared to respondents who went to school.

Table 6. Correlation between level of knowledge and morbidity

Knowledge Level	Morbidity Rate				P value	Odds Ratio (OR)	95% CI
	Ill		Illness				
	N	%	N	%			
Well	2	25,0	6	75,0	0,012	0,122	0,022 – 0,672
Not well	41	73,2	15	26,8			
Total	43	67,2	21	32,8			

Based on the results in the table above shows the results of the analysis of the relationship between the variable level of knowledge and morbidity in the Suku Anak Dalam community, which of the 64 respondents studied. The percentage for the level of knowledge that is not good is greater in the morbidity (Morbidity) that is 73.2% (41 respondents) compared to respondents who are not sick, namely 26.8% (15 respondents). Whereas the percentage of respondents with a good level of knowledge, the morbidity in the category of no pain is greater that is 75% (6 respondents) compared to respondents who are sick that is 25% (2 respondents). Based on the results of statistical tests with Chi-square obtained p-value = 0.012 which concluded that there was correlation between the level of knowledge with morbidity in the Suku Anak Dalam community. In the odd ratio test, a value of 0.122 with a 95% confidence interval was obtained. From these results it was concluded that respondents with poor educational attainment had a 0.122 times chance compared to respondents with good education.

Table 7. Correlation between Family Expenditures and Morbidity Rate

Family Expenditures	Morbidity Rate				P value	Odds Ratio (OR)	95% CI
	Ill		Illness				
	N	%	N	%			
≥ 2.300.000	7	58,3	5	41,7	0,469	0,622	1,171 – 2,260
≤ 2.300.000	36	69,2	16	30,8			
Total	43	67,2	21	32,8			

Based on the results in the table above shows the results of the analysis of the correlation of monthly expenditure variables with morbidity rate in the Suku Anak Dalam community, which of the 64 respondents examined. The percentage for schools which is greater occurs in the monthly expenditure of ≤ 2,300,000 in the sick category at 69.2% (36 respondents) compared to respondents who are not sick at 30.8% (16 respondents). While the percentage for respondents whose monthly expenditure was ≥ 2,300,000 was in the sick category by 58.3% (7 respondents) compared to respondents who were not sick, namely 41.7% (5 respondents). Based on the results of statistical tests with *Chi-square* obtained *p-value* = 0.469 which concluded there was no correlation between monthly expenditure and morbidity rate in the Suku Anak Dalam community. In the *odd ratio* test, it was obtained a value of 0.622 with a 95% confidence interval, from these results it was concluded that the responder on a monthly expenditure of ≥ 2,300,000 had a 0.622 times chance compared to respondents having a monthly expenditure of ≤ 2,300,000.

III. DISCUSSION

1. Variable Empowerment in Suku Anak Dalam Society

The results showed that of the 64 respondents in the Suku Anak Dalam community, 47 respondents or 73.4% were approved to have been given empowerment 1-2 times in the last six months. Whereas 13 respondents (20.3%) in the Suku Anak Dalam community never provided empowerment and 4 respondents (6.3%) in the Suku Anak Dalam community were often given empowerment.
Based on the results of research on the Suku Anak Dalam community, it was found that 50% of respondents were empowered by Government Agencies and 4.7% of respondents were empowered by NGOs. In addition, it was found that 26.6% of respondents were empowered by Government Agencies and NGOs. In addition, there were 18.8% of respondents who were not empowered by officers.

In essence community empowerment is one way to grow and develop the potential of the community so that the community is able to actively and aspiratively in behaving clean and healthy life. Community empowerment basically aims to protect the community so that they are skilled in determining problems, planning alternative solutions to problems, implementing and evaluating the efforts that have been made (Chasanah, 2015).

The main problem in providing health services for KAT residents is still around access barriers that are difficult to reach. The main health facilities are generally located in the village center. The distance between the village center and the hamlet where KAT residents live is far from poor road conditions. Not infrequently residents have to walk to the community Health centers or community Health centers helper.

2. Distribution of Gender Development Index (IPG) Components in KAT Communities

The Gender Development Index is a form of parameter used to measure the achievement of the dimensions of the same two variables as HDI, but it reveals the injustices of achieving men and women (BPS, 2019). The results of the research component of the gender development index in remote indigenous communities (KAT) in the Suku Anak Dalam community showed that 95.3% of respondents in the study were fertile age couples (PUS) and 4.7% other respondents were not fertile age couples. (PUS). Fertile age couples (PUS) are married couples whose wives are aged between 15 and 49

years or married couples whose wives are less than 15 years old and are menstruating or are over 15 years old, but still menstruating (Kurniawati, 2014).

Based on educational history the results of the study showed that 48.4% of respondents with a history of not going to school and 51.6% of the other respondents had attended school. In addition, from the results of the study 59.4% of respondents did not complete education and 32.8% of respondents with elementary school level, 6.3% of respondents with junior high school level and 1.6% of respondents with high school education level.

Education is a social action that allows the community to remain and develop. In the social fabric, the education function experiences specialization and is institutionalized with formal education which always remains in contact with the informal education process outside of school (Anwar, 2015). The level of education is closely related to the level of knowledge, the level of education influences the information and knowledge absorbed. The higher one's education the higher one's understanding of the information conveyed. A good understanding of the information obtained then forms good knowledge as well (Flora Theodora Parapat, 2016).

The issue of why Indigenous Peoples do not receive formal education occurs for two reasons. First, cost constraints. Often they do not have enough money to pay for school fees in formal schools. But for now there are actually many education funding programs from the government such as School Operational Costs, Poor Student Assistance, and many other programs. The second obstacle is a matter of access, place of residence and lifestyle to move into barriers to attend learning activities in formal schools. This then raises critical questions, for example why schools have to go in every day, even though they have to join their parents in the fields or trap animals.

Knowledge related to behavior. Behavior is formed from three aspects, one of which is knowledge. Knowledge is the interpretation of one's learning outcomes towards an object. Knowledge is formed from the frequency of attention and perception of an object (Dr. Irwan S.KM., 2007). Therefore, education, knowledge, and behavior are an inseparable unit. Where a person's level of knowledge can never be separated from the education that has been taken and good behavior is formed from good knowledge as well. So it can be concluded that the higher a person's education the better the person is in receiving information that will form a knowledge which is then reflected into behavior.

For the expenditure of respondents known to be 18.8% of respondents with expenditures of $\geq$ 2,300,000 and 81.3% of respondents with expenditures of $\leq$ 2,300,000. Economics is one of the factors that greatly influences people's behavior, people with sufficient income have a tendency to meet their needs to the maximum. Conversely, people with low incomes tend to ignore their needs, including in terms of health services (Siwi, 2017). From the research results it is known that 67.2% of respondents were categorized as having been sick during the last 3 months and 32.8% of respondents had never been sick during the last 3 months.

IV. CONCLUSIONS

The prevalence of morbidity rate 67.2% has a correlation between the level of knowledge with the morbidity rate of women of childbearing age (PUS) with *p-value* (0.013). There is no correlation between women's empowerment programs, respondent's age, education history and family expenses. The government still needs to optimize the empowerment program in order to increase public knowledge related to disease prevention efforts so as to reduce the morbidity of maternal mortality in the

Remote Indigenous Communities of Suku Anak Dalam in Sungai Terap and Nyogan Jambi Province.

V. ACKNOWLEDGMENT

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