JURNAL BIOMETRIKA DAN KEPENDUDUKAN

(Journal of Biometrics and Population)

FERTILITY AND PREGNANCY DURING THE PANDEMIC AT THE DAYAK MERATUS TRIBE

*Norma Yuni Kartika[1], Fuad Muhajirin Farid[2], Nor Aufa Azizah[1]

[1]Faculty of Social and Politic Sciences, University of Lambung Mangkurat, 70123 Banjarmasin City, South Kalimantan, Indonesia
[2]University of Lambung Mangkurat, 70714 Banjarbaru City, South Kalimantan, Indonesia
*Corresponding Author: Norma Yuni Kartika; Email: norma.kartika@ulm.ac.id

Published by *Fakultas Kesehatan Masyarakat Universitas Airlangga*

Keywords:
child born alive,
fertility,
society,
tribe

ABSTRACT

Fertility rate in South Kalimantan in 2017 is the same as Indonesia's at 2.4. This figure is below the target figure for the 2020-2021 National Medium-Term Development Plan (*Rencana Pembangunan Jangka Menengah Nasional*/RPJMN) in 2.1. This study aims to determine the factors affecting fertility and pregnancy which occurred during the pandemic in women of childbearing age (*Wanita Usia Subur*/WUS) of the Dayak Pitap tribe living in the Meratus Mountains, Ajung Village, Tebing Tinggi District, Balangan Regency, South Kalimantan Province. This study uses a quantitative approach with a survey method. The research sample taken was 70 respondents using the quota sampling method with the simple random sampling method. Data processing and analysis was carried out in three stages, to be specific univariate analysis, bivariate with Chi-square statistical test, and multivariate analysis using binary logistic regression model. The results of the analysis show that women of childbearing age from the Dayak Meratus/Dayak Pitap tribe who are under 35 years old and have finished elementary school are 24.4% more likely to have 2 children. Therefore, it could be concluded that age and level of education affect the fertility.

Kata Kunci:
anak lahir hidup,
fertilitas,
masyarakat,
suku

ABSTRAK

Angka fertilitas di Kalimantan Selatan tahun 2017 sama dengan Indonesia, yaitu 2,4. Angka tersebut berada di bawah angka target Rencana Pembangunan Jangka Menengah Nasional (RPJMN) 2020-2021 pada 2.1. Penelitian ini bertujuan untuk mengetahui faktor-faktor yang memengaruhi fertilitas dan kehamilan yang terjadi selama masa pandemi pada Wanita Usia Subur (WUS) Suku Dayak Pitap yang tinggal di Pegunungan Meratus, Desa Ajung, Kecamatan Tebing Tinggi, Kabupaten Balangan, Kabupaten Balangan, Provinsi Kalimantan Selatan. Penelitian ini menggunakan pendekatan kuantitatif dengan metode survei. Sampel penelitian yang diambil adalah 70 responden dengan menggunakan metode quota sampling dengan metode simple random sampling. Pengolahan dan analisis data dilakukan dalam tiga tahap, yaitu analisis univariat, bivariat dengan uji statistik Chi-square, dan analisis multivariat menggunakan model regresi logistik biner. Hasil analisis menunjukkan bahwa wanita usia subur dari Suku Dayak Meratus/Suku Dayak Pitap yang berusia di bawah 35 tahun dan telah menyelesaikan sekolah dasar memiliki kemungkinan 24.4 persen untuk memiliki 2 anak. Dengan demikian, dapat disimpulkan bahwa usia dan tingkat pendidikan memengaruhi fertilitas.

INTRODUCTION

A high Total Fertility Rate (TFR) can increase the birth rate and cause high population growth. Based on the Indonesian Demographic and Health Survey (IDHS) data in Figure 1, from 1991 to 1997 and 2007 the Total Fertility Rate (TFR) of South Kalimantan Province was smaller than Indonesia. TFR in South Kalimantan was greater than the TFR in Indonesia only in 2002/2003.

The TFR in South Kalimantan was the same as in Indonesia in 2007 and 2017. Overall, TFR has decreased over the past 26 years both in Indonesia and in South Kalimantan Province. Figure 1 shows the TFR in Indonesia and South Kalimantan in 1991-2017.

Received in 07 February 2022 ; **Reviewed** in 07 March 2023 ; **Accepted** in 06 November 2023 ; **p-ISSN** 2302–707X - **e-ISSN** 2540–8828 ;
DOI: https://doi.org/10.20473/jbk.v13i1.2024.51-60 ; **Cite this as :** Kartika NY, Farid FM, Azizah NA. Fertility and Pregnancy During The Pandemic at The Dayak Meratus Tribe. J Biometrika dan Kependud [Internet]. 2024;13(1):51–60. Available from: https://doi.org/10.20473/jbk.v13i1.2024.51-60

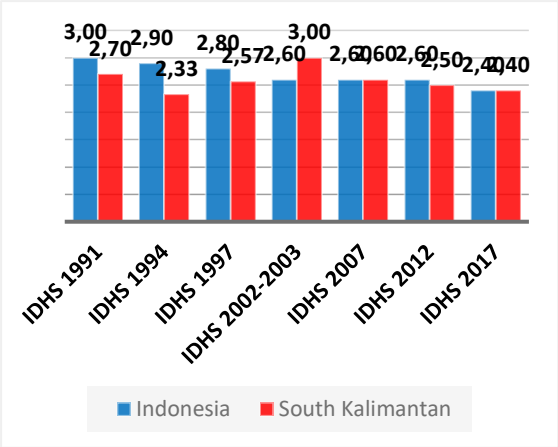

Figure 1. Total Fertility Rate (TFR) in Indonesia and South Kalimantan in 1991-2017

A country will reach the replacement level fertility stage when the TFR is at 2.1 (1). Meanwhile Indonesia has not been able to reach that stage in which Indonesia consists of 34 provinces with varying TFR. The reduction in TFR in Indonesia must start along with the rate in district/city level. The way to reduce fertility rates is to find out which factors influence it. Several studies have been conducted to determine the factors which influence fertility, including ethnicity.

Ethnicity is a significant factor which is even more important than other factors, such as place of residence, level of education and household income (2). Another researcher mentions that in a study of population problems it is not enough just to pay attention to the number of people and their growth rate (3). There are many demographic and non-residential aspects which must be considered, including fertility related to the diversity of ethnic or ethnic groups in Indonesia.

The definition of ethnicity is a group of ethnic and cultural communities which have been passed down from generation to generation (4). Becoming a part of the cultural system of society, ethnic identities and attributes of a community group will be passed on to the next generation. Culturally, ethnic identities and attributes are directly attached to everyone, according to the ethnicity of both parents. In general, the ethnicity of the Indonesian population is determined to follow a paternalistic line (father/male).

There are three main ethnic groups or native tribes of Kalimantan from the 2010 population census data, to be specific the Dayak, Malay and other ethnic groups from Kalimantan (non-Dayak and non-Malay) (4). One of the Dayak Sub-Tribes is the Meratus Dayak who live along the Meratus mountains. The research subject in this study is the Dayak Pitap tribe, that is the Dayak indigenous people as a part of the Meratus Dayak tribe who live in the Tebing Tinggi Sub-District, Balangan Regency, South Kalimantan Province.

Meanwhile, the population growth rate in Balangan Regency in 2019-2020 was 1.41%, above the population growth rate of South Kalimantan Province with 1.13% in the medium population growth category (1-2%). The world was shocked by a virus known as Coronavirus disease 2019 (COVID-19)which was first identified in Wuhan, the capital city of China's Hubei Province at the end of 2019 (5). COVID-19 is a disease which is endemic almost all over the world today with symptoms of cough, fever, and shortness of breath (6).

Its worldwide spreading has resulted in a global emergency for the COVID-19 pandemic. The COVID-19 pandemic not only causes health problems which can cause death, but also affects women in accessing reproductive health services. Women during the COVID-19 pandemic are threatened in terms of reproductive health due to the changes in health service priorities during this pandemic.

Health services have given great attention to the handling of COVID-19 cases and efforts to break the chain of spreading. During the physical distancing period, women who need contraceptive services must make an appointment to get the family planning services. Women cannot get family planning services as easily as before the COVID-19 pandemic.

As a result, many women conceded and unplanned pregnancies occurred. This increase in the number of pregnancies will have an impact on increasing the birth rate which is predicted to experience baby booms in 2021 (7). This study was conducted to determine the factors affecting fertility and pregnancy which occurred during the pandemic (March 2020-July 2021) in women of childbearing age (*Wanita Usia Subur*/WUS) of the Dayak Meratus tribe who live on the Meratus mountain ridge, which in precisely in Ajung Village, *Tebing Tinggi* District,

Balangan Regency, South Kalimantan Province.

METHODS

This study uses a quantitative approach with a survey method. The population in the study were women of childbearing age who were 15-49 years old and lived in the study area as well as willing to be interviewed. Sampling in this study used the quota sampling method, in total of 70 respondents. The sampling technique used is simple random sampling. Data processing and analysis was carried out in three stages, univariate analysis, bivariate with Chi-square statistical test, and multivariate analysis using binary logistic regression model. The dependent variable of this study was divided into two criteria, that is when the survey was conducted, having children less than or equal to two (≤2) or having more than two children (>2). There are eight independent variables in this study, including marital status, age, education, main activity, household economic level, age at first marriage, age at first delivery, and contraceptive use. Table 1 below presents the research variables and operational definitions.

Table 1. Research Variables and Operational Definitions

Variables	Operational Definitions	Category of Variables
Dependent Variables		
Number of children born alive	Number of children ever born alive by married women and still alive at the time of interview	0=>2 children 1=≤2 children
Independent Variables		
Marital status	The marital status of the family as the respondent family at the time of the survey	0=Divorced 1=Divorced by Death 2=Husband-Wife
Age	Age of women of childbearing age at the last birthday (in years) when the survey was conducted	0=>35 y.o. 1=≤35 y.o.
Education	The highest level of formal education ever occupied by a woman of childbearing age even if only for one day	0=did not go to school/did not graduate from Elementary School 1=graduated from Elementary School and above
Main activity	Women of childbearing age do activities with the intention of earning or helping to earn income or profit	0=did not work 1=worked
Economic level of the household	Family economic status is the level of family welfare based on the condition of residence and ownership status of valuables which is calculated using the Principal Component Analysis method.	0=low 1=average 2=high
Age of the first marriage	Age of women of childbearing age when married for the first time	0=<18 y.o. 1=≥18 y.o.
Age of the first delivering	The age of a woman of childbearing age when giving birth for the first time	0=>20 y.o. 1=20-35 y.o.
Using contraceptives	Realization of respondents to use or not to use contraceptives	0=not using 1=use contraceptives

Source: Primary Data, 2021

The research data were obtained from the research instrument in the form of a questionnaire filled in by the enumerators from the respondents' answers. Data processing and analysis were carried out in three stages, univariate analysis, bivariate analysis, and

multivariate analysis. Univariate analysis was used to obtain an overview of the frequency distribution of respondents with the number of children born alive, two and >2, from each variable. Bivariate analysis was used to analyze whether or not there is a difference between the independent variable and the dependent variable with the Chi-square test at a p value of 0.05. Meanwhile, the bivariate test in this study aims to select independent variables which have significant differences with the dependent variable, then to be tested for multi-variables. Multivariate analysis using binary logistic regression was conducted to determine the independent variables that determine the fertility of the Dayak Meratus tribe. The magnitude of the strength of the relationship and the direction of the relationship are known from the value of the odds ratio (OR) with a 95% confidence level.

RESULTS

Table 2 presents the results of bivariate and multi-variate analysis in this study. The bivariate analysis in this study used the Chi-square test to show that there were differences in the incidence of fertility in women of childbearing age of the Dayak Pitap tribe between those who had children less or equal to two and those who had children more than two according to the independent variables. Variables have a p value <0.05, which means that there are significant differences in fertility, to be specific age and education. The results of the bivariate analysis of fertility determinants of women of childbearing age in the Dayak Meratus are presented in Table 2 below.

Table 2. Results of Bivariate Analysis of Fertility Determinants of Women of Childbearing Age in the Dayak Meratus Tribe

Variables	Number of Children Born Alive				Score of X^2_{Count}	Score of Sig
	≤ 2		> 2			
	n	%	n	%		
Marital Status						
Divorced	2	66.7	1	33.3		
Divorced by Death	2	66.7	1	33.3	0.076	0.963
Husband-Wife	39	60.9	25	39.1		
Age						
≤35 age	32	74.4	11	25.6	7.939	0.005*
>35 age	11	40.7	16	59.3		
Education						
Not going to school/not graduated from Elementary School	12	41.4	17	58.6	8.400	0.004*
Graduated from Elementary School and above	31	75.6	10	24.4		
Main Activity						
Not Working	2	66.7	1	33.3	0.036	0.849
Working	41	61.2	26	38.8		
Level of Economic						
Low	25	56.8	19	43.2		
Medium	14	70.0	6	30.0	1.084	0.581
High	4	66.7	2	33.3		
Age of First Marriage						
<18 age	23	53,5	20	46.5	2.966	0.085
≥18 age	20	74.1	7	25.9		
Age of First Delivering						
>20 age	21	55.3	17	44.7	0.385	0.535
20-35 age	17	63.0	10	37.0		
Use of Contraceptive						
Not using one	12	60	8	40	0.024	0.877
Using one	31	62	19	38		

Source: Primary Data, 2021 ; Note: *= Significance in 0.05

Significant variables in the bivariate test will be tested on the multi-variate test using binary logistic regression (Table 3). The aim is to determine differences in fertility tendencies in the women of childbearing age of the Dayak Pitap tribe to have children less than or equal to two based on the independent variables studied. The results of the multi-variate test showed that the independent variables used in the study had a p value <0.05, which means that age and education were significant to the incidence of fertility in the women of childbearing age of the Dayak Pitap tribe between those who had less than or equal to two children. Meanwhile, the value of the determinant coefficient (R^2) is 0.244 which means that the women of childbearing age 35 years and having elementary school education and above will result in 24.4% of them to have children less than or equal to two.

Women under 35 years of age, graduated from high school, the ideal age for first delivery (20-35 years), did not have children died, those who married above the age of 18 and using family planning can affect the number of children born alive less than or equal to two children by 37.8% (8). The results of the multi-variate analysis of fertility determinants of women of childbearing age in the Dayak Pitap tribe are presented in Table 3 below.

Table 3. Results of Multi-variate Analysis of Fertility Determinants of Women of Childbearing Age in Dayak Pitap Tribe

Variables	B	Odds Ratio	p value	R^2
Age	1.264	3.541(1.203-10.421)	0.022	0.244
Education	1.310	3.708(1.269-10.834)	0.017	

Source: Primary Data, 2021 *Note: R^2=Coefficient of Determination *=Significance in 0.05

DISCUSSION

Differences in Fertility of Women in Childbearing Age of Dayak Pitap Tribe based on the Marital Status

Women of childbearing age of the Dayak Pitap tribe who experience divorce have fewer children. This can be seen in the percentage who experience divorce, both divorced and divorced by death, who have two children (66.7%). There are about eleven intermediate variables which affect fertility, and divorce is including in the variables related to the stage of sexual intercourse (all factors which affect sexual relations) (9). Divorce causes women to have a short marital status. Yogyakarta in the early 1970s saw that the group of women who experienced divorce had fewer children (10).

Differences in Fertility of Women in Childbearing Age of Dayak Pitap Tribe by the Time of the Survey

The age referred to here is the age of women of childbearing age when the survey was conducted. Women of childbearing age aged 35 years were more likely to have two children (74.4%) and more women of childbearing age by the aged >35 years had >2 children (59.3%). This condition reflects that the women of childbearing age of the Dayak Pitap tribe who have many children are those who are more than 35 years old.

The regression results showed that the age of women of childbearing age significantly affected the number of children born alive. The odds ratio value of the age variable is 3.541. This rate shows that the women in childbearing age of Dayak Pitap at 35 years are 3.5 times more likely to have two children compared to those aged >35 years. It can be concluded that the age of women of childbearing age of the Dayak Pitap tribe has a relationship with fertility. This study is in line with a research in Dayak Pitap tribe by 2022 which stated that women who have many children are those who are at the older ages. In South Kalimantan, the age of women at the time of the survey was 8.3 times more likely to have children born alive less than or equal to two children (8).

Differences in Fertility of Women in Childbearing Age of Dayak Pitap Tribe based on Education

Women of childbearing age with elementary school education and above are the majority (75.6%) who have equal or more than two children born. Women of childbearing age who did not attend school or not completing the elementary school are dominated by

(58.6%) having the number of children born >2. This shows that the higher the education of the women in childbearing age of the Dayak Pitap tribe, the fewer children will be born from them.

There are Early Childhood Education Program (*Pendidikan Anak Usia Dini*/PAUD), Kindergarten, Elementary School and Junior High School in Ajung Village, Tebing Tinggi Sub-District, Balangan Regency, South Kalimantan Province. The Junior High School was established in 2006 so, before that, if someone wished to continue to the junior high school, they must go to the nearest junior high school in the sub-district. Therefore, children in Dayak Pitap who wish to continue their education at the high school level or equivalent will have to go to the closest location, which is also at the sub-district.

This is indirectly the cause of the low level of education to be completed by the female population of the Dayak Pitap tribe. In the meantime, regression results show that the education of women of childbearing age is significant in influencing the number of children born alive. The value of the odds ratio of the education variable is 3.708.

This rate shows that the women of childbearing age in Dayak Pitap with elementary school education and above are 3.7 times more likely to have equal or less than two children compared to those who do not attend school or do not finish the elementary school. It can be concluded that the education achieved by those women in Dayak Pitap has implications for fertility. This finding supports the findings of several studies which have been conducted previously.

After graduating from elementary school, fertility shows a decline along with the increasing education due to the fact that women have more opportunities to obtain higher education (11). The education factor which has the strongest influence on fertility is only the education of women (12). Furthermore, an increase in education has an effect on low fertility in Sudan (13).

Differences in Fertility of Women in Childbearing Age of Dayak Pitap Tribe based on the Main Activity

More women of childbearing age from the Dayak Pitap tribe who work have equal or less than two children (61.2%). All of the Dayak Pitap people work as rice farmers and rubber farmers. They grow various types of rice for daily food and traditional purposes and the rice they harvest is not to be sold. The results from growing rubber are used to meet the daily needs of the Dayak Pitap family. Furthermore, the working status of women affects their fertility (1).

Differences in Fertility of Women in Childbearing Age of Dayak Pitap Tribe based on Economic Level of the Household

The age of children born alive equal or less than two children at low economic level is 56.8%, medium is 70% and high is 66.7%. It can be said that the higher the economic level, the percentage of the number of children born alive equal or less than two increases. This occurs due to the fact that there is an understanding, especially for the women in childbearing age with elementary school education and above, that the cost of raising children is quite expensive.

The government program related to "*Dua Anak Cukup* (Two Children is Enough)" seems to have begun to be implemented by the women of childbearing age in Dayak Pitap, especially for those under 35 years of age. Meanwhile, the women of childbearing age who receive education will have their mindset be more open with new knowledge, which will influence decision-making regarding the number of children they have. The percentage of children born alive < 2 at a low economic level is 43.2%, medium is 30% and high is 33.3%.

This result shows that the lower the economic level, the percentage of the number of children born alive <2 increases. Based on the reality that exists in Dayak Pitap, the lower the household economy, the more children born alive <2. It is believed by the poor households in the Dayak Pitap tribe that the more children they have, the more workers who can help them in working in the fields. They also believe that the more children they have, the more fortune will come their way.

Differences in Fertility of Women in Childbearing Age of Dayak Pitap Tribe based on the Age of First Marriage

Age at first marriage is one of eleven "intermediate variables" which affect fertility. Age at first marriage is an indicator of the start

of a woman having the potential to become pregnant and give birth. The lower the age at first marriage, the more potential for pregnancy at an early age as well.

Age at first marriage is influenced by local cultural customs and the assumption of the certain age of women are generally and appropriately married according to local customs. The culture of early marriage is commonly practiced by women in this tribe, so it is still practiced by the community, especially women in the Dayak Pitap tribe. The local customs result in most of the female population to be trapped in the culture of child marriage.

The categorization of age at first marriage in this variable refers to the definition of a child under the Child Protection Act Number 35/2014 article 1 paragraph 1, which states that a child is someone who is not yet 18 years old, including children who are still in the womb (14). Women of childbearing age from the Dayak Pitap tribe who have less or equal to two children are dominated by those whose age at first marriage is equal or more than 18 years (46.5%). Meanwhile, the characteristic of women who have more than two children is those who are married <18 years (74.1%). It is concluded that the women of the childbearing age who have the age at first marriage at over 18 years in Dayak Pitap tribe are the majority to have children less or equal than two children.

Differences in Fertility of Women in Childbearing Age of Dayak Pitap Tribe based on the Age of First Delivering

The older and younger age at first marriage is related to the age at first delivery. A person who marries at an older age has a higher chance of giving birth at an older age as well. On the other hand, someone who gets married at an adult age will have a greater chance of giving birth at an adult age. Based on the calculation results, it is known that women at childbearing age who have children >2 are mostly likely to give birth at the age of 20-35 years (63%), while the women who have children ≤2 are dominant to give birth at the age of >20 years (44.7%). This means that women of childbearing age from the Dayak Pitap tribe who have less or equal to two children are women who give birth for the first time in the age range of 20 to 35 years or classified as the ideal reproductive age.

Therefore, the ideal reproductive age of a woman is when she is physically ready and has completed the body growth, which is around the age of 20 years, so that the age of 20 years can be used as a standard for physical readiness and gestational age. The ideal is in the age range of 20-35 years (15,16). Women who are pregnant under the age of 20 years or over 35 years have a high risk of spontaneous abortion. Although the age of 20-35 years is safe for pregnancy and childbirth, it does not mean that women can get pregnant every year because the ideal distance between pregnancies is 2 to 4 years (17).

Differences in Fertility of Women in Childbearing Age of Dayak Pitap Tribe based on the Contraceptive Use

Contraceptive use is one of eleven "intermediate variables" which affect fertility and is included in the conception variable. Strengthened by the fertility theory, the use of contraception has a direct effect on children born alive (18). The results of the analysis showed that the number of live births ≤2 more likely came from women of childbearing age who used contraception (62%) and the number of live births >2 more came from those women who did not use contraception (40%). The results of the bivariate test were not significant in the relationship between contraceptive use and fertility in the Dayak Pitap tribe. The findings are the same as research results which found that the use of contraceptives, both short-term and long-term, had no effect on fertility rates in West Java (12).

Pregnancies of Women of Childbearing Age in Dayak Pitap Tribe During COVID-19 Pandemic

During the pandemic which occurred from March 2020 until the survey was conducted on July 30, 2021, there were 8.6% of women of childbearing age of the Dayak Pitap tribe who experienced pregnancy and childbirth (Figure 2). Among the respondents who experienced pregnancy and childbirth, 33.3% of their pregnancies were unplanned and those unplanned pregnancies were all due to the unavailability of contraceptives. The COVID-19 incident which occurred in

Indonesia had a huge impact on the health sector, one of which was reproductive health services (19). The COVID-19 pandemic occurring in Indonesia has greatly affected the health sector, including reproductive health services which included services for pregnant women, childbirth, postpartum, and family planning (20). Figure 2 below presents the pregnancies during pandemic of the women in childbearing age in Dayak Meratus tribe.

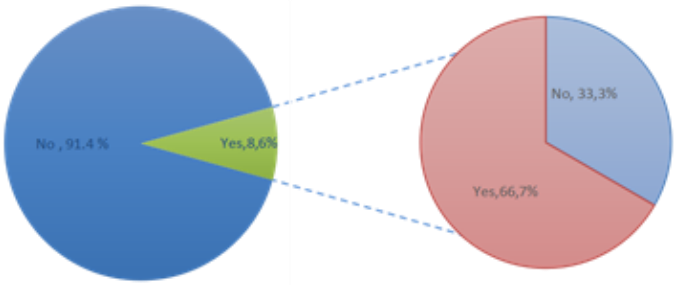

Figure 2. Pregnancies during the Pandemic of the Women of Childbearing Age in Dayak Meratus Tribe

Health workers/family planning officers who usually come to visit Ajung Village, Tebing Tinggi District, Balangan Regency, South Kalimantan Province, to provide health services related to family planning to the women of childbearing age of the Dayak Pitap tribe, have been absent due to the policy of restricting population mobility to reduce the spread of the disease of COVID-19 pandemic,. Many visits to long acceptors were delayed due to social distancing rules, fear of contracting COVID-19 and because there were no costs due to the income earned being diverted to other necessities of life (20). The birth rate increased due to several supporting factors, specifically the implementation of Large-Scale Social Restrictions (*Pembatasan Sosial Berskala Besar/PSBB*) by the government resulting in more time with family, which causes an increase in pregnancy rates (7). Moreover, access to health services is difficult so that many married couples do not visit health services for the contraception programs and at the end many women have unplanned pregnancy and give birth.

The absence of health workers/family planning officers who usually visit Ajung Village regularly has an impact on women of childbearing age who ultimately choose to change their contraceptive method or not use contraception, and end up having an unplanned pregnancy. The pandemic has caused health facilities to have the maximum capacities and there are restrictions on service hours, which have an impact on the lack of health workers to serve family planning services (22). In addition, the pandemic also has an impact on the decreasing of the community's economy, so that people feel that family planning services are expensive and prefer to use their income to buy basic commodities. When the family planning program is not implemented, the result will be an unplanned pregnancy (23).

CONCLUSION AND SUGGESTIONS

Conclusion

Results of the analysis show that the factors which influence women of childbearing age of the Dayak Pitap tribe to have children born alive less than or equal to two, among others, are the age of under 35 and having an elementary school education and above. Nearly one tenth of women of childbearing age from the Dayak Pitap tribe experienced pregnancy and childbirth during the pandemic. Some of them had unplanned pregnancies and those unplanned pregnancies were all due to the unavailability of contraception. Based on this, the conclusion could be drawn that age and level of education affect the fertility.

Suggestion

There is a need for Communication, Information and Education (*Komunikasi, Informasi, dan Edukasi*/KIE) to be carried out by relevant institutions which can assist the success of programs in the field of education,

family planning programs and Maturing the Marriage Age (*Pendewasaan Usia Pernikahan*/PUP) programs. It is necessary to have a partnership with the Ministry of Education to provide socialization and encourage tribal children in this study, especially the children of the Dayak Pitap community, so that their daughters remain in school until at least high school in order to complete the 12-year compulsory education program and so that their educational rights are fulfilled. It is also better for the Center for Information and Counseling on Adolescent Reproductive Health (*Pusat Informasi dan Konseling Kesehatan Reproduksi Remaja*/PIK-KRR) to broaden its targets to tribal children, both those who are in school and those who have dropped out of school.

It is also necessary to be in partnership with National Population and Family Planning Board/*BKKBN* to provide an understanding of family planning programs, including the ideal age for marriage in accordance with the Marriage Law No. 16/2019 and the success of the Maturing of Marriage Age program, an ideal reproductive age and knowledge about the benefits of contraceptives. A policy from the Ministry of Health is needed regarding the importance of pregnancy check-up and to give birth at a health center with the help of educated health workers, as well as socializing the importance of the National Health Insurance (*Jaminan Kesehatan Nasional*/JKN) to reduce maternal, infant and child mortality, especially in the Dayak Pitap tribe.

Special handling is also needed to meet the needs of contraceptives and contraceptive services during the pandemic in remote areas, such as the living area of the Dayak Pitap tribe. Their location has no internet access so it can be an obstacle in providing a communication solution through telecommunication media which is now a trend and solution during the pandemic. There is also another need to provide special programs and policies made by the government, such as assistance to couples of childbearing age so that there are no more unmet contraceptive needs and unplanned pregnancies.

ACKNOWLEDGMENT

We thank the Research and Community Service Centre (Lembaga Penelitian dan Pengabdian kepada Masyarakat) University of Lambung Mangkurat for the support, both material and non-material, through *Program Dosen Wajib Meneliti*. We also thank the Head of Study Program and the colleagues at Geography Study Program, Faculty of Social and Politic Sciences, University of Lambung Mangkurat.

REFERENCES

1. Arsyad SS, Nurhayati S. Determinan Fertilitas di Indonesia. J Kependud Indones [Internet]. 2016;11(1):1–14. Available from: https://doi.org/10.14203/jki.v11i1.65
2. Central Bureau of Statistics. Central Bureau of Statistics. 2012. Kewarganegaraan Suku Bangsa Agama dan Bahasa Sehari-hari Penduduk Indonesia. Available from: https://www.bps.go.id/
3. Marks IM, Gelder MG. British Journal of Psychiatry. 2018. [No Title]. Available from: https://doi.org/10.1192/bjp.112.483.211-a
4. Bongaarts J. A Framework for Analyzing the Proximate Determinants of Fertility. J Popul Dev Rev. 1978;4(1):105–32.
5. Kingsley JD. Mental Health Study. J Am Med Assoc. 1967;163(4):304.
6. Efendi F, Makhfudli. Keperawatan Kesehatan Komunitas: Teori dan Praktik dalam Keperawatan [Internet]. Jakarta: Salemba Medika; 2009. 1–378 p. Available from: https://books.google.co.id
7. Fuadi TM, Irdalisa. COVID 19: Antara Angka Kematian dan Angka Kelahiran. J Sosiol Agama Indones [Internet]. 2020;1(3):199–211. Available from: https://doi.org/10.22373/jsai.v1i3.767
8. Hadiyanto F. Faktor-Faktor yang Mempengaruhi Fertilitas di Jawa Barat. Bul Stud Ekon [Internet]. 2017;22(1):34–42. Available from: https://ojs.unud.ac.id/index.php/bse/article/view/30769
9. Hassan MEE, Sukamdi S, Pitoyo AJ. Fertility Determinan in Sudan: Analysis of Multiple Indicator Cluster Survey, 2014. J Popul [Internet]. 2018;26(2):1–17. Available from: https://doi.org/10.22146/jp.44146

10. Hull T, Hull V. Social Economic Support for High Fertility in Indonesia: a Preliminary Review Raking Comparitory With African Data. Yogyakarta: Population Institute Gadjah Mada University; 1976.
11. Indraswari RR, Yuhan RJ. Faktor-Faktor yang Memengaruhi Penundaan Kelahiran Anak Pertama di Wilayah Perdesaan Indonesia: Analisis Data SDKI 2012. J Kependud Indones [Internet]. 2017;12(1):1–12. Available from: https://doi.org/10.14203/jki.v12i1.274
12. Kartika NY, Sari UM. Analisis Fertilitas di Kalimantan Selatan (Analisis Survei Demografi dan Kesehatan Indonesia 2017). J Kel Berencana [Internet]. 2020;5(1):16–26. Available from: https://doi.org/10.37306/kkb.v5i1.39
13. Keyhan H, Dadvar A, Ansari M, Rafiee K. Comparison of Before and After Varicocelectomy Levels of Nitric Oxide in Seminal Fluid of Infertile Men. Nephrourol Mon [Internet]. 2012;4(4):629–32. Available from: https://doi.org/10.5812%2Fnumonthly.4696
14. Indonesia P of the R of. Undang-Undang Republik Indonesia Nomor 35 Tahun 2014 Tentang Perubahan atas Undang-Undang Nomor 23 Tahun 2002 Tentang Perlindungan Anak [Internet]. Indonesia; 2014 p. 1–66. Available from: https://peraturan.bpk.go.id/Home/Details/38723/uu-no-35-tahun-2014
15. Demographic Institute, Faculty of Economics UI. Basics in Demography [Internet]. Jakarta: Salemba Empat; 2010. Available from: https://lib.fkm.ui.ac.id/detail?id=134703&lokasi=lokal
16. Putri SF, Sausan S, Putri AN, Agustina FA. Analisis Penggunaan Alat Kontrasepsi di Masa Pandemi COVID-19. J Kesehat Tambusai [Internet]. 2021;2(2):71–9. Available from: https://doi.org/10.31004/jkt.v2i2.1794
17. Prihandini SR, Pujiastuti W, Hastuti TP. Usia Reproduksi Tidak Sehat dan Jarak Kehamilan yang Terlalu Dekat Meningkatkan Kejadian Abortus di Rumah Sakit Tentara Dokter Soedjono Magelang. J Kebidanan. 2016;5(10):47–57.
18. Raharja MB. Fertilitas Remaja di Indonesia. J Kesehat Masy Nas [Internet]. 2014;9(1):6–13. Available from: http://dx.doi.org/10.21109/kesmas.v9i1.449
19. She J, Jiang J, Ye L, Hu L, Bai C, Song Y. 2019 Novel Coronavirus of Pneumonia in Wuhan, China: Emerging Attack and Management Strategies. Clin Transl Med [Internet]. 2020;9(1):1–7. Available from: https://doi.org/10.1186/s40169-020-00271-z
20. Sirait LI. Kunjungan Akseptor KB di Masa Pandemi COVID-19 (Family Planning Acceptor Visit During The COVID-19 Pandemic). Pros Semin Nas Stikes Syedza Saintika [Internet]. 2021;1(1):425–35. Available from: https://jurnal.syedzasaintika.ac.id/index.php/PSNSYS/article/view/949
21. FA VA, J NC, JM JA. Artroplastia Total De Rodilla, Pronóstico Al Restablecer La Línea Articular. Acta Ortopédica Mex [Internet]. 2012;26(6):362–8. Available from: https://www.medigraphic.com/pdfs/ortope/or-2012/or126d.pdf
22. Suswandari M, Rahman MK. Baby Boom dalam Perspektif Demografis dan Sosiologis. Dimens J Kaji Sosiol [Internet]. 2021;10(1):76–87. Available from: https://doi.org/10.21831/dimensia.v10i1.41053
23. Witono W, Parwodiwiyono S. Kepesertaan Keluarga Berencana pada Masa Awal Pandemi COVID-19 di Daerah Istimewa Yogyakarta. Pancanaka J Kependudukan, Keluarga, dan Sumber Daya Mns [Internet]. 2020;1(2):77–88. Available from: https://dx.doi.org/10.37269/pancanaka.v1i2.47