

# Socio Demographic Characteristics and Social Support Encourage Non-Modern Contraceptive Use in Yogyakarta

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**Abstract**— Indonesian Demographic Health Survey data the use of traditional family planning (FP) methods continues to increase in Indonesia, in 2017 married women aged 15-49 years using a FP method reached 64%, which is an increase from 2013 of 59.7%, while those using non modern FP methods in 2013 were only 0.4% and increased to 6% in 2017. This research was used quantitative research with analytical research design using cross sectional approach. The design of this study was used to determine the reinforcing factor of non-modern contraceptive use in the city of Yogyakarta. This research has been carried out in three areas of the city of Yogyakarta, namely the Districts of Mergangsan, Gondokusuman, and Mantrijeron in July 2019. There is a correlation between health care support and non-modern contraceptive use, the use of male contraception (spouse contraceptive use) is statistically significant to the use of traditional contraception, respondents whose husband's male contraception have 0.04 times the opportunity to use traditional contraception compared to respondents whose husband do not uses contraception for men. The factors that reinforce couples in the child hearing age to use non modern contraceptive are: use of male (husband) contraceptive methods and support from health workers.

**Keyboards:** socio demographic, social support, non-modern contraceptive use

## 1. Introduction

Contraceptive use has numerous health benefits such as preventing unplanned pregnancies, ensuring optimum spacing between births, reducing maternal and child mortality, and improving the lives of women and children in general [11]. A study of family planning services in Indonesia year 2015 mentioned that there are 33.345 people (52.4%) using injectable contraceptive, as many as 15.162 women consume pill contraceptive method (22.2%), 9.125 (14.10%) of Intra Uterine Device (IUD) users, as many 7.400 (11.40%) users of implant, 3.911 MOW participants (4.01%), 3.642 condoms participants (4.77%) and 105 MOP participants (0.52%). In October 2013 report noted the results of a new family planning acceptors services in Indonesia as many as 96.270 participants. Details of the results of new services planning participants as follows: as many as 47.103 participant's injection (50.10%), 18.095 pill participants (19.31%), 18.328 IUD participants (18.21%), 11.019 implants participants (13.03%), Tubectomy participants 5.851 (5.91%), 3.100 condom use participants (4.10%), and 106 Vasectomy participants (0.16%) [3].

Based on data obtained from the department of population and civil registration the City of Yogyakarta experienced an increase in population from 2015 to 2017. In 2015, the population of the city of Yogyakarta was 409,487 people experiencing an increase in 2016 to 411,282 people and experiencing an increase again in 2017 of 1,410 lives, so from the original number of 411,282 people to become 412,962 people in 2017, increase become 467.061,00 people in 2018, and decrease in 2019 become 431.939,00 [4]. From these data it can be seen that the increase in the number of residents of the city of Yogyakarta which continues to

increase, according to [5] one of which is the population growth rate due to fertility (birth), high population growth rates can be a problem. The increasing rate of population growth in the city of Yogyakarta, can make it difficult for the government in an effort to suppress the MMR (Maternal Mortality Rate) in the City of Yogyakarta.

Family Planning is one of the strategies to reduce maternal mortality as general, especially for women with critical conditions or mentioned as 4T which is birth too young (under the age of 20), giving birth too often, too close to the birth spacing, and giving birth too old (above the age of 35 years). The Family Planning Program also aims to improve the quality of the family in order to create a sense of security, peace, and hope for a better future in realizing physical well-being and inner happiness [7]. Based on Indonesian Demographic Health Survey data the use of traditional family planning (FP) methods continues to increase in Indonesia, in 2017 married women aged 15-49 years using a FP method reached 64%, which is an increase from 2013 of 59.7%, while those using traditional FP methods in 2013 were only 0.4% and increased to 6% in 2017 [14]. Based on the report on non-modern contraceptive method use in Yogyakarta mentioned that the main reason of many couple using traditional contraception because they have very high desire to have more children [8, 12] Therefore, this study aims to identify the reinforcing factors of non-modern contraceptive method use in the city of Yogyakarta.

## **2. Research Method**

### ***2.1 Research Design***

This research uses quantitative research with analytical research design using cross sectional approach, which is a study to study the dynamics of the correlation between risk factors and effects, by way of approach, observation or data collection at a time (point time approach). The entire population or a subset there of is selected, and from these sample of population (individuals) we can answer the research question [16]. The design of this study was used to determine the reinforcing factor of non-modern contraceptive use in the city of Yogyakarta. This research has been carried out in three areas of the city of Yogyakarta, namely the Districts of Mergangsan, Gondokusuman, and Mantrijeron in July 2019. The highest prevalence of traditional family planning method was the reason to choose those areas.

### ***2.2 Population of Survey***

The population in this study were female couples of childbearing ages in the working area of Mergangsan Primary Health Center (PHC) as much as 3,545, Gondokusuman 1 PHC as many as 3,381 and Mantrijeron PHC as much as 4,192. The target population in this study are women who are Fertile Age Couples (childbearing age) with total fertile age couples in the three PHC areas as many as 11,118 people. The inclusion and exclusion criteria in this study are:

- a. Inclusion Criteria:
  - 1) Fertile age 15-49 years' old
  - 2) Married and have a husband.
- b. Exclusion Criteria:
  - 1) Moving from the working area of the primary health care (PHC) of Mergangsan, Mantrijeron and Gondokusuman I.
  - 2) Couples of childbearing ages who refuse to become respondents.

### ***2.3 Sampling Method***

This study uses probability sampling to draw conclusions (inferences). Cluster sampling was used in this

study. The total subjects were determined to be twice the number of samples calculated using the simple random sampling equation to obtain the desired precision. This is because the design effect set is 2, the confidence level is 95%, the proportion of non-modern contraceptive use in the Special Region of Yogyakarta is 18%, absolute precision is set at 10% and the number of Exploratory Factor Analysis (EFAs) in the PHC work area of Mergangsan, Mantrijeron, and Gondokusuman I were 11,118 [8], so the minimum number of samples was 57 people. Thus, the minimum number of samples needed in cluster sampling is  $2 \times 57 = 114$  distributed into 3 clusters (Districts), so that the average subjects involved per cluster are 38 people divided into 3 villages. As a step to anticipate the drop out, the researchers added a sample of 10%. The framing sampling process is presented in Figure 1 below:

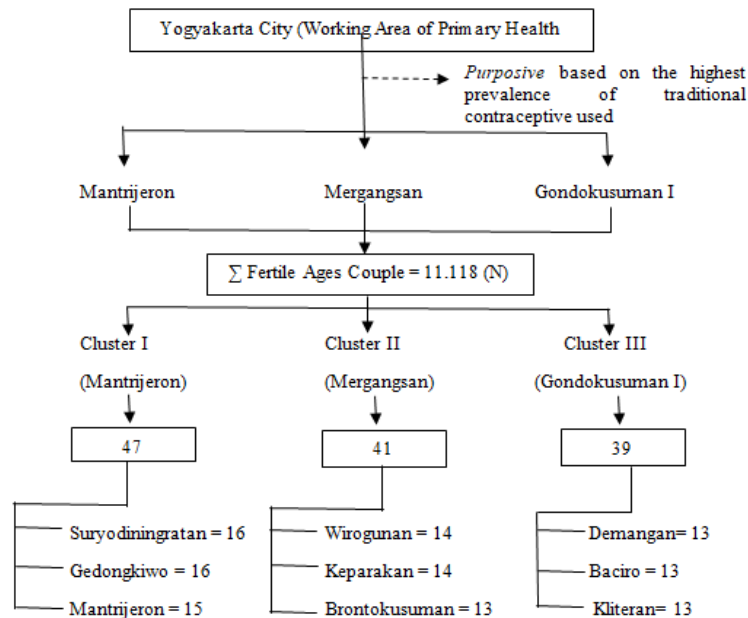


Figure1. Sampling Frame of the Study

## 2.4 Data Collection

This research will focus on identifying the motivating factors that contribute to the use of traditional contraception which are carried out using a cross-sectional survey. The main technique for gathering quantitative data is a paper-based questionnaire. To ensure validity and reliability, survey instruments will be tested on 30 randomly selected participants, representing the research population in the city of Yogyakarta. Participants who were subjected to trial instruments will be excluded from the main study. Based on the trial results, the survey items will be revised if necessary. The process of collecting data is done by interviewing each participant by door to door. The questionnaire in this study modified the questionnaire from the IDHS in 2017, a research questionnaire conducted by Afni Andini & Maya Fitria (2012) about "Factors Affecting Fertile Age Couples to be Contraceptive Users in Babura Village, Medan Sunggal District, Medan City in 2012" [1] and research conducted by Rifsina Yarsih (2014) on "Relationship of Sociodemography, Attitude and Husband Support with Unmet Need for Family Planning in Amplas Village, Percut Sei District, Deli Serdang Regency" [17].

They way to protect the confidentiality of the respondent we gave the informed consent before interview process. The informed consent form that was used referred to WHO-CIOMS 2016 criteria. There were seven important information that we were explained to the respondents, they are: research title, the treatment that will be applied to the respondents, benefits of participating in the study, danger that will arise, research

procedure, approval of research permit, and privacy rights. Before conducting an inferential statistical analysis of the survey results, the researcher will conduct a descriptive statistical analysis which will be summarized in the text and reported in tabular form. Frequency distribution will be carried out to identify the entire response. In addition, it will be continued with bivariate statistical analysis (cross tabulation) to identify the relationship between dependent and independent variables to get candidate variables ( $p < 0.25$ ) which will be used as predictors in multivariate analysis (multiple logistic regression). All statistical analyzes of quantitative results will be carried out with the help of STATA version 13.0.

### 3. FINDINGS AND DISCUSSION

#### 3.1 Characteristic of Respondents

**Table 1.** Characteristic of Respondents

<b>Variable</b>	<b>n</b>	<b>%</b>
<b>Age Category</b>		
15-19	1	0.8
20-24	4	3.2
25-29	22	17.5
30-34	18	14.3
35-39	23	18.3
40-44	35	27.8
45-49	23	18.3
<b>Mother's Education Attainment</b>		
Primary/ Never Attended	6	4.8
Secondary-1	18	14.3
Secodary-2	73	57.9
University	29	23.0
<b>Spouse's Education Attainment</b>		
Primary/ Never Attended	6	4.8
Secondary-1	19	15.1
Secodary-2	70	55.6
University	31	24.6
<b>Mother's Type of Work</b>		
Housewife	76	60.3
Private Sector Employee	15	11.9
Enterpriser	24	19.0
Civil Servant	6	4.8
Daily Laborer	5	4.0
<b>Spouse's Type of Work</b>		
Private Sector Employee	54	42.9
Enterpriser	34	27.0
Civil Servant	16	12.7
Daily Laborer	22	17.5
<b>Family Wealth Index</b>		
Poor	42	33.3
Middle	46	36.5
Rich	38	30.2
<b>Parity</b>		
0-1 Child	47	37.3
2 Children	44	34.9

3+ Children	35	27.8
<b>Anniversary Years Category</b>		
Less than 10 Years	52	41.3
More than 10 Years	74	58.7
<b>Age of First Marriage Category</b>		
Less than 21 Years	32	25.4
More than 21 Years	94	74.6
Total	126	100.0

Based on table 1 the characteristics of respondents showed that the majority of the age category of respondents aged 40-44 years (27.8%), ages 45-49 years (18.35%), ages 35-39 years (18.35%), ages 25-44 29 years (17.5%) aged 30-34 years (14.3%), aged 20-24 years (3.2%) and aged 15-19 years (0.8%). The level of mother's education was obtained as a result of the majority of mothers having a high school education level (57.9%), and the education of the respondent's husband mostly had a high school education level (55.6%). Mother's work status is known to be more mothers who take care of the household (60.3%), and the husband's employment status is known to be more likely to work as private employees (42.9%). The economic status of the family is known to have the most middle economic status (36.5%). The majority of respondents have 0-1 children (37.7%). Most of the respondents' marriage age is more than 10 years (58.7%) and it is known that most respondents marry at the age of more than 21 years (74.6%).

### 3.2 Univariate Analysis

**Table 2.** Univariate Analysis

Variable	n	%
<b>Does the spouse use contraception?</b>		
Yes	43	34.1
No	83	65.9
<b>Does the spouse support the mother to use contraception?</b>		
Yes	99	78.6
No	27	21.4
<b>Does the health provider give support to the mother to use contraception?</b>		
Yes	112	88.9
No	14	11.1
<b>Does the PLKB* give support to the mother to use contraception?</b>		
Yes	3	2.4
No	123	97.6
<b>Contraceptive Method</b>		
Modern	70	55.6
Traditional	36	28.6
Non-FP User	20	15.9
Total	126	100.0

\*Family planning officer

Table 2 shows that the majority of respondents' husbands did not use contraception (65.9%). In the husband's support variable, it is known that the respondent's husband supports the respondent using contraception (78.6%). Health workers are known to provide support to respondents (88.9%), Family

Planning Field Workers or in bahasa “Petugas Lapangan Keluarga Berencana (PLKB)” are known to not provide support to mothers to use contraception (97.6%), and the contraceptive method most widely used by women of childbearing age is modern contraception. (55.6%).

### 3.3 Sociodemographic and Social Support to Contraceptive Use

**Table 3.** Association between Sociodemographic and Social Support to Contraceptive Use in Yogyakarta Municipality 2019

Variable	Contraceptive Method					OR	95% CI	p
	Modern		Traditional		Total			
	n	%	n	%	n			
<b>Age Category</b>								
15-34	27	67.5	13	32.5	40	1	1	1
35-49	43	65.2	23	34.8	66	1.11	0.48 – 2.56	0.805
<b>Mother Educational Attainment</b>								
Lower	16	80.0	4	20.0	20	1	1	1
Higher	54	62.8	32	37.2	86	2.37	0.73 – 7.71	0.152
<b>Mother Working Status</b>								
Housewife	45	65.2	24	34.8	69	1	1	1
Working Mother	25	67.6	12	32.4	37	0.90	0.38 – 2.10	0.808
<b>Wealth Index</b>								
Poor	28	75.7	9	24.3	37	1	1	1
Middle	27	71.1	11	28.9	38	1.27	0.45 – 3.54	0.651
Rich	15	48.4	16	51.6	31	3.32	1.18 – 9.29	0.022
<b>Spouse Contraceptive Use</b>								
Yes	13	30.2	30	69.8	43	1	1	1
No	57	90.5	6	9.5	63	0.04	0.02 – 0.13	<0.001
<b>Health Worker Support</b>								
Yes	68	68.7	31	31.3	99	1	1	1
No	2	28.6	5	71.4	7	5.48	1.01 – 29.84	0.049
<b>PLKB Support</b>								
Yes	1	50.0	1	50.0	2	1	1	1
No	69	66.3	35	33.7	104	0.51	0.03 – 8.35	0.635

Based on table 3 shows those respondents aged 35-49 years who did not use traditional contraception were 43 people (65.2%). Statistical test results obtained a p-value = 0.805 ( $p > 0.05$ ) which means that age is not related to the use of traditional contraception (OR = 1.11 CI95% = 0.48-2.56) as many as 54 respondents (62.8%) had higher education who did not use traditional contraception. Statistical test results obtained a p-Value of 0.152 ( $p > 0.05$ ) which means the level of education is not related to the use of traditional contraception (OR = 2.37 CI95% = 0.73-7.71). There were 45 respondents (65.2%) who are housewife who did not use traditional contraceptives. Statistical test results obtained a p-Value of 0.808 ( $p > 0.05$ ) which means that the occupational status of the mother is not related to the use of traditional contraception (OR = 0.90 CI95% 0.38-2.10). There were 27 people (71.1%) had middle-class respondents who did not use traditional contraception. Statistical test results obtained a p-Value of 0.651 ( $p > 0.05$ ) which means that the middle economic status is not related to non-modern contraceptive use (OR = 1.27 CI95% = 0.45-3.54).

Most of the respondents' husbands who did not use traditional family planning were husbands who did not

use male contraceptive 57 (90.5%). Statistical test results obtained a p-Value of 0.001 ( $p < 0.05$ ) which means the use of contraception in the husband of the respondent is related to the use of traditional contraception (OR = 0.04 CI95% 0.02-0.13). As number 68 respondents (68.7%) received support from health workers for the use of modern family planning. Statistical test results obtained a p-Value of 0.049 ( $P < 0.05$ ) which means that there is a relationship between health care support and non-modern contraceptive use (OR = 5.48 CI95% = 1.01-29.84). Based on the data analysis showed that there were 69 respondents (66.3%) did not get support from family planning field officers or in bahasa Petugas Lapangan Keluarga Berencana(PLKB) for the use of modern contraception. Statistical test results obtained a p-Value of 0.635 ( $p\text{-Value} > 0.05$ ) which means that the support of family planning field workers is not related to the use of traditional contraception (OR = 0.51 CI95% = 0.03-8.35).

### 3.4 Factors Associated to Non-Modern Contraceptive Use in Yogyakarta

**Table 4.** Predicted Odds Ratio from Multivariable Analysis of Factors Associated with Non modern contraceptive Use in Yogyakarta Municipality 2019 Using Logistic

Variable	Model		
	1 OR [95% CI]	2 OR [95% CI]	3 OR [95% CI]
<b>Family Wealth Index</b>			
Poor	1 [1,1]	1 [1,1]	1 [1,1]
Middle	1.267 [0.454,3.541]	1.287 [0.439,3.772]	2.269 [0.594,8.672]
Rich	3.319* [1.185,9.292]	3.358* [1.085,10.39]	4.894* [1.237,19.37]
<b>Age Category</b>			
15-34		1 [1,1]	
35-49		1.233 [0.507,3.001]	
<b>Mother's Education Attainment</b>			
Lower		1 [1,1]	
Higher		1.117 [0.402,3.109]	
<b>Mother's Type of Work</b>			
Housewife		1 [1,1]	
Working Mother		0.749 [0.302,1.862]	
<b>Spouse Contraceptive Use</b>			
Yes			1 [1,1]
No			0.0448** [0.0142,0.141]
<b>Health Worker Support</b>			
Yes			1 [1,1]
No			2.669 [0.359,19.83]
<b>PLKB Support</b>			
Yes			1 [1,1]
No			0.451 [0.00316,64.25]
Observations	106	106	106
Pseudo R-squared	0.045	0.049	0.366
AIC	135.7	141.2	98.14
BIC	143.7	157.2	114.1

Exponentiated coefficients; 95% confidence intervals in brackets

\*  $p < 0.05$ , \*\*  $p < 0.01$

Based on table 4, it shows that family wealth index (OR=3.358) has significance to the p value 0.651, the

use of male contraception (Spouse contraceptive use) is statistically significant to the use of traditional contraception, respondents whose husband's male contraception have 0.04 times the opportunity to use traditional contraception compared to respondents whose husband do not uses contraception for men. The results of this study showed that family wealth index has significant correlation to non-modern contraceptive method, it is linear to the study result of Ajayi's in 2018 mentioned that socio economic has correlation of contraceptive use. Socioeconomic status (AOR:2.1; CI: 1.01–4.3) become the independent predictors of ever use of contraception method (modern or traditional) (Anthony Idowu Ajayi, 2018). Economic status also related to non- modern contraceptive method based on the study that was conducted by [15] mentioned that families who have high incomes will be able to meet the needs of contraception use. That study also mentioned that family who are in the low-income will have trouble chance the contraceptive use. People who have high economic status and live in the rural area prefer to use non modern contraceptive method than urban life. The most prevalent method of non-modern contraceptive method is withdrawal [10].

The use of contraception in the husband of the respondent is related to the use of non-modern contraceptive use (p-value of 0.001 ( $p < 0.05$ ); OR = 0.04 CI95% 0.02-0.13). Health care support has correlation to non-modern contraceptive use (p-Value of 0.049 ( $P < 0.05$ ); OR = 5.48 CI95% = 1.01-29.84). Health provider who are support clients (give family planning knowledge and also counseling relate to the non-using non modern contraceptive method. This situation relates with the study that already conducted by Rossier in 2014 mentioned that health providers has the correlation to the clients' choice of contraceptive method. Health providers could explain and conduct counseling that men who refuse abstinence (not using any contraceptive methods) and other family planning method put their wife and baby in danger, and consultation with the provider(s) will make client satisfy even those who fear side effects or have strong religious opposition to hormonal [6]. Multivariate analysis showed that husband who uses male contraceptive methods has 0.04 times the opportunity to use traditional contraception. Traditionally, family planning initiatives were being focus on women despite it being a family matter. As family concept in modern life, fathers' or husband involvement in family planning has become crucial in enhancing the family well-being. The awareness and exposure to family planning matters and societal influence were important reasons for men's involvement in family planning [9]. This study is not without limitation of the methodology. This study was not supported by qualitative method in term to gain depth information about the reason of using non modern contraceptive personally and also gain the information from the policy maker how to improve the contraceptive policy in the city of Yogyakarta.

### **3.5 Constraint**

The authors declare that there is no constraint of this study.

## **4. Conclusion**

- a. The factors that reinforce couples in the child hearing age to use non-modern contraceptive methods (non-modern contraceptive) are: use of male (husband) contraceptive methods and support from health workers.
- b. Family wealth index has significant correlation to non-modern contraceptive method
- c. Health care support has correlation to non-modern contraceptive use (p-Value of 0.049 ( $P < 0.05$ ); OR = 5.48 CI95% = 1.01-29.84).
- d. Health provider who are support clients (give family planning knowledge and also counseling relate to the non-using non modern contraceptive method.



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