Contraceptive Use among Unmarried Women

by Ratna Dwi Wulandari

CONTRACEPTIVE USE AMONG UNMARRIED WOMEN IN INDONESIA: A NATIONAL SURVEY

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Abstract

The norm in Indonesia places a pregnant, unmarried woman as a disgrace, and the situation can influence the decision to use contraceptives. This research aimed to analyze contraceptive use among unmarried women in Indonesia. We employed the 2017 Indonesian Demographic Health Survey data. The analysis unit in this study was unmarried women of childbearing age (15-49), and we analyzed 5,444 respondents. The study used contraceptive use as a dependent variable and analyzed seven independent variables: residence, age, marital, education, employment, parity, and wealth. The study used a multivariable binary logistic regression for the final stage. We show that unmarried women living in urban areas are 1.591 (95% CI 1.183-2.141) times more likely than unmarried women living in rural areas to use contraceptives. Unmarried women in the 15-19 were more likely to use contraceptives than those in the 35-39 and 40-44. All education level categories are more likely to use contraceptives than no education. Unmarried women with more children are more likely to use contraceptives than unmarried women who have one child or do not have a child. Wealth status affects contraceptive use among unmarried women in Indonesia. The study concluded five variables influencing contraceptive use among unmarried women in Indonesia: the type of place, age, education, parity, and wealth. Novelty in this study is information about the use of contraceptives by unmarried women. The previous information was more frequent about the use of contraceptives in couples.

Keywords: unmarried women, contraceptive use, maternal health, public health, Indonesia.

摘要 The authors may not translate the abstract and keywords into Chinese themselves.

关键词：

I. INTRODUCTION

Marriage is *sunnah*, an optional action in Muslim settings [1,2]. In Indonesia, marriage signifies that a person has entered the adult life cycle stage. However, Indonesian society is still thick with the negative labeling of marriages that end because of death or divorce, especially for women. Society always described a widow, divorced woman, or single parent as an individual with economic weakness, gossip in the community, victims of sexual violence, and sexual jealousy by other women [3].

Society still highly upholds a patriarchal culture that places men as the dominant subject in the Indonesian context. This patriarchal value correlates with various stigmas of discrimination against Indonesian women [4–7]. For example, a woman who is not married by 25 years old will be labelled as an old maid or *perawan tua* in Bahasa. The family will usually pressure women to find a mate immediately, or the family will match a man. Not only that, but the community also pinned the stigma on a single woman (widowed, divorced, and also never in a union) who experiences pregnancy [8]. Even if the woman is a student to drop out of school, the pregnancy data for unmarried women is challenging to obtain because it is a disgrace that is not suitable for the family [9]. At the same time, women are only objects, which are very vulnerable to men's control, and there is little negotiation opportunity [7,10]. In the setting of Indonesian people, life being a mother is the highest possible social status achievement for a woman. Single woman is bound up with heteronormativity in Indonesia, which ultimately causes unmarried women, lesbians, female sex workers, or widows to be faced with marginalization in society [11].

Previous studies have informed modern contraception in unmarried women [12,13]. A survey in Lumbini Province and Sudurpaschim Province in Western Nepal reported about 13.6% of women aged 15-24 years used modern contraception, of which 62.9% were unmarried [12]. Meanwhile, in Benin, a study reported that around 8.5% of women aged 15-24 years were using modern contraception, of which 60.8% were unmarried women. Furthermore, the study said that the factors associated with demand satisfied by a current method were literacy, being unmarried, knowing more modern contraceptive methods, and experiencing barriers to accessing health services [13]. Moreover, a study in Sri Lanka reported that adolescents' contraceptive usage before pregnancy, pre-conceptional health care services, planning pregnancy, and consuming folic acid were significantly low (p < 0.001). The study concluded in a study that examined 3,367 pregnant women, of which 7.5% were adolescent pregnancies. Maternal and paternal low education level, being unmarried, and less time since marriage were statistically significant factors associated with teenage pregnancies (p < 0.05) [14].

Pregnancies in unmarried women are unplanned pregnancies categorized as unwanted (this happens to couples who plan to have no children or partners who no longer want to have children) [15]. That is affected by not using contraception or improper use of contraception. A pregnancy that is not planned is also an unmet need for contraception in a region [16]. Unplanned pregnancy is the gateway to unwanted pregnancy and is related to unsafe abortion, and this condition exacerbates the number of maternal deaths in developing countries [17]. A study in India explains that 6% of women consume emergency pills before sexual intercourse and 12% use emergency pills repeatedly to prevent pregnancy [18]. However, unfortunately in Indonesia, there are still many women unaware of the use of emergency pills, and minimal sources show the number of emergency contraceptives method to prevent unwanted pregnancies[19].

Government policies support adolescents' access to modern contraception and reproductive health information. Law number 52 of 2009 is one of the regulations released by the government regarding its alignment. Article 48 states that the policy of family development through fostering family resilience and welfare is carried out, one of which is improving the quality of youth by providing access to information, education, counseling, and services about family life [20,21].

A. Objective of the Study

Based on the socio-cultural value and background description, the author of this study analyzes the factors that influence contraceptive use among unmarried women in Indonesia.

II. MATERIAL AND METHODS
A. Data Source

We employed secondary data from the 2017 Indonesian Demographic Health Survey (IDHS). The study's analysis unit was unmarried women of childbearing age (15-49 years old). An unmarried woman is a woman who is never in a union, divorced, or widowed. Exclusion criteria in this study were those who were infertile or had reproductive system abnormalities, making it impossible to get pregnant.

The stratified two-stage sampling methodology utilized in the 2017 IDHS is as

follows: Stage 1: selecting several census blocks in a systematic proportional to size probability with the size of the number of households coming from the 2010 population census listing. In this case, an implicit stratification process based on urban and rural regions and sorting census blocks based on the wealth index category of the 2010 population census data were employed. Stage 2 selects 25 ordinary households in each census block based on updated census block households [22]. The study obtained a sample of 5,444 unmarried women using the sampling methods.

B. Dependent Variables

Contraceptive use was the respondent's acknowledgment of using the modern contraceptive method at the time of the interview.

C. Independent Variables

The study analyzed seven independent variables: the type of residence, age group, marital status, education level, employment status, parity, and wealth status. The type of place of residence consists of two categories, namely urban and rural. Age is the respondent's acknowledgment of the last birthday that has passed. The age group consists of seven categories: 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, and 45-49. Marital status consists of two categories: never in union and divorced/widowed. The education level consists of no education, primary, secondary, and higher. Employment status comprises unemployed and employed. Parity is a live-born baby who has been born. Parity comprises primiparous (1), multiparous (2-4), and grand multiparous (> 4).

The IDHS determines wealth status based on the wealth quintile owned by a household, and the study calculated the score using principal component analysis. Households were scored based on the numbers and types of items, from televisions to bicycles or cars, and housing characteristics, such as drinking water sources, toilet facilities, and primary building materials for the house's floor. National wealth quintiles were arranged based on household scores for each person in the household and then divided by the distribution into the same five categories, with each accounting for 20% of the population, namely quintile 1 (poorest), quintile 2 (poorer), quintile 3 (middle), quintile 4 (richer), and quintile 5 (richest) [23,24].

D. Data Analysis

In the first stage, we used a Chi-square test (significant at <0.05). We performed a collinearity diagnostic test with linear regression in the next step to ensure no multicollinearity between independent variables. The test was to see the relationship between independent variables and contraceptive use as the dependent variable. Because of the dependent variable's nature, we employed Binary Logistic Regression for a multivariate test in the final stage to analyze the determinant (significant at <0.05). We used SPSS 26 software for all stages of statistical analysis.

E. Ethics Approval

As a materials analysis, the study employed secondary data from the 2017 IDHS. The survey removes the identity of all responders from the database. Respondents signed informed consent forms to participate in this study, and children's parents or guardians gave their consent (under 16 years). Through the website, the author has secured permission to utilize data for this study (https://dhsprogram.com). The author performed all methods under the relevant guidelines and regulations. The author carried out all procedures and followed appropriate guidelines and regulations.

The 2017 IDHS did not seek ethical certification from Indonesia's Ethics Commission. The Institutional Review Board of Inner City Fund (ICF) International authorized the Standard DHS survey methodology under The Demographic and Health Surveys (DHS) Program (DHS-7) in 2017, which the DHS initially evaluated and approved by the ORC Macro IRB in 2002. DHS surveys that adhere to the Standard fall under the DHS-7 Program's approval, and the approval form is attached. ICF International's Institutional Review Board followed the US Department of Health and Human Services regulations for the "Protection of Human Subjects" (45 CFR 46).

III. RESULTS

The analysis found that 5.4% (95% CI 4.8-6.0) of unmarried women in this study use contraception. Unmarried women with never-in-union status recorded 7.3% (95% CI 0.2-14.4) using contraception. Meanwhile, unmarried women with divorced/widowed status recorded 5.4% (95% CI 4.8-6.0) who used contraception.

We show the descriptive statistics of contraceptive use among unmarried women in Indonesia in Table 1. Based on residence type, women who live in urban areas dominate in two contraceptive use categories. Meanwhile, women in the 45-49 occupied both contraceptive use categories based on the age group. Based on marital status, divorced/widowed women dominate the two contraceptive use categories.

Meanwhile, based on parity, the two categories of contraceptive use are dominated by multiparous women. Based on the education level, unmarried women with primary education dominated who do not use contraceptives. On the other hand, unmarried women with secondary education dominated the group who use contraceptives. Finally, unmarried women who do not use contraceptives are dominated by the poorest women based on wealth status. In contrast, unmarried women who use contraceptives are dominated by those with more prosperous wealth.

The next step was the collinearity test between all independent variables. The test results show that there is no collinearity between the independent variables. The tolerance value of all variables is more significant than 0.10. Simultaneously, the Variance inflation factor (VIF) value for all variables is less than 10.00. Then referring to the basis of decision-making in the test, we concluded that there are no multicollinearity symptoms in the model.

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Table 1. Descriptive statistics of contraceptive use among unmarried women in Indonesia (n=5,444)

| Variables | Contraceptive Use | | | | p-value |
| | No | | Yes | | |
	n	%	n	%	
Type of place of residence					
Urban	2678	52.0	197	67.0	*<0.001
Rural	2472	48.0	97	33.0	
Age group					*<0.001
15-19	47	0.9	3	1.0	
20-24	162	3.1	12	4.1	
25-29	298	5.8	26	8.8	
30-34	495	9.6	48	16.3	
35-39	883	17.1	30	10.2	
40-44	1341	26.0	61	20.7	
45-49	1924	37.4	114	38.8	
Marital status					0.537
Never in union	51	1.0	4	1.4	
Divorced/Widowed	5099	99.0	290	98.6	
Education Level					*<0.001
No education	296	5.7	2	0.7	
Primary	2195	42.6	110	37.4	
Secondary	2179	42.3	160	54.4	
Higher	480	9.3	22	7.5	
Employment Status					0.294
Unemployed	1022	19.8	51	17.3	
Employed	4128	80.2	243	82.7	
Parity					**0.029
Primiparous	758	14.7	27	9.2	
Multiparous	3126	60.7	193	65.6	
Grand multiparous	1266	24.6	74	25.2	
Wealth status					*<0.001
Poorest	1734	33.7	68	23.1	
Poorer	978	19.0	43	14.6	
Middle	861	16.7	52	17.7	
Richer	871	16.9	86	29.3	
Richest	706	13.7	45	15.3	

Note: developed by the authors; *p <0.001; **p < 0.050

Table 2. Binary logistic regression of the contraceptive use among unmarried women in Indonesia (n=5,444)

Predictor	Contraceptive Use			
	p-value	AOR	95% CI	
			Lower Bound	Upper Bound
Type of place of residence: Urban	**0.002	1.591	1.183	2.141
Type of place of residence: Rural	-	-	-	-
Age group: 15-19	-	-	-	-
Age group: 20-24	0.704	0.773	0.204	2.927
Age group: 25-29	0.541	0.671	0.187	2.412
Age group: 30-34	0.535	0.670	0.189	2.375
Age group: 35-39	***0.011	0.185	0.051	0.677
Age group: 40-44	***0.027	0.237	0.066	0.851
Age group: 45-49	0.071	0.310	0.087	1.105
Education: No education	-	-	-	-
Education: Primary	**0.005	7.405	1.808	30.339
Education: Secondary	**0.002	9.478	2.299	39.070
Education: Higher	***0.020	5.738	1.311	25.119
Parity: Primiparous	-	-	-	-
Parity: Multiparous	*< 0.001	3.008	1.880	4.812
Parity: Grand Multiparous	*< 0.001	4.444	2.571	7.680
Wealth status: Poorest	-	-	-	-
Wealth status: Poorer	0.814	0.952	0.634	1.431
Wealth status: Middle	0.252	1.270	0.844	1.910
Wealth status: Richer	**0.001	1.955	1.326	2.881
Wealth status: Richest	0.219	1.335	0.842	2.118

Note: developed by the authors; *p <0.001; **p < 0.010; ***p < 0.050

We display Table 2 as the binary logistic regression results of contraceptive use among unmarried women in Indonesia. In this final stage, the study use "do not use contraceptives" as a reference. Unmarried women living in urban areas are 1.591 times more likely than unmarried women living in rural areas to use contraceptives (AOR 1.591; 95% CI 1.183-2.141). Unmarried women in urban areas are more likely to use contraceptives than those in rural areas.

We indicate the age group as partially significant as a determinant of contraceptive use among unmarried women in Indonesia. Unmarried women in the 35-39 age group were 0.185 times less likely than those in the 15-19 age group to use contraceptives (AOR 0.185; 95% CI 0.051-0.677). Unmarried women in the 40-44 age group were 0.237 times less likely than unmarried women in the 15-19 age group to use contraceptives (AOR 0.237; 95% CI 0.066-0.851). Unmarried women in the 15-19 age group were more likely than both age groups to use contraceptives.

Unmarried women with primary education were 7.405 times more likely than no-education women to use contraceptives (AOR 7.405; 95% CI 1.808-30.339). Unmarried women with secondary education are 9.478 times more likely than no-education women to use contraceptives (AOR 9.478; 95% CI 2.299-39.070). Meanwhile, unmarried women with higher education were 5.738 times more likely than no-education women to use contraceptives (AOR 5.738; 95% CI 1.311-25.119). This analysis indicates that all education level categories are more likely to use contraceptives.

Unmarried women with 2-4 children were 3.008 times more likely than primiparous unmarried women to use contraceptives (AOR 3.008; 95% CI 1.880-4.812). Unmarried women with > 4 children were 4.444 times more likely than primiparous unmarried women to use contraceptives (AOR 4.444; 95% CI 2.571-7.680). This information suggests that unmarried women with more children are more likely to use contraceptives than primiparous unmarried women.

We inform wealth status has a relationship with contraceptive use among unmarried women in Indonesia. Unmarried women with a richer wealth status were 1.955 times more likely than the poorest unmarried women to use contraceptives (AOR 1.955; 95% CI 1.326-2.881). This analysis indicates that richer unmarried women are more

likely to use contraceptives than the poorest unmarried women.

IV. DISCUSSION

Globally, unmarried women who use contraception are estimated at 15.7% in 2019, after previously, in 2000, as much as 12.1%. This increase is due to the rise in the proportion of unmarried women and increased contraceptive use among them [25]. The situation is also a result of the increasing median age of marriage and the widening distance between menarche and age at first marriage [26]. Meanwhile, we found that unmarried women who use contraception in Indonesia are lower, only around 5.4%. The condition indicates a dilemma related to ethics and prevailing social norms. Most Indonesians consider contraceptive use taboo for unmarried women; It is synonymous with sexual activity outside the bonds of marriage [9]. Besides, premarital sexual activity and cohabitation violate Indonesia's legal norms [9,27]. Although legal norms are still being debated in Indonesia, it cannot be denied that contraceptives used among teenagers already exist in Indonesia. The government needs to be more open to this reality and develop policies to anticipate this situation.

However, the public's view of premarital sexual behavior and cohabitation has shifted. Along with the increasing prevalence of a single lifestyle [28], sexual activity in romantic relationships outside the bonds of marriage is starting to gain recognition in Indonesia, along with the rapid pace of modernization [9,29], especially in urban areas [28,30]. We believe the situation supports this study's results, which found that unmarried women in urban areas were more likely to use contraceptives than unmarried women in rural areas. Modernization has shifted personal values in urban areas. Opening jobs and career opportunities make individuals focus on fulfilling income [30,31], so they consider cohabitation the most beneficial alternative to meeting sexual needs [32,33]. The main reason women choose to live single is the reluctance to take on the role of wife, for example, having children, managing domestic affairs, and potential career loss [34]. Ultimately, we believe contraceptive use is a safe option for preventing pregnancy in de facto romantic relationships.

Interestingly, in this study, unmarried women aged 15-19 had a greater probability of using contraception than those of higher ages. The condition indicates that adolescents dominate the segment of contraceptive users in unmarried women. This fact shows that adolescents can access contraceptive services to prevent the unwanted effects of risky sexual behavior, such as unwanted pregnancy and sexually transmitted infections. Although the prevalence is still relatively small compared to sexual activity experienced by adolescents, as reported by previous researchers, adolescent access to contraceptive services in Indonesia is a pretty good development after implementing the Rights-based Family Planning policy in 2015 [35]. These results reinforce previous studies in Ghana and Tanzania [36,37].

Adolescents are an age group that is very important to receive psychological, emotional, and cognitive services to meet their needs during the transition to adulthood. Although adolescents desperately need access to reproductive health services, the number of visits to them is still low because they may feel embarrassed, face stigma on sexual reproductive matters, or get judgmental from health providers [38].

Furthermore, the study found that unmarried women with more children are more likely to use contraception than unmarried women who do not have a kid or only have one child. The situation represents the phenomenon of learning from previous experiences, which encourages widows or divorced women to take the initiative to try to prevent unwanted pregnancies from romantic relationships or premarital sexual activity with their partners, especially with the status of having children. Apart from having children outside of legal marriage (de yure), premarital sexual activity is a disgrace [9]; the situation is also related to Indonesia's hostile stigma society generally accepts for widows or divorced women. As a single woman who is sexually experienced, the community often suspected widows' or divorced women of sexual offenses (involved in cases of adultery), greed, evil, and other stigmas [39]. Widows or divorced women must watch out for this situation to be more careful in carrying out sexual activities, one of which is protected sexual relations. The study results align with previous studies [40,41].

The phenomenon of unmarried women using contraceptives tends to have high education and wealth. Other researchers confirmed our study findings that the high level of education partly determines access to contraceptive services in unmarried women. Women with high education have the right motivation to control fertility [42]. On the other hand, women with high education also better understand the risks and dangers of pregnancy [35,43]. A better level of education often goes hand in hand with a good wealth status.

These results reinforce previous studies in Ghana and India [44,45].

We believe that a better education level makes women more independent in understanding the risks of their actions or behaviors. In several previous research pieces, the researchers inform a better education level is a strong determinant of better health output [43,46–48]. Apart from the excellent factor of knowledge about birth control and contraceptive methods, this is one of the effects of modernization that allows women to have the opportunity to pursue higher education, so they choose to live as single women [28,42]. Another factor related to women's contraceptive methods is the wealth quintile. The results of this study indicate that women with richer economic status have a higher potential to use contraception than women with poor financial quality (AOR 1.955; 95% CI 1.326-2.881). This situation is similar to the results of a study in Uganda which explained that women with better wealth quintiles tend to access modern contraceptive services compared to women with lower wealth quintiles. The study also demonstrates that women with lower wealth quintiles are affected by access to contraceptive services and social values related to contraceptive methods [49]. The situation is also in line with the results of other studies, which explain that the wealth quintile influences the use of modern contraception related to access to information and family planning facilities [50,51]. Another perspective mentioned that the increased chance of unmarried women with a fair wealth index using contraception is associated with their ability to access contraceptive products sold freely without a prescription, such as contraceptive pills and condoms [51,52].

A. Study Limitation

The study used big data so that the results could represent data nationally. The study limited the analysis to those examined in this manuscript. Several variables studied in the DHS of other countries were not studied, including exposure to family planning messages on mass media, head of household, religion, distance to the health facility was a problem; getting money for treatment, and getting permission to seek treatment [53].

We conducted the study using secondary data from the 2017 IDHS to capture the phenomenon superficially. As informed in previous research, we could not grab the norms about unmarried women that apply to Indonesian society [10,17,26]. Thus, further research is needed using a qualitative approach to capture the phenomenon in question.

V. CONCLUSION

Based on the research results, we concluded five variables were proven to influence contraceptive use among unmarried women in Indonesia. The five variables are the type of place of residence, age group, education level, parity, and wealth status. We could better understand contraceptive use in unmarried women, especially in countries with solid tradition and religious values that portray family planning as necessary for a married couple.

A. Suggestion for Practical Use

Social norms and sociodemographic factors influence the usage of modern contraception. The government needs to be more open to this reality and develop policies to anticipate this situation using social, cultural, and religious approaches. Religious and cultural figures also play a role in promoting the benefits of family planning programs.

Appropriate interventions could encourage comprehensive sexuality education and community engagement, primarily by increasing the role of gender in the use of family planning programs. Family planning is not only for women but also needs men's encouragement (gender equality), strengthening youth-friendly services on reproductive health programs or *Pelayanan Kesehatan Peduli Remaja* (PKPR) at the primary health care center, and enhancing program information and counseling on reproductive health at school.

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COVER LETTER

Title
Contraceptive Use Among Unmarried Women Nindonesia: A National Survey

Abstract
The norm in Indonesia places a pregnant, unmarried woman as a disgrace, and the situation can influence the decision to use contraceptives. This research aimed to analyze contraceptive use among unmarried women in Indonesia. We employed the 2017 Indonesian Demographic Health Survey data. The analysis unit in this study was unmarried women of childbearing age (15-49), and we analyzed 5,444 respondents. The study used contraceptive use as a dependent variable and analyzed seven independent variables: residence, age, marital, education, employment, parity, and wealth. The study used a multivariable binary logistic regression for the final stage. We show that unmarried women living in urban areas are 1.591 (95% CI 1.183-2.141) times more likely than unmarried women living in rural areas to use contraceptives. Unmarried women in the 15-19 were more likely to use contraceptives than those in the 35-39 and 40-44. All education level categories are more likely to use contraceptives than no education. Unmarried women with more children are more likely to use contraceptives than unmarried women who have one child or do not have a child. Wealth status affects contraceptive use among unmarried women in Indonesia. The study concluded five variables that influence contraceptive use among unmarried women in Indonesia, namely the type of place, age, education, parity, and wealth. The government needs to be more open to this reality and develop policies to anticipate this situation. Appropriate interventions could encourage comprehensive sex education, community engagement, youth-friendly reproductive health services, and gender equality.
Keywords
unmarried women, contraceptive use, maternal health, public health, Indonesia.

Type of manuscript (please specify):

■ Research article
☐ Review article
☐ Brief report
☐ Short communication
☐ Research note

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