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Parity and Pregnancy Intention related to the Use of Contraceptives in Women of Reproductive

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Abstract

BACKGROUND*:* The use of contraceptives in reproductive women is still a problem today. The association between contraceptive use and parity and pregnancy intention among legally married reproductive women has never been studied

AIM*:* The aim of the study was to determine the relationship between parity and pregnancy intention with contraceptive use among legally married women.

METHODS*:* A cross-sectional study was conducted with the involvement of 262 legally-married reproductive women, aged 15–49 years, in Bantul District, Indonesia. Sociodemographic data including age, education, income, parity, pregnancy intentions, and use of contraceptives were collected using a structured questionnaire by trained enumerators. Chi-square test was used to test the association between sociodemographic data and parity and pregnancy intention, while simple logistic regression models were used to examine the relationship between contraceptive use and parity and pregnancy intention. Data analysis was performed using statistical software by SPSS.

RESULTS: About 38.5% of women of reproductive age who have ≥3 children and 16.5% of women of reproductive age who do not want to have children do not use contraception. Parity in women of childbearing age was not related to contraceptives (OR = 2.58; 95%: 0.67–1.76). Women of reproductive age who had intention of getting pregnant were 61% less likely (OR = 0.39; 95%: 0.37–0.74) to use contraceptives than those who did not have intention of getting pregnant.

CONCLUSIONS: The pregnancy intention is associated with a low contraceptive use in reproductive-age women. Thus, it is necessary to educate women in the reproductive age, their partners and family regarding the importance of birth spacing.

Introduction

The unmet need for contraception is a public health concern in developing countries. The high unmet need often leads to a high risk of unintended pregnancy [1]. Unintended pregnancies increase maternal and infant mortality and morbidity [2], [3]. Infant morbidity is sometimes caused by premature born and low birth weight, which may also lead to child stunting [4]. Recently, stunting has become a primary concern of the Indonesian government. Contraceptive use also has been associated with increased prevalence of stunting [5]. Women of reproductive age who do not use contraception to control their pregnancy have the possibility of getting pregnant at the wrong time. Pregnant when the child was previously <2 years old will lead to poor parenting patterns, for example, exclusive breastfeeding that is not optimal, emotions that are not good when parenting, and poor bonding between parents and children. The existence of this poor parenting is at risk for stunting. Efforts to address the unmet need for contraception could decrease the prevalence of unintended pregnancies and adverse health outcomes for mothers and their babies.

The United Nations' Sustainable Development Goals has brought attention to the unmet need for contraception, by focusing on women's reproductive health [6]. Indonesia launched the "Kampung KB" or family planning village program in 2015. One of the goals of the family planning village program is to increase the number of women of reproductive age who participate in family planning [7]. The program launched by the government has not achieved the targets of the population development and family planning indicators, specifically the prevalence of contraceptive use has not been met. The target is 25.11% but the program has 24.5% [8].

The use of contraceptives can prevent unintended pregnancies as well as maternal and infant morbidity and mortality. Many factors contribute to the low use of contraceptives such as parity and

pregnancy intentions [2], [3]. The number of children a woman has (i.e., parity) and the intention to become pregnant may be reasons why women of reproductive age do not use contraception [9], [10], [11], [12], [13]. Demographic factors and intentions are determinants of individual behavior, as described in the theory of planned behavior. In the theory of planned behavior, personal characteristics and intentions are associated with behavior change [14], [15], [16]. Therefore, this study aims to analyze the association between parity, pregnancy intention, and the use of contraceptives.

Methods

Study design and participants

This research is an analytical survey research with a cross-sectional approach. Respondents (n = 262) in this study were women of reproductive age who lived in the Sub-districts of Bantul 1 and Sedayu, Bantul District, Indonesia, in the "Kampung KB (Keluarga Berencana)" village area. The inclusion criteria were women of reproductive age (15–49 years) who have a smartphone and a spouse. The inclusion criteria were married women of reproductive age (women aged 15–49 years) who have a smartphone. Purposive sampling was used by family planning cadres.

Material and procedures

Data collection was conducted in June 2021. Questionnaires were input into a Google form and shared with participants so they could fill out through smartphone. The London Measurement Unplanned Pregnancy (LMUP) questionnaire assessed contraceptive use, timing, intention, desire to have a child, discussion with a partner, and pre-conception preparation. The LMUP has been adopted and validated for use in countries across the world. The research team carried out the translation process from the original version of LMUP. Content validity was assessed with a CVI = 0.83 (high). In this study, researchers took two questions at LMUP, namely, about the use of contraception and the intention to become pregnant. This study does not take all of the question items in LMUP because it is inappropriate to ask women of childbearing age about their current condition. The parity questionnaires were developed internally by the research team. Parity was measured by a single question about the number of live children ever born to women of reproductive age. Pregnancy intention was assessed by a single question asking about the desire of women of reproductive age to have more children or not. The use of contraceptives was measured by a single yes/no question.

Data analysis

The association between parity, pregnancy intention, and contraception use was analyzed using simple logistic regression test. This study also collects data about demographic characteristics of participants including age, educational background, and income. Demographic data correlated with parity and pregnancy intention analyzed using Chi-square test. All the data were managed and analyzed descriptively using IBM SPSS, version 19.0, and presented as tables. A significance level of $p < 0.05$ with odd ratio (OR) and 95% CI was used to determine the relationship.

Ethical consideration

The Ethics Committee approved this study of Alma Ata University with the number KE/AA/V/10469/EC/2021. The participants have informed the research objectives, data confidentiality, data publication, and the right of participants to quit being a participant at any time.

Results

The majority of women of reproductive age ≥35 years have parity 2 and have the intention to become pregnant as much as 22.4%. Based on the results of the frequency distribution, women of childbearing age have higher education, the majority with parity 2, and have no intention of getting pregnant. The same goes for those with low incomes. Based on the Chi-square analysis that age, educational background, and income level of women of childbearing age, there was no difference in the proportion between those who had and did not intend to become pregnant. These three characteristics also have no difference in proportion to parity (Table 1).

Table 1: Demographic characteristics by parity and intention to become pregnant (n = 262)

Characteristic	Parity		p-value	Pregnancy Intention		p-value
	≤2	≥3		Yes	No	
Age group						
20–27	92.3	7.7	0.28	30.8	69.2	
28–35	67.6	7.4		41.3	58.7	0.06
>35	88.5	11.5		22.4	77.6	
Educational background						
Elementary	86.4	13.6		27.3	72.7	
Secondary	89.2	10.8	0.20	27.6	72.4	0.66
Higher	94.5	5.5		30.9	69.1	
Income level						
Rp. 0,00–1.000.000,00	89.5	10.5		27.9	72.1	
>Rp. 1000.000,00–2.000.000,00	86.2	13.8	0.48	48.3	51.7	0.36
>Rp. 2.000.000,00–3.000.000,00	93.8	6.3		20.8	79.2	
>Rp. 3.000.000,00	92.3	7.7		15.4	84.6	

Data were presented in %.

As shown in Table 2, 92.2% had fewer than two children among women who used contraceptives and 76.2% had no pregnancy intention. The logistic regression results showed that women who had <2 parity had a 2.58 times significantly higher probability of using contraception than those with more than three

Table 2: Relationship between parity and pregnancy intention with contraceptive use (n = 262)

Characteristics	Contraceptive use		OR (95%CI)	p-value*
	Yes (n = 206)	No (n = 56)		
Parity				
≤2	92.2	82.1	2.58 (1.04–5.99)	0.040
≥3 (Ref)	7.8	17.9	1.00	
Pregnancy Intention				
Yes	23.8	44.6	0.39 (0.21–0.73)	0.003
No (Ref)	76.2	55.4	1.00	

Data were presented in %. 1.00 as reference group, *Odd Ratios and 95% Confidence intervals were obtained from simple logistic regression models.

parity. Meanwhile, women of childbearing age who intend to become pregnant can use contraception by 0.39 times significantly higher than those who do not intend pregnancy.

Discussion

This study shows that pregnancy intention is significantly associated with a lower contraception use. Namely, reproductive women have pregnancy intention 2.6 times less likely to use contraception devices. Meanwhile, parity is not significantly associated with contraception use.

In this study, parity was not related to contraception use. Women of childbearing age whose parity was <2 did not differ from those whose parity was two or more in terms of contraception use. This study is in line with the previous studies stated that parity was not related to contraceptives. However, contraception in this study led to the use of long-term contraceptives, namely, implants [17], [18]. Although parity did not affect the use of implants, there was still a tendency to use other methods of contraception. This study did not identify the contraceptive method used by women of childbearing age. However, some factors explain why parity is not related to contraceptive use. Culture is the community's belief that is continuously carried out [18]. Culture causes a person to have behavior that follows the habits and perspectives of the local community. Thus, cultural factors may have important roles that needs to be further identified.

The results of this study were different from several previous studies. Specifically, contraceptive use was lower in women with higher parity (≥3) [19]. One study showed that parity is one of the most salient predictors in the use of contraceptives [20]. Parity could not stand alone to make a woman of childbearing age willing or not to use contraception. The results of the previous studies showed that the high and low parity of women of childbearing age, coupled with the existence of social support, would further increase the behavior of using contraceptives in women of childbearing age [13]. This social support has made women of childbearing age able to make the right decisions [11]. Another study stated that a person's parity will increase a woman of childbearing age to use contraception [21], [22], [23]. Thus, parity may be related to contraceptive use but indirectly. Other factors also affect the use of contraceptives, including support from people around such as spouses and family. Experience with the previous contraceptive use is related to current contraceptive use [24]. The role of health workers is also significant as a support system for women of childbearing age [25]. The independence of women of childbearing age also affects contraceptives [26].

Women of childbearing age who do not wish to become pregnant have a higher chance of using contraception. Another study showed that pregnancy intention and contraception were associated in that participants who planned to have children did not use any method of contraception [27]. The level of planned pregnancy in this study is lower than that of the broader population in Indonesia, in which 55% of pregnancies are planned [8]. When a woman of childbearing age has the intention not to get pregnant, she will use contraception. Sometimes, women of childbearing age can be ambivalent about their intentions to become pregnant. As has been done before, research shows that 71% of women of childbearing age are ambivalent about their pregnancy [28]. Ambivalent pregnancy intention raises the risk of unwanted pregnancies, thus increasing the incidence of abortions [29] and highlighting the need for consistent education and messaging for women of childbearing age around pregnancy planning. Our results about the number of women planning a pregnancy are slightly different from the previous studies where the number of women planning pregnancy was higher [30]. However, this does not necessarily make women who later become pregnant have good behavior toward their pregnancy.

Contraception in women of reproductive age will help the government's achievement targets. However, achieving the target of reducing the unmet need for contraception is not easy. Limiting the number of parity so that it is ideal and helping to plan pregnancy is an effort that women of reproductive age can make based on the results of this study. In addition, the culture or belief that grows in the community if it causes bad things is necessary to intervene through individuals in the community. It also refers to the theory of planned behavior and the theory of protective motivation, which says that a person's experience and attitude will generate motivation to use contraceptives. Eventually, he will use contraceptives [27], [28]. Reducing unwanted pregnancies is a priority for reproductive health globally to reduce maternal and infant morbidity. Thus, to meet family planning needs, it is necessary to increase understanding of pregnancy intentions and the parity of women of reproductive age to promote appropriate contraception [30].

Conclusions

This study confirms the relation between the intention of pregnancy and the use of contraception

in women of reproductive age in Indonesia. Health education for women of reproductive age regarding the pregnancy intention of healthy pregnancies for women is needed to promote optimal family planning efforts in developing countries. It is recommended that education for women of reproductive age regarding the number children of healthy pregnancies for women so that the intention to get pregnant is more well-planned.

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