

Unmet need for family planning and related difficulties among married women of childbearing age in Bandung Slum, Indonesia

Asti Dewi Rahayu Fitrianiingsih,¹
Ema Novita Deniati²

¹Faculty of Sport and Health Education, Universitas Pendidikan Indonesia, Bandung, West Java; ²Department of Public Health, Faculty of Sports Science, Universitas Negeri Malang, Malang, East Java, Indonesia

Abstract

This study was conducted to assess what factors cause women of childbearing age (15-49 years) who live in slums in Bandung City, Indonesia to experience unmet need for family planning. Unmet need for family planning is a phenomenon in the population sector that requires serious and immediate treatment because it can inhibit the increase in Contraceptive Prevalence Rate (CPR) and decrease in Total Fertility Rate (TFR). A cross-sectional survey was conducted from February to July 2021. 304 women were selected as respondents using a purposive sampling technique. Univariate and multivariate regression analysis was performed using STATA 16. The result is 29.3% of women have unmet need for family planning, while the factors that influence the occurrence of unmet need for family planning include marital age, family income, experienced a child's death, number of children living, women's decision-making power, and media exposure. Increasing access to information and free family planning services for married couples is important, especially for low-income families with many children.

Introduction

By announcing the Sustainable Development Goals, world leaders decided to build on these achievements and make them more sustainable (SDGs). As outlined in the third Sustainable Development Goal, this global agenda places comprehensive and inclusive health at the heart of ensuring healthy lives and well-being for all at all ages by 2030. Target 3.7 makes sure that everyone has access to reproductive health services, such as family planning, as well as information and education about them. It

also ensures that these services are integrated into national policies and plans. The target indicator is women between the age of 15-49 who need modern family planning techniques.¹ The government must provide all people with access to high-quality, conveniently located, reasonably priced, and secure family planning information and services in order to reduce the prevalence of family planning requirements.²

The percentage of married women who want to delay childbirth or terminate their pregnancy but do not use contraception is referred to as an unmet need.³ Access to family planning services for women is a critical public health issue on a global scale. Of the 1.11 billion women of childbearing age in need of family planning services in 2019, 842 million women of childbearing age used modern methods contraception, while 270 million had unmet needs.⁴ More than 232 million in developed nation lack access to modern contraceptive techniques when they need them.⁵

When considering trends, unmet needs for family planning are still considered a population issues. When compared to 2009, the incidence of unmet need for family planning requirements was 11,2% and 2017, when it was 12%, the rise in the prevalence of unmet family planning needs around the world has not changed much.⁶ In Southeast Asia, Indonesia has the fourth-highest percentages of unmet family planning needs (11%).⁶ Indonesia's West Java province, whose capital city is Bandung, has the country's greatest population. According to the 2018 West Java BKKBN report, the unmet need in West Java is 12.7%. However, currently, there is no definitive data on the unmet need for family planning of married women of childbearing age who live in slums in the city of Bandung. Urbane residents, especially those living in slums, are not only faced with problems of land ownership, and limited access to social services, but also health services.⁷

Many factors influence the unmet needs of married women of childbearing age. Several studies explain the factors that influence the use of contraception in women of childbearing age with married status, one of which is a study by Larasati & Dumilah (2022) in which stated that age, education, monthly income, number of living children are related to unmet need for contraception.⁸ According to the findings of 13 demographic and health surveys, women are less likely to use contraception due to lack of awareness, fear of adverse effects, and partner rejection.^{9,10} Based on the explanation that has been explained, the authors are interested in conducting a study

Correspondence: Ema Novita Deniati, Department of Public Health, Faculty of Sports Science, Universitas Negeri Malang, Jl. Semarang No. 5 Malang, East Java, 65145, Indonesia, Phone: +62 81250155155. E-mail: ema.deniati.fik@um.ac.id.

Key words: Unmet need, Family planning, Women childbearing age, Urban slum

Contributions: Conceptualization, ethical approval, data collection, instrumentation, data analysis: ADRF. Discussion, editing & review: END.

Conflict of interest: The authors declare that there is no conflict of interest.

Acknowledgments: The authors are very grateful to the Research and Community Service Institutions, Universitas Pendidikan Indonesia for the funding in this research.

Conference presentation: This article was presented at the 4th International Scientific Meeting on Public Health and Sports (ISMOPHS 2022).

Received for publication: 6 October 2022. Accepted for publication: 14 November 2022.

This work is licensed under a Creative Commons Attribution NonCommercial 4.0 License (CC BY-NC 4.0).

©Copyright: the Author(s), 2022
Licensee PAGEPress, Italy
Journal of Public Health in Africa 2022; 13(s2):2398
doi:10.4081/jphia.2022.2398

Publisher's note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article or claim that may be made by its manufacturer is not guaranteed or endorsed by the publisher.

that analyzes the factors that influence unmet need in married women of childbearing age who live in slums in Bandung City, West Java Province, Indonesia.

Materials and Methods

Study Design and Sample Size

This study used descriptive and analytical cross-sectional survey methods and was conducted from February 2021 to July 2021. 304 women of childbearing age were selected as respondents in this study. Calculate the sample size using Slovin ($n = N/1 + (N.e^2)$). Total population (N) = 1273

there are married women of childbearing age, and the margin of error (e) = 5%.

Sampling Method

The sampling technique used in this research is purposive sampling. Criteria are needed to get a suitable sample and avoid bias. The inclusion criteria for this sampling are as follows: Married women, women of childbearing age (15-49 years old), living with husband, willing to be respondents. While the exclusion criteria in this study were women who have self-reported to be infertile.

Collection of Data

In this study, both primary and secondary data were utilized. The background information of married women of childbearing age was collected as an independent research factor, which include age, education, family income, age of giving birth to the first child, experienced death of a child, number of living children, women's decision making, family planning counselling, media exposure. The data on unmet needs of family planning status was used as the dependent variable. Secondary data in this study includes the number of slum areas in Bandung City, West Java Province, which was obtained from the Bandung City Government Service in 2020, as well as data on the number of women of childbearing age who were married, which had been obtained from each sub-district head.

The researchers created their own questionnaires. The validity of the questionnaire tested has 3 variables, namely women's decision making, family planning counselling, media exposure. Validity tests were performed on 30 married women of childbearing age in Cimahi City, which shared many of the same characteristics as the study sample. The method used is the Pearson Product Moment correlation, by comparing the correlation value or r -count of the study variable with the r -table value. Use a computer to help test its validity and reliability. The results of the validity test on the women's decision-making variable, 18 questions were valid ($0.867 > 0.361$) and reliable (Cronbach Alpha = $0.946 > 0.60$), in the family planning counseling variable, 7 questions were valid ($0.791 > 0.361$) and reliable (Cronbach Alpha = $0.880 > 0.60$) and on the media exposure variable as many as 7 valid ($0.699 > 0.361$) and reliable (Cronbach Alpha = $0.868 > 0.60$) questions. Interviews with real respondents were conducted after testing for validity and reliability. Interviews were conducted individually by trained Indonesian-speaking female researchers. Interviews were conducted at the participant's home or workplace (depending on privacy guarantee). Then,

the data that has been collected is carried out by data analysis management followed by univariate analysis and multivariate logistic regression using STATA package version 16.

Ethical Consideration

Administrative and research data collection in Bandung City, West Java Province, Indonesia, permits were obtained from the Government Office of National Unity and Politics Number PP.09.01/208-kesbangpol/II/2021. This research was approved by the ethics committee of the Faculty of Medicine, Universitas Gadjah Mada, number KE-FK-0527-EC-2021.

Results

Background Characteristics of Women of Childbearing Age in Slums Areas in Bandung, Indonesia

29.3% of women of childbearing age in Bandung slums are married and have unmet need for family planning. In Bandung, the

majority of married women of childbearing age who live in slums are under 35 years old (55.3%), the highest level of education is primary school (37.2%), the highest family income level (59.5%) is still less than the minimum wage of Bandung City, which is Rp.3.774.860.78, women of childbearing age who are married, the majority have their first child at the age of 21-35 years (52.0%), the majority do not have an Experienced Death of a Child (76.3%), the majority have a Number of living children as many as 2 children (70.7), the majority are less empowered in making decisions in the family (70.4%), the majority are not given family planning counseling either by health workers (doctors, midwives, nurses), family planning officers, religious leaders and local leaders (61.2 %), and most (79.6%) have not been exposed or have never seen or heard of contraceptives either in electronic media (TV, radio, internet-based social media) or non-electronic (Brochures, Le flyers, banners, etc.) (Table 1). Unmet need for women of childbearing age who do not use contraception is primarily due to concerns about contraceptive side effects (Table 2)

Table 1. Background characteristics of women of childbearing age in slums areas in Bandung, Indonesia.

Variables	n	%
Unmet Need Status		
Not Unmet Need	215	70.7
Unmet Need	89	29.3
Marital age		
<35 years old	168	55.3
≥35 years old	136	44.7
Education		
Primary School	113	37.2
Midle School	105	34.5
High School	80	26.3
University	6	2.0
Family Income		
More than the minimum wage	123	40.5
Less than the minimum wage	181	59.5
Age of giving birth to first child		
≤20 years old	144	47.4
21-35 years old	158	52.0
≥36 years old	2	0.7
Experienced a child's death		
No	232	76.3
Yes	72	23.7
Number of living children		
≤ 2 children	215	70.7
>2 children	89	29.3
Women's decision making power		
Empowered	90	29.6
Less Empowered	214	70.4
Family planning counselling		
Yes	118	38.8
No	186	61.2
Media Exposure		
Yes	62	20.4
No	242	79.6

Relationship of Unmet Need Incidence based on Independent Variables and Confounding Variables of Women of Childbearing Age in Slums Area in Bandung, Indonesia

The age group 35 years old causes a high number of unmet need which is 39.8% compared to the age group <35 years old, which is 22.0%, in addition to the age factor, there are several other factors related to unmet need, namely family income, experienced a child's death, number of living children, women's decision-making power, and media exposure. In addition, the results of this bivariate test were used to determine the variables to be included in the multivariate test (p -value < 0.25) (Table 3).

Age ($p=0.047$; OR=1.8); family income ($p=0.005$; OR=3.3), experienced a child's death ($p=0.05$; OR=4.6), number of living children, women's decision making power ($p=0.019$; OR=2.1), and media exposure ($p=0.036$; OR=2.3) were identified as significant factor in the final model of multivariate logistic regression analysis. The most influential variable was the child's experience of death (Table 4).

Discussion

The results showed a high incidence of unmet need in the slums of Bandung City, West Java, Indonesia. The high unmet need for family planning will have an impact on the high number of unwanted pregnancies and increase maternal mortality. According to Sinh, Darroch and Ashford (2014), when the demand for family planning methods is met, 52 million unintended pregnancies could be avoided, as well as 18.000 death due to unsafe abortions and 53.000 death to other pregnancies and deliveries related

problems and died.¹¹ The unmet need for family planning in the slums of Bandung, Indonesia is multidimensional (not just one influencing factor), and its causes include maternal age, family income, experienced a child's death, number of living children, women's decision making power and media exposure.

Marital Age

The study's background data on women of childbearing age included information on their age, family income, number of live children and experienced a child's death. The odds ratio indicated that women of

Table 2. Reasons for not using contraception women of childbearing age with unmet need (n= 89).

Reasons	n (%)
Fear of side effects	20 (22.5)
Partner disapproved	17 (19.1)
Prefer not to use modern methods (pills, condoms, IUDs and injectable)	14 (15.7)
Discontinued copper T due to side effects not willing to use other methods	9 (10.1)
Wants to get sterilized soon	10 (11.2)
Boy child preference	8 (9.0)
Girl child preference	4 (4.5)
Not aware	7 (7.9)

Table 3. Relationship of unmet need incidence based on independent variables and confounding variables of women of childbearing age in slums area in Bandung, Indonesia (n= 304).

Variables	Unmet Need Status (%)		p-value	OR (95% CI)
	Not Unmet Need	Unmet Need		
Age				
<35 years old	78.0	22	Reff	
≥35 years old	61.8	39.8	0.028	1.9
Education				
Primary School	68.1	31.9	Reff	
Midle School	70.5	29.5	0.494	1.2
High School	73.8	26.5	0.771	1.1
University	83.3	16.7	0.624	0.5
Family Income				
More than the minimum wage	82.1	17.9	Reff	
Less than the minimum wage	63.0	37.0	0.005	3.6
Age of giving birth to first child				
≤20 years old	75.0	25	Reff	
21-35 years old	66.5	33.5	0.229	1.5
≥36 years old	100	0.0	0.999	0.0
Experienced a child's death				
No	87.5	21.1	Reff	
Yes	65.6	34.5	0.005	4.7
Number of living children				
≤ 2 children	76.3	23.7	Reff	
>2 children	57.3	42.7	0.025	2.0
Women's decision making power				
Empowered	84.4	26.3	Reff	
Less Empowered	65.0	62.7	0.001	3.2
Family planning counselling				
Yes	71.2	28.8	Reff	
No	70.4	29.6	0.426	0.8
Media Exposure				
Yes	83.9	16.1	Reff	
No	67.4	32.6	0.010	2.7

childbearing age ≥ 35 years had a 1,8 times higher risk of having an unmet need for family planning compared with the 35-years-old age group. The result indicated that incidence of unmet need was more common at the age of ≥ 35 years.¹² According to Osterlund *et. al* (2016), age has a role in the unmet family planning necessity because the requirement for contraception increases with age.¹²

Age has impact on a woman's hormonal system, biochemical composition, organ structure, and physiological function. The decision to utilize contraception will be influenced by variation in hormonal systems, physiologic functions, and biochemical compositions.^{12,13} What's more, a person's age will affect behavior, the older the age, the greater the responsibility, more orderly, more ethical, more mature in making decisions. From a young age. A total of 44.7% of respondents are in the age group 35 years. In this group, they already want to end fertility or do not want to get pregnant again but do not use any contraception.¹⁴

Family Income

Based on the results of the univariate test, it is known that most or some 59.5% have low family income. Or less more than the minimum wage. This is based on family income in accordance with the Regional Minimum Wage (RMW) for the City of Bandung in 2022. Income and household needs are related, and a high and stable income is beneficial to households because it can meet all needs for food, clothing, housing, transportation and health. However, this is not the case for low-income households, who have uncertainty about their ability to meet basic needs, including access to contraceptive treatment.^{3,15} The results of the multivariate logistic regression test have an odds ratio of 3.3, which means that the group of women of childbearing age who have income less than the minimum wage, has a 3.3 times risk of experiencing an unmet need for family planning compared to the group of women who have more than the minimum wage.

Experienced Death of a Child and Number of Living Children

Unmet FP needs may also increase along with the number of children living or decreasing. The findings showed that the frequency of unmet needs was higher among married women of childbearing age (34,5) with child mortality, the odds ratio said that the group of married women of childbearing age who had child mortality was more at risk of experiencing unmet need for family planning by 4,7 times compared to married women of marginal age who did not have child deaths. It is believed that when a child in a family dies, a woman wants another child to take the place of the dead child. This fact, this leads to reluctance to use contraceptives, especially if the deceased child is the boy or girl the family expects. This shows that in order to increase the uptake of family planning services, appropriate health care tailored to the needs of children is critical.¹⁶

Women's Decision-Making Power

Many women participate in choosing contraceptives for themselves, which demonstrates the influence of women's decision-making. The findings indicated that women's decision-making authority had an impact on the occurrence of unmet family planning needs, with women with limited power being three times more likely to experience such needs than women who had more power. This fact is in accordance with a study conducted by Utami Samosir (2021) which said that women's involvement in household decision-making had impact on the incident of unmet need for family planning. For all categories of unmet need, the proportion of women who do not participate in household decision-making is the largest. Factors that can cause women to be less empowered include the role of partners in the family. Only a few wives are willing to continue using contraceptives without their husband's backing, and the support of the husband is particularly important when deciding whether or not to use the contraceptive technique.¹⁸

Media Exposure

One of the two key elements influencing women's use of contraceptives and encouraging health-related behaviors including reproductive preferences is media exposure. The results showed that the incidence of unmet need was more common in the group not exposed to media (32.6%), the odds ratio stated that the group of women of childbearing age who were not exposed to media was at risk of experiencing unmet family planning necessity by 2.3 times compared to the group of women of childbearing age who were exposed to media. This is consistent with research, which reported that media exposure had a significant impact on unmet need for family planning needs, and that media exposure greatly influenced contraceptive use behavior in developing countries.¹⁹ Exposure to family planning advertisements in electronic and non-electronic media affects the level of knowledge and behavior of family planning couples of childbearing age.²⁰

Limits

The study had several weaknesses, including that it did not collect qualitative data, so it failed to present information when informants provided more in-depth information. Another limitation of this study is that the study area is limited to one community/city. Hence, these results cannot be generalized to the general population.

Conclusions

Unmet family planning needs are still prevalent in Bandung, a residential city in the Indonesian province of West Java. This fact is strongly influenced by age, family income, child mortality experienced by several surviving children, women's decision-making power, media exposure. So, this study recommends expanding the availability of family planning services and information through the media for free for all methods. Modern contraception, especially for families who have income below RMW and

Table 4. Finalized model of multivariate logistic regression analysis on factors influencing unmet need for family planning among married women in Bandung's slum (n=304).

Variables		p	Adjusted OR	95% CI
Maternal age	0.577	0.047	1.8	1.0 – 3.2
Family income	1.180	0.005	3.3	1.8 – 5.9
Experienced a child's death	1.541	0.005	4.6	2.1 – 10.6
Number of living children	0.723	0.019	2.1	1.1 – 3.7
Women's decision making power	1.113	0.002	3.0	1.5 – 6.1
Media Exposure	0.848	0.036	2.3	1.1 – 5.1

have many children, and approach couples of childbearing age/husbands by family planning field officers, health workers and community leaders so that each couple will work together to improve their reproductive health.

References

1. Kementerian PPN. Peta Jalan Sustainable Development Goals (SDGs) di Indonesia. Kementerian PPN/Bappenas. 2017;35.
2. Irma, Mario. Underlying the Factors of Unmet Need for Family Planning in Indonesia: A Spatial Analysis. *Glob J Health Sci.* 2020;13(2):6.
3. Machiyama, Casterline, Mumah, et al. Reasons for unmet need for family planning, with attention to the measurement of fertility preferences: protocol for a multi-site cohort study. *Reprod Health.* 2017;14(1):1–11.
4. Kantorová, Wheldon, Ueffing, et al. Estimating progress towards meeting women's contraceptive needs in 185 countries: A Bayesian hierarchical modelling study. *PLoS Med.* 2020;17(2):1–23.
5. UNDESA. World Family Planning 2017 Highlights. *Econ Soc Aff* [Internet]. 2017;1–43. Available from: https://www.un.org/en/development/desa/population/publications/pdf/family/WFP2017_Highlights.pdf
6. United Nations. World Fertility 2019. 2019. 1–24 p.
7. Tetui, Baroudi, Ssekamatte, et al. Total Demand, Use and Unmet Need for Modern Contraceptives Among Women Living in Informal Settlements in Kira Municipality, Wakiso District, Uganda. *Implications for Urban Health. Front Glob Women's Heal.* 2021;2(August).
8. Larasanti, Ayuningtyas. Determinants of Family Planning Service Utilization on Unmet Need Incidents with Generalized Structural Equation Modeling (GSEM). *AJOG Glob Reports* [Internet]. 2022;100088. Available from: <https://doi.org/10.1016/j.xagr.2022.100088>
9. Durowade, Omokanye, Elegbede, et al. Barriers to Contraceptive Uptake among Women of Reproductive Age in a Semi-Urban Community of Ekiti State, Southwest Nigeria. *Ethiop J Health Sci.* 2017;27(2):121–8.
10. Moreira, Ewerling, Barros, et al. Reasons for nonuse of contraceptive methods by women with demand for contraception not satisfied: An assessment of low and middle-income countries using demographic and health surveys. *Reprod Health.* 2019;16(1):1–15.
11. Singh, Darroch, Ashford. *ADDING IT UP. Sexual and Reproductive Health.* Guttmacher Inst. 2014;
12. Osterlund, Sorbye, Pfeiffer, et al. Drug costs and benefits of medical treatments in high-unmet need solid tumours in the Nordic countries. *J Cancer Policy* [Internet]. 2016;7:12–22. Available from: <http://dx.doi.org/10.1016/j.jcpo.2015.12.003>
13. Sedlander, Bingenheimer, Thiongo, et al. "They Destroy the Reproductive System": Exploring the Belief that Modern Contraceptive Use Causes Infertility. *Stud Fam Plann.* 2018;49(4):345–65.
14. Rios-Zertuche, Blanco, Zúñiga-Brenes, et al. Contraceptive knowledge and use among women living in the poorest areas of five Mesoamerican countries. *Contraception* [Internet]. 2017;95(6):549–57. Available from: <http://dx.doi.org/10.1016/j.contraception.2017.01.005>
15. Korachais, Macouillard, Meessen. How User Fees Influence Contraception in Low and Middle Income Countries: A Systematic Review. *Stud Fam Plann.* 2016;47(4):341–56.
16. Ross, Chaput, Giangregorio, et al. Canadian 24-Hour Movement Guidelines for Adults aged 18–64 years and Adults aged 65 years or older: an integration of physical activity, sedentary behaviour, and sleep. *Appl Physiol Nutr Metab.* 2020;45(10):S57–102.
17. Utami, Samosir. Women's empowerment and unmet needs for family planning in Indonesia. *IOP Conf Ser Earth Environ Sci.* 2021;716(1).
18. Fitrianiingsih, Melaniani. Faktor Sosiodemografi yang Memengaruhi Pemilihan Metode Kontrasepsi. *J Biometrika dan Kependud.* 2017;5(1): 10.
19. Kalva, Rao, Narayanan. Unmet need for contraception among eligible women of urban slums in Chennai. *Int J Community Med Public Heal.* 2021;8(11): 5352.
20. Ahmed, Seid. Association between exposure to mass media family planning messages and utilization of modern contraceptive among urban and rural youth women in ethiopia. *Int J Womens Health.* 2020;12(September): 719–29.