

## ORIGINAL RESEARCH ARTICLE

# Unmet need for family planning among married women in urban areas of Jember Regency, East Java, Indonesia: Does gender equality matter?

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## Abstract

Unmet need for family planning is important to assess as an indicator for achieving universal access to sexual and reproductive health services. The objective of this study was to analyze the effect of gender relations on unmet need for family planning. We conducted a cross-sectional study with a randomly selected sample of 92 married women in Summersari District, Jember Regency, Indonesia. We collected data through structured interviews conducted between January and March 2023, and the data was analysed with univariate, bivariate and multiple logistic regression. The unmet need for family planning among the married women was 33.7%. Married women who had 3-4 children and low education were at greater risk of unmet need for family planning (OR 9.2; 95% CI 3.22-26.28 and OR 11.7; 95% CI 2.3-60, respectively). Married women who experience unequal gender relations with their husband were more at risk of unmet needs for family planning (OR 10.3; 95% CI 2.97-35.55) as well as women who agree with the husband's beating of his wife (OR 8; 95% CI 2.53-25.80). Gender inequality was a determinant of the unmet need for family planning among married women living in urban areas. Therefore, it is necessary to improve women's empowerment programs to reduce unmet need family planning among married women. (*Afr J Reprod Health* 2024; 28 [10s]: 175-183).

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**Keywords:** Contraception, gender relation, socio demography, unmet need

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## Résumé

Il est important d'évaluer les besoins non satisfaits en matière de planification familiale en tant qu'indicateur pour parvenir à un accès universel aux services de santé sexuelle et reproductive. L'objectif de cette étude était d'analyser l'effet des relations de genre sur les besoins non satisfaits en matière de planification familiale. Nous avons mené une étude transversale auprès d'un échantillon sélectionné au hasard de 92 femmes mariées du district de Summersari, dans la régence de Jember, en Indonésie. Nous avons collecté des données au moyen d'entretiens structurés menés entre janvier et mars 2023, et les données ont été analysées par régression logistique univariée, bivariée et multiple. Le besoin non satisfait en matière de planification familiale parmi les femmes mariées était de 33,7%. Les femmes mariées qui avaient 3 à 4 enfants et un faible niveau d'éducation couraient un plus grand risque de besoins non satisfaits en matière de planification familiale (OR 9,2 ; IC à 95 % 3,22-26,28 et OR 11,7 ; IC à 95 % 2,3-60, respectivement). Les femmes mariées qui connaissent des relations de genre inégales avec leur mari étaient plus exposées à des besoins non satisfaits en matière de planification familiale (OR 10,3 ; IC à 95 % 2,97-35,55), ainsi que les femmes qui étaient d'accord avec le fait que leur mari battait sa femme (OR 8 ; 95 % IC 2,53-25,80). L'inégalité entre les sexes était un facteur déterminant du besoin non satisfait en matière de planification familiale chez les femmes mariées vivant dans les zones urbaines. Il est donc nécessaire d'améliorer les programmes d'autonomisation des femmes afin de réduire les besoins non satisfaits en matière de planification familiale chez les femmes mariées. (*Afr J Reprod Health* 2024; 28 [10s]: 175-183).

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**Mots-clés:** Contraception, relation de genre, sociodémographie, besoin non satisfait

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## Introduction

Unmet need for family planning is an important indicator to assess in achieving universal access to sexual and reproductive health services. Globally, the proportion of unmet need for contraception

remains high. Currently there are more than 160 million women worldwide who experience unmet need for family planning<sup>1</sup>. According to the 2017 Indonesian Demographic and Health Survey (IDHS), the overall unmet need for contraception in Indonesia is 10.6%, and 7.7% in East Java. This

figure is not in accordance with the East Java government's target of unmet Need for modern contraception being less than 7%<sup>1</sup>. The unmet demand for family planning in Jember Regency was 9-11% between 2018 and 2022<sup>2-4</sup>. Prevention activities are critical given that Jember Regency has the highest maternal mortality rate (MMR) in East Java, with 173 per 100.000 live births in 2020, 333 per 100.000 live births in 2021, and 173 per 100.000 live births in 2022<sup>5</sup>.

The unmet need for family planning is a complex problem since it is influenced by numerous elements such as demographic, social economy, attitudes, and access to services. In general, unmet need for family planning occur in women facing financial, educational, geographic, and social challenges. Besides individual factors, community factors are also related to unmet need for family planning such as culture, service quality, modes of transportation, and characteristics of the area of residence. Additionally, the limited availability of supporting resources namely limited funds to support operational activities and family planning guidance and limited access to information on family planning services<sup>6</sup> also potentiate unmet needs for family planning. A survey conducted by the University Health Research Centre in Indonesia in 2009 in four provinces showed a large gender gap on male participation in family planning, more than 61% were women, while only 3% were men. Gender is the difference in roles men between women that are constructed by society or community groups with different cultural backgrounds and social structures different in each region, ethnicity, country, and religion. Therefore, differences in the roles, behaviours and characteristics of men and women that apply in a certain area places/cultures are not necessarily the same or applicable in different places<sup>7</sup>.

Research in Tanzania among 200 couples, showed that the average wife reported unequal gender attitude compared with husbands on all gender attitude scales<sup>8</sup>. For a wife, equal gender attitudes are positively related to the use of contraception. For husbands, the role of gender attitudes did not have a positive relationship significantly with the use of contraception reported by the wife<sup>8</sup>. According to studies conducted by Fitriyah, wives who considered that their husbands did not agree with family planning were 1.7 times

more at risk of experiencing unmet need for family planning<sup>9</sup>. In addition, the choice of fertility by the husband increased the likelihood of unmet need for family planning in the wide. Husband's fertility choices more dominant in controlling the wife's reproductive life. This is evident when the wife has a low bargaining power to control her reproductive life. Wives are unable to manage their desires because of the need to follow their husbands. Consequently, men play important roles in female fertility behaviour, and often do not involve women in reproductive decision making.

Unmet need will become a serious issue if it is not addressed immediately because it can lead to unsafe abortion as a result of unwanted pregnancies. Theoretically, related to children's values and knowledge about family planning, abortions are carried out by those with low education and low socioeconomic status, and in rural areas. Based on Survey conducted in 10 cities and 6 districts in Indonesia, women who had abortions had previously attempted to prevent pregnancy at the time of conception. About 19% of urban clients and 7% of rural clients who resorted to abortions reported that they had used contraception before they became pregnant. Nearly all clients who had induced abortion experienced unmet need for contraception, because they didn't want to have children, while at the same time once while they did not want to use contraceptives. One of reasons often expressed by women who seek abortion is that they have reached the desired number of children<sup>10</sup>. Similarly, they may have attained their desired family size<sup>11</sup>. Summersari is one of the sub-districts in Jember Regency that has experienced an increase in unmet need for family planning for four consecutive years. In 2014 the unmet need for family planning in Summersari District was 12.67% and 12.96% in 2015, while it was 14.89% and 16.12% in 2016 and 2017, respectively. In addition, the rate of use of modern contraceptive methods in Summersari District was 70%. The relevant question is why District Summersari which is an urban area experienced an increase in percentage unmet need for four years in a row and was one of three districts in Jember with the highest percentage of unmet need? The use of contraceptives is higher in urban areas with relatively high socioeconomic levels. Besides In addition, urban areas are supported by easy access to health services that affects person's health

seeking behaviour. This increased access includes access distance, time and cost needed. The better the access to health services, the higher the chances that women would be encouraged to take advantage of the service reproductive health<sup>12</sup>. Data from the 2012 IDHS data indicates that the number of unmet needs in rural areas (12%) is slightly higher as compared to that in urban areas (11%). The objective of this study was to assess the effects of gender relations on unmet need for family planning among married women that live in urban areas.

## Methods

### Study design and setting

We conducted a cross-sectional study design for 3 months, from January to march 2023.. The study was conducted in Summersari District, one of urban area in Jember Regency, East Java, Indonesia. Previously, this sub-district was called Jember District; until 1976, Jember District was divided into three sub-districts: Summersari District, Patrang District, and Kaliwates District. Summersari District has an area of 37.04 km<sup>2</sup> and is divided into seven villages, namely Antirogo, Tegalgede, Wirolegi, Sukorejo, Summersari, Kranjingan, and Kebonsari. This sub-district borders other sub-districts, namely Pakusari to the east, Patrang sub-district to the north, Kaliwates sub-district to the west, and Ajung and Mayang sub-districts to the south. Summersari Sub District has a population of 132,126 people and an area of 37.05 km<sup>2</sup>, so the population density reaches 3,566 people per km<sup>2</sup>. Summersari's population is dominated by the productive age group 20-24 years old, with a larger female population than males. Summersari is an urban neighborhood with different economic activities such as education, trade, offices, and government, hence the majority of its population work in the trade and education sectors. However, this sub-district has experienced an increase in unmet need for family planning for four consecutive years. In 2014 the unmet need for family planning in Summersari District was 12.67% and in 2015 it was 12.96%, while in 2015 it was 14.89% and 16.12%. Meanwhile in 2016 and 2017 it was 14.89% and 16.12% respectively. Apart from that, the level of use of modern contraceptives in Summersari District is still 70%.

### Population, sample size and sampling

The unit of analysis for this study was currently married women aged 15 to 49 years. There are 21,133 married women aged 15 to 49 years in Summersari sub-district. Exclusion criteria in this study were women who were not permanent or had not lived or moved from the research location when the research was conducted. This study's sample size was obtained using the following formula:

$$n = \frac{NZ^2_{1-\alpha/2} p(1-p)}{(N-1)d^2 + Z^2_{1-\alpha/2} p(1-p)}$$

which suggested a sample of 92 women where the percentage of unmet need in Summersari District was 16%. The probability of its occurrence is estimated to be ( $p = 0.16$ ), the probability of non-occurrence ( $q = 1-p = 0.84$ ), and a value of 0.075 is chosen as the acceptable limit of precision ( $D$ ) at 95% confidence intervals where ( $Z = 1.96$ ). This research applied simple random sampling with proportional allocation to each village or sub-district. There are 7 village or sub-districts in Summersari district. The distribution of sample for each sub-district is as follows Kranjingan (11), Kebonsari(21), Wirolegi (11), Summersari (18), Tegalgede (6), Antirogo (10), Karangrejo (15).

### Outcomes variables

The outcome variable for this study was unmet need of family planning. The operational definition of unmet need of family planning was women of childbearing age, married, who does not want children again or want to postpone birth for two years or more, but not using contraception for prevent pregnancy. We coded this variable as '1' if a woman meets the criteria for unmet need family planning and '0' for women who current using any method of contraception. This variable was investigated in the questionnaire through the question "Are you currently using any contraceptive method?"

### Independent variables

Gender relations were the primary independent variable in this study. It was developed using data on women's decisions about their personal health care, large household purchases, and visits to parents or other family members. For each of these

variables, there were three response options regarding who makes the decision: 0) "My husband", 1) "My husband and I", 2) "I alone". As a result, women's autonomy in this study is a composite variable, meaning that it is the total of the values of the three previously stated variables. Its values ranged from 0 to 6, with 0 indicating a lack of autonomy and 6 indicating a high degree of autonomy. After recoding, women's autonomy became a qualitative variable with the following categories: 0) no autonomy, 1) low autonomy, 2) high autonomy.

### ***Other independent variables***

The literature study indicated that the following characteristics are also linked to unmet need family planning, so they were also included as independent variables: the age of woman, education level, family income, occupation and number of alive children. The woman's age was divided into three categories: under 20 years old, 20-35 years old dan upper 35 years old. In the variable of education, women were divided into three groups of education level: low education, middle education and high education. Women were grouped into two categories of family income: low income if her family income under Jember district minimum wage and high income if more than equal to Jember district minimum wage. Her occupation was recoded as follows: "yes" if women have activities that get monetary rewards and "no" if women fully take care of the household. The number of alive children were divided into three categories: less than equal two children, 2-4 children and more than equal to five children.

### ***Statistical analysis***

The data was aggregated and presented in tables. Categorical variables were provided as numbers and percentages. Comparisons were done using the Chi-square or Fisher exact test. P-values  $\leq 0.05$  were considered statistically significant. The binomial logistic regression model was used regarding factors associated with exposure to unmet need family planning with a 95% confidence interval (CI) odds ratio (OR). The Statistical Package for the Social Sciences (SPSS) was used to perform statistical analyses for the preceding tests.

### ***Ethical consideration***

Ethical approval was obtained from the Ethical Committee of the Medical Research Faculty of Dentistry University of Jember, East Java, Indonesia (approval number: 2023/UN25.8/KEPK/DL/2023). Respondents to this study submitted written consent after getting a clear explanation of the objectives and benefits of the research. Participants were promised that they could withdraw from the study without any detrimental influence on their life.

### ***Results***

The unmet need for family planning among married women in urban areas of Jember Regency was 33.7%. Table 1 displays the frequency distribution of unmet family planning needs based on socio-demographic factors. Married women with 5 or more children are 8.7 (95% CI: 0.72-103.61) and 9.2 times (95% CI: 3.22-26.28) more likely to have unmet family planning needs than those with 1-2 children.. Married women with low and middle education were at risk of unmet need for family planning, namely 11.7 (95% CI: 2.3-60.04) and 3 times more likely (95% CI: 0.59-15.21) respectively compared to highly educated women. While the factors of occupational status and family income are not significantly related to the occurrence of unmet need for family planning among married women in urban Jember.

In terms of gender relations, the study showed that of the three aspects of gender relations related to unmet need for family planning were household decision-making and the wife's attitude towards violence/beatings by husbands to wives. Meanwhile, the wife's attitude towards refusing to have sex with her husband did not show a significant relationship (OR=2.0; 95% CI: 0.27-15.18). Married women in urban Jember who stated that there was inequality in their household decision-making had 10.3 times more likely to experience unmet need for family planning compared to those who stated that they had an equal relationship (OR=10.3; 95% CI: 2.97-35.55). The results of the study also show that married women in urban Jember who experience inequality in responding to violence/beatings by their husbands on their wives are 8 times more likely to experience

**Table 1:** The relationship of sociodemographic characteristics with unmet need family planning among married women in Urban Area Jember Regency

| Sociodemographic characteristics | Unmet need family planning |      |     |      | p-value  | OR (95% CI)       |
|----------------------------------|----------------------------|------|-----|------|----------|-------------------|
|                                  | No                         |      | Yes |      |          |                   |
|                                  | N                          | %    | n   | %    |          |                   |
| <b>Age</b>                       |                            |      |     |      | 0.582    |                   |
| < 20 years                       | 1                          | 1.1  | 1   | 1.1  |          | 2.7(0.16-46.40)   |
| 20-35 years                      | 38                         | 41.3 | 14  | 15.2 |          | 1                 |
| > 35 years                       | 22                         | 23.9 | 16  | 17.4 |          | 1.9 (0.81- 4.80)  |
| <b>Number of alive children</b>  |                            |      |     |      | < 0.001* |                   |
| ≥ 5                              | 1                          | 1.1  | 2   | 2.2  |          | 8.7(0.72-103.61)  |
| 3-4                              | 8                          | 8.7  | 17  | 18.5 |          | 9.2 (3.22-26.28)  |
| ≤ 2                              | 52                         | 56.5 | 12  | 13   |          | 1                 |
| <b>Education</b>                 |                            |      |     |      | < 0.001* |                   |
| Low                              | 13                         | 14.1 | 18  | 19.5 |          | 11.7 (2.30-60.04) |
| Middle                           | 31                         | 33.7 | 11  | 11.9 |          | 3.0 (0.59-15.21)  |
| High                             | 17                         | 18.5 | 2   | 2.2  |          | 1                 |
| <b>Occupation</b>                |                            |      |     |      | 0.835    |                   |
| No                               | 40                         | 43.5 | 21  | 22.8 |          | 1.1 (4.00-42.76)  |
| Yes                              | 21                         | 22.8 | 10  | 10.9 |          | 1                 |
| <b>Family Income</b>             |                            |      |     |      | 0.935    |                   |
| Low                              | 27                         | 29.3 | 14  | 15.2 |          | 1.03 (0.43-2.47)  |
| High                             | 34                         | 37.0 | 17  | 18.5 |          | 1                 |

**Table 2:** Gender relations and unmet need family planning among married women in urban area, Jember Regency

| Gender Relation   | Unmet need family planning |      |     |      | p-value | OR (95% CI)       |
|---|----------------------------|------|-----|------|---------|-------------------|
|   | No                         |      | Yes |      |         |                   |
|   | n                          | %    | n   | %    |         |                   |
| <b>Household Decision Making</b>                                |                            |      |     |      | <0.001* |                   |
| In equal  | 4                          | 4.4  | 13  | 14.1 |         | 10.3 (2.97-35.55) |
| Equal   | 57                         | 62   | 18  | 19.5 |         | 1                 |
| <b>Wife's Attitude Against Refusal to Have Sex with Husband</b> |                            |      |     |      | 0.601   |                   |
| In equal  | 2                          | 2.2  | 2   | 2.2  |         | 2.0 (0.27-15.18)  |
| Equal   | 59                         | 64.1 | 29  | 31.5 |         | 1                 |
| <b>Wife's Attitude Against Violence/Husband Beating on Wife</b> |                            |      |     |      | <0.001* |                   |
| In equal  | 5                          | 5.4  | 13  | 14.1 |         | 8.0 (2.53-25.80)  |
| Equal   | 56                         | 61   | 18  | 19.5 |         | 1                 |

**Table 3:** Model determinant of unmet need family planning among married women in urban area Jember Regency

| Variable                  | p-value | B      | OR   | 95% C.I for Exp. (B) |       |
|---------------------------|---------|--------|------|----------------------|-------|
|                           |         |        |      | Lower                | Upper |
| Step 3 <sup>a</sup>       |         |        |      |                      |       |
| Number of alive children  | 0.007   | 1.348  | 3.8  | 1.45                 | 10.19 |
| Household Decision Making | 0.042   | 1.427  | 4.1  | 1.05                 | 16.44 |
| Constant                  | 0.001   | -3.000 | .050 |                      |       |

unmet need for family planning compared to those who have equal relationship (OR=8; 95% CI: 2.53-25.80) (Table. 2).

The results of multivariable analysis using the logistic regression test showed that, only the number of living children, attitudes towards family planning, and household decision making were related to the unmet need for family planning among married women in urban area Jember District. Married women who have children > 2 people are 3.8 times more likely to experience unmet need for family planning than women who have 1-2 children (OR=3.8; 95% CI: 1.45-10.19). Married women who experience inequality in household decision making have a 4.1 times greater risk of experiencing unmet need for family planning than women who have an equal role in household decision making (OR=4.1; 95% CI: 1.05-16.44) (Table.3).

## Discussion

### *Socio demographic factor*

Age maturity during marriage and pregnancy will help women in dealing with problems such as making the decision to use contraception after giving birth. Married women aged <16 years may not have mature thinking and behaving. The results showed that age was not associated with unmet need for family planning among married women in urban Jember. However, there is a tendency that women who are of young reproductive age (<20 years) and old reproductive age (>35 years) are 2.7 and 1.9 times more likely to experience unmet need for family planning than women in healthy reproductive age (20-35 years). The woman's age is negatively related to unmet need for family planning<sup>13</sup>. However, the research finding contradict with previous study regarding unmet need for family planning, which states that a woman's age has a significant effect on meeting her contraceptive needs<sup>14</sup>. Older women had less unmet needs for family planning<sup>15</sup>. Women aged 35 and up had a higher unmet need for limiting compared to those aged 20 and under. This is because respondents over 35 may have reached their desired number of children and wish to stop childbearing entirely. Women under 20 more likely to plan for their desired number of children in the future<sup>16</sup>. The number of living children a woman has contributes

to controlling fertility, including using contraception<sup>17</sup>. Most women will decide to use contraception when they have more than two living children. In addition, women can also decide not to have more children<sup>18</sup>. Our research results show that there is a relationship between the number of living children and unmet need for family planning among married women in urban Jember. Women who have children  $\geq 5$  and 3-4 respectively are at risk of 8.7 and 9.2 times greater to experience unmet need for family planning than those who have children 1-2. The results of this study are in line with research in Bondowoso, which states that there is a relationship between the number of living children and unmet need for family planning<sup>6</sup>. The more children one has, the more likely a woman has exceeded her desired fertility preferences, due to experiencing unmet need for family planning<sup>6</sup>.

Education is an effort to teach the community so that people are willing to take actions to maintain and improve their health. The higher the women's education, the more health information they get, so that their knowledge about contraceptives is getting better. Thus, women can make appropriate and effective decisions in determining the contraceptive method to be used. However, education is not the only measure of the high incidence of unmet need<sup>19</sup>. The findings of our study suggest that education contributes to the unmet need for family planning among wives who live in urban Jember. Women with low and middle education are respectively 11.7 and 3 times more likely to experience unmet need for family planning than women with higher education. This study's findings are consistent with previous research in Sudan, which discovered that women's education level effects unmet needs and non-participation in family planning<sup>20</sup>. These results are supported by the theory that higher education plays a role in shaping the behavior of mothers to use family planning contraception, this is because mothers who have higher education will have better knowledge about the importance of using family planning compared to mothers who have a low level of education<sup>19</sup>.

Our research found that the employment status of married women in urban Jember is not related to unmet need for family planning. This result is in line with research in Bondowoso District which explains that women's employment status is not related to meeting contraceptive needs<sup>6</sup>.

However, this contradicts with research in Sudan which states that women's employment status is related to the incidence of unmet need for family planning. The factor of women's work can increase women's ability to use health facilities<sup>20</sup>.

Family income is an indicator of family welfare, therefore it will be easier to meet household demands, including family planning, than for low-income households. The possibility of experiencing unmet need in high-income families is smaller than low-income families. Women from higher wealth categories were less likely to have unmet need<sup>15</sup>. Women from wealthier families have fewer unmet needs for family planning, both in terms of spacing and limiting<sup>16</sup>. Women with higher incomes were less likely to have unmet family planning needs<sup>15</sup>.

### ***Gender relation and unmet need family planning***

Women's involvement in household decision-making is an important predictor of women and their partners. The study's findings showed that household decision making is related to fulfillment of family planning needs among married women in urban Jember. Women who state that there are inequalities in decision making in their household are 10.3 times more likely to experience unmet need for family planning than those with an equal relationship. Our results are consistent with those of study conducted in Tanzania. In general, wives have unequal gender relations in decision making compared to their husbands<sup>8</sup>. Likewise with Hameed's research which shows that the non-fulfillment of contraceptive use in women is caused by women's low autonomy in making domestic/household decisions in three regions in Punjab. In addition, most of the women who were research subjects decided not to use contraception because of prohibitions from their husbands, even though these women actually wanted to use contraception<sup>21</sup>. In the reality of household life, husbands are often dominant over wives, including in sexual relations. The existence of women is as housewives, getting married, and giving birth to children. The manifestation of this doctrine gave birth to a woman who views sex as not a biological need but an obligation in order to give offspring. This fact demonstrates how culture has influenced women (wives) to only follow their husband's

preferences in sexual relationships. Even worse is the inherent belief that religion teaches women to meet their husbands' sexual desires.<sup>22</sup> The results of the study stated that the wife's attitude towards refusing to have sex with her husband was not significantly related to unmet need for family planning among married women in urban Jember. However, there is a tendency that women with unequal gender attitudes are 2 times more likely to have unmet need for family planning than women with equal gender attitudes. This research is in line with Nanda's research which states that there is no relationship between the wife's attitude towards refusing to have sex with her husband and the use of contraception in Tanzania<sup>8</sup>.

Domestic violence against women is a serious social issue, however, it receives less response from society and law enforcers for several reasons, first: the absence of accurate criminal statistics, second: domestic violence against women is regarded as very personal, and their privacy is protected in order to preserve the sanctity and peace of the family. third: acts of violence against women are deemed acceptable because of the husband's rights as the head of the family, fourth: domestic violence against women occurs inside the legal institution of marriage. As a result, they harbor this problem alone, do not know how to solve it and are increasingly convinced of the wrong assumption, namely that husbands have the right to control their wives. In addition, because there is still a strong culture that puts family unity and harmony first and there is a wrong perception of religious teachings<sup>23</sup>.

Based on the results of the analysis, it was found that the wife's attitude towards husband's violence/beatings on his wife was related to meeting the need for contraception in Summersari District. Women with unequal gender attitudes were eight times more likely to have unmet needs for family planning than those with equal gender attitudes. This study is consistent with research in Tanzania, which reported a relationship between the wife's attitude toward her husband's violence/beatings on her and the usage of contraception<sup>8</sup>. In general, wives have unequal gender attitudes compared to their husbands<sup>8</sup>. Likewise with research conducted in Mali<sup>24</sup>.

This study presents scientific evidence-based information regarding the status of married women in urban areas, including the unmet need for contraception. However, this study has significant

limitations, including the use of a cross-sectional design method, which prevents causal conclusions. Second, because the research was conducted in only one sub-district, namely Summersari, these findings cannot be applied to all married women who live in urban areas in Jember Regency. This will greatly assist policy makers in developing effective policies and programs to strengthen family planning services in urban areas by identifying the main factors that cause non-fulfillment of these requirements.

## Conclusion

Our research aims to investigate the influence of gender relations on unmet demand for family planning by considering socioeconomic determinants. The study found that married women with more than two children and a lower middle school education are more likely to suffer an unmet need for family planning than those with 1-2 children and a high level of education. Married women who face inequity in household decision making are more likely to have unmet family planning needs than women who play an equal part in household decision making. Thus, gender inequality was a determinant of the unmet need for family planning among married women living in urban areas. Therefore, it is necessary to improve women's empowerment programs to reduce unmet need family planning among married women.

## Contribution of authors

Ni'mal Baroya: conceptualized, designed the study, collected and analyzed the data

Kuntoro: designed the study, prepared the manuscript

Lutfi Agus Salim: prepared the manuscript and analyzed the data

Shrimarti Rukmini Devy: prepared the manuscript and collected the data

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