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Determinant Factors of Unmet Need in Family Planning (FP): A Systematic Review

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ABSTRACT

Unmet Needs in family planning (FP) remain a concern in many countries worldwide and can, therefore, adversely affect women, families, and society. Around 12 percent of women worldwide have an unmet need. Such effects include widespread disease, increased maternal mortality, and psychological disorders among women. This study aimed to elucidate the factors associated with the unmet need for family planning. The research approach used was a systematic review, literature was identified through Google Scholar, PubMed, and (NLM): National Library of Medicine. A systematic review and literature analysis of 9 articles was carried out, which utilized secondary data and cross-sectional study designs. Unmet needs are significantly related to maternal age as well as educational level. Unmet needs are generally higher among younger and less educated women than among those with higher levels of education. Therefore, it is recommended to provide appropriate health education related to contraception and family planning to women and their families to enable better decision-making regarding their reproductive health. Furthermore, improved access to contraception can reduce the prevalence of unmet needs in family planning.

1. Introduction

Based on data from the United Nations Population Division, the global population reached 7.95 billion people by the end of 2022, an increase of 0.88% compared to the previous year. Over the past decade, the global population 2022 increased by 11.34%. Similarly, the global population in 2022 grew by 162.37% compared to six decades ago. This growth has remained steady each year, culminating in 2022 (United Nation 2022). In many countries, particularly developing ones, poverty remains a significant problem. The high fertility rate, the unmet needs for family planning services, poor maternal health, unemployment, health hazards, overcrowded living conditions, limited access to health services, gender-based violence, and limited decision-making rights for women are a few of the many manifestations of poverty that have been linked to poor reproductive health (KPAI 2019). One of the measures taken to address this overpopulation is through the Family Planning (FP) program. As stated by the World Health Organization (WHO), FP describes actions to prevent unintended pregnancies, spacing of pregnancies, and determining the timing of childbirth in conjugality (WHO, 2019).

The promotion of contraception (FP) is crucial for reducing fertility rates and affecting maternal morbidity and mortality in most developing countries (PBB 2017). Beyond the health benefits it provides to women, children, and men, family planning programs also serve as catalysts for environmental sustainability and economic growth (Olszynko-Gryn 2015). P has been shown to benefit both individuals and communities by preventing unwanted pregnancies, limiting the number of children, and managing the spacing and timing of births (Chanda, Ortblat, and Mwhale 2017). The need for birth spacing and limitation must be accompanied by appropriate contraceptive behavior. Currently, many women of reproductive age wish to avoid or delay pregnancy but do not use contraceptives (FP) (Wulifan et al. 2016).

This contraceptive behavior is referred to as "unmet need." According to the World Health Organization (WHO), unmet need refers to women of reproductive age who are sexually active but do not want to have another child yet are not using any contraceptive methods, increasing the risk of unintended pregnancy. Globally, the prevalence of unmet need is 12%, meaning 12 out of every 100 married women who want to stop or delay childbirth do not use any contraceptive methods(Jhon, Conde-Agulelo, and Peterson 2012). The concept of unmet need for FP is central to reproductive health issues, particularly in developing countries. High unmet need for FP is a leading cause of unintended pregnancies (either mistimed or unwanted at conception), childbirth at very young ages, or abortions, all of which contribute significantly to high maternal and infant mortality rates (Sengh, Bankole, and Singh 2007). *Unmet need further exacerbates human population growth* (Wulifan et al. 2016). In addition, the unmet need for FP is closely associated with high rates of illiteracy among women, gender inequality, poverty, low education levels, and poor health outcomes (Kabagenyi et al. 2014).

For all these reasons, addressing unmet needs is a top global health priority to achieve development goals, including reducing maternal mortality and improving maternal health through the advancement of universal sexual and reproductive rights (Cates 2015). Tackling unmet needs and the low use of contraceptive FP methods remains a challenge, particularly in developing countries. The challenges in improving adherence to and consistent use of FP methods are influenced by factors such as age, partner's education level, contraceptive side effects, husband’s opposition to contraception, and the number of surviving children (Mulenga et al. 2020). Factors influencing the occurrence of unmet needs for family planning involved marital age, family income, experienced a child’s death, number of living children, women’s decision-making power, and exposure to media. This would allow access to vital information on family planning methods as well as free services for married couples, especially low-income families with many children (Fitrianingsih and Deniati 2022). According to research by Yadav et al., (2020) shows that age and education level had independent associations with unmet needs in FP services. Since the demand for FP rises with age, we found the lowest levels of unmet need among the youngest women aged 20–24 years and with education at high school level and above (69.7%) versus their elders (37.6%).

Evidence-based public health is the most appropriate approach for improving community health levels. However, critical reviews of the literature investigating the relationship between age and education levels and the occurrence of unmet needs for FP remain limited. Though shared on compelling bases, systematic reviews of the literature examining associations of age and education levels in the presence of unmet needs for FP are still scarce. Thus, researchers would like to perform a systematic review to investigate the associations of representative ages and education levels with experienced unmet needs.

2. Method

This systematic review was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement checklist, which is a tool for reporting systematic reviews. For fulfilling the aims of this analysis, the unmet need for family planning (FP) has been defined as the state of women of reproductive age who are sexually active and do not want further children or do want to postpone their subsequent child but are not utilizing any contraception methods.

The databases used for the literature search included PubMed, the National Library of Medicine (NLM), and Google Scholar, utilizing a combination of keywords as shown in Table 1.

Table 1. Search Terms for Determinant Factors of Unmet Need in Family Planning (FP)

No	Keywords	*Search Terms*
1	*Unmet Need* KB	*Unmet Need OR Family Planning OR Contraception use OR unmet need for family planning*
2	Determinant Factors	*Determinants OR factors*
3	Research Methods	*Cross-sectional OR Descriptive And Inferential Study Involved OR Secondary Data Analysis OR Mixed Method OR Quantitative And Qualitative Methods*

Source: Primary Data, 2024

The order of the keywords used to search the literature was (1) Keyword 1 AND Keyword 2 AND Keyword 3, (2) Keyword 1 AND Keyword 2, and (3) Keyword 1 AND Keyword 3. These combinations were employed to narrow the search and identify pertinent articles for this systematic review.

The studies included in the systematic review were: (1) Studies examining the relationship between age and education level with the occurrence of unmet need for family planning (FP), (2) Studies written in English, (3) studies with a Cross-Sectional or Secondary Data Analysis design. The studies excluded from the systematic review were: (1) Studies with operational definitions differing from the desired criteria, (2) Studies not available in full-text form, (3) Studies using a case study design or methods that differ from the desired approach, (4) Anonymous studies, (5) Duplicated studies or studies previously published.

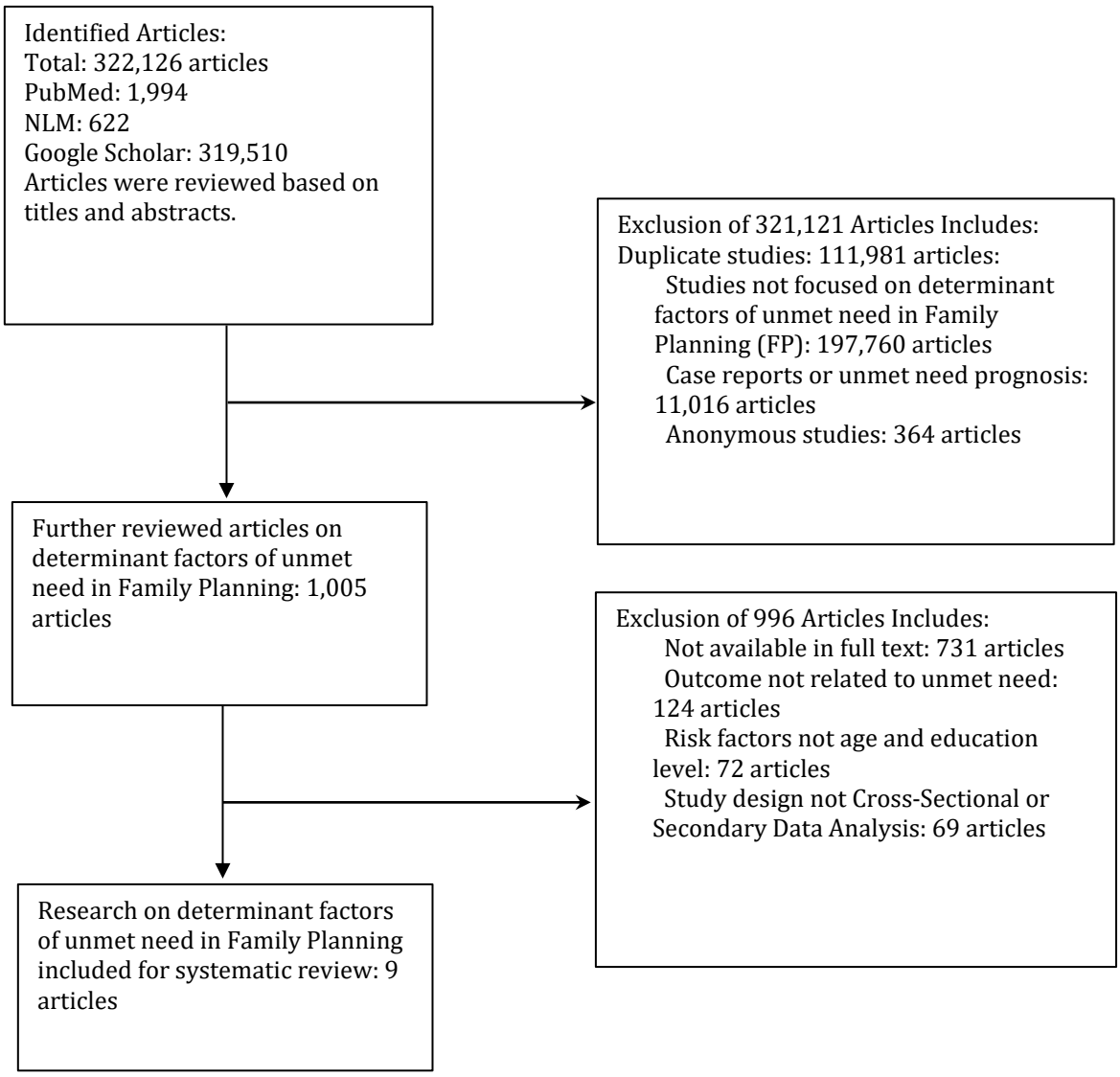
Studies that met the inclusion criteria and were relevant for article review were subsequently grouped into a table based on the researcher's name, study location, study period, sample size, number of cases, study design, methods for measuring risk factors, outcomes, and comments.

3. Result and Discussion

3.1 Study Selection

A literature search was done via an electronic web-based search using Mendeley software version 1.19.8 and databases, specifically, the National Library of Medicine (NLM) and Google Scholar. The flow chart of the selection process of studies is shown in Figure 1. This search with keywords across databases yielded a total of 322126 articles. Screening by title

and abstract at the first stage excluded 321,121 articles (Fig. 1). A total of 1,005 articles were examined in more detail, and 996 of these were eliminated. The final number of articles in the systematic review was 9 articles.



Source: Primary Data, 2024

Figure 1. Flow Chart of the Systematic Review of Determinant Factors of Unmet Need in Family Planning (FP)

3.2 Systematic Review

The systematic review included nine articles of the determinant factors of unmet FP needs. Articles were subsequently screened and categorized according to their study design, which were Cross-Sectional and Secondary Data Analysis designs. We have observed that 5 articles used a Cross-Sectional design, and 4 articles used a secondary data analysis design. Table 2 show about study characteristics.

Table 2. Study characteristics

Study Design	Researcher	Country. Population	Research Period	Number of Unmet Need FP Cases	Risk Factors	Outcome	Comments
Cross-Sectional	(Guure et al. 2019)	Ghana, 10 administrative regions of Ghana, Women of reproductive age (15-49 years)	January – March 2014	2918	Age and education level	*Unmet Need for Family Planning (FP)*	The research subjects are women of reproductive age
	(Yadav et al. 2020)	Slum areas of Lucknow, India Eight urban company zones in Lucknow Young married women (15-24 years	August 2015 to July 2016	55.3%	Age and education level	*Unmet Need for Family Planning (FP)*	The research subjects are women of reproductive age
	(Dejene, Abera, and Tadele 2021)	Dire Dawa City, Eastern Ethiopia Married women aged 15-49 years who are using Anti-retroviral treatment (ART)	March-June 2020	33%	Age and education level	*Unmet Need for Family Planning (FP)*	The research subjects are women of reproductive age who are sexually active but do not want to have another child or wish to delay their next child but are not using contraceptive methods. In this study, the sample focused on HIV-positive women undergoing Anti-retroviral Treatment (ART)

Study Design	Researcher	Country. Population	Research Period	Number of Unmet Need FP Cases	Risk Factors	Outcome	Comments
	(G/Meskel, Desta, and Bala 2021)	Toke Kutaye District, Oromia, Ethiopia Women married at reproductive age (15-49 years)	March 1–30, 2019	23,1%	Age and education level	*Unmet Need for Family Planning (FP)*	The research subjects are women of reproductive age
	(Dejene et al. 2021)	Ethiopia, in the Oromia region near Finfinne (Addis Ababa). HIV-positive women of reproductive age	2018	84%	Age and education level	*Unmet Need for Family Planning (FP)*	The research subjects are women of reproductive age, and the sample in this study consists of HIV-positive women who visited the hospital
Secondary Data Analysis	(Yaya et al. 2021)	Gambia & Mozambique Women aged 15-49 years	Gambia (February - April 2013) Mozambique (June - November 2011)	Gambia (17,86%) Mozambik (20,79%)	Age and education level	*Unmet Need for Family Planning (FP)*	The research subjects are women of reproductive age
	(Kim et al. 2023)	Nepal Wanita yang sudah menikah dari Usia 15–49	Juli 2023.	Tinggal bersama (6,450 %) Berpisah dengan pasangan (3,447%)	Age and education level	*Unmet Need for Family Planning (FP)*	In this study, reproductive age is categorized for married couples. In this study, explanatory variables divide reproductive age into two categories: women of reproductive age living with their partner and those not living with their partner

Study Design	Researcher	Country. Population	Research Period	Number of Unmet Need FP Cases	Risk Factors	Outcome	Comments
	(Teshale 2022)	Sub-Saharan Africa Married women of reproductive age	September 2020 - September 2021 (Last 12 months)	23,70%	Age and education level	*Unmet Need for Family Planning (FP)*	The research subjects are women of reproductive age
	(Mulenga et al. 2020)	Zambia Married women of reproductive age (15-49)	2013-2014	21%	Age and education level	*Unmet Need for Family Planning (FP)*	The research subjects are women of reproductive age

Source: Secondary Data, 2024

3.3 **Maternal Age**

Unmet need (unmet family planning needs) varies by maternal age due to multiple biological, social, and economic components associated with maternal age. Studies have shown that many younger women (i.e., 15–24 years) are not mentally and financially ready to have children, but do not use proper contraceptive methods, therefore increasing their chance for unmet needs. They may have less access to, or knowledge of, contraceptive methods (Yadav et al. 2020). in line with the research (Nur et al. 2021) which found a significant relationship between age and unmet needs, with a p-value of 0.004 ($p \leq 0.05$). These results indicate that certain age groups have a greater tendency to experience unmet needs. This relationship also points to the necessity of a different model for delivering family planning services. Services and education programs must be age-specific (young women require education on family planning and older women require risk-specific safe and comfortable age-appropriate service depending on current health conditions).

Conversely, older women (i.e. 35 years or older) may want to postpone or prevent pregnancies but at times do not use effective contraception or do not have access to family planning services thus resulting in unwanted needs(Wulifan et al. 2016). It is important to note that for some women, limited access to healthcare services or contraception-related information either due to economic, or cultural factors, or lack of partner or family support can prevent them from obtaining these services (Kabagenyi et al., 2014). Older women may bear more offspring or struggle to maintain proper gaps between births, aggravating their failure to continue planning their family due to a lack of access to sufficient contraceptive methods (Sengh et al. 2007).

3.4 **Education Level**

The level of education greatly affects the level of unmet needs (unmet family planning needs) Previous studies in several countries have reported that women with lower education levels have more unmet needs than women with higher education levels. Since women with higher education generally have better access to information about reproductive health and

contraception. They have better access to the internet, media, and health institutions, which facilitate their family planning decisions (Wulifan et al. 2016). On the contrary, due to limited exposure to the relevant information regarding available contraceptive methods amongst women with a lower educational background, the probability of non-utilization of correct contraceptive methods increases.

Highly educated women are usually employed in better-paying jobs, allowing them the autonomy to make family-planning choices (Kabagenyi et al. 2014). Conversely, women with lower educational attainment are often economic sways limiting their likelihood of obtaining contraception or the requisite holistic care. In certain contexts, less education correlates with more conservative social and cultural norms that inhibit the use of contraceptives or the conditions in which they are taken. Furthermore, women with more education may be exposed to more modern ideas around family planning and reproductive health (Yadav et al. 2020). It also requires government commitment to improving women's education levels and providing counseling as an effort to increase public knowledge about reproductive health, particularly family planning (Ekawati et al. 2024).

4. Conclusion

The systematic review included 9 research articles on the association between age, education, and unmet needs in family planning. The results show that the occurrence of unmet needs is strongly influenced by age and education. As a result of this analysis, one can expect FP (contraceptive use) to rise among all sexually active couples of reproductive age. Indicate that: age and education are important determinants that can help increase the level of unmet need, and if they are intervened in an appropriate and useful way, they will greatly likely reduce the level of unmet need in the population.

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