

A Systematic Review of Determinants Influencing Family Planning and Contraceptive Use

Abstract

Background: Reproductive health, crucial for public health and sustainable development, encompasses family planning and contraceptive use. However, global disparities persist in the adoption of family planning, highlighting the need for a comprehensive understanding of the complex factors shaping these reproductive health choices. **Materials and Methods:** Following Preferred Reporting Items for Systematic Review and Meta-Analyses guidelines, we conducted a systematic search of the Scopus, ScienceDirect, PubMed, Web of Science, and ProQuest databases from July to August 2023. Inclusive criteria covered various study designs and populations, ranging from individuals to communities, and encompassed sociocultural factors. The review included open access articles published between 2018 and 2023, utilizing a combination of the keywords: Family planning determinants, Contraceptive use factors, Sociocultural factors in family planning, Individual-level influences on family planning, and Factors affecting contraceptive choices. **Results:** Data from 25 selected studies underscore the critical influence of determinants at both individual and community levels in shaping family planning behaviors. Key drivers at the individual level included education, age, knowledge, and attitudes. At the community level, factors such as geographical disparities and healthcare accessibility played pivotal roles. Sociocultural determinants, including media exposure, gender norms, and spousal dynamics, highlighted the need for culturally sensitive strategies. **Conclusions:** Advancing equitable family planning requires education, improved access, peer influence, and the active participation of husbands and male partners. Comprehensive programs should bridge the gap between knowledge and action, reduce disparities, and ensure equal access to contraception. Context-specific research and evaluating interventions are crucial steps toward achieving global reproductive health objectives.

Keywords: Contraceptive, family planning, reproductive health, spouses

Introduction

Reproduction holds paramount importance globally, profoundly affecting individuals and communities alike. At its essence lies family planning and contraceptive use, essential not only for individual empowerment but also for advancing public health, gender parity, and sustainable development goals.^[1] Family planning practices are global, yet the adoption of specific methods varies significantly from one country to another.^[2] Contraceptive use plays a crucial role in reducing fertility rates, alongside other factors like marriage/sexual activity, postpartum infertility, and induced abortions. It also contributes to lowering the risk of maternal mortality per birth, particularly by preventing high-risk pregnancies, such as those in very young or older women, closely spaced births, and high-parity pregnancies.^[3] Family planning

has been estimated to significantly decrease maternal mortality in various countries, ranging from 6% to 60%, with a global average of 44%. Moreover, it has a positive impact on reducing infant mortality and unsafe abortion rates.^[4]

Utilizing family planning services in developing nations effectively prevents unintended pregnancies and lowers maternal and child mortality rates. Educating individuals about family planning, including emergency contraception, is crucial in averting unintended pregnancies.^[5] Family planning empowers individuals, enabling informed decisions about childbirth, leading to improved maternal and child health, reduced unwanted pregnancies and unsafe abortions, and enhanced economic well-being. It also promotes women's autonomy in healthcare decisions, aligning with the United Nations' emphasis on

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universal access to safe family planning methods to support couples in their family planning choices, contributing to sustainable development goals.^[6] Understanding perceptions among family planning users is vital, highlighting the need for quality counseling to improve perceptions and encourage rational, effective contraceptive use.^[7]

Family planning and contraceptive use represent fundamental pillars of reproductive healthcare, offering individuals the autonomy to make informed decisions about their reproductive lives.^[8] The benefits of effective family planning extend beyond individual well-being, encompassing broader societal advantages such as reduced maternal and child mortality, improved educational opportunities, and poverty reduction.^[9,10] Despite these compelling reasons, disparities in family planning uptake persist, necessitating a comprehensive examination of the factors at play. Involving men and other influential individuals within communities in family planning initiatives and services will contribute to building support for contraception, rather than concentrating solely on women.^[11] This study is crucial for public health, reproductive healthcare, and global development. Through a meticulous systematic review, we seek a comprehensive understanding of the intricate factors guiding family planning and contraceptive use, spanning individual, community, and sociocultural levels. The aim of the study is to comprehensively understand the complex factors influencing family planning and contraceptive use, highlighting individual- and community-level determinants.

Materials and Methods

This was a systematic review study that followed a clear set of guidelines based on the PICOS framework to determine which research to include and exclude. Inclusion criteria covered a range of populations, including spouses, families, healthcare workers, and health cadres, with a specific focus on family empowerment and husband involvement interventions. Studies that did not involve families or solely focused on family planning were excluded. Various study designs, such as quantitative, mixed methods, and qualitative studies, were considered, while feature studies, commentary articles, and case studies were not included. The articles in the review were open access and published between 2018 and 2023. Single-site reports, duplicate articles, and restricted content were excluded. In alignment with the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines, this research embarks on a systematic and rigorous examination of the existing body of literature. Our objective is to provide a comprehensive synthesis of the intricate determinants impacting family planning and contraceptive use, encompassing individual, community, and sociocultural dimensions. Adhering to the PRISMA checklist ensures methodical and transparent execution, contributing to the robustness and reliability of our findings.

The study conducted a thorough search of the literature across four reputable databases, Scopus, ScienceDirect, PubMed, Web of Science, and ProQuest databases, from July until August, 2023. The search terms were thoughtfully designed to find relevant articles using keyword combinations like “Family planning determinants” OR “Contraceptive use factors” OR “Individual-level influences on family planning” OR “Determinants of family planning decisions” OR “Factors affecting contraceptive choices” OR “Community-level factors in family planning” OR “Impact of community on family planning” OR “Neighborhood influence on contraceptive use” OR “Community determinants of family planning behavior” OR “Local factors in family planning choices” OR “Sociocultural factors in family planning” OR “Cultural influences on contraceptive use” OR “Social norms and family planning decisions” OR “Sociocultural determinants of family planning behavior” OR “Role of culture in shaping family planning choices.”

The study applied a systematic approach to selecting studies, following the PRISMA checklist and flow diagram (Page *et al.*, 2021).^[12]

Utilizing predefined keywords, this search yielded an initial total of 525 articles (comprising 66 from Scopus, 201 from ScienceDirect, 200 from ProQuest, and 58 from PubMed). Following a meticulous process of duplicate identification based on author names and titles, the review team successfully removed redundant articles. Subsequently, abstracts were scrutinized by seven independent reviewers, applying predefined inclusion and exclusion criteria aligned with the research objectives. Articles that met these criteria proceeded to the data extraction phase, where key details such as author(s), publication year, country, study design, objectives, methods, interventions, instruments, and outcomes were systematically captured. Through rigorous evaluation, 25 articles were selected for inclusion in the study, ensuring alignment with the predefined research goals and criteria [Figure 1].

To ensure the quality and rigor of the selected articles, the study used the STROBE statement, a well-established tool for cross-sectional studies. Seven independent reviewers meticulously assessed the articles, engaging in discussions to reach a consensus. The evaluation covered structural aspects and how well the research framework aligned with STROBE criteria using a ‘yes/no’ approach to decide whether articles should be included. This rigorous quality assessment process maintained high research standards and objectivity [Table 3].

Relevant data from the selected articles, including the author(s), country, publication year, study design, sample size, sampling method, participant description, reliability and validity measures, instruments used, statistical techniques, intervention-related outcomes, and result analysis, were systematically extracted.

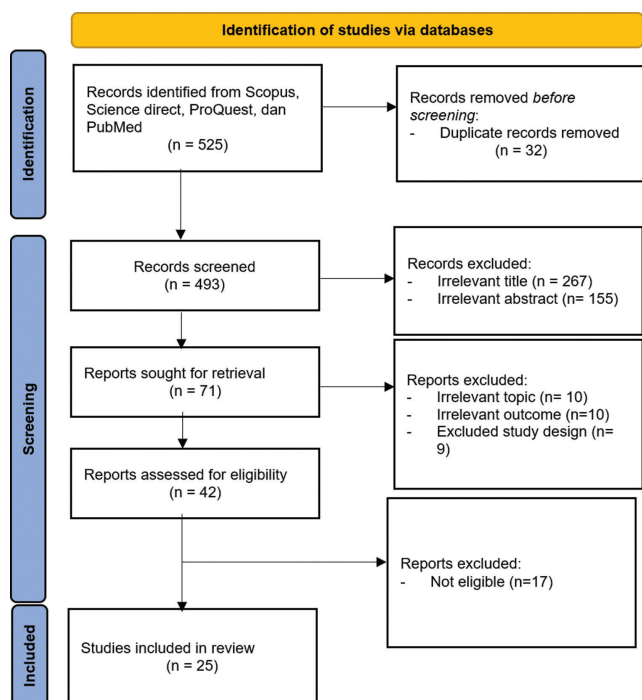


Figure 1: Diagram flow

Ethical considerations

Maximum care was taken to avoid any bias in analyzing data retrieved from articles. Redundant publication and plagiarism were strictly avoided. The researchers ensured that the manuscript was free from any form of plagiarism, presenting analysis results honestly and accurately without fabricating or manipulating data for their benefit.

Results

This systematic review adheres to the PRISMA checklist and provides a comprehensive overview of the factors influencing family planning and contraceptive use across diverse geographical regions and settings.

Study characteristics

The systematic review identified and incorporated a total of 25 studies, which collectively provided a comprehensive understanding of factors influencing family planning and contraceptive use. These studies exhibited considerable diversity in terms of study design, participants, and key variables, allowing for a multifaceted exploration of the research topic. The research encompassed various study designs such as cross-sectional studies, quasiexperimental studies, qualitative and in-depth interviews, retrospective studies, and analyses of secondary data. This diversity facilitated a comprehensive examination of the factors at hand. The study participants represented a broad spectrum of populations, encompassing women of reproductive age, postpartum mothers, married women, men, clients receiving family planning services, and men residing in urban and rural areas. This diverse array of participants

ensured a comprehensive perspective on family planning and contraceptive use across different demographic groups. Furthermore, the age groups of participants spanned from adolescents to adults, further enriching the scope of the review. The studies were conducted in a multitude of countries, including Ethiopia, Nigeria, Burkina Faso, Gambia, Kenya, Pakistan, Indonesia, Malawi, Tanzania, South Africa, Fiji, Bangladesh, India, Nepal, Laos, and Niger, thereby providing a cross-cultural lens on family planning determinants. The studies employed a wide range of data collection methods, including cross-sectional surveys, in-depth interviews, focus group discussions, and secondary data analyses, thus ensuring the inclusion of both qualitative and quantitative insights [Table 1].

The selected studies examined an extensive array of dependent and independent variables pertaining to family planning and contraceptive use. Dependent variables included contraceptive use, client satisfaction with family planning services, intent to use contraception, early postpartum family planning use, total unmet need for family planning, women’s intention to use contraception, and female partners’ contraceptive use. Independent variables encompassed factors such as age, household wealth, education, occupation, knowledge of contraceptive methods, access to healthcare facilities, and spousal approval of family planning. The focus of the studies ranged from assessing contraceptive use and client satisfaction with family planning services to exploring male involvement in family planning, societal norms, cultural beliefs, and gender dynamics affecting contraceptive decision-making [Table 1].

The synthesized article’s findings are elaborated in Table 1, and the results in Table 2 are condensed into a determinants factor table, facilitating insights into variable relationships and promoting deeper comprehension. This approach enhances result clarity and contributes to advancing knowledge in the field.

Determinants factor

Within this systematic review, the study characteristics were meticulously organized into three distinct levels of analysis: individual level, community level, and sociocultural level. These categories encompassed a comprehensive range of factors elucidated within the selected studies. At the individual level, the review delved into personal attributes, sociodemographic variables, and behaviors, including wealth index,^[22,29] age,^[15,19,20,22,29,36] education,^[15,17,18,20,22-25,29] and knowledge^[17,18,24,25,31,34,38] about family planning. Additionally, factors such as religious beliefs,^[15,19,21-23,26,38] desire for more children,^[19,20] and experiences of terminated pregnancies^[19] featured prominently [Table 1]. Notably, key individual-level determinants such as education, age, knowledge, and attitudes^[21-23,31,35,37,38] consistently emerged as influential factors shaping family planning behaviors.

The review then transitioned to the community level, expanding the analysis to geographical factors like region and place of residence,^[13,20,29,32] alongside community dynamics like poverty levels^[22,29] and cultural norms.^[13-15,17,21,23,25,26,36] Notable elements encompassed healthcare accessibility,^[18,23,29,32,35,36,38] peer influence,^[23] and distance to health facilities,^[35] which played pivotal roles in understanding contextual influences on family planning decisions [Table 1]. It was evident that community-level factors, including access to healthcare services, peer influence, and regional disparities, underscored the importance of considering local dynamics.

Finally, the sociocultural-level analysis explored the role of media exposure,^[19,29,35,38] gender norms,^[15,22,23,25,29,31,34] religious denominational influence,^[15,19,21-23,36,38] and spousal dynamics^[16-19,22,23,27] in shaping family planning choices. The willingness to engage in family planning discussions within marital relationships, spousal approval, and male involvement emerged as critical sociocultural determinants [Table 1]. Notably, sociocultural determinants such as religious beliefs, gender norms, and spousal communication played pivotal roles in understanding family planning choices.

Husbands and male partners play a crucial role in Family Planning (FP) decisions and contraceptive use, as indicated by the information provided.^[24,25,28] Their influence is multifaceted, with significant implications for FP outcomes. First, husbands' occupations were associated with higher odds of contraceptive use, highlighting their potential influence on women's decisions.^[33] Moreover, men's desires for the number of children in the family can be a determining factor; when men express a desire for many children, it often leads to reluctance in using contraception.^[19,20] Additionally, concerns about infidelity linked to contraceptive use underscore the need to address misconceptions and fears within couples. Partner involvement in FP discussions is pivotal as active participation can lead to informed and mutually agreed-upon contraceptive choices.^[13,17] When husbands and wives share similar preferences for family size, it can facilitate FP decisions.

Furthermore, the attitude of husbands toward FP methods can affect not only their own willingness to use contraceptives but also their support for their wives' choices.^[21-23] In conclusion, husbands' and male partners' attitudes, desires, and involvement significantly impact FP outcomes, emphasizing the importance of engaging men in FP education and discussions to promote informed and harmonious decisions within relationships.^[14,28,30]

This structured presentation of study characteristics provides a robust framework for an in-depth examination of the systematic review's findings. It facilitates a nuanced understanding of how factors at these three distinct levels interact and collectively influence FP practices.

In summary, the findings from these diverse studies underscore the intricate web of individual, community, and sociocultural determinants that collectively influence FP and contraceptive use. Effective family planning programs must adopt a holistic approach that considers these multifaceted factors. These determinants interact in complex ways, emphasizing the need for tailored interventions that address both the specific context of each community and the broader sociocultural influences at play.

Discussion

This systematic review delves into the multifaceted determinants influencing FP and contraceptive use across diverse geographical regions and settings. The comprehensive synthesis of determinants influencing FP and contraceptive use across various levels—individual, community, and sociocultural—is the fundamental goal of this systematic review. By meticulously examining existing literature, this study aims to unravel the multifaceted factors shaping decisions in FP and contraceptive utilization. It emphasizes the comprehensive approach employed in the study selection process, ensuring the inclusion of studies with varying research designs, participants, and key variables. The subsequent analysis categorizes the findings into three distinct levels of analysis: individual level, community level, and sociocultural level. These levels provide a structured framework for comprehending the intricate landscape of FP behavior. Despite women's general awareness of FP services, actual utilization remains constrained, highlighting the gap between knowledge and action.

At the individual level, education, age, knowledge, and attitudes consistently emerge as influential factors shaping FP behaviors. The significance of individual characteristics, especially education, underscores the importance of educational interventions in promoting informed choices and FP uptake. Furthermore, this level highlights disparities in contraceptive methods used, with sterilization being more prevalent among specific demographic groups. This emphasizes the need for tailored approaches to address these disparities and ensure equitable access to contraception.^[6,39]

Transitioning to the community level, the analysis uncovers the substantial role of contextual factors. Geographical factors, such as region and place of residence, and community dynamics, including poverty levels and cultural norms, significantly influence FP decisions. This level emphasizes the importance of community-level interventions that address disparities, improve healthcare accessibility, and leverage peer influence. Additionally, it highlights the need for innovative strategies like mobile clinics to reach underserved and remote areas.^[40,41] The previous study findings suggest that Somali men living in Sweden express an interest in engaging in FP counseling, which could have the potential to increase the use of contraception among

Table 1: Study's characteristics and findings

S. No	Author(s), year	Country	Study design and Participants	Outcome
1.	Abate and Tareke, 2019 ^[13]	Ethiopia	A cross-sectional study Women aged 15–49 years in Ethiopia who are not currently pregnant, fecund, and sexually active.	The study's key findings emphasize the complex interplay of individual, community, and sociocultural factors in shaping contraceptive use in Ethiopia. These findings suggested that effective FP programs should consider a multifaceted approach that addresses economic empowerment, regional disparities, cultural beliefs, and alternative communication channels to promote contraceptive use and improve reproductive health outcomes in the country.
2.	Abay <i>et al.</i> , 2022 ^[14]	Northwest Ethiopia	A cross-sectional study 477 clients receiving FP services at healthcare facilities.	In summary, this evaluation elucidates a range of individual, community, and sociocultural determinants influencing contraceptive use in Ethiopia. These findings highlight the intricate interplay of economic, demographic, cultural, and geographic factors in shaping FP behaviors. To advance FP programs effectively, it is imperative to consider these multifaceted determinants and devise targeted interventions and policies that foster contraceptive use, ultimately enhancing reproductive health outcomes in Ethiopia.
3.	Akamike <i>et al.</i> , 2020 ^[15]	Southeast Nigeria	A quasiexperiment study 484 married women of reproductive age in rural communities of Ebonyi State.	This study highlights a complex interplay of individual, community, and sociocultural determinants influencing FP and contraceptive use. While education, age, and partner support were positively associated with usage, strong religious and cultural beliefs, economic considerations, and gender norms acted as barriers. Addressing these multifaceted determinants is crucial for effective FP programs that respect local values and empower individuals to make informed choices about their reproductive health.
4.	Abera <i>et al.</i> , 2023 ^[16]	Eastern Ethiopia	A cross-sectional study 576 reproductive-age women attending FP units at public healthcare facilities in Dire Dawa, Ethiopia	In summary, the study's findings emphasize the importance of addressing individual, community, and sociocultural determinants to enhance FP services' quality and promote contraceptive use. Strategies that consider these determinants are likely to be more effective in improving FP outcomes and client satisfaction.
5.	Bado <i>et al.</i> , 2020 ^[17]	Burkina Faso, a West African country	A qualitative in-depth interview 29 adult men and 23 married women, with or without children, in two regions of Burkina Faso	In summary, the study revealed a complex interplay of individual, community, and sociocultural determinants influencing FP and contraceptive use in Burkina Faso. Lack of knowledge, negative beliefs, side effects, cultural norms, and men's concerns about infidelity were individual and community-level barriers. Strategies to address these barriers include education, spousal communication, and greater inclusivity of men in FP programs to improve contraceptive use and promote birth spacing.
6.	Abraha <i>et al.</i> , 2018 ^[18]	Aksum town, Tigray region, northern Ethiopia	A community-based cross-sectional study 604 postpartum mothers in Aksum, Ethiopia	The study's findings highlight the importance of considering various individual, community, and sociocultural determinants when designing FP interventions and programs. Effective strategies should address factors such as education, access to healthcare services, spousal approval, and knowledge dissemination to increase contraceptive intentions and adoption among postpartum women in the community.
7.	Adane <i>et al.</i> , 2023 ^[19]	Northeast Ethiopia	A retrospective study 472 mothers seeking their babies' first-time measles vaccination in clinics	In summary, individual-level determinants such as age, counseling, abortion history, desire for more children, sexual activity, and the status of the last pregnancy play a significant role in influencing postpartum FP initiation. Sociocultural factors, such as spousal support, religious beliefs, and sources of information, also contribute to these decisions. Community-level determinants, while not explicitly addressed in this study, can further contextualize FP behaviors in specific settings. These findings underscore the importance of tailored FP programs that consider individual, community, and sociocultural factors to promote contraceptive use and improve maternal and child health outcomes.

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Table 1: Contd...

S. No	Author(s), year	Country	Study design and Participants	Outcome
8.	Barrow <i>et al.</i> , 2020 ^[20]	Gambia	A cross-sectional study 10,233 Gambian women aged 15–49 years	The study highlights that individual-level determinants such as age, the number of live children, desired family size, and partner’s desires for children significantly influence unmet FP needs among women in Gambia. Additionally, community-level determinants like the place of residence and regional variations play a role. Sociocultural factors, including ethnicity and religion, also contribute to disparities in unmet FP needs. To address unmet FP needs, interventions should consider these factors. Efforts should include targeted education and awareness programs for younger women, addressing misconceptions about contraception, and involving partners in FP decision-making. Tailored interventions based on regional and sociocultural contexts can be effective in reducing unmet FP needs in Gambia.
9.	Abdi <i>et al.</i> , 2021 ^[21]	Kenya	A qualitative in-depth interview and focus group discussion 54 adult men who are part of the communities in Lamu and Wajir Counties, Kenya	In summary, the study underscores the complex interplay of individual, community, and sociocultural determinants in shaping men’s attitudes and perspectives on FP. Understanding these determinants is essential for developing culturally appropriate approaches to engage men positively, challenge negative social norms, and promote FP in these communities. It also highlights the need for tailored interventions that consider the diverse educational backgrounds, health concerns, cultural beliefs, and religious influences that influence FP decisions among men in similar settings.
10.	Asif <i>et al.</i> , 2021 ^[22]	Pakistan	Secondary data studies 12,113 married and reproductive-aged women in Pakistan, along with their husbands.	The study’s findings emphasize the multifaceted nature of factors influencing FP and contraceptive use. Individual-level factors like age, education, wealth, and employment status interact with sociocultural determinants, including religious beliefs, spousal attitudes, and decision-making power within relationships. Addressing these determinants requires tailored interventions that consider the context-specific dynamics of each community. Efforts to reduce unmet need for FP should involve not only individual-level education and awareness campaigns but also community-level initiatives and strategies to promote gender equality and empower women in decision-making processes.
11.	Assefa <i>et al.</i> , 2021 ^[23]	Western Ethiopia	A cross-sectional study 365 men living in urban kebeles and 364 in rural areas of Kondala District, Ethiopia.	The study highlights the multifaceted nature of factors influencing FP and contraceptive use. Individual-level determinants such as education, desired family size, and attitude play a crucial role. Community-level factors include access to healthcare, community participation, and peer influence. Sociocultural determinants encompass religious and cultural beliefs, gender norms, and spousal communication. Addressing these determinants through tailored interventions and community engagement is essential to promoting FP and contraceptive use.
12.	Ayu <i>et al.</i> , 2019 ^[24]	Indonesia	A cross-sectional study 94 respondents who are husbands of reproductive-age couples.	In conclusion, the study in Randusanga Kulon Village highlights the significance of individual-level determinants, particularly husbands’ knowledge and education, in influencing their participation in FP. These findings emphasize the importance of targeted education and awareness campaigns to improve FP knowledge among men. While community and sociocultural determinants are not explicitly discussed, they are crucial in shaping FP behaviors and should be considered in comprehensive FP programs.
13.	Chekole <i>et al.</i> , 2019 ^[25]	Ethiopia	A cross-sectional study 418 married women randomly selected from pastoral communities in Afar	In summary, this study highlights the importance of individual-level knowledge, community participation, and sociocultural factors in influencing FP and husbands’ involvement in pastoralist communities. Interventions aimed at improving FP outcomes should consider these determinants and tailor their approaches accordingly, including community-based education and awareness programs, addressing gender dynamics, and respecting cultural beliefs and practices.

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S. No	Author(s), year	Country	Study design and Participants	Outcome
14.	Imtishal and Mohammadnezhad, 2021 ^[26]	Fiji	A qualitative focus group discussion 10 men who are partners of pregnant women and healthcare staff.	Individual-level determinants, such as personal beliefs and experiences, interact with community-level factors, including the quality of counseling and men's involvement, and sociocultural determinants, such as religious norms and cultural beliefs. Understanding these factors is essential for designing effective FP programs and interventions that address the unique challenges faced by individuals and communities in different contexts.
15.	Mulatu <i>et al.</i> , 2022 ^[27]	Eastern Ethiopia	A cross-sectional study 577 married men randomly selected from several rural districts in Eastern Ethiopia.	In summary, individual-level determinants such as knowledge, spousal contraceptive use, decision-making involvement, and attitudes play a significant role in influencing male involvement in FP. Sociocultural factors, including religious and ethnic norms, spousal communication, and husband's approval, also contribute to shaping FP decisions. Community-level determinants, while not extensively explored in this study, can further influence FP behaviors, particularly in terms of access to services and information. To promote male involvement in FP, interventions should consider these multifaceted determinants at the individual, community, and sociocultural levels.
16.	Amuzie <i>et al.</i> , 2022 ^[28]	Southeastern Nigeria	A cross-sectional study 588 men aged 15–59 years living in research areas, both urban and rural, for 6 months before the study.	These findings highlight the complex interplay of individual, community, and sociocultural factors that influence male involvement in FP. Tailored interventions should consider these determinants to effectively promote and enhance male participation in FP programs.
17.	Osuafor <i>et al.</i> , 2023 ^[29]	Malawi and Tanzania	A cross-sectional study Men aged 15–54 years, 7478 respondents from Malawi and 3514 respondents from Tanzania.	These findings suggest that individual-level factors such as age, education, access to information, and religion; community-level factors like residence; and sociocultural factors like wealth status influence male involvement in FP decisions. Tailored FP programs and interventions should consider these determinants to promote male engagement in FP and improve contraceptive use. It is important to note that these determinants may vary across different contexts and regions, highlighting the need for targeted interventions based on local characteristics and beliefs. Additionally, addressing sociocultural factors and promoting gender equality can play a significant role in enhancing male involvement in FP decisions.
18.	Negash <i>et al.</i> , 2023 ^[30]	Sub-Saharan Africa	A secondary data multilevel study 178,875 women of reproductive age.	In summary, this study provides valuable insights into the determinants of intention to use contraceptives among reproductive-age women in sub-Saharan Africa. The findings underscore the importance of addressing individual-level and community-level factors as well as considering sociocultural contexts in FP programs and interventions to improve contraceptive use intentions and, ultimately, outcomes.
19.	Kriel <i>et al.</i> , 2019 ^[31]	KwaZulu-Natal, South Africa	A qualitative in-depth interview 103 couples in the eThekweni District, KwaZulu-Natal Province, South Africa, and 6 healthcare providers and key informants.	In summary, individual-level determinants like knowledge, side effects, and fertility desires influenced FP/C use attitudes and behaviors. Community-level factors included the presence of supportive male partners and prevailing gender dynamics. Sociocultural factors encompassed ownership, control, physical abuse, and the covert use of FP/C methods as strategies within the broader cultural context. Understanding these determinants is crucial for designing effective FP interventions and programs in South Africa.

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Table 1: Contd...

S. No	Author(s), year	Country	Study design and Participants	Outcome
20.	Pradhan and Mondal, 2023 ^[32]	Bangladesh, India, Nepal, and Pakistan	Secondary data studies Currently married women in the age group of 15–49 years residing in four South Asian countries.	In summary, the study underscores the complex interplay of individual, community, and sociocultural determinants in shaping contraceptive use among women in South Asia. It highlights the need for FP* programs and interventions to consider these multifaceted factors when designing strategies to improve contraceptive access and informed decision-making among women in the region. Additionally, addressing the influence of mothers-in-law and promoting women's autonomy within households are key considerations for enhancing FP efforts in South Asia.
21.	Beaujoin <i>et al.</i> , 2021 ^[33]	Burkina Faso	A cross-sectional study 35 reproductive-age women in Burkina Faso, including husbands and key informants in the community.	In summary, the findings underscore the complexity of factors influencing FP and contraceptive use in rural Burkina Faso, with individual, community, and sociocultural determinants at play. These determinants interact to shape women's autonomy and their ability to make decisions related to reproductive health and FP. Interventions aimed at improving FP practices should consider these multifaceted determinants and seek to address not only financial barriers but also the sociocultural norms and power dynamics within households.
22.	Efendi <i>et al.</i> , 2023 ^[34]	ASEAN	A secondary data study Married women aged 15–49 years.	In summary, the findings demonstrate the complexity of factors influencing FP and contraceptive use in ASEAN countries. Individual-level determinants such as women's labor force participation and knowledge are important drivers of contraceptive use. However, community-level factors, including decision-making dynamics within households, and sociocultural norms related to gender roles and violence, also play significant roles. Policymakers and program planners should consider these multifaceted determinants when designing and implementing interventions to promote FP and empower women in these contexts.
23.	Muluneh <i>et al.</i> , 2021 ^[35]	Western Ethiopia	A quantitative study structure interview 746 married reproductive-age women in the Jimma Zone, Western Ethiopia.	Overall, the study highlights the complex interplay of individual, community, and sociocultural determinants in influencing FP and contraceptive use. It emphasizes the importance of women's empowerment in decision-making, access to information and healthcare facilities, and challenging harmful attitudes toward violence as key factors in promoting FP utilization. Additionally, partner characteristics and demographic factors play a role in shaping women's empowerment dimensions and contraceptive use. These findings underscore the need for holistic interventions that address multiple determinants to promote FP and reproductive health in the studied context.
25.	Chanthakoumane <i>et al.</i> , 2020 ^[36]	Laos	A mixed-methods study 200 married couples in Savannakhet Province, Lao PDR.	In summary, individual-level determinants like age and income, as well as sociocultural factors such as gender norms and communication within couples, significantly influenced FP and contraceptive use. Community-level factors like district and ethnicity also played a role, possibly due to variations in access to healthcare and cultural norms. These findings highlight the complex interplay of individual, community, and sociocultural factors in shaping FP practices and the need for targeted interventions to address these determinants effectively.
26.	Challa <i>et al.</i> , 2022 ^[37]	Niger	A mixed-methods study 237 men who married adolescent girls (ages 13–19) in Dosso, Niger, along with 157 influential network members in their decision-making and FP behaviors.	In summary, the study emphasizes the significant role of social networks and social contacts in shaping men's attitudes and behaviors related to FP and contraceptive use. It demonstrates that participation in FP interventions can influence individual and social network dynamics, potentially leading to more supportive attitudes and behaviors at both the individual and community levels. However, further research with larger sample sizes and longitudinal data is recommended to better understand the long-term effects of changing norms on social relationships and FP outcomes.

Table 2: Summary of determinants based on included studies

Individual-Level	Community-Level	Sociocultural-Level
Wealth Index	Region	Exposure to Mass Media
Number of Living Children	Place of Residence	Cultural Norms
Husband's Occupation	Religion	Attitude toward Modern Methods
Experience of Terminated Pregnancy	Community-level Poverty	Gender Norms
Age	Religious	Spousal Dynamics
Education	Cultural Beliefs	Religious Denominational Influence
Partner Involvement	Community Perceptions	FP* Discussion with Husbands
Convenience of Facility Opening Hours	Peer Influence	Men's Involvement
Maintained Privacy	Distance to Health Facilities	Spousal Communication
Knowledge	Short Waiting Time	Opening FP* Services to Men
Negative Beliefs	Cultural Norms	Religion and Ethnicity
Perception	Preferences	Husband's Approval
Side Effect	Community Support	FP* Counseling by Health Extension Workers
Religious Beliefs	Covert Contraceptive Use	Husband's Support
Desire for More Children	Access to Health Services	Information Sources
Fear of Infidelity	Utilization of Postnatal Care	
Occupation	Ethnicity	
Antenatal care	Social Norms	
Resumed and Frequency of Sexual Intercourse	Community Participation	
History of Abortion	Polygamour Marriages	
Status of Last Pregnancy		
Wealth Quintile		
Attitude		
Awareness		
Previous Family Planning Failure		
Marital Status		
Age at Cohabitation		
Exposure to FP* Messages		
Mother-in-Law Influence		
Labor Force Participation		
Income		
Behavior		

*FP=Family Planning

women. However, it is important for healthcare providers to prioritize obtaining the woman's consent before involving her partner and to handle this matter with cultural sensitivity, taking into account the preferences and needs of couples.^[42] A lack of access to contraception is connected to unintended pregnancies and negative outcomes for both mothers and children. Providing FP counseling is associated with a decrease in the unmet need for contraception.^[43]

The sociocultural-level analysis brings to light the intricate influence of media exposure, gender norms, religious denominational influence, and spousal dynamics on FP choices. This level underscores the necessity of culturally sensitive FP programs that respect local values, promote gender equality, and encourage open communication within households. Encouraging spousal communication and involving men in FP decisions emerge as critical strategies for achieving more equitable reproductive health outcomes.^[44]

In essence, these findings emphasize the imperative for comprehensive FP programs that not only provide access

to contraceptive methods but also address the underlying factors that impact individuals' and communities' decisions. By recognizing and navigating this intricate interplay of determinants, policymakers and program planners can develop more effective strategies to promote FP utilization and improve reproductive health outcomes across diverse global settings. Further research and the evaluation of context-specific interventions are warranted to advance the field of FP and contribute to improved maternal and child health outcomes on a global scale.

In examining the multifaceted determinants influencing FP and contraceptive use, this systematic review encapsulates a comprehensive exploration. To elevate the discussion with innovative dimensions, it is pivotal to introduce forward-thinking perspectives. The landscape of FP is undergoing a transformative shift, propelled by digital health solutions like mobile apps, telemedicine, and online platforms. Exploring their potential in disseminating contraceptive information, this review considers the ethical

Table 3: Study quality assessment

Category	Items	Number of articles																								
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Title and abstract	1a	Y*	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	1b	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Introduction	2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Methods	4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	5	Y	Y	Y	N	Y	N	Y	N	Y	Y	Y	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
Participants	6a	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	6b	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Variables	7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Measurement	8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Bias	9	N**	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Study size	10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Quantitative variables	11	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	12a	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Statistical methods	12b	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	12c	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Results	12d	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	12e	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Results	13a	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	13b	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Results	13c	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	14a	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Results	14b	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	14c	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Results	15	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	16a	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Results	16b	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	16c	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Discussion	17	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	18	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Discussion	19	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	20	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Other Information	21	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	22	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

*Y=yes, **N=No

aspects and challenges of ensuring fair access, especially among underserved groups.^[45] Additionally, it delves into the intersection of FP and environmental sustainability, examining how contraceptive methods impact the environment and the potential role of FP in global sustainability efforts.^[46] Moreover, insights from behavioral economics shed light on decision-making in FP, investigating incentives and behavioral nudges that influence contraceptive choices.^[47,48] The review emphasizes the importance of culturally sensitive strategies, spotlighting innovative approaches tailored to diverse gender identities, sexual orientations, and cultural backgrounds.^[49] Last, it explores progressive policy frameworks and successful

initiatives driving reproductive health and FP, highlighting regional success stories to enhance contraceptive access and health outcomes.^[50]

The implications of these findings for policy and practice are substantial. Effective FP programs must adopt a holistic approach that considers the multifaceted determinants identified in this review. Tailored interventions should address both the specific context of each community and the broader sociocultural influences at play. Educational campaigns aimed at improving knowledge and changing negative attitudes toward contraception can be instrumental in increasing FP

uptake, especially among individuals with limited access to information. Community-level interventions should focus on improving healthcare accessibility, reducing geographical disparities, and leveraging peer influence to create a supportive environment for FP. Innovative strategies like mobile clinics can bridge the gap in healthcare access, particularly in remote areas. A limitation of the study could be the potential for inclusion or exclusion bias despite following strict inclusion criteria as systematic reviews rely on available published literature, potentially omitting unpublished or inaccessible data.

Conclusion

In conclusion, this systematic review underscores the complexity of factors influencing FP and contraceptive use. The structured presentation of study characteristics, categorized into three levels of analysis, provides a comprehensive framework for understanding the interplay of determinants. Policymakers and program planners should consider these findings when designing evidence-based interventions that promote FP utilization and improve reproductive health outcomes across diverse global contexts. Further research and evaluation of context-specific interventions are warranted to advance the field of FP and contribute to improved maternal and child health worldwide. Ultimately, by addressing the multifaceted determinants identified in this review, we can move closer to achieving the global goals of equitable access to FP and improved reproductive health for all.

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Conflicts of interest

Nothing to declare.

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