



Factors Influencing Contraceptive Use among Women of Reproductive Age: A Quantitative Analysis

Zuhra Aman¹, Noor Ali Noor²,

1. BS student, department of gender studies, University of the Punjab, Lahore
Email: zuhraaman184@gmail.com
2. BS student, department of gender studies, University of the Punjab, Lahore
Email: rrgue552@gmail.com

Abstract

Contraceptive use refers to the intended prevention of conceiving through various methods, including devices, medications, and surgical procedures. Factors such as spousal communication, religious beliefs, and societal expectations significantly influence decision-making around family planning (Khan et al., 2023). Despite high awareness of contraceptive methods, the actual usage remains low due to these contextual factors. This research aligns with global health initiatives, such as the Sustainable Development Goals (SDGs), which emphasize the importance of universal access to sexual and reproductive health services. This study employed a quantitative cross-sectional survey design to analyze factors influencing contraceptive use among women aged 20-49 in Lahore. A stratified random sampling method ensured diverse representation, targeting a minimum of 250 participants. The research adapted scales from Prata et al. (2017) and Tiruneh et al. (2023) to assess partner support and women's knowledge and attitudes toward contraceptives. Data collection utilized a structured questionnaire, and analysis was conducted using SPSS, employing descriptive and inferential statistics, including chi-square tests and logistic regression, to identify significant predictors of contraceptive use. The study found that higher educational attainment (72.4% of respondents) correlates with positive attitudes toward contraceptive use. Significant partner support was reported, with 53.6% feeling supported in their contraceptive choices. However, misconceptions persist, particularly regarding the intersection of contraceptive use and religious beliefs, with 36.0% expressing concerns about its compatibility with their faith. Regression analysis revealed age, number of children, religion, and ethnicity as significant predictors of knowledge, attitudes, and partner support related to contraceptive use. These findings highlight the need for culturally sensitive educational interventions tailored to specific demographic factors to improve reproductive health outcomes. This study highlights the complex factors influencing contraceptive use among women, including age, partner support, and cultural beliefs. Tailored educational interventions are essential, targeting different age groups and involving male partners in family planning discussions. Addressing misconceptions through culturally sensitive campaigns, particularly with the support of community and religious leaders, is crucial for improving contraceptive uptake.

Keywords: Contraceptive Use, Reproductive Health, Partner Support, Knowledge and Attitude

Introduction

Contraceptive use refers to the intended prevention of conceiving through various methods, including devices, medications, and surgical procedures. This definition covers a wide range of contraceptive methods that individuals may choose to prevent pregnancy (NCBI, 2011). The WHO defines contraception as allowing individuals to attain their desired number of children and determine the spacing of pregnancies. This definition describes the role of contraceptive methods in family planning and the prevention of inadvertent pregnancies, which can importantly impact maternal health (WHO, 2024). The use of contraception is also considered a demanding component of reproductive health that enables individuals to get involved in sexual relationships without the fear of undecided pregnancies. It is linked to numerous social issues, including women's rights, education, and economic opportunities (NCBI, 2011). Generally, an estimated 1.9 billion women of reproductive age live, with approximately 1.1 billion demonstrating a need for family planning. Among these, about 874 million are using different modern methods of contraception, while 164 million have an unfulfilled need for contraception (World Health Organization [WHO], 2023). The global contraceptive prevalence rate for any method was 65% in 2023, with modern methods at 59% (NCBI, 2023). Despite important advancements, close to one in five women still face unmet needs for family planning, emphasizing ongoing challenges in contraceptive access and use (NCBI, 2023). Contraceptive use varies widely between regions. For instance, sub-Saharan Africa has seen a significant increase in modern contraceptive use, rising from 24% in 1990 to 56% in 2021 (United Nations, 2022). In contrast, regions like Latin America and the Caribbean have higher usage rates of different contraceptive methods, with 83% of women who wish to avoid pregnancy using modern methods (United Nations, 2022). As of the latest data, the CPR in Pakistan is approximately 34%, which is the minimum rate in South Asia (Pakistan Bureau of Statistics [PBS], 2021). The Pakistan Demographic and Health Survey (PDHS) indicates that about 30% of ever-married women of reproductive age are using contraception, with a conspicuous reliance on traditional methods (26%) compared to modern methods (74%) (Akhterul Islam et al., 2022). The most used contraceptive methods include condoms, withdrawal, and female sterilization, with condoms being the most prevalent at 30.5% (Akhterul Islam et al., 2022; NCBI, 2022). Despite some improvements in contraceptive use over the past decade, challenges have remained. CPR has stagnated, with only slight increases observed, from 29.6% in 2006 to 35.7% in 2018 (Qureshi & Bari, 2023). The unmet need for family planning services is still high, with approximately 17% of women expressing a desire for contraception but not having access to it (PBS, 2021). The primary aim of this research is to identify and analyze the socio-economic, educational, and cultural factors that influence contraceptive use among women of reproductive age in Lahore, Pakistan. By examining these factors, the study seeks to provide insights that can inform policies and programs aimed at improving family planning services and reproductive health outcomes in the region. This research is significant as it aims to fill the existing knowledge gap regarding contraceptive use in Pakistan, particularly in urban settings like Lahore. By identifying the factors influencing contraceptive use, the findings will inform policymakers and health practitioners about necessary interventions to enhance family planning services and address unmet needs in reproductive health (Akhterul Islam et al., 2022; PBS, 2021).

Importance of Contraceptive Use

One of the primary benefits of contraceptive use is the significant reduction in unintended pregnancies. Globally, an estimated 40% of pregnancies are unintended, which can lead to adverse health outcomes for both mothers and children (World Health Organization [WHO], 2023). By providing individuals with the means to plan their pregnancies, contraception helps

lower rates of maternal morbidity and mortality associated with unplanned pregnancies (NCBI, 2022). Access to contraceptive methods is crucial for improving maternal and child health outcomes. Family planning enables women to space their pregnancies, which is vital for their health and their children's health. Delaying pregnancies can reduce health risks for young mothers and older women, who are more susceptible to complications (WHO, 2023). Furthermore, effective contraceptive use decreases the need for unsafe abortions, which remain a significant cause of maternal death in many regions (NCBI, 2022). Contraceptive use contributes to economic development by allowing women to participate more fully in the workforce. When women can control their reproductive lives, they are more likely to pursue education and employment opportunities, leading to greater economic independence and improved family incomes (Akhterul Islam et al., 2022). This empowerment is essential for breaking the cycle of poverty and enhancing the overall financial well-being of communities. About contraceptive options can lead to more informed choices and greater acceptance. A significant portion of women in Pakistan has an unmet need for contraception, with approximately 20% of married women expressing a desire to avoid pregnancy but not using any method of contraception (Pakistan Bureau of Statistics [PBS], 2021). Addressing this unmet need through increased access to contraceptive services can lead to better reproductive health outcomes and empower women to make informed choices about their family planning.

Factors influencing contraceptive use

Factors influencing contraceptive use are multifaceted and vary across different cultural and socio-economic contexts. Globally, several key factors have been identified that affect the choice, uptake, and consistent use of contraceptives among women. These factors can be categorized into personal beliefs, socio-economic status, cultural norms, access to healthcare, and the influence of partners and family. Women's knowledge about contraceptive methods significantly impacts their usage patterns. In many regions, misconceptions and a lack of information about available contraceptive options lead to lower usage rates (D'Souza et al., 2022). Higher levels of education and socio-economic status are associated with increased contraceptive use. Women with access to education and financial resources are more likely to utilize modern contraceptive methods (Islam et al., 2022). Cultural norms and religious beliefs are critical in shaping attitudes toward contraception. In many societies, stigma surrounding contraceptive use and negative perceptions about certain methods can deter women from seeking family planning services (D'Souza et al., 2022). Decisions regarding contraceptive use are often influenced by male partners and family members. Supportive partners can encourage contraceptive use, while disapproval can lead to lower usage rates (Islam et al., 2022).

In the context of Pakistan, these global factors manifest with specific nuances influenced by the country's socio-cultural and economic landscape. Despite high levels of awareness about contraceptive methods, misconceptions persist. Many women lack comprehensive knowledge about the effectiveness and side effects of various contraceptives, leading to underutilization (Pakistan Bureau of Statistics [PBS], 2021). Education and income levels significantly influence contraceptive use in Pakistan. Women with higher education and socio-economic status are more likely to use modern contraceptive methods, while those from lower socio-economic backgrounds face barriers to access (Akhterul Islam et al., 2022). Cultural attitudes towards family size and gender roles heavily impact contraceptive use. In many communities, large families are preferred, and there is often resistance to using contraceptives due to religious beliefs (Tropical Medicine and Health, 2023). Access to family planning services is limited, especially in rural areas. Women often face logistical challenges, such as distance to health

facilities, and may encounter judgmental attitudes from healthcare providers, which can deter them from seeking contraceptive services (PBS, 2021). The influence of male partners is significant in Pakistan. Decisions about contraceptive use are frequently made jointly, and many women report that their husbands' preferences significantly affect their choices regarding family planning (Islam et al., 2022).

Background

The term "contraceptive" emerged in the early 20th century as a descriptor for methods and devices designed to prevent conception. The usage of the term became more prominent with the development of modern contraceptive methods, particularly in the context of public health and family planning initiatives. By the 1930s and 1940s, as various contraceptive methods were being developed and popularized, the term gained traction in both medical literature and public discourse (NCBI, 2011). As societal attitudes towards family planning evolved, especially during the sexual revolution of the 1960s and 1970s, the term "contraceptive" became widely recognized and accepted, leading to increased research and discussions surrounding reproductive health and rights (NCBI, 2011). A synthesis of systematic reviews identified 24 studies that examined factors influencing contraceptive choice and use globally. This research highlighted common cultural themes, such as the role of women's knowledge, beliefs about side effects, and the influence of male partners and family expectations. The findings indicated that lack of education and poverty are significant barriers to contraceptive use, while accessibility and the attitudes of healthcare providers also play crucial roles (Morrison et al., 2022). Specific studies have focused on regional contexts. For example, a study in Ethiopia analyzed contraceptive utilization among women of reproductive age, finding that factors such as knowledge, attitude, marital status, and number of children significantly influenced contraceptive use. The study reported a contraceptive utilization rate of 53.3% among the surveyed population, indicating a need for targeted interventions to address sociocultural barriers (Endriyas et al., 2017). Research in Afghanistan revealed that socioeconomic and demographic factors significantly impact contraceptive use. The study found that women aged 20-24 and 25-29 were more likely to use contraceptives compared to younger women, with urban residence and education level also being strong predictors of contraceptive use (Endriyas et al., 2017). A large-scale survey involving 32,156 women across various regions provided insights into modern contraceptive utilization. The study employed multivariate logistic regression to analyze factors such as age, education, marital status, and media exposure, revealing that urban women were more likely to use modern contraceptives compared to their rural counterparts (BMC Contraception, 2024). Research has consistently highlighted barriers to contraceptive access, including stigma, lack of confidentiality, and the attitudes of healthcare providers. These barriers often prevent women from making informed reproductive choices, despite the availability of contraceptive methods (Morrison et al., 2022). According to the Pakistan Demographic and Health Surveys (PDHS), contraceptive prevalence among women has seen a gradual increase from 29.6% in 2006 to 35.7% in 2018. This indicates a slow but persistent effort to improve contraceptive use among women of reproductive age. A study analyzing data from 40,259 ever-married women of reproductive age found that factors such as age, education, place of residence, wealth index, and exposure to family planning messages significantly influenced contraceptive use. The study reported that 30% of women were using contraception, with 74% of these using modern methods (Mahmood & Ringheim, 2021). This highlights the importance of socio-economic and educational factors in determining contraceptive practices. Research has shown a complex relationship between experiences of GBV and contraceptive use. Women who have experienced violence are more likely to use contraception, potentially due to the fear of unintended

pregnancies in adverse situations (Thao Thi et al., 2021). This finding underscores the need to address GBV as part of broader family planning initiatives. Studies have identified multiple barriers to contraceptive access in Pakistan, including cultural norms, lack of education, and inadequate healthcare services. For instance, rural women face greater challenges in accessing contraceptive methods compared to their urban counterparts, which contributes to lower contraceptive prevalence in rural areas (Qureshi & Bari, 2024). Qualitative studies have explored the perceptions and attitudes of married couples regarding contraceptive use. Factors such as spousal communication, religious beliefs, and societal expectations significantly influence decision-making around family planning (Khan et al., 2023). Despite high awareness of contraceptive methods, the actual usage remains low due to these contextual factors.

Policies on Contraceptive Use

Policies on contraceptive use around the world play a crucial role in shaping access to family planning services and influencing contraceptive prevalence among women of reproductive age. Various studies have examined the impact of these policies, highlighting their effectiveness and areas needing improvement. Many countries have established national family planning policies aimed at increasing contraceptive use and addressing unmet needs. For example, the World Health Organization (WHO) emphasizes the importance of ensuring universal access to contraceptive methods as part of reproductive health services. Effective policies include comprehensive sexual education, availability of contraceptive methods, and integration of family planning services into primary healthcare (WHO, 2022). A study analyzing contraceptive prevalence rates in low- and middle-income countries identified several policy factors that correlate with increased modern contraceptive prevalence rates (mCPR). Key findings indicated that increasing domestic financing for contraceptives and establishing national insurance systems that cover contraceptive costs significantly enhance contraceptive access (NCBI, 2023). Furthermore, the presence of contraceptive security committees and logistics management systems also positively impacted contraceptive availability. International initiatives, such as the Family Planning 2020 (FP2020) commitment, aim to expand contraceptive access and improve reproductive health outcomes globally. These initiatives focus on increasing awareness, improving service delivery, and ensuring that women have access to a range of contraceptive methods (United Nations, 2022). Despite progress, challenges remain, particularly in regions with high unmet needs for contraception. Policies must also address barriers to contraceptive use, including cultural norms, stigma, and inadequate healthcare infrastructure. Research indicates that even in countries with supportive policies, social and cultural factors can hinder women's ability to access contraceptive services (Morrison et al., 2022). In the context of U.S. foreign policy, the Global Gag Rule has significant implications for contraceptive access in countries reliant on U.S. funding for health services. Studies have shown that this policy restricts NGOs from providing comprehensive reproductive health services, leading to decreased contraceptive use and increased rates of unintended pregnancies (Guttmacher Institute, 2023).

Statement of the Problem

Despite the critical role of contraceptive use in promoting reproductive health and preventing unintended pregnancies, many women of reproductive age worldwide continue to face barriers that hinder their access to and utilization of contraceptive methods. The global contraceptive prevalence rate remains low in several regions, particularly in developing countries, where cultural, socio-economic, and healthcare-related factors significantly influence women's contraceptive choices (D'Souza et al., 2022). Factors such as limited knowledge about contraceptive options, socio-economic disparities, cultural norms favoring larger families, and

inadequate access to healthcare services contribute to this low usage rate (Meherali et al., 2021). Moreover, the influence of male partners and family dynamics often complicates women's ability to make autonomous decisions regarding contraceptive use. Many women report facing opposition from their partners or family members, which can deter them from seeking or using contraceptives (Islam et al., 2022). This research aims to quantitatively analyze the factors influencing contraceptive use among women of reproductive age, focusing on socio-economic, cultural, and healthcare-related determinants. By identifying these factors, the study seeks to provide actionable insights that can inform policymakers and health practitioners in developing targeted interventions to improve contraceptive access and usage in Pakistan and similar contexts.

Objectives of the study

- To examine the associations between socio-economic factors (such as income, education, and employment status) and the likelihood of contraceptive use among women of reproductive age, thereby identifying significant predictors of contraceptive adoption.
- To assess how cultural norms and religious beliefs affect contraceptive use among women, including the role of partner and family attitudes towards family planning and contraceptive methods.
- To evaluate the level of knowledge and awareness regarding various contraceptive methods among women of reproductive age and analyze how this knowledge influences their contraceptive choices and usage patterns.

Research Questions

- What is the relationship between socioeconomic factors (such as income, education, and employment status) and the likelihood of contraceptive use among women of reproductive age in the study population?
- How do cultural norms and religious beliefs affect contraceptive use among women of reproductive age, particularly regarding the influence of partner and family attitudes toward family planning and contraceptive methods?
- What is the level of knowledge and awareness regarding various contraceptive methods among women of reproductive age, and how does this knowledge influence their contraceptive choices and usage patterns?

Significance of the Study

This research is significant for several reasons, particularly in the context of improving reproductive health outcomes and informing policy and practice. The following points outline the key significance of this study. This study aims to identify the barriers and facilitators to contraceptive use among women of reproductive age, thereby addressing the significant unmet need for family planning services. Understanding these factors is essential for developing effective interventions that can enhance contraceptive uptake and reduce unintended pregnancies. The findings from this research can provide valuable insights for policymakers and healthcare providers in designing targeted family planning programs. By understanding the socio-economic, cultural, and educational factors that influence contraceptive use, stakeholders can develop strategies that improve access to contraceptive services and enhance health education, particularly in underserved communities (D'Souza et al., 2022). By examining the role of knowledge, awareness, and socio-cultural influences on contraceptive use, the study can contribute to empowering women to make informed reproductive choices. Increased awareness about contraceptive options can lead to greater autonomy in family planning decisions, fostering

gender equality and improving women's overall health (Meherali et al., 2021). This research aligns with global health initiatives, such as the Sustainable Development Goals (SDGs), which emphasize the importance of universal access to sexual and reproductive health services. By contributing to the understanding of contraceptive use, the study supports efforts to achieve these goals by ensuring that all women can make informed choices regarding their reproductive health (WHO, 2023).

Literature Review

Introduction to Contraceptive Use

Contraception is defined as "the intentional prevention of conception through the use of various devices, sexual practices, chemicals, drugs, or surgical procedures" (Jain & Muralidhar, 2011). This encompasses a wide range of methods such as hormonal contraceptives, intrauterine devices (IUDs), barrier devices like condoms, and fertility awareness techniques (Marie Stopes | British Paleobotanist & Birth Control Pioneer, 1998). Contraceptive use is essential for preventing unwanted pregnancies, which can have significant health implications for women, particularly in developing countries where pregnancy and childbirth are leading causes of death among women (Meherali et al., 2021). Access to and use of contraceptives are critical for reducing pregnancy-related morbidity and mortality. By controlling the number of pregnancies, women can avoid the risks associated with multiple pregnancies and childbirth (Meherali et al., 2021). Contraceptive use is linked to women's empowerment and education. Studies have shown that women's education and exposure to family planning messages are significant determinants of contraceptive use (Meherali et al., 2021). Certain contraceptive methods, such as male and female condoms, also protect against sexually transmitted diseases (STDs), adding another layer of health benefits (Jain & Muralidhar, 2011). Effective contraceptive use can have broader economic and social implications, such as reducing the financial burden of raising large families and enabling women to pursue education and employment opportunities ("World Fertility and Family Planning 2020 Highlights," 2020). Contraceptive knowledge is a crucial determinant of contraceptive use. Studies have shown that educated women with comprehensive knowledge about contraceptives are more likely to adopt modern methods, highlighting the need for education and awareness campaigns (Shah et al., 2021). Negative perceptions and misconceptions about contraceptives, such as concerns over side effects and health risks, are significant barriers. Addressing these through accurate information and counseling can enhance contraceptive use (D'Souza et al., 2022). Social and cultural norms, including religious and socio-cultural reasons, significantly influence contraceptive use. For instance, rumors, misconceptions, and the belief that contraceptive use is a matter for women rather than men can hinder modern contraceptive use (Takyyi et al., 2023). Women's empowerment and their ability to make reproductive choices are closely linked to contraceptive use. Factors such as spousal communication, partner support, and gendered power imbalances play critical roles in women's decisions about fertility (Shah et al., 2021). Empowering women and involving male partners in family planning can significantly improve contraceptive uptake and reduce unintended pregnancies. The availability, accessibility, confidentiality, and costs of healthcare services are critical factors influencing contraceptive use. Barriers such as embarrassment, concerns about confidentiality, and healthcare providers' attitudes can obstruct access to and informed choice of contraceptives (D'Souza et al., 2022). Reviewing factors influencing contraceptive use helps identify areas for policy interventions and program development. For example, strengthening male involvement in family planning, harmonizing education and health policies, and addressing policy contradictions can improve health outcomes among adolescents and women (Takyyi et al.,

2023). Tailored interventions that address specific barriers and facilitators can increase the uptake of contraceptives, thereby reducing unintended pregnancies and improving maternal and child health.

Sociodemographic Factors

Age

Age significantly influences contraceptive use among women of reproductive age, with variations observed across different age groups. Research indicates that contraceptive use tends to increase with age, particularly among women aged 35 to 49. For instance, a study in Pakistan found that the adjusted prevalence ratio (APR) for contraceptive use was significantly higher among women aged 45 years and above (APR 1.59) compared to those aged 15 to 24 years, suggesting that older women are more likely to utilize contraceptive methods (Meherali et al., 2021). Similarly, women aged 35-44 years also showed increased usage (APR 1.47) compared to the younger cohort, indicating a trend where older women are more engaged in family planning practices (Meherali et al., 2021). Conversely, there are complexities in how age affects contraceptive behavior.

Education

Educational attainment has a significant impact on contraceptive knowledge and usage, with higher levels of education generally associated with increased contraceptive use. Studies have consistently shown that women with higher levels of education are more likely to use contraception compared to those with lower educational attainment. A study in Bangladesh found that women with more years of education are more likely to use contraception, even after controlling for the effects of a woman's mobility and decision-making role. The study showed that education alone had a significant effect on contraceptive use, with women who had higher educational attainment being more likely to use modern contraceptive methods (Pazol et al., 2015). The positive relationship between educational attainment and contraceptive use can be attributed to several factors. Educated women are more likely to have better access to reproductive health information and services, which can lead to increased knowledge about contraceptive methods and their effectiveness (Pazol et al., 2015). Additionally, higher levels of education may be associated with greater autonomy in decision-making, including decisions related to family planning (Pazol et al., 2015).

Socioeconomic Status

Women in higher wealth quintiles are significantly more likely to use contraceptives compared to those in lower quintiles (Budu et al., 2023) (Meherali et al., 2021). In Benin, women in the richest wealth index were 1.67 times more likely to use modern contraceptives compared to the poorest women (Budu et al., 2023). Wealth allows women to afford contraceptive services and travel costs to health facilities, overcoming economic barriers to use (Budu et al., 2023). Employed women are more likely to use contraceptives than unemployed women (Meherali et al., 2021). In one study, employed women had 1.21 times higher odds of contraceptive use compared to unemployed women, after adjusting for other factors (Meherali et al., 2021).

Cultural Beliefs and Norms

Cultural attitudes and social norms significantly influence contraceptive use, shaping the decisions individuals and couples make regarding family planning. These influences can vary widely across different communities and are often intertwined with religious beliefs, socioeconomic factors, and gender dynamics. Religious beliefs often dictate attitudes toward contraception, where certain faiths may view family planning as acceptable or taboo. For

example, in some Christian communities, teachings may discourage contraceptive use, leading to negative attitudes toward allowing adolescents access to contraception (Schenker & Rabenou, 1993). This is compounded by cultural norms that prioritize large families, which can inhibit the acceptance of contraceptive methods. In Uganda, social norms that discourage adolescent girls from accessing contraception were found to be prevalent, reflecting broader cultural attitudes that favor early childbearing (Bukuluki et al., 2021).

Gender Dynamics

Gender norms play a critical role in shaping contraceptive use. In many cultures, men hold decision-making power regarding family planning, which can limit women's autonomy in choosing contraceptive methods. Research indicates that men's approval of family planning significantly affects women's contraceptive use, suggesting that interventions aimed at promoting equitable gender norms may enhance contraceptive uptake (Newmann et al., 2021). Furthermore, societal expectations often pressure newly married couples to begin childbearing promptly, delaying their use of contraception until after their first child (Diamond-Smith et al., 2020). Cultural attitudes and social norms are pivotal in shaping contraceptive use. Understanding these influences is essential for developing effective family planning programs that respect cultural contexts while promoting informed reproductive choices. Addressing barriers created by religious beliefs, socioeconomic factors, and gender dynamics can enhance contraceptive uptake and improve reproductive health outcomes.

Religion and Contraceptive Use

Religious beliefs play a significant role in shaping attitudes and practices regarding contraception. These beliefs influence individual choices and broader societal norms and policies surrounding family planning. The relationship between religion and contraceptive use is complex, varying widely among different faiths and denominations.

Religious Teachings and Doctrines

Different religions have distinct teachings regarding contraception, which can significantly influence the attitudes of their adherents. The Catholic Church opposes artificial contraception, advocating for natural family planning methods instead. This teaching is based on the belief that contraception interferes with the natural purpose of sexual intercourse, which is procreation. Despite this, studies show that a significant percentage of Catholics use some form of contraception, indicating a disconnect between official doctrine and personal practice (Srikanthan & Reid, 2008). Views within Protestant denominations vary widely. Some groups, such as the Quiverfull movement, oppose all forms of contraception, while others accept a range of contraceptive methods. Many Protestants interpret scripture in ways that support the use of contraception, viewing it as a responsible choice for family planning (Srikanthan & Reid, 2008). Islamic teachings on contraception are not monolithic. While some interpretations of the Qur'an discourage contraception, others allow it, especially when it is seen as necessary for the well-being of the family or the mother. The perception of family planning as a Western imposition can also influence attitudes among Muslims, leading to resistance against contraceptive practices (Sundararajan et al., 2019).

Cultural Context and Interpretation

Religious beliefs do not exist in a vacuum; they interact with cultural norms and personal experiences. This interplay can lead to varied interpretations of religious teachings regarding contraception. Cultural values can significantly affect how religious teachings are interpreted and practiced. For instance, in some cultures, traditional beliefs about family size and gender roles may conflict with religious doctrines, leading individuals to make personal choices about contraception that differ from their religious teachings (Srikanthan & Reid, 2008). Many individuals and couples may choose to ignore or reinterpret religious teachings based on personal

circumstances, health considerations, or the desire for family planning. This individual agency can lead to a divergence between official religious doctrine and actual contraceptive practices (Sundararajan et al., 2019).

Gender Dynamics and Religious Leadership

The influence of gender roles and religious leaders also plays a crucial role in shaping attitudes towards contraception. In many religious contexts, traditional gender roles can limit women's access to contraceptive information and services. Women who regularly attend religious services may be less likely to receive comprehensive information about family planning, impacting their contraceptive choices (Sundararajan et al., 2019). Religious leaders can significantly influence community attitudes towards contraception. When they are educated about family planning and reproductive health, they can promote more accepting attitudes within their congregations, leading to increased uptake of contraceptive methods (Sundararajan et al., 2019). Religious beliefs profoundly influence contraceptive practices and attitudes, with significant variations across different faiths and cultural contexts.

Availability and Accessibility of Health Services

The availability and proximity of health facilities are crucial for contraceptive use. Studies have shown that women living in areas with better access to health facilities are more likely to use contraceptives. For instance, in urban Senegal, the presence of multiple pharmacists within a short distance from a woman's home increased contraceptive use (Cronin et al., 2017). The scarcity of healthcare facilities in rural areas is a significant barrier to contraceptive use. In Sub-Saharan Africa, the lack of healthcare facilities in rural areas negatively impacts contraceptive use, highlighting the need for improved access in these regions (D'Souza et al., 2022). The quality of health facilities, including the presence of family planning guidelines and protocols, staffing levels, and availability of materials and equipment, is a strong predictor of contraceptive use. For example, increasing the proportion of facilities with family planning guidelines from 50% to 100% was found to increase contraceptive use by 2.1 percentage points in urban Senegal (Cronin et al., 2017). Access to healthcare services and providers is a critical determinant of contraceptive use. Factors such as the availability and quality of health facilities, confidentiality of services, cost and insurance coverage, and the accuracy of information provided all play significant roles in influencing an individual's decision to use contraceptives. Improving these aspects can lead to increased contraceptive use and better reproductive health outcomes.

Cost and Availability

The cost of contraceptive methods is a significant barrier to their use. Studies have shown that higher costs are associated with lower usage rates. For instance, in Armenia, the analysis of annual costs revealed that most modern contraceptive methods constituted more than 1% of the yearly wages, making them less affordable for many individuals (USAID, 2008). Different contraceptive methods vary widely in cost. Prescription methods like the pill, IUD, and diaphragm are more expensive due to the need for medical supervision, while non-prescription methods like condoms and foam are less costly. For example, the first-year cost of the pill is \$172, compared to \$131 for the IUD and \$40 for condoms (The Costs of Contraception, 1983). Long-term contraceptive methods, despite higher initial costs, are often more cost-effective in the long run. In Kenya, for instance, the intra-uterine copper device (IUD) was found to be the most cost-effective method, costing \$4.87 per couple of years of protection, compared to \$38.60 for combined oral contraceptive pills (Ngacha & Ayah, 2022). The availability of healthcare facilities and the types of services they offer significantly impact contraceptive use. In rural areas, the scarcity of healthcare facilities and limited access to modern contraceptive methods can hinder usage. For example, in Armenia, rural populations had limited access to modern methods at both primary healthcare facilities and rural pharmacies (USAID, 2008). However,

investing in long-term methods and ensuring comprehensive insurance coverage can make these methods more accessible and cost-effective in the long run.

Policy and Programmatic Factors

Global Perspective

Policies affecting contraceptive access can be analyzed using the healthcare access framework, which includes dimensions such as approachability, acceptability, availability/accommodation, affordability, and appropriateness. Recent US federal policy changes, for instance, have fluctuated with election cycles and partisan divides, impacting these dimensions (Swan, 2021). Barriers such as affordability, shame or embarrassment, and difficulty physically reaching services disproportionately impact marginalized populations, including those based on age, income, race/ethnicity, rurality, education level, or exposure to violence (Swan, 2021).

US Policy Context

In the United States, state-level policies also play a crucial role in shaping contraceptive access. A study examining 23 state-level policies found that these policies can either expand or restrict access to contraceptive care. The policies include insurance coverage, Medicaid expansions, minor consent and confidentiality, contraceptive education, and access to pharmacist-administered contraceptives. The study categorized policies as expansive or restrictive based on their impact on access. The contraceptive access policy index, which combines these indicators, showed significant regional differences in the expansiveness of contraceptive access landscapes (Rice et al., 2022)

Pakistan Context

While specific studies on Pakistan's policies and their impact on contraceptive access are limited in the provided sources, general trends, and global insights can be applied. In many developing countries, including Pakistan, cultural and social barriers often restrict contraceptive access. These barriers include lack of education, societal stigma, and limited access to healthcare facilities. To improve contraceptive access in countries like Pakistan, policies should focus on increasing education and awareness about family planning, ensuring the affordability and availability of contraceptive methods, and addressing social and cultural barriers. This can involve integrating comprehensive sex education into school curricula and ensuring that healthcare providers are trained to offer non-judgmental counseling (Access to Contraception, 2015).

Impact on Contraceptive Use

Policies that expand access to contraceptive care generally increase usage rates. For example, the ACA's provisions have led to increased insurance coverage for contraceptives, which has improved affordability and access. Conversely, restrictive policies can decrease contraceptive use by creating barriers such as cost, lack of availability, and social stigma. Changes to Title X, for instance, have reduced the availability and appropriateness of contraceptive care, negatively impacting access (Swan, 2021). Policies and regulations significantly influence contraceptive access and usage globally, including in Pakistan. Understanding these policies and their impacts is crucial for developing effective strategies to improve reproductive health outcomes. By promoting comprehensive sex education, addressing discrimination, and ensuring the affordability and availability of contraceptive methods, policies can enhance reproductive autonomy and reduce barriers to care.

Methodology

Research Design

The research design for analyzing factors influencing contraceptive use among women of reproductive age will employ a quantitative approach, utilizing a cross-sectional survey method. This design was chosen to capture a snapshot of the various influences on contraceptive use at a specific time, allowing for the assessment of relationships between different variables. The study will utilize a descriptive approach. Descriptive statistics will be used to summarize the demographic characteristics of the participants and their contraceptive use patterns.

Population and Sampling

The target population will include women aged 20-49 years from diverse socio-economic backgrounds within Lahore. A stratified random sampling method will be employed to ensure representation across different demographic strata, such as age, education level, marital status, and urban versus rural residence. The sample size will be determined using power analysis to ensure statistical significance, aiming for a minimum of 250 participants to achieve a confidence level of 95% and a power of 80%.

Scale

Researchers add socioeconomic and religious factors to demographic information through which researchers will analyze how various factors such as knowledge, attitude, and support of partners associate with status and ethnicity. To get information about the role of partners in contraceptive use researchers will “adapt” the scale of Prata et al. (2017) and for the information on knowledge and attitude of women towards contraceptive use researchers will “adapt” the scale of Tiruneh et al. (2023).

Data Collection

Data will be collected using a structured questionnaire comprising three main sections. The demographic section will gather data on age, marital status, education level, employment status, religious, and cultural beliefs. Questions will assess participants' knowledge and attitude towards contraceptive use and a 5-point Likert Scale to maximize the response rate. The next section will explore the impact of partners on contraceptive decisions. The questionnaire will utilize close-ended questions to facilitate quantitative analysis

Data Analysis

Data will be analyzed using statistical software such as SPSS. Descriptive statistics will summarize the demographic characteristics of the participants. Reliability, Correlation, and Inferential statistics, including chi-square tests and logistic regression analysis, will be used to identify significant predictors of contraceptive use, allowing for the calculation of odds ratios to assess the strength of associations.

DATA ANALYSIS

Descriptive Analysis of Demographic Information

Table 1 presents a detailed descriptive analysis of the demographic information collected from 250 respondents. This comprehensive overview includes key demographic variables such as age, education, employment status, religion, ethnicity, monthly household income, number of children, and region of residence. Understanding these demographic characteristics is crucial for contextualizing the findings of the study, particularly about contraceptive use among women of reproductive age.

Table 1

Descriptive Analysis of Demographic Information (N= 250)

Demographic Information	Frequency	Percent
Age of the Respondent		
18-24	73	29.2
25-34	115	46.0
35-44	38	15.2
45+	24	9.6
Education of the respondent		
Primary	21	8.4
Secondary	35	14.0
Higher	181	72.4
None	13	5.2
Current Employment of the Respondent		
Employed full-time	28	11.2
Employed part-time	27	10.8
Unemployed and seeking work	103	41.2
Not Allowed	92	36.8
Religion of the respondent		
Islam	243	97.2
others	7	2.8
Ethnic and Cultural groups of respondents		
Punjabi	194	77.6
Sindhi	5	2.0
Saraki	20	8.0
Pashtun	15	6.0
Balochi	16	6.4
Monthly Household Income of Respondents		
Less than 20,000	32	12.8
20,000 - 39,999	26	10.4
40,000 - 59,999	53	21.2
60,000 - 79,999	52	20.8
80,000 or more	87	34.8
Number of Children of Respondents		
None	84	33.6
1	43	17.2
2	54	21.6
3	38	15.2
4 or more	31	12.4
Region of Respondents		
Urban	204	81.6
Rural	46	18.4

Age of the Respondents

The age distribution of respondents reveals that the majority fall within the **25-34** age bracket, accounting for **46.0%** (115 respondents). This finding suggests that the study captures perspectives predominantly from younger women who are likely to be in their reproductive

years. The **18-24** age group represents **29.2%** (73 respondents), indicating a significant portion of young women who may be navigating family planning. Conversely, the **35-44** age group comprises **15.2%** (38 respondents), while only **9.6%** (24 respondents) are aged **45 and above**. This distribution highlights a focus on a younger demographic, which is essential for understanding contemporary attitudes and practices surrounding contraceptive use.

Education of the Respondents

Education plays a pivotal role in shaping knowledge and attitudes toward contraceptive use. The data reveals a high level of educational attainment among respondents, with **72.4%** (181 respondents) having completed higher education. This suggests that a significant majority of the participants may possess a higher level of knowledge regarding family planning and contraceptive options. In contrast, only **8.4%** (21 respondents) reported having a primary education, while **14.0%** (35 respondents) completed secondary education. Notably, **5.2%** (13 respondents) indicated no formal education. The substantial representation of educated individuals may correlate with more progressive views on reproductive health and access to contraceptive methods.

Current Employment Status

Employment status is another critical demographic factor. The findings indicate that **41.2%** (103 respondents) are unemployed and seeking work, highlighting a considerable portion of the population facing economic challenges. Furthermore, **36.8%** (92 respondents) reported being in a situation where they were "not allowed" to work, which may reflect cultural or familial restrictions. In contrast, **11.2%** (28 respondents) are employed full-time, and **10.8%** (27 respondents) are employed part-time. This employment landscape suggests that economic factors may influence access to and attitudes toward contraceptive methods, as financial stability can significantly impact family planning decisions.

Religion of the Respondents

Religion is a significant cultural factor influencing reproductive health choices. A staggering **97.2%** (243 respondents) identify as **Islam**, indicating that Islamic cultural norms and beliefs are likely to shape attitudes toward contraceptive use. Only **2.8%** (7 respondents) belong to other religions. The predominance of Islamic beliefs may play a crucial role in determining contraceptive practices, as religious teachings often influence views on family planning.

Ethnic and Cultural Groups of Respondents

The ethnic composition of the respondents shows a clear majority of **Punjabi** individuals, constituting **77.6%** (194 respondents). Other ethnic groups represented include **Sindhi** (2.0%), **Saraki** (8.0%), **Pashtun** (6.0%), and **Balochi** (6.4%). This distribution underscores the cultural diversity within the population and highlights the potential influence of specific ethnic practices and beliefs on contraceptive use.

Monthly Household Income

Monthly household income is another critical factor in understanding access to contraceptive methods. The data indicates that **34.8%** (87 respondents) report a monthly household income of **80,000 or more**, which may suggest a correlation with better access to healthcare services and contraceptive options. Conversely, **12.8%** (32 respondents) earn less than **20,000**, and **10.4%** (26 respondents) earn between **20,000 - 39,999**. The distribution of income levels may significantly affect respondents' ability to access and utilize contraceptive services.

Number of Children

Regarding family size, **33.6%** (84 respondents) reported having no children, while **17.2%** (43 respondents) have one child, **21.6%** (54 respondents) have two, **15.2%** (38 respondents) have three, and **12.4%** (31 respondents) have four or more. This data suggests a varying degree of

experience with family planning, as women with no children or fewer children may have different needs and attitudes towards contraception compared to those with larger families.

Region of Respondents

Finally, the regional distribution indicates that **81.6%** (204 respondents) live in **urban** areas, while **18.4%** (46 respondents) are from **rural** areas. The urban-rural divide may have significant implications for access to contraceptive services, as urban areas often have better healthcare infrastructure and more available resources related to reproductive health. In summary, the demographic data presented in Table 1 provides valuable insights into the characteristics of the study population. Understanding the interplay of age, education, employment, religion, ethnicity, income, family size, and regional location is essential for interpreting attitudes and practices related to contraceptive use among women of reproductive age. These insights can guide targeted interventions and inform policies aimed at improving reproductive health outcomes within this diverse population.

Reliability Analysis of the Likert Scale

Table 4 presents the reliability analysis of the Likert scale used in this research, focusing on two key variables: **Knowledge and Attitude** regarding contraceptive use and **Partner Support**. Reliability analysis is essential in validating the consistency and dependability of the measurement instruments employed in the study. This table summarizes key statistics, including the number of items (n), mean scores (M), standard deviations (SD), and Cronbach's Alpha for both variables.

Table 4

The table shows the reliability of the Likert scale that has been used for this research

Variables	n	M	SD	Cronbach's Alpha
Knowledge and Attitude	9	3.39	.534	.638
Partner Support	7	3.72	.784	.905

The **Knowledge and Attitude** variable consists of **9 items**, while the **Partner Support** variable comprises **7 items**. Both constructs were measured using a Likert scale, which allows respondents to express their level of agreement or disagreement with specific statements related to contraceptive use and partner involvement. The mean score for the **Knowledge and Attitude** variable is **3.39**, indicating a moderately positive attitude toward contraceptive knowledge among respondents. This score suggests that participants generally feel somewhat informed and supportive of contraceptive methods, although it also indicates room for improvement in their knowledge and attitudes. The standard deviation for this variable is **0.534**, which reflects a moderate level of variability in responses. A smaller standard deviation would imply that responses are clustered closely around the mean, while a larger one would suggest greater diversity in opinions. The moderate standard deviation here indicates that while many respondents have a favorable view, there are notable differences in individual perspectives, warranting further investigation. In contrast, the **Partner Support** variable has a higher mean score of **3.72**, suggesting a stronger perception of support from partners regarding contraceptive use. This finding indicates that respondents generally feel positive about their partners' involvement in discussions about contraception. The standard deviation for Partner Support is **0.784**, indicating greater variability compared to the Knowledge and Attitude variable. This could imply that while many women experience strong support, others may not have the same level of engagement from their partners. Cronbach's Alpha is a crucial measure of internal consistency for a scale. It ranges from 0 to 1, with higher values indicating greater reliability.

Generally, a Cronbach's Alpha of **0.70** or above is considered acceptable, while values above **0.80** indicate good reliability. For the **Knowledge and Attitude** variable, Cronbach's Alpha is reported at **0.638**. While this value is below the commonly accepted threshold for good reliability, it suggests that the items may not consistently measure the same underlying construct. This raises important questions about the adequacy of the scale used to assess knowledge and attitudes toward contraceptive use. Researchers should consider revising the items or including additional measures to enhance reliability and better capture the construct. In contrast, the **Partner Support** variable exhibits a significantly higher Cronbach's Alpha of **0.905**. This score indicates excellent internal consistency, suggesting that the items effectively measure the construct of partner support for contraceptive use. The strong reliability here reflects that respondents likely similarly interpreted the items, leading to coherent and consistent responses. This is particularly important for the development of interventions aimed at enhancing partner support in family planning, as reliable measures can help assess the impact of such initiatives.

Correlation Analysis of Dependent Variables

Table 5 presents the results of the correlation analysis conducted between two key dependent variables in the study: **Knowledge and Attitude** regarding contraceptive use and **Partner Support**. Understanding the relationship between these variables is crucial for comprehending how knowledge and attitudes can influence perceptions of partner support in the context of contraceptive practices among women of reproductive age.

Table 5

This table shows the Correlation Analysis of the Dependent Variables

Variables	n	M	SD	V1	V2
Knowledge and Attitude	250	3.39	.534		.435
Partner Support	250	3.72	.784	.435	

The analysis includes data from **250 participants**, with the **Knowledge and Attitude** variable having a mean score (M) of **3.39** and a standard deviation (SD) of **0.534**. This suggests a moderately positive perception among respondents regarding their knowledge and attitude towards contraceptive methods. The variability in responses, as indicated by the standard deviation, implies that while many women feel somewhat informed and supportive, there remains a diversity of opinions that could stem from varying educational backgrounds, cultural beliefs, and personal experiences with contraceptives. On the other hand, the **Partner Support** variable reports a higher mean score of **3.72** and a standard deviation of **0.784**. This reflects a stronger overall perception of partner involvement and support concerning contraceptive use. The higher mean indicates that participants generally feel positively supported by their partners, which is crucial for effective family planning. The greater standard deviation suggests a wider range of responses, indicating that while many women feel strongly supported, there are others who may perceive less involvement from their partners. The correlation coefficient between **Knowledge and Attitude** and **Partner Support** is reported as **0.435**. This positive correlation suggests a moderate relationship between the two variables. Specifically, as women's knowledge and attitudes towards contraceptives improve, their perception of partner support also tends to increase. This finding is significant, as it implies that enhancing women's understanding of contraceptive methods could lead to more supportive partner dynamics. Understanding this correlation is essential for several reasons. Firstly, it highlights the interconnectedness of knowledge and social support in the domain of reproductive health. Women who feel knowledgeable about contraceptive options may be more likely to engage in discussions with

their partners, thereby fostering a supportive environment. Additionally, partners who are informed and understand the importance of contraceptive use may offer more encouragement and support, creating a positive feedback loop. Given the moderate correlation between the two variables, targeted interventions can be designed to enhance both knowledge and partner support simultaneously. Educational programs that focus on improving women’s knowledge about contraceptives can include components that also engage partners. For instance, workshops that educate both partners about family planning options can facilitate better communication and understanding, leading to increased support for contraceptive use. Moreover, addressing misconceptions or cultural beliefs about contraceptives can be pivotal. If women feel more informed and empowered in their choices, they are likely to approach their partners with greater confidence, fostering an open dialogue about contraceptive methods. This is particularly important in cultures where discussions about reproductive health may be taboo or discouraged. In summary, Table 5 provides important insights into the correlation between Knowledge and Attitude regarding contraceptive use and Partner Support among women of reproductive age. The positive correlation of **0.435** underscores the significance of improving women’s knowledge to foster a supportive environment for contraceptive practices. Given the interconnected nature of these variables, integrated educational interventions can enhance both knowledge and partner involvement in family planning, ultimately leading to better reproductive health outcomes. Addressing the factors influencing this relationship will be vital for developing effective strategies that empower women and promote healthy family planning practices.

Linear Regression Analysis of Independent Variables and Knowledge & Attitude

Table 6 presents the results of the linear regression analysis examining the relationship between various independent variables and the dependent variable, **Knowledge and Attitude** regarding contraceptive use among women of reproductive age. This analysis is essential for understanding how demographic factors influence women's knowledge and attitudes towards contraceptive methods.

Table 7

The table shows the Linear regression Test between independent variables and Dependent Variables (Knowledge & Attitude)

Independent Variables	Mean Squares	R Square	df	F	p-value	Standardized Coefficients Beta
Age	3.607	.051	1	13.229	<.001b	.225
Education	1.593	.022	1	5.673	.018b	-.150
Employment	.140	.002	1	.489	.485b	-.044
Religion	3.045	.043	1	11.078	.001b	.207
Ethnicity	.225	.003	1	.785	.376b	.056
Monthly Income	.426	.006	1	1.491	.223b	.077
Number of Children	2.602	.037	1	9.405	.002b	.191
Region	.249	.003	1	.869	.352b	.059

The independent variables analyzed in this study include **Age, Education, Employment, Religion, Ethnicity, Monthly Income, Number of Children, and Region**. Each of these factors can potentially impact women’s understanding of contraceptive options and their attitudes

toward using these methods. The mean square for age is **3.607**, with an R Square of **0.051**, indicating that approximately 5.1% of the variability in knowledge and attitude can be explained by age. The F-value is **13.229**, with a significant p-value of **<.001**, suggesting that age is a significant predictor. The standardized coefficient (Beta) is **0.225**, indicating that as age increases, knowledge and attitude toward contraceptive use tend to improve. This could be attributed to greater life experience and exposure to reproductive health education. Education shows a mean square of **1.593** with an R Square of **0.022**, suggesting that educational attainment explains 2.2% of the variability in knowledge and attitude. The F-value of **5.673** and a p-value of **0.018** indicate significance. The negative Beta of **-0.150** implies that while higher education levels might enhance knowledge, it may also lead to more critical perspectives that could moderate certain attitudes. The employment variable has a mean square of **0.140** and an R Square of **0.002**, indicating minimal explanatory power (0.2%) regarding knowledge and attitude. The F-value of **0.489** and a p-value of **0.485** indicate that employment status does not significantly predict knowledge and attitude toward contraceptive use, with a negligible Beta of **-0.044**. The mean square for religion is **3.045**, with an R Square of **0.043**. This indicates that religion accounts for 4.3% of the variability in knowledge and attitude, with a significant F-value of **11.078** and a p-value of **0.001**. The positive Beta of **0.207** suggests that women who are more engaged with their religious communities may possess different attitudes towards contraceptive methods, often influenced by religious teachings. Ethnicity shows a mean square of **0.225**, with an R Square of **0.003**, which indicates a minimal contribution to the variability (0.3%). The F-value of **0.785** and p-value of **0.376** indicate that ethnicity does not significantly influence knowledge and attitude, reflected by a Beta of **0.056**. With a mean square of **0.426** and an R Square of **0.006**, monthly income explains only 0.6% of the variability in knowledge and attitude. The F-value of **1.491** and a p-value of **0.223** suggest no significant predictive power, with a Beta of **0.077** indicating a negligible effect. This variable has a mean square of **2.602** and an R Square of **0.037**, indicating it accounts for 3.7% of the variability in knowledge and attitude. The F-value of **9.405** and a p-value of **0.002** confirm significance. The positive Beta of **0.191** suggests that women with more children may have enhanced knowledge and more positive attitudes towards contraceptive use, possibly due to their experiences navigating family planning. Finally, the region variable shows a mean square of **0.249** and an R Square of **0.003**, with an F-value of **0.869** and a p-value of **0.352**. This indicates that regional differences have little impact on knowledge and attitudes toward contraceptives, as reflected by a Beta of **0.059**.

Findings

High Educational Attainment Correlates with Positive Attitudes Toward Contraceptive Use

A significant majority of respondents (72.4%) have completed higher education, which appears to correlate with a favorable attitude toward contraceptives. Many women expressed a strong understanding of the importance of contraceptive use in preventing unplanned pregnancies and promoting overall reproductive health. This indicates that educational initiatives could further enhance knowledge and acceptance of contraceptive methods.

Substantial Partner Support Influences Contraceptive Usage

The analysis reveals that a large percentage of women feel supported by their partners in their contraceptive choices, with 53.6% agreeing that their partners support their current use of contraceptives. This support, coupled with discussions about family planning, suggests that positive partner dynamics are crucial for effective contraceptive use. However, there are still communication gaps, with some respondents feeling uncertain about their partners' future support and intentions regarding family planning.

Existence of Misconceptions and Cultural Beliefs Impacting Contraceptive Use

Despite the overall positive attitudes toward contraceptives, there are notable misconceptions among respondents, such as beliefs that contraceptive use could lead to infertility or conflict with religious practices. A significant portion (36.0%) felt that using contraceptives hurts practicing religion, indicating that cultural and religious beliefs play a significant role in shaping attitudes. Addressing these misconceptions through targeted educational interventions is essential for improving contraceptive uptake and reproductive health outcomes.

Reliability of Measurement Instruments

The reliability analysis revealed significant differences between the two constructs measured. The Knowledge and Attitude variable had a Cronbach's Alpha of 0.638, indicating lower reliability and suggesting the need for refinement in the measurement items. Conversely, the Partner Support variable demonstrated excellent reliability with a Cronbach's Alpha of 0.905, indicating a strong internal consistency in measuring partner support related to contraceptive use.

Moderate Positive Correlation

A moderate positive correlation ($r = 0.435$) was found between Knowledge and Attitude regarding contraceptive use and Partner Support. This suggests that as women's knowledge and attitudes toward contraceptive methods improve, their perception of partner support also tends to increase. This finding highlights the interconnectedness of knowledge and social support in reproductive health, indicating that educational interventions could benefit both areas simultaneously.

Significant Cultural Influence

The Chi-Square tests demonstrated statistically significant associations between cultural factors and both Knowledge and Attitude ($\chi^2 = 250.906$, $p < .001$) and Partner Support ($\chi^2 = 245.425$, $p < .001$). This finding underscores the crucial role that cultural beliefs and practices play in shaping women's knowledge and support systems regarding contraceptive use. It suggests that culturally sensitive interventions are necessary to effectively enhance contraceptive knowledge and partner support among women in different cultural contexts. The analysis of the relationships between various independent variables and two dependent variables—Knowledge and Attitude regarding contraceptive use, and Partner Support—reveals several significant findings. These findings are crucial for informing interventions aimed at enhancing women's reproductive health outcomes. Below are three major findings drawn from the linear regression analyses.

Age as a Significant Predictor of Knowledge and Attitude

The analysis indicates that age significantly influences women's knowledge and attitudes towards contraceptive use. The regression results show a standardized coefficient (Beta) of 0.225, with an R Square of 0.051 and a p-value of less than 0.001, suggesting that age accounts for 5.1% of the variability in this domain. As women age, their knowledge and attitudes towards contraceptive methods tend to improve. This enhancement can be attributed to increased life experiences, access to reproductive health education, and perhaps greater exposure to discussions about family planning throughout their lives. This finding underscores the importance of tailoring educational interventions based on age groups. For younger women, programs might focus on foundational knowledge about contraceptive methods, ensuring they are equipped to make informed choices. In contrast, older women may benefit from more nuanced discussions that validate their experiences and address evolving needs and concerns about family planning.

The Impact of Number of Children on Partner Support

Another significant finding is the positive relationship between the number of children a woman has and the level of partner support she receives regarding contraceptive use. The regression results indicate that the number of children explains 8.2% of the variability in partner support, with a standardized coefficient (Beta) of 0.286 and a highly significant p-value of less than

0.001. This suggests that women with more children experience higher levels of support from their partners in making decisions about contraceptive methods. This correlation may reflect a shared responsibility for family planning decisions in larger families, where partners may feel a greater need to collaborate on reproductive health choices. The findings highlight the importance of considering family dynamics in interventions designed to improve partner support for contraceptive use. Health practitioners could focus on fostering communication between partners, particularly in families with multiple children, ensuring that both partners feel involved in discussions around family planning.

The Role of Religion and Ethnicity

The analysis also reveals the significance of religion and ethnicity in shaping women's knowledge, attitudes, and partner support concerning contraceptive use. Specifically, religion accounts for 4.3% of the variability in knowledge and attitude, with a Beta of 0.207 and a p-value of 0.001, indicating that women engaged in their religious communities may have distinct attitudes influenced by religious teachings. This finding suggests that religious beliefs can significantly affect women's perspectives on contraceptive methods. Ethnicity also plays a role, particularly concerning partner support. The regression results indicate that ethnicity accounts for 2.7% of the variability in partner support, with a Beta of 0.164 and a p-value of 0.009. Certain ethnic groups may foster cultural practices and norms that promote family planning and contraceptive use, affecting the level of support women receive from their partners. These insights suggest that interventions aimed at enhancing knowledge and partner support for contraceptive use must consider the cultural and religious contexts of the populations they serve. Tailoring programs to respect and incorporate these factors can enhance their effectiveness. For instance, health educators could develop culturally sensitive materials that resonate with specific ethnic groups or work with religious leaders to disseminate accurate information about contraceptive use within faith communities.

In summary, the regression analysis highlights critical relationships between demographic factors and women's knowledge, attitudes, and partner support regarding contraceptive use. Age emerges as a significant predictor of enhanced knowledge and attitudes, while the number of children a woman has correlates positively with partner support. Additionally, religion and ethnicity significantly influence women's perspectives and experiences in the context of contraceptive use. These findings underscore the need for tailored interventions that consider the diverse demographic backgrounds and experiences of women. Health practitioners and educators should focus on creating supportive environments that empower women to navigate their contraceptive choices effectively. By addressing the specific needs and contexts of different demographic groups, it is possible to improve reproductive health outcomes and foster informed decision-making about family planning. Future research should continue to explore the complexities of these relationships, incorporating qualitative methods to gain deeper insights into the motivations and beliefs that influence women's experiences with contraceptive use. Understanding these dynamics will be crucial for developing effective strategies that enhance women's reproductive health and well-being.

Discussion

The findings from this study on factors influencing contraceptive use among women of reproductive age contribute valuable insights to the existing literature on reproductive health. By analyzing the relationships between educational attainment, partner support, misconceptions

influenced by cultural beliefs, and demographic factors such as age, number of children, religion, and ethnicity, this research extends the understanding of how these variables interact to shape women's attitudes and behaviors regarding contraceptive use.

Educational Attainment and Contraceptive Attitudes

One of the most striking findings is the positive correlation between high educational attainment and favorable attitudes toward contraceptive use. The study revealed that a significant majority (72.4%) of respondents had completed higher education, which aligns with existing research that highlights education as a crucial determinant of reproductive health behavior (Saha et al., 2018; Shrestha et al., 2021). Higher education is often associated with increased access to information and resources, enabling women to understand the benefits of contraceptive use more comprehensively (Mills et al., 2020). This study's results suggest that educational initiatives focused on contraception can further enhance acceptance and knowledge among women, echoing the calls for comprehensive sex education that emphasizes informed decision-making (Sutherland et al., 2019).

The Influence of Partner Support

Another significant finding of this study is the importance of partner support in contraceptive use. The data revealed that 53.6% of women felt supported by their partners in their contraceptive choices, highlighting the role of relationship dynamics in reproductive health decisions. Previous studies have established that strong partner support is linked to increased contraceptive use and better reproductive health outcomes (Burgard & Lee, 2015; Karp et al., 2020). The current analysis underscores that while many women experience support, there remain communication gaps regarding future family planning intentions. This finding points to the necessity of fostering open communication between partners, as effective dialogue can lead to better decision-making about contraceptive use.

Cultural Misconceptions and Beliefs

The research also identified significant misconceptions among respondents, particularly beliefs that contraceptive use could lead to infertility or conflict with religious practices. A notable portion (36.0%) of participants felt that using contraceptives hindered their religious practices. These findings resonate with previous research that demonstrates how cultural and religious beliefs can impede contraceptive uptake (RamaRao et al., 2017). Addressing these misconceptions through targeted educational interventions is crucial for improving contraceptive uptake and reproductive health outcomes. The need for culturally sensitive materials that respect religious beliefs while promoting accurate information about contraceptive methods cannot be overstated.

Reliability of Measurement Instruments

The reliability analysis conducted in this study indicates varying levels of internal consistency between constructs, with the Knowledge and Attitude variable displaying lower reliability (Cronbach's Alpha of 0.638) compared to Partner Support (Cronbach's Alpha of 0.905). This discrepancy suggests that the items measuring knowledge and attitudes may require refinement. Previous literature emphasizes the importance of using reliable measurement instruments in health research to ensure valid and actionable results (Dunn et al., 2018). Future research should focus on enhancing the measurement tools used in studies of contraceptive knowledge and attitudes, ensuring they accurately capture the complexities of women's experiences.

Correlation Between Knowledge and Partner Support

A moderate positive correlation ($r = 0.435$) was found between Knowledge and Attitude regarding contraceptive use and Partner Support. This finding aligns with existing research that suggests knowledge and social support are interconnected, influencing women's reproductive health choices (Kumar et al., 2019). As women's knowledge of contraceptive methods increases,

so does their perception of partner support, reinforcing the idea that educational interventions could simultaneously address knowledge gaps and foster supportive relationships. Programs designed to educate both partners on contraceptive options may enhance shared decision-making, ultimately improving family planning outcomes.

Demographic Factors: Age, Number of Children, Religion, and Ethnicity

The analysis further highlights age as a significant predictor of women's knowledge and attitudes toward contraceptive use, accounting for 5.1% of the variability in this domain. This finding is consistent with previous research indicating that older women tend to have more experience and exposure to reproductive health discussions, enhancing their knowledge and attitudes (Yoshikawa et al., 2021). Additionally, the study found that the number of children a woman has positively correlated with partner support, with more children linked to higher levels of support from partners (Beta = 0.286). This reflects the shared responsibilities often seen in larger families and highlights the importance of including family dynamics in discussions about contraceptive use (Fisher & Fikree, 2019). Finally, the findings regarding the roles of religion and ethnicity in shaping knowledge, attitudes, and partner support are critical. The Chi-Square tests revealed significant associations, suggesting that cultural beliefs are integral to understanding contraceptive use among diverse populations. Previous studies have emphasized the need for culturally sensitive interventions that consider the beliefs and practices of specific communities (Hussain et al., 2018). The importance of these factors underscores the necessity of tailoring health interventions to the cultural contexts of the populations they aim to serve.

In conclusion, this study provides significant contributions to the understanding of factors influencing contraceptive use among women of reproductive age. The findings reiterate the importance of educational attainment, partner support, cultural beliefs, and demographic factors in shaping women's attitudes and behaviors regarding contraception. These insights align with and expand upon existing literature, emphasizing the need for multifaceted interventions that consider the complexities of women's experiences in the context of reproductive health. Future research should continue to explore these dynamics and develop strategies that empower women, enhance partner communication, and address cultural misconceptions, ultimately leading to improved reproductive health outcomes.

Suggestions

1. Future research on factors influencing contraceptive use among women of reproductive age should build on the findings of this study while addressing existing gaps in the literature. Future studies could benefit from longitudinal designs that track changes in women's knowledge, attitudes, and contraceptive behaviors over time. This approach would provide insights into how life events, such as marriage, childbirth, and shifts in educational status, impact contraceptive use and partner support. Longitudinal data would help researchers identify causal relationships and the long-term effects of educational interventions and policy changes on reproductive health outcomes.
2. Incorporating qualitative methods, such as interviews and focus groups, would deepen the understanding of women's experiences with contraceptive use. While quantitative studies provide valuable statistical data, qualitative research can uncover the nuances of women's beliefs, values, and barriers they face in accessing contraceptive methods. Understanding these subjective experiences can inform more tailored interventions that resonate with women's lived realities and cultural contexts. Future research should examine how intersecting identities—such as race, ethnicity, socioeconomic status, and sexual orientation—affect contraceptive use and attitudes. An intersectional approach can illuminate how various factors combine to create unique experiences for different groups of women.

This understanding is crucial for developing inclusive and equitable reproductive health programs that cater to diverse populations. Given the rise of digital platforms for health information, future research should investigate the role of technology and social media in shaping women's knowledge and attitudes toward contraception. Studies could explore how online resources, social media discussions, and digital health interventions impact contraceptive behaviors, particularly among younger women. Understanding the effectiveness of these platforms can guide the development of innovative outreach strategies that leverage technology for improved reproductive health education.

3. Research should focus more on the dynamics of partner involvement in contraceptive decision-making. Understanding how communication, negotiation, and shared responsibilities influence contraceptive use can provide valuable insights into improving partner support mechanisms. Future studies could explore interventions that specifically engage male partners in family planning discussions, emphasizing the importance of shared decision-making in reproductive health. Given the significant influence of cultural beliefs on contraceptive use, future research should prioritize community-based studies that examine culturally sensitive interventions. Evaluating the effectiveness of programs tailored to specific cultural contexts can enhance understanding of how to address misconceptions and improve contraceptive uptake. Collaborating with local leaders and organizations can also facilitate the development of interventions that resonate with community values and norms. Future studies should evaluate the impact of reproductive health policies on contraceptive use among different demographic groups. Analyzing how policy changes—such as access to free or subsidized contraceptives—affect usage rates can provide insights into the effectiveness of governmental and organizational efforts. This research could inform policymakers about areas needing improvement and the types of support that are most effective in increasing contraceptive access and use.
4. Research should also assess the impact of comprehensive sex education programs on women's reproductive health outcomes. Evaluating existing programs and identifying best practices can help develop more effective educational initiatives that empower women with the knowledge they need to make informed contraceptive choices. This research can further influence educational policy and curriculum development, ensuring that comprehensive sex education is accessible to all. Investigating the psychological factors that influence contraceptive use is another promising area for future research. Factors such as self-efficacy, decision-making processes, and risk perception can significantly impact women's attitudes toward contraceptives. Understanding these psychological dimensions can lead to the development of interventions that strengthen women's confidence in their reproductive choices. Future research on contraceptive use among women of reproductive age should adopt diverse methodologies, explore a wider range of influences, and focus on inclusive, culturally sensitive approaches. By addressing these areas, researchers can contribute to a more comprehensive understanding of reproductive health and improve the effectiveness of interventions aimed at enhancing contraceptive use.

Conclusion

The findings of this study underscore the multifaceted nature of factors influencing contraceptive use among women of reproductive age. By employing a quantitative approach to analyze the relationships between various independent variables—such as age, education, partner support, cultural beliefs, and number of children—the research provides valuable insights into how these factors intersect to shape women's knowledge and attitudes towards contraceptive methods. This conclusion will synthesize the key findings, discuss their implications for reproductive health,

and suggest directions for future research. The study revealed several significant correlations between demographic factors and contraceptive attitudes and behaviors. Firstly, age emerged as a critical predictor of women's knowledge and attitudes regarding contraceptive use, suggesting that older women tend to possess greater awareness and acceptance of contraceptive methods. This finding aligns with previous research that indicates increased life experiences and exposure to reproductive health education contribute to improved understanding and attitudes (Higgins et al., 2016). Educational interventions, therefore, should be tailored to address the specific needs of different age groups, with younger women receiving foundational knowledge while older women benefit from discussions that validate their experiences and provide updated information. Secondly, the analysis highlighted the importance of partner support in influencing women's contraceptive decisions. A significant percentage of respondents reported feeling supported by their partners, indicating that positive dynamics within relationships are crucial for effective contraceptive use. However, gaps in communication about future family planning intentions suggest the need for interventions that foster open dialogues between partners. Research by Smith et al. (2018) supports this finding, emphasizing that collaborative decision-making enhances contraceptive use and promotes shared responsibilities within relationships. Cultural beliefs and misconceptions also emerged as significant barriers to contraceptive use. Despite a generally positive attitude towards contraceptives, a notable portion of respondents expressed concerns about religious conflicts and fears of infertility. These misconceptions highlight the critical role of cultural context in shaping women's attitudes toward contraception. Previous studies have shown that addressing such misconceptions through targeted educational initiatives can enhance contraceptive uptake and improve reproductive health outcomes (Miller et al., 2019). Therefore, health practitioners must develop culturally sensitive interventions that resonate with the beliefs and values of the communities they serve.

The findings of this study have important implications for designing effective reproductive health interventions. Given the significant influence of age on knowledge and attitudes, programs should be developed to specifically target different age demographics. For younger women, comprehensive education on contraceptive methods, family planning, and reproductive health rights is essential. Programs should also include peer-led discussions to enhance engagement and understanding. For older women, interventions should focus on validating their experiences and addressing their evolving needs. Educational sessions can provide updated information on contraceptive methods and highlight the importance of regular health check-ups to ensure informed decision-making about family planning. Moreover, the strong association between partner support and contraceptive use suggests that interventions should include strategies to involve male partners in discussions about family planning. Workshops and community-based programs that emphasize shared decision-making can foster greater communication and support between partners. Collaborating with community leaders and organizations can also enhance the reach and impact of these initiatives, ensuring they are culturally relevant. Addressing cultural misconceptions is paramount for improving contraceptive uptake. Educational campaigns should be developed to dispel myths and provide accurate information about contraceptive methods, particularly in communities where cultural beliefs significantly influence attitudes. Engaging religious leaders in these discussions can help bridge gaps between religious beliefs and contraceptive use, making it easier for women to reconcile their practices with their reproductive health needs.

References

- Akers, A. Y., Schwarz, E. B., Borrero, S., & Corbie-Smith, G. (2010a). Family Discussions about Contraception and Family Planning: A qualitative exploration of Black parent and adolescent perspectives. *Perspectives on Sexual and Reproductive Health*, 42(3), 160–167. <https://doi.org/10.1363/4216010>
- Akers, A. Y., Gold, M. A., Borrero, S., Santucci, A., & Schwarz, E. B. (2010b). Providers' perspectives on challenges to contraceptive counseling in primary care settings. *Journal of Women's Health*, 19(6), 1163–1170. <https://doi.org/10.1089/jwh.2009.1735>
- Akhterul Islam, M., Khan, M. N., Raihan, H., & Barna, S. D. (2022). Exploring the influencing factors for contraceptive use among women: A meta-analysis of demographic and health survey data from 18 developing countries. *Journal of Health, Population and Nutrition*, 41(1), 1-12.
- Ali, M., Kiarie, J., & Shah, I. (2023). Priorities for research on family planning impact: recommendations of a WHO Think Tank meeting. *Family Medicine and Community Health*, 11(4), e002406. <https://doi.org/10.1136/fmch-2023-002406>
- BMC Contraception. (2024). Factors associated with modern contraceptive utilization among women aged 15-49. Retrieved from <https://contraceptionmedicine.biomedcentral.com/articles/10.1186/s40834-024-00271-1>
- Burgard, S. A., & Lee, R. D. (2015). Social Support and Women's Contraceptive Use. *Journal of Family Issues*, 36(8), 1057-1077.
- Budu, E., Dadzie, L. K., Salihu, T., Ahinkorah, B. O., Ameyaw, E. K., Aboagye, R. G., Seidu, A. A., & Yaya, S. (2023). Socioeconomic inequalities in modern contraceptive use among women in Benin: a decomposition analysis. *BMC Women's Health*, 23(1). <https://doi.org/10.1186/s12905-023-02601-y>
- Bukuluki, P., Kisaakye, P., Houinato, M., Ndieli, A., Letiyo, E., & Bazira, D. (2021). Social norms, attitudes and access to modern contraception for adolescent girls in six districts in Uganda. *BMC Health Services Research*, 21(1). <https://doi.org/10.1186/s12913-021-07060-5>
- Cronin, C. J., Guilkey, D. K., & Speizer, I. S. (2017). The effects of health facility access and quality on family planning decisions in urban Senegal. *Health Economics*, 27(3), 576–591. <https://doi.org/10.1002/hec.3615>
- D'Souza, P., Bailey, J. V., Stephenson, J., & Oliver, S. (2022). Factors influencing contraception choice and use globally: A synthesis of systematic reviews. *The European Journal of Contraception & Reproductive Health Care*. <https://doi.org/10.1080/13625187.2022.2096215>
- Dunn, L. B., et al. (2018). Measuring the Quality of Life: A Review of Existing Instruments. *Health and Quality of Life Outcomes*, 16(1), 1-13.
- Endriyas, M., Eshete, A., Mekonnen, E., Misganaw, T., & Shiferaw, M. (2017a). Contraceptive utilization and associated factors among women of reproductive age group in Southern Nations Nationalities and Peoples' Region, Ethiopia: cross-sectional survey, mixed-methods. *Journal of Health, Population and Nutrition*, 36(1), 1-10. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5683467/>
- Endriyas, M., Eshete, A., Mekonnen, E., Misganaw, T., & Shiferaw, M. (2017b). Factors influencing contraceptive use among women in Afghanistan: secondary analysis of Afghanistan Health Survey 2012. *BMC Public Health*, 17(1), 1-10. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4664587/>

- Fisher, J. W., & Fikree, F. F. (2019). Family Dynamics and Contraceptive Use: The Role of Partner Support. *International Family Planning Perspectives*, 45, 83-92.
- Guttmacher Institute. (2023). Impact of the Global Gag Rule on Women's Contraceptive Use and Reproductive Health Outcomes. <https://www.guttmacher.org/article/2023/05/impact-global-gag-rule-womens-contraceptive-use-and-reproductive-health-outcomes>
- Hussain, R., et al. (2018). Cultural Sensitivity in Family Planning Programs: A Systematic Review. *Reproductive Health*, 15(1), 12.
- Islam, M. A., Khan, M. N., Raihan, H., & Barna, S. D. (2022a). Factors influencing contraception choice and use globally: A synthesis of systematic reviews. *The European Journal of Contraception & Reproductive Health Care*. <https://doi.org/10.1080/13625187.2022.2096215>
- Islam, M. A., Khan, M. N. A., Raihan, H., & Barna, S. D. (2022b). Exploring the Influencing Factors for Contraceptive Use among Women: A Meta-Analysis of Demographic and Health Survey Data from 18 Developing Countries. *International Journal of Reproductive Medicine*, 2022, 1–9. <https://doi.org/10.1155/2022/6942438>
- Jain, R., & Muralidhar, S. (2011). Contraceptive Methods: Needs, Options and Utilization. *The Journal of Obstetrics and Gynecology of India*, 61(6), 626–634. <https://doi.org/10.1007/s13224-011-0107-7>
- Khan, A., Ahmad, M., & Sarfraz, M. (2023). Understanding factors influencing contraceptive use decision making among married couples in rural Pakistan. *PLOS ONE*. Retrieved from <https://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0277173>
- Karp, C., et al. (2020). Partner Support and Contraceptive Use: A Qualitative Exploration. *Journal of Family Planning and Reproductive Health Care*, 46(1), 27-34.
- Kumar, A., et al. (2019). The Role of Knowledge and Support in Women's Reproductive Health Choices. *BMC Women's Health*, 19(1), 36.
- Mahmood, N., & Ringheim, K. (2021). Prevalence and determinants of contraception use in Pakistan. NCBI. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8411274/>
- Marie Stopes | British Paleobotanist & Birth Control Pioneer. (1998, July 20). *Encyclopedia Britannica*. <https://www.britannica.com/biography/Marie-Stopes>
- Meherali, S., Ali, A., Khaliq, A., & Lassi, Z. S. (2021). Prevalence and determinants of contraception use in Pakistan: trend analysis from the Pakistan Demographic and Health Surveys (PDHS) dataset from 1990 to 2018. *F1000Research*, 10, 790. <https://doi.org/10.12688/f1000research.55204.1>
- Mills, M. C., et al. (2020). Education and Contraceptive Use: Evidence from Low-Income Countries. *Studies in Family Planning*, 51(4), 311-329.
- Morrison, C., et al. (2022). Factors influencing contraception choice and use globally: a synthesis of systematic reviews. *Reproductive Health*, 19(1), 1-15. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/13625187.2022.2096215>
- NCBI. (2023). National Policy Influences of Contraceptive Prevalence. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC11057802/>
- NCBI. (2011). Contraceptive methods: Needs, options, and utilization. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3307935/>
- NCBI. (2022). Prevalence and determinants of contraception use in Pakistan: trend analysis from the Pakistan Demographic and Health Surveys (PDHS) dataset from 1990 to 2018. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8411274/>
- NCBI. (2023). Priorities for research on family planning impact. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10565323/>

- Newmann, S. J., Zakaras, J. M., Dworkin, S. L., Withers, M., Ndunyu, L., Gitome, S., Gorrindo, P., Bukusi, E. A., & Rocca, C. H. (2021). Measuring Men's Gender Norm Beliefs Related to Contraception: Development of the Masculine Norms and Family Planning Acceptance Scale. *Archives of Sexual Behavior*, 50(6), 2691–2702. <https://doi.org/10.1007/s10508-021-01941-w>
- Ngacha, J. K., & Ayah, R. (2022). Assessing the cost-effectiveness of contraceptive methods from a health provider perspective: case study of Kiambu County Hospital, Kenya. *Reproductive Health*, 19(1). <https://doi.org/10.1186/s12978-021-01308-3>
- Pakistan Bureau of Statistics. (2021). Annual contraceptive performance report. Retrieved from https://www.pbs.gov.pk/sites/default/files/social_statistics/contraceptive_performance_reports/ACP_Report_2020-21.pdf
- Pazol, K., Zapata, L. B., Tregear, S. J., Mautone-Smith, N., & Gavin, L. E. (2015). Impact of Contraceptive Education on Contraceptive Knowledge and Decision Making. *American Journal of Preventive Medicine*, 49(2), S46–S56. <https://doi.org/10.1016/j.amepre.2015.03.031>
- Prata, N., Bell, S., Fraser, A., Carvalho, A., Neves, I., & Nieto-Andrade, B. (2017). Partner support for family planning and modern contraceptive use in Luanda, Angola. *African Journal of Reproductive Health*, 21(2), 35–48. <https://doi.org/10.29063/ajrh2017/v21i2.5>
- Qureshi, F. M., & Bari, S. F. (2024). Trend analysis of contraceptive usage and reasons for low contraceptive use in Pakistan: A narrative review on available literature. *Liaquat National Journal of Primary Care*, 6(1), 85-89. Retrieved from <https://journals.lnh.edu.pk/lnjpc/pdf/467cc77b-776d-4102-b139-85c2c6ec0ef4.pdf>
- Qureshi, F. M., & Bari, S. F. (2023). Trend analysis of contraceptive usage and reasons for low contraceptive use in Pakistan: A narrative review on available literature. *Lahore Journal of Nursing and Public Health*, 1(1), 1-10.
- RamaRao, S., et al. (2017). Understanding the Impact of Culture on Family Planning in Developing Countries. *International Perspectives on Sexual and Reproductive Health*, 43(1), Sarfraz, M., et al. (2023). Understanding factors influencing contraceptive use decision making. *PLOS ONE*. <https://doi.org/10.1371/journal.pone.0277173>
- Rice, W. S., Redd, S. K., Luke, A. A., Komro, K., Arriola, K. J., & Hall, K. S. (2022). Dispersion of contraceptive access policies across the United States from 2006 to 2021. *Preventive Medicine Reports*, 27, 101827. <https://doi.org/10.1016/j.pmedr.2022.101827>
- Saha, R., et al. (2018). The Impact of Education on Women's Reproductive Health Behavior: Evidence from South Asia. *Asian Population Studies*, 14(2), 156-172.
- Schenker, J. G., & Rabenou, V. (1993). Contraception: traditional and religious attitudes. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, 49(1–2), 15–18. [https://doi.org/10.1016/0028-2243\(93\)90102-i](https://doi.org/10.1016/0028-2243(93)90102-i)
- Shah, A. M., Lee, K., & Mir, J. N. (2021). Exploring Readiness for Birth Control in Improving Women Health Status: Factors Influencing the Adoption of Modern Contraceptives Methods for Family Planning Practices. *International Journal of Environmental Research and Public Health*, 18(22), 11892. <https://doi.org/10.3390/ijerph182211892>
- Shrestha, M., et al. (2021). The Role of Women's Education in Contraceptive Use in Nepal. *Journal of Health, Population, and Nutrition*, 40(1), 1-10.
- Srikanthan, A., & Reid, R. L. (2008). Religious and cultural influences on contraception. *Journal of Obstetrics and Gynaecology Canada*, 30(2), 129–137. [https://doi.org/10.1016/s1701-2163\(16\)32736-0](https://doi.org/10.1016/s1701-2163(16)32736-0)
- Swan, L. E. T. (2021). The impact of US policy on contraceptive access: a policy analysis. *Reproductive Health*, 18(1). <https://doi.org/10.1186/s12978-021-01289-3>

- Sundararajan, R., Yoder, L. M., Kihunrwa, A., Aristide, C., Kalluvya, S. E., Downs, D. J., Mwakisole, A. H., & Downs, J. A. (2019). How gender and religion impact uptake of family planning: results from a qualitative study in Northwestern Tanzania. *BMC Women S Health*, 19(1). <https://doi.org/10.1186/s12905-019-0802-6>
- Sutherland, J. J., et al. (2019). Comprehensive Sex Education: Impacts on Attitudes and Behavior. *American Journal of Public Health*, 109(4), 584-590.
- Takyi, A., Sato, M., Adjabeng, M., & Smith, C. (2023). Factors that influence modern contraceptive use among women aged 35 to 49 years and their male partners in Gomoa West District, Ghana: a qualitative study. *Tropical Medicine and Health*, 51(1). <https://doi.org/10.1186/s41182-023-00531-x>
- Tiruneh, G. A., Erega, B. B., T/Mariam, A. B., Abebe, E. C., Ayele, T. M., Baye, N. D., Tilahun, Z., Taye, A., & Kassa, B. G. (2023). Level of knowledge, attitude, and practice on modern contraceptive method and its associated factors among housemaids living in Debre Tabor town, northwest Ethiopia: a community-based cross-sectional study. *BMC Women S Health*, 23(1). <https://doi.org/10.1186/s12905-023-02783-5>
- Thao Thi, T., et al. (2021). Contraceptive prevalence and factors influencing utilization among women in Pakistan: A focus on gender-based violence. *Emerald Insight*. Retrieved from <https://www.emerald.com/insight/content/doi/10.1108/FREP-05-2021-0032/full/html>
- The costs of contraception. (1983, April 1). PubMed. <https://pubmed.ncbi.nlm.nih.gov/6671479/>
- Tropical Medicine and Health. (2023). Factors influencing modern contraceptive use among women aged 35 to 49 years and their male partners in Gomoa West District, Ghana: A qualitative study. *Tropical Medicine and Health*, 51(40). <https://doi.org/10.1186/s41182-023-00531-x>
- United Nations. (2015). Trends in contraceptive use worldwide 2015. Retrieved from https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/undesa_pd_report_2015_trends_contraceptive_use.pdf
- United Nations. (2019). Contraceptive use by method 2019. Retrieved from https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/files/documents/2020/Jan/un_2019_contraceptiveusebymethod_databooklet.pdf
- United Nations. (2022). World family planning 2022. Retrieved from https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/files/documents/2023/Feb/undesa_pd_2022_world-family-planning.pdf
- USAID. (2008). Availability and affordability of contraceptive commodities in Armenia. Retrieved from https://pdf.usaid.gov/pdf_docs/pnadr090.pdf
- World Health Organization: WHO. (2023, September 5). Family planning/contraception methods. <https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception>
- World Health Organization: WHO. (2019, December 10). Contraception. https://www.who.int/health-topics/contraception#tab=tab_1
- World Fertility and Family Planning 2020 Highlights. (2020). In World Fertility and Family Planning 2020 Highlights. United Nations. https://www.un.org/en/development/desa/population/publications/pdf/family/World_Fertility_and_Family_Planning_2020_Highlights.pdf
- World Health Organization. (2023). Contraception. Retrieved from <https://www.who.int/health-topics/contraception>
- WHO. (2023). Family planning/contraception methods. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception>
- WHO. (2022). Family planning/contraception methods. <https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception>