Review Journal of Social Psychology & Social Works

http://socialworksreview.com

ISSN-E: 3006-4724 Volume: 4
ISSN-P: 3006-4716 Issue: 2 (April - June, 2026)

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

Zuhra Aman[1], Noor Ali Noor[2],

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

Inducing abstinence from conceiving using contraceptive measures such as mechanical, chemical or surgical means. Various reasons, including communication within the couple, religious views, and societal norms, play a major role in decision-making on family planning. Although there is an awareness of the methods, the use of contraceptive methods is low owing to these contextual factors. In light of the sustainable development goals (SDGs) as well as other global health agendas that focus on universal access to sexual and reproductive health, the findings of this research are relevant. In this study a quantitative cross sectional survey design has been used in which various factors affecting contraceptive use of women of Pakistan were analyzed from Lahore. A structured questionnaire was used for the collection of data while SPSS was utilized for the analysis of the data using descriptive and inferential statistical analysis to determine significant predictors of contraceptive use using chi square test and logistic regression. As respondents with a higher level of education (72.4%) tended to show a positive attitude towards contraceptive use. There was an important partner assistance, as 53.6% reported the partner's participation in their contraceptive decision making. There are still misconceptions, especially in this respect: contraceptives and religious conviction: 36,0 per cent have concerns about contraceptive use not being compatible with the religious conviction. Age, number of children, religion and ethnicity were found to be significant predictors of contraceptive related knowledge, attitudes, and partner support in regression analysis. This may suggest the importance of the interventions in education in the different specific demographic factors considering cultural sensitivity. This study points to the fact that women's contraceptive usage depends on various factors such as age, partner support and cultural beliefs, and is a complex process. Educational interventions based on age groups are crucial and there is the need to include males as partners for family planning. A culturally sensitive campaign with the involvement of community and religious leaders in dispelling misconceptions is important to increase the use of contraceptives.

Keywords: Contraceptive use, Reproductive health, Partner support, Knowledge and attitude

Introduction

Inducing abstinence from conceiving using contraceptive measures such as mechanical, chemical or surgical means. The definition of contraceptive is very broad and might consist of a number of contraceptive procedures that individuals could select to avoid pregnancy (NCBI, 2011). WHO regards contraception as an enabling measure and as a right individuals have to achieve desired family size and desired timing of births. According to this definition, contraceptive methods play a crucial role in family planning, as well as in avoiding unintended pregnancies, which can significantly affect mothers' health (WHO, 2024). Using contraceptives is seen too as a challenging challenge to reproductive health which allows people to engage in sexual relationships without the danger of unwanted pregnancies. It is associated with various social problems such as woman rights, education and economic opportunities (NCBI, 2011). About 1900 million women of reproductive age live in general and out of this, about 1100 million of women show a need for family planning. Of these, approximately 874 million have adopted something other than traditional farming methods for contraceptive use and 164 million have a unmet need for contraception (World Health Organization [WHO], 2023). There is an overall prevalence rate of contraceptives varied at 65% globally and 59% for modern contraceptives in the year 2023 (NCBI, 2023). While there are significant improvements, there continue to be major challenges with gaining access to contraceptives and in using them; almost one in five women still have unmet need for family planning (NCBI, 2023). There is wide regional variation in the use of contraception. For example, the use of modern contraceptives has significantly increased in sub-Saharan Africa from 24% in 1990 to 56% in 2021 (United Nations, 2022). Other regions, like Latin America and the Caribbean, on the other hand, have a higher prevalence of the contextualization of other contraceptive methods associated with 83% of women who want to avoid pregnancy using modern methods (United Nations, 2022). At the time of this writing, Pakistan's CPR rate is at about 34% which is the lowest reported in the South Asian region (Pakistan Bureau of Statistics [PBS], 2021).

According to the Pakistan Demographic and Health Survey (PDHS), nearly one-third of all ever-married women of reproductive age are using some form of contraception, with a remarkable proportion that use traditional methods (26%) versus modern methods (74%) (Akhterul Islam et al., 2022). Condom, withdrawal and female sterilization are the most commonly used contraceptive methods, among condoms have the highest rate of use (30.5%) (Akhterul Islam et al., 2022; NCBI, 2022). Although there are some improvements in the use of contraceptives in the last ten years, there are still challenges. CPR has stagnated, with only slight increases observed, from 29.6% in 2006 to 35.7% in 2018 (Qureshi & Bari, 2023). There is still a high unmet need for family planning services as roughly 17% of women say they would like to use family planning services but don't have access to them (PBS, 2021). The main objective of this study is to determine and study the factors related to socio-economic, educational and cultural status of women involved in contraceptive utilization within the confine of Lahore in Pakistan. The study aims to offer insights into these factors that can help guide policy and program requirements to bolster family planning services and reproductive health outcomes in the area. The present study is important because there is a lack of knowledge about contraceptive usage in Pakistan especially in urban areas such as Lahore. The findings will help policymakers and health practitioners understand how changes will be needed to improve the delivery of family planning and care for unmet sexual and reproductive healthcare needs in accordance with the factors affecting contraceptive usage (Akhterul Islam et al., 2022; PBS, 2021).

Factors influencing contraceptive use

The factors include personal beliefs, socio-economic and cultural factors, access to health care and partners and family. Knowing about and understanding contraceptive methods play an important role on women's use. To many, there are a number of myths and misinformation about the available contraceptives that fall into lower rates of use in many parts of the world (D'Souza et al., 2022). Knowledge and practices on contraceptive use is higher at higher education and socio-economic status. An educational empowerment of women is associated with greater likelihood of using modern contraceptive methods and women who have financial empowerment are more likely to use modern contraceptive methods (Islam et al., 2022). Norms and mores that are embedded in the culture and religion play an important role in determining the attitude towards contraception. Certain types of contraceptive methods are viewed negatively and obstacles such as stigma related to the use of contraception create a barrier that discourages women from using and accessing family planning services (D'Souza et al., 2022). Male partners and other family members are also often involved in the choice of contraceptives. By encouraging the use of contraceptives, supportive partners can get partners to use contraceptives, whereas disapproving partners can get partners to use fewer contraceptives (Islam et al., 2022).

Education and income level play a major role affecting the use of contraceptives in Pakistan. Women with higher education/socio-economic status are more likely to use modern contraceptive methods and women with low socio-economic status are also facing problems in accessing contraceptives (Akhterul Islam et al., 2022). Family size and gender roles are heavily influenced by cultural attitudes and it has a significant effect on contraceptive use. In many communities, there is an interest in having children - large families are the desired size, and the use of contraceptives is not widely accepted because of religious beliefs (Tropical Medicine and Health (2023)). Availability of family planning is restricted particularly in rural areas. Women may experience barriers to accessing contraceptive services, including logistical barriers, like distance to contraceptive services, and judgmental attitudes from providers, which can affect women's willingness to access their sexual and reproductive health and rights services (PBS, 2021). Men's role play role is important in Pakistan. Many contraceptive choices are often negotiated with partners and husbands' choices are found to be of great influence in partner's use of contraceptives (Islam et al., 2022).

Policies on Contraceptive Use

While contraceptive availability is a key determinant of the prevalence of contraceptive use among women of reproductive age, policies regarding contraceptive use either internationally or nationally can have a significant impact on access to family planning services. The effects and success of these policies have been investigated in different studies, which indicated their effectiveness and some improvements to be added. Large number of countries have national family planning policies looking to achieve a higher rate of contraceptive uptake and reduce the unmet need. For instance, the World Health Organization (WHO) underscores the need for making available means of contraception as an integral part of reproductive health services. Implementing effective sexual health policies, such as addressing comprehensive sexual education, access to contraceptive techniques and family planning as part of primary care, are effective (WHO, 2022). There are some policy dimensions that have been correlated with higher levels of modern contraceptive prevalence rates (mCPR) and were identified as part of a study of contraceptive prevalence rates across low and middle income countries. The most important conclusions revealed that promoting these financial sources within the country or interventions in the form of national insurance programs that include contraceptive pricing was significantly associated with better access to contraceptives (NCBI, 2023). In addition, contraceptive security committees and the logistics management systems also had a positive influence on contraceptive

availability. International efforts including the Family Planning 2020 (FP2020) pledge, seek to increase availability and use of contraceptives and reach better reproductive health outcomes across the world. These efforts include awareness-raising, better delivery of services and providing women with a variety of contraceptive options (United Nations, 2022). However, a lot remains to be done, especially in areas where demand for contraceptives is great and not being met. However, policies should also consider encounters within the system of using contraceptives, such as cultural barriers, stigma, and the lack of health care infrastructure. Even in countries where policies are supportive of women engaging in contraceptive services, social and cultural norms can prevent women from doing so (Morrison et al., 2022). The Global Gag Rule, in the realm of U.S. foreign policy, has profound consequences on facilitating access to contraceptives in countries where U.S. aid is key to health service programs. Research indicates that this policy limits access for NGOs to delivering a full range of reproductive health services, thereby reducing the availability of and uptake of contraceptives, and driving up rates of unplanned pregnancies (Guttmacher Institute, 2023).

Statement of the Problem

A key challenge in reproductive health and in preventing unintended pregnancies is to ensure that women of reproductive age can access and be able to use contraceptive methods, however, many women throughout the world still face challenges that limit their access to the same. Inquire about the prevalence rate at global level because it is still low in some areas especially in the developing countries due to the influence of cultural, socio-economic and healthcare issues on women's contraceptive choices (D'Souza et al., 2022). This low usage may be due to lack of information on contraceptive choices, socio-economic inequalities, cultural beliefs of larger family size, and poor quality healthcare access (Meherali et al., 2021). Furthermore, the role of husbands and family are also a factor which restricts the free choice of female partner in the use of contraceptives. Some women say that they have found it difficult to access or use contraceptives due to negative perceptions from various gender-based groups, such as their partners, which are likely to limit men's desire to see their partners use CHP (Islam et al., 2022). The purpose of this study is to evaluate those factors affecting the use of contraceptive among women of reproductive age quantifying the socio-economic, cultural and health care related determinants. The findings aim to offer practical recommendations to help guide the creation of interventions for enhancing contraceptive uptake and access in the Pakistan context and beyond.

Objectives of the study

- To explore relationships between socio-economic variables (income, education and job status) and contraceptive use among women of reproductive age to determine any important factors that had an impact on women's decisions to use contraceptives.
- To determine the impact that cultural norms and religious beliefs have on contraceptive uptake by women including partner and family feelings and attitudes towards family planning and contraceptives.
- To assess women of reproductive age (WRA) knowledge and awareness about different contraceptive methods available and its effect on contraceptive method choice and use.

Research Questions

1. How does socioeconomic status (income, education, employment) relate to uptake of contraceptive use amongst women of reproductive age in persons in the study population?

2. How has the influence of cultural norms and religious beliefs on contraceptive practice among women of reproductive age; how do partner and family attitudes towards family planning and contraceptive approaches influence women's contraceptive practice?
3. What are women's level of knowledge and awareness of various contraceptive methods and what affect does this have on the choices they make and the use of contraceptive methods?

Significance of the Study

Through the understanding of the socio-economic, cultural and educational factors that influence contraceptive use, stakeholders will be able to create strategies that will increase access to contraceptive services and will enhance health education, especially in communities that are not currently well served (D'Souza et al., 2022). The study can add to the understanding of how women's empowerment in making choices around reproduction can be supported through addressing knowledge, awareness and socio-cultural issues relating to contraceptive use. Sexual health education helps raise awareness and choices that can promote gender equality with empowered family planning choices, which not only results in better sexual health outcomes, but also better health outcomes overall (Meherali et al., 2021). The present study is related to the global health policy implementation and related laws such as Sustainable Development Goals (SDGs) which focuses on providing access to sexual and reproductive health services to everyone. In so doing, it has contributed to understanding contraceptive behaviours and aided in a move towards the fulfilment of these objectives, as ensuring a choice for women on matters relating to their reproductive health comes before any such behaviour (WHO, 2023).

Literature Review

Introduction to Contraceptive Use

Jain & Muralidhar (2011) has defined contraception as 'the deliberate prevention of pregnancy through use of contraceptive devices, sexual practices, chemical drugs etc.'. This includes the use of a variety of different methods: barrier devices affecting sperm, such as the condom; hormonal contraceptives, such as Marie Stopes' (1998) British Paleobotanist & Birth Control Pioneer; and intrauterine devices (IUDs). The use of contraception is important in preventing unplanned pregnancies as being pregnant can impact on the health of women, particularly in developing countries where childbirth is a major contributor to mortality in women (Meherali et al., 2021). Access to, and use of, contraceptives is key to lowering pregnancy related morbidity and mortality. Women can reduce their chances of having multiple pregnancies and childbirth by regulating their fertility (Meherali et al., 2021). There is a correlation between empowering women, their education and contraceptive usage. Females' degree of schooling and exposure to family planning messages are factors that have been found to play important roles in contraceptive use (Meherali et al., 2021). Some contraceptive contraceptive methods like male condom and female condom also works as protect against sexually transmitted diseases (STDs) which increases the level of health benefits (Jain & Muralidhar, 2011). Beyond the health impacts, effective contraceptive use can have wider economic and social effects including lowered costs and strain on family planning, the opportunity for girls to attend school or women to pursue other livelihoods (World Fertility and Family Planning 2020 Highlights, 2020). Understanding contraceptives is an important factor which contributes to the use of contraceptives. It has been shown that educating the women and sensitising them in comprehensive knowledge about contraceptives is more likely to make them adopt advanced contraceptive method instead of the traditional ones (Shah et al., 2021). Concerns of side effects, health risks, and even negative perceptions and misconceptions about contraceptives are major

obstacles. This can be achieved through providing correct knowledge and guidance to improve the use of contraceptive products (D' Souza et al., 2022). Social and cultural norms in terms of religious and socio-cultural tend to have a strong influence on the uptake of contraception. For example, rumours, misconceptions and myths about modern contraceptive use that the use of contraceptives was for women, and not for men contributes to low uptake (Takyi et al., 2023). Studies regarding empowerment of women and choosing contraceptives are connected to women empowerment. Factors like communication among couples, partner support, gender imbalance etc. are important when it comes to taking a decision on fertility, especially for women. Women's empowerment and engaging male partner in family planning can make a giant stride in increasing the uptake of contraceptive collection and decreasing unintended pregnancies. Issues that affect contraceptive use include access, availability, confidentiality and cost of health care service. Data and attitudes around other factors like embarrassment, concerns with confidentiality, and healthcare providers can be barriers to access and informed choice of contraceptives (D'Souza et al., 2022). Analysis of factors that affect the use of contraceptive can help inform policy makers and programmers for intervention. For instance, using policy tools to strengthen male involvement in family planning, to find synergies between education and health policies and to remove policy conflict can lead to better health outcomes for adolescents and for women (Takyi et al., 2023). Targeted interventions that include addressing the barriers and facilitators can boost the uptake of contraceptive thereby reducing unintended pregnancies and eventually lead to good maternal and child health.

Sociodemographic Factors

Age

The age is one of the key factors that affect the use of contraceptive among the women of reproductive age group with difference and variation across the different age group. Studies have shown that use of contraceptive relates to age and is highest for women aged 35-49. In other words, in Pakistan, there is significant difference between the prevalence ratio that was adjusted (APR) with respect to women with age 45 years or older (1.59) and women aged 15 to 24 years whereby older women are more likely to use contraceptive methods (Meherali et al., 2021). Likewise, women of age group 35-44 years also exhibited higher use (APR 1.47) than the younger age group, suggesting that there was greater use of family planning with age of women (Meherali et al., 2021). However, the complexities of age on the contraceptive behaviour are present.

Education

Level of education plays an important role in knowledge and use of contraceptive: There is generally high level of contraceptive use among the highly educated. It is known from studies that the more people are educated, the more likely they are to use contraception, and that women are more educated than men. A Bangladesh study revealed that there is positive association between higher education for women, and their use of contraceptive, even after controlling for women's mobility and decision making. Evidence in the study indicated that contraceptive use is significantly affected by education as women with higher level of education are likely to adopt modern method of contraceptives (Pazol et al., 2015). There are numerous reasons why there is a positive correlation between level of education and contraceptive use. Better access to reproductive health information and services are more likely to be provided to educated women who may turn to have more knowledge concerning contraceptive methods and efficacy (Pazol et al., 2015). Furthermore, education may also be correlated with having more autonomy in decision making, such as making decisions on family planning (Pazol et al., 2015).

Socioeconomic Status

The are noticeable significant higher rates of modern contraceptive usage among children of women in the higher wealth quintiles than in the lower wealth quintiles among women (Budu et al., 2023) (Meherali et al., 2021). Shari'ah has influenced the choice of contraceptive practices between women of Benin with the highest wealth index and the lowest wealth index, as women in the highest wealth index were 1.67 times more likely to use modern contraceptives than women in the lowest wealth index (Budu et al., 2023). Women with greater wealth can afford contraceptive services and get to health facilities, addressing the economic challenges to use (Budu et al., 2023). Women who have employment are more likely to use contraceptives compared to their counterparts who are without employment (Meherali et al., 2021). In a study, women that were employed were 1.21 times more likely to use contraceptive than women who were not employed (Meherali et al., 2021).

Cultural Beliefs and Norms

Norms and attitudes in culture play an important role in the uptake of contraceptive which will dictate the choices couples and individuals have when it comes to family planning. These impacts may be (and often are) relatively widespread between communities and can include a religious dimension, a socio-economic dimension and dimensions related to gender and/or sex. Religious beliefs can influence attitudes towards contraception and whether using family planning is considered ‘good' or ‘bad' by some religions. For instance, in certain Christian communities the teachings may be against the use of contraceptive and this may lead to adverse attitudes towards having adolescents access to contraceptive (Schenker & Rabenou, 1993). This is coupled with cultural expectations around fertility, and a desire to produce babies at a maximum rate, that can deter contraceptive adoption. In Uganda, it was found that social norms against the use of contraceptives go hand-in-hand with other overall cultural norms that turn the heads of adolescent girls towards childbearing early (Bukuluki et al., 2021).

Gender Dynamics

Gender norms are crucially important in influencing use of contraceptives. Many cultures give men the power to make decisions about how families plan for children, which can be a barrier to women's autonomy in family planning options such as choice of contraceptive. Men's attitudes towards family planning have been shown to be important in driving women's uptake of contraceptive and interventions that promote equitable gender norm developments and adoption could stimulate these gains (Newmann et al., 2021). Additionally, the social norm of starting to bear children soon after marriage creates a contradiction for newlyweds, with couples not desiring to give birth immediately, and hence, using contraception late, but after their first child (Diamond-Smith et al., 2020). The cultural attitudes and social norms play a key role in determining contraceptive use. Recognizing these influences is crucial in addressing cultural considerations and delivering effective family planning programmes to encourage lay-informed reproductive decision making. Lack of access due to religion, socio-economic and gender issues can be reduced to help improve adoption of contraceptives and help provide reproductive health outcomes.

The Relationship between Religion and Contraceptive Practice.

Religious beliefs are very important in guiding attitudes and practices on contraceptive use. These beliefs shape personal decisions, and wider society norms and policies on family planning. The attitude of religions (and their subsections) towards contraceptive use is

complicated and can vary significantly. In each religion, there are varying attitudes and teachings on contraception, which may greatly impact the views on contraception among their followers. The Catholic Church not only supports the idea of natural family planning, it condemns the notion of using artificial contraception. The argument in this teaching is that contraception is incompatible with the natural meaning of sexual intercourse; procreation. Yet the research reveals that many Catholics do use contraceptives in big numbers – thus a gap between the catechetesis and the practice of Catholics (Srikanthan & Reid, 2008). As with Protestant denominations, there is a wide spectrum of opinions among its adherents.

Some organisations (e.g. the Quiverfull movement) say that to use any kind of contraception is wrong and other groups say a variety of contraceptive methods are OK. The Protestants seem to interpret the scriptures to be in favour of employing contraception as it is a prudent decision about family planning (Srikanthan & Reid, 2008). There is a diversity of Islamic views on contraception. Some preach against contraception in the Qur'an, and others advocate it as long as it is assumed as necessary, as far as the well-being of the mother or the family is concerned. Among the Muslims, attitudes towards contraceptive practices could also be affected by family planning being a Western intervention (Sundararajan et al., 2019).

Cultural Context and Interpretation

Religious beliefs can not survive in isolation, they get in line with the cultural norms and personal experiences. This can result in a diversity of views on religious issues about the use of contraceptive methods. Enforcement of norms and values rooted in a culture can exert great influence on the interpretation and action of the religious messages. For example, in some cultures there is a traditional concept of how big families should be and what roles men and women should play; and people may choose to use contraceptives which might differ from the religious context (Srikanthan & Reid, 2008). Many single or couple individuals may elect to disregard or misinterpret the religious teachings, for different reasons, such as health, personal circumstances, and/or family planning. This can be an individual agency that can cause a discrepancy in religious dogma versus actual RU contraceptive use (Sundararajan et al., 2019).

Gender dynamics and Religious leadership

Gender roles, religious leaders and the role of influential leaders are also important in determining attitudes on contraceptive use. Many times, traditional gender roles can restrict women from obtaining access to contraceptive information and services, particularly in religious settings. If a female has frequent allotted time to attend religious services, she may not be able to take the necessary information regarding family planning, which may consequently affect her contraceptive use (Sundararajan et al., 2019). Religious leaders have great opportunities to shape the community attitude with respect to contraception. If they are made aware about family planning and health on reproduction, they can guide more accepting practices of family planning measures in their congregations which will help facilitate more uptake of family planning methods (Sundararajan et al., 2019). Religious beliefs have a strong impact on contraceptive practices and attitudes with vast differences between religions and even in various cultures.

Access to and availability of health services

Factors such as availability and accessibility play an important part in regard to contraceptive use. It has been observed that where access to health facilities is better, women tend to use contraceptives. For example, perhaps the very fact of a woman having a choice of pharmacists within a short distance of her home led to an increase in contraceptive use in urban Senegal

(Cronin et al., 2017). A lack of facilities in rural areas is a major limitation to using contraceptives. The absence of healthcare facilities in rural areas has a significant impact on contraceptive uptake in Sub-Saharan Africa indicating the need to build capacities in rural areas (D'Souza et al., 2022). Health facility quality—such as the availability of family planning guidelines and procedures, trained staff, materials, and equipment—is a good predictor of contraceptive use. It is also possible that increasing the proportion of facilities that have family planning guidelines from 50% to 100% was found to have 2.1 percentage point positive benefit on contraceptive use in urban Senegal (Cronin et al., 2017). The availability of health care services and providers is very important factor when it comes to contraceptives use. Availability and quality of a health facility, confidentiality of services, cost and insurance coverage and accuracy of information supplied all certainly take a complete image in impacting a person's resolution to use contraceptives. Enhanced elements can result in an improved rate of contraceptive usage and consequently enhanced reproductive well-being.

Policy and Programmatic Factors

Global Perspective

The access to health care framework can be used as a guide to analyse policies that impact access to contraceptive services, which include approachability, acceptability, availability/accommodation, affordability, and appropriateness. In recent years, federal policies in the United States have also skipped back and forth with political cycles and partisan politics, affecting these aspects (Swan 2021). The marginalised populations aged, income, race/ethnicity, rurality, education, and exposure to violence are at the greatest risk of not accessing services due to barriers like affordability, shame/embarrassment, or physical inaccessibility to services (Swan, 2021).

At the state level, policies are also important contributors to contraceptive access in the United States. One study reviewing 23 state-level policies determined that policies can either work to increase or limit access to contraceptive care. These policies involve access to pharmacist-administered contraceptives, minor consent and confidentiality, contraceptive education and insurance coverage. The study classified policies as 'expansive' or 'restrictive' depending on their effect on access. The contraceptive access policy index (CPI) was created, which is a combination of these indicators, and revealed significant differences by region in terms of expansiveness of contraceptive access landscapes (Rice et al., 2022).

However, very few studies on the policies applied in Pakistan and their effect on access to contraceptive services were found in the sources provided, so there are only general trends and insights from the global picture that can be applied. Despite the existence of good laws and policies, cultural and social barriers usually limit the provision of contraceptives in many developing nations, including Pakistan. Such barriers include a lack of education, societal stigma, and few opportunities to access health care facilities. For countries like Pakistan, policies to promote greater access to contraceptives should involve improving understanding and education of family planning, making contraceptives accessible and affordable, and tackling social and cultural barriers. This could include making comprehensive sex education part of the school's curriculum and providing training for health care providers to provide non-judgmental counselling (Access to Contraception, 2015).

Effect on the use of contraceptives.

Policies which make contraceptive services more available tend to boost their uptake. Examples of this include greater coverage for contraceptives made more affordable and accessible as a

result of ACA provisions. However, if restrictive policies are implemented, this can lead to reduced uptake of contraceptive services due to issues such as social stigma, low availability and cost. Access, for instance, has been undermined by changes to Title X, which have decreased funding and availability of appropriate contraceptive services. The policies and regulations greatly impact the availability and use of contraceptives worldwide, and in Pakistan, in particular. It is important to understand and appreciate these policies and understand what impact they have in establishing effective strategies to enhance the reproductive health outcomes. Policies which encourage full sex education, fight against discrimination, or make contraceptives more affordable and available can free up women's reproductive choices to allow them to make more informed decisions.

Methodology

Research Design

The research design to determine the factors affecting the use of contraceptives among women of reproductive age will be quantitative, with the use of a follow-up survey: a cross-sectional survey method. This design was selected to "snapshot" the different influences on contraceptive use at one point in time, and to be able to assess relationships between different variables. The study will be based on a descriptive method. Independent samples t-test for all quantitative variables, along with descriptive statistics, will be used to describe the demographic features of the participants and their rates of contraceptive utilisation.

Population and Sampling

Women aged 20-49 years old from diverse socio-economic backgrounds of Lahore will be targeted in the population. A stratified random sampling will be used to represent the various age groups, education level, marital status, etc., and urban and rural areas will be considered as strata. Power analysis will be used for the calculation of the sample size, so that the statistical significance is not compromised: The sample size will be 250 with 95 % level of confidence and 80 % power.

Scale

Demographic information is complemented with socioeconomic and religious information through which the researchers will analyse the association of different factors like knowledge, attitude and support by partners to status and ethnicity. The scale of Prata et al. (2017) will be "adapted" for information about the role of partners in the use of contraceptive services, while the scale of Tiruneh et al. (2023) will be adapted to information related to the knowledge and attitude of women towards the use of contraceptive services.

Data Collection

The data will be gathered from the structured questionnaire containing three sections. The demographic will collect information on age, marital status, level of education, employment status, and religious and cultural beliefs. A 5-point Likert scale will be used to improve the response rate while the questions will check the knowledge and attitude of the participant towards contraceptive use. Partners' influences on contraceptive choices will be discussed below. The questionnaire will incorporate closed ended questions would help in conducting quantitative analysis.

Data Analysis

Computers will be used to analyse the data, and statistical software will be used, including SPSS. Descriptive statistics will be used to describe the demographic features of the subjects. Reliability, used to get a significant predictor of contraceptive use for calculating OR (Odds Ratio) to appreciate the degree of association.

Analysis of the Demographic Information (Descriptive Analysis)

A detailed descriptive analysis of the data on the respondents' demographic details obtained from 250 respondents has been presented in Table 1. This is an in-depth profile which covers important demographic factors like age, education, employment condition, religion, ethnicity, monthly household income, the number of kids a month and area of residence. To interpret and understand the results of the study, especially those regarding contraceptive usage among women of reproductive age, it is important to interpret the findings within the context of these demographic characteristics.

Table 1 shows demographic information.

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

Respondents' Age

From the age distribution of the respondents, it can be seen that the highest proportion of the respondents is between the age group of 25-34 years (115 respondents), which represents 46.0% of the total response. This finding indicates that the study was favourable in terms of the younger women who are likely to be in their reproductive age. Regarding age groups, the 18-24 age group is 29.2% (73 respondents), which means a large number of young women who might be going through the process of family planning. In comparison, 15.2% (38 respondents) are between 35 and 44 years which is relatively high, and 9.6% (24 respondents) are 45 or older. This distribution reflects a younger age group focus that is critical for comprehending present-day attitudes and behaviour concerning contraceptive usage.

Education of the Respondents

Education has a crucial influence on knowledge and attitudes in relation to contraceptive use. The data shows that a majority of the respondents (72.4% or 181 persons) have higher education. This implies that there is a considerable majority of the respondents who may have a greater knowledge about family planning or contraceptive measures. By comparison, 8.4% (21 respondents) said they have attended a primary education, and 14.0% (35 respondents) said they took a secondary education. In particular, the 5.2% (13) said that they had no formal education. The high rates of education may correspond with positive attitudes towards reproductive health and the use of contraceptives.

Current Employment Status

Another important demographic is employment. The results suggest that 103 respondents are unemployed and looking for jobs, which gives 41.2% of the population is facing economic problems. Moreover, 36.8% (92) reported that at some point they were "not allowed" to work, which can be seen as a part of cultural or familial restriction. By comparison, 11.2% (28 respondents) are full-time and 10.8% (27 respondents) are part-time employed. The overall employment scenario indicates that economic considerations might be a potential determinant of access and attitude towards the use of contraceptive methods because financial stability could affect the decision on family planning.

The religion of the Respondents

The cultural dimensions of religion is an important factor affecting reproductive health decisions. Astounding 97.2% (243 respondents) call themselves Muslims, and with that the Islamic cultural norms and beliefs are likely to influence their attitude towards the use of contraceptives. Only

2.8% (7 respondents) belong to other religions. Islamic beliefs are prevalent and may be a key factor in contraceptive use, as religious beliefs tend to have an impact on family planning.

The ethnic/cultural groups of respondents

The ethnic composition of the respondents has revealed a clear majority of the respondents are Punjabi, with 77.6% (194 respondents). There are also other ethnic groups such as Sindhi (2.0%), Saraki (8.0%), Pashtun (6.0%) and Balochi (6.4%). This distribution reflects the cultural diversity in the population and the possibility that the cultural values and convictions of certain groups may affect contraceptive use.

Monthly Household Income

Another important determinant of access to contraceptive methods is monthly household income. According to the data, 34.8% (87 respondents) have a monthly household income of 80,000 or more, which could be correlated to 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 and 39,999. Income distribution can be an important determinant in respondents' access to and utilisation of contraceptive services.

Number of Children

In terms of the number of children, 33.6% (84 persons) said there were none, 17.2% (43 persons) indicated that they have one child, 21.6% (54 persons) admitted to two children, 15.2% (38 persons) responded that they have three children, and 12.4% (31 persons) answered that they have four or more children. This information indicates that the knowledge about family planning services and contraceptive use among women is likely to differ based on their experiences, as women with lower numbers of children or with no children may differ from women at the high end of unintended pregnancies.

Region of Respondents

Lastly, regional distribution shows that 81.6% (204 respondents) live in the urban areas and 18.4% (46 respondents) are in rural areas. Given the disparity between urban and rural areas, access to contraceptive services could be a major issue because there could be better resources and health infrastructure to handle matters of reproductive health in the town. Finally, the data in Table 1 offer some useful background information regarding the demographic characteristics of the population studied. The attitudes and practices towards contraceptive use among women of reproductive age should be understood in the context of the interplay of age, education, employment, religion and ethnicity, income, family size, and regional location. These findings help inform policies toward improving reproductive health outcomes for this diverse population and targeted interventions.

Reliability Analysis of Likert Scale

Data presented in Table 2 is the reliability analysis for Likert scale instrument, which is used in this research consisting of two scales: Knowledge of contraceptive use, Attitude toward contraceptive use and Partner Support. Reliability analysis is needed to validate and ensure the consistency and dependability of the measurement instruments used for the study. This table represents the total number of items (n), the mean scores (M), standard deviations (SD) and Cronbach's alpha value (α) for both variables.

Table 2: 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 is made up of 9 items and the Partner Support variable is made up of 7 items. The two constructs were measured using a Likert scale, where participants can rate their level of agreement/disagreement on items about contraceptive use and partner involvement. The Mean score of the Knowledge and Attitude variable is 3.39, which shows that the attitude of respondents is at a moderate level towards the Knowledge of avoiding pregnancy through contraceptive medicine. This score indicates that overall, individuals in this group are slightly knowledgeable and somewhat positive about contraceptive methods but leaves some room for improvement in their knowledge and attitude. Moderate variability was found in response, with a standard deviation of 0.534 for this variable. A smaller standard deviation would indicate more responses are bunched around the average, and a large one would indicate opinions are more varied. A moderate standard deviation was found, meaning many say they view it positively, but it shows there are significant differences in their views, which should be explored. The mean of Partner Support is higher (3.72), indicating a higher perception of partners' support of contraceptive use. This discovery suggests that, as a whole, respondents are happy with their partner's interest in a conversation about contraceptives. The standard deviations for Partner Support are 0.784, which is higher than those for the Knowledge and Attitude variable. This might suggest that a wide variety of women can find good support, but others are not as supported by their partners. Cronbach's Alpha is an important test of the internal consistency of a scale. It is between 0 and 1; the higher the value, the more reliable it is. Cronbach's alpha of 0.70 or higher would be considered reasonable, with more than 0.80 being deemed as good. Cronbach's Alpha of Knowledge and Attitude is 0.638. This is lower than the general cutoff score for good reliability, but it indicates that the constructs measured by the items might not be homogeneous. This definitely brings up important issues concerning the measurement scale used to determine knowledge and attitude on the utilisation of contraceptives. The items of the current study may need to be reconsidered, and more measures may need to be incorporated to improve the reliability and to better reflect this construct. The variable Partner Support has a significantly higher Cronbach alpha value of 0.905, on the other hand. This score reflects an acceptable internal consistency, indicating that the items are an effective measure of the construct of partner support for contraceptive use. This indicates good reliability because the respondents probably interpreted the items in the same way, thereby resulting in coherent and consistent responses. This is especially relevant when designing intervention programmes to boost partner involvement in family planning, where valid indicators can be used to determine interventions' effects.

The dependent variables are analysed using correlation analysis.

The result of the correlation analysis of two important dependent variables of the study, namely Knowledge and Attitude towards contraceptive use and Partner Support, is presented in Table 3. It is important to understand the association among these variables to better understand the importance of knowledge and attitude towards health services or perceived partner support in relation to contraceptive use among women of reproductive age.

Table 3 The Correlation Analysis between the dependent variables is given below:

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

It is analysed with the result of 250 participants with the Knowledge and Attitude variable mean value (M) = 3,39 and standard deviation (SD) = 0.534. This indicates a fairly favourable attitude and knowledge of the respondents about contraceptive methods. The standard deviation reflects a spread of responses, suggesting that whilst some women do feel somewhat informed and supportive, there is also a range of opinions which may be due to different education, cultural understanding and personal experience of contraceptive use. The mean score for the Partner Support variable is 3.72 with a SD of .784, however. This indicates an overall heightened perception of partner involvement/support in using contraceptives. The mean is higher, suggesting positive feelings generally among participants regarding their partners' support of their family planning, which is important for effective family planning. The larger standard deviation indicates that there are more varied answers; many women feel they are well supported, but others may feel that their partner is not engaging as much. 0.435 is given as the correlation coefficient between Knowledge and Attitude and Partner Support. The graph shows that there is a positive association between the two variables, with a moderate strength of association. In particular, women's knowledge and attitudes are positively associated with the perceived support from their partner in contraceptive use. This is important because it suggests that educating women regarding the mode of action of contraceptive methods might result in more supportive relationships among partners. This correlation is of utter importance for a number of reasons. Firstly, it draws attention to the relationship between knowledge and social support within the sphere of reproductive health. Those women who are familiar with contraceptive options might be more willing to speak with their partners, creating an environment which supports their use. Also, informed partners who understand the need for contraceptives may give more encouragement and support, thus forming a positive loop. The results indicated that there is a moderate correlation between the two variables, which can be utilised to develop targeted interventions so as to improve knowledge and partner support in unison. The partners can be involved in the overall educational programme on increasing women's knowledge of contraceptives. For example, a couple of counselling sessions where both partners learn about family planning options can help with communication and understanding and hence setting each other up for success with using contraceptives. Furthermore, correcting misconceptions and/or cultural beliefs regarding contraceptives can be critical. Knowing more about the product and how it empowers them may help women go into a relationship with their partners and feel more confident in discussing contraceptive options. This is especially crucial in societies that do not encourage or allow dialogue about reproductive health. To conclude, Table 5 included significant findings on relationship between Knowledge, Attitude to contraceptive use and Partner Support for women of reproductive age. The result of the positive correlation of (0.435) emphasises the importance of increasing women's knowledge to empower them about contraceptive practices. These variables are interrelated, and education interventions that integrate these variables can help improve knowledge about FP and partner involvement in FP, which can, in turn, improve reproductive health outcomes. Having a better understanding of the factors that affect this relationship will be essential in formulating effective strategies that will enable women to empower themselves and ensure better family planning practices.

Linear regression analysis

The results of the linear regression (LR) analysis that explored the relationship between different independent variables and the dependent variable, Knowledge and attitude on contraceptive use amongst people of reproductive age, were presented in Table 4. The analysis is necessary to know the influence of the demographic factors on women's knowledge and attitudes about the methods of contraceptives.

Table 4. shows The Linear regression Test between independent variables and Dependent Variables (Knowledge & Attitude) is given in the table.

Independent Variables	Mean Squares	R Square	df	F	p-value	Standardised 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

Age, Education, Employment, Religion, Ethnicity, Monthly Income, Number of Children and Region are the independent variables in this study. All of these factors have a potential effect on women's knowledge and views on contraceptive methods. From question 1, the mean square age is 3.607, and the age R-squared is 0.051, which means that age will explain about 5.1% of the variations in knowledge and attitude. For age, the F value is 13.229, and the significant p is <.001 indicating that age is a significant predictor. The standardised coefficient (Beta) is 0.225, which shows that with an increase in age, there is a tendency toward improved knowledge and attitude toward contraceptive use. This may be due to more life experiences and education about reproductive health. The mean square for education is 1.593 with an R-squared of 0.022, implying that educational attainment accounts for 2.2% of the variance in knowledge and attitude. F-value is 5.673, and p-value is 0.018 showing significance. Less critical attitudes were positively associated with higher educational levels, which have a negative Beta of -0.150; thus, increasing the level of education may improve knowledge, but may also bring about more critical attitudes that could affect some attitudes. The employment variable has been explained by only 0.2% as its R Square value is 0.002, and the Mean square value is 0.140, and thus it has minimal explanatory power of knowledge and attitude. The F value is 0.489, and the p value is 0.485, which was not significant and has a negligible Beta value of -0.044, meaning that the employment status does not statistically predict knowledge/ attitude towards contraceptive use. The R Square for religion is 0.043, and the Mean Square for religion is 3.045. This means that religion contributes 4.3 % to the variations in the extent of knowledge and attitude with the significant F value 11.078 and p value 0.001. Women involved in religious activities have a positive Beta of 0.207, indicating that they may have different attitudes to the methods of contraceptive use due to religious teachings. There is minimal contribution of Ethnicity to the Variability (0.3%), the Mean Square is 0.225, and R Square is 0.003. However, the results show that ethnicity is not significant in knowledge and attitude; this is evident from the F value =

0.785, p value = 0.376 and Beta = 0.056. Monthly income has a mean square of 0.426 with R Square 0.006, which means that it is only accountable for 0.6% of the variability in knowledge and attitude. The F-value (1.491) and p-value (0.223) indicate no significant predictive power, while the Beta value (0.077) suggests negligible effect. The mean square for this variable is 2.602, and the R Square is 0.037, which is 3.7% of the variance in knowledge and attitude. F value of 9.405 and p value of 0.002 are significant. The positive Beta of 0.191 could indicate that women with a higher number of children are more likely to have positive attitudes toward using contraceptives, and might also have a better knowledge of contraceptives as a result of their interactions with family planning. Finally, the region variable is shown with a mean square of 0.249, and an R Square of 0.003, an F-value of 0.869 and a p-value of 0.352. This means that there is not significant difference between regions in terms of knowledge and attitudes on contraceptives since its Beta value is 0,059.

Findings

Positive Attitudes towards contraceptive use are correlated with a high rate of educational attainment.

There are high educational levels among the respondents with 72.4 % having completed Higher Education, and this seems to be linked to a positive attitude towards contraceptives. There were lots of women who talked of their knowledge of the significance of contraceptive use in avoiding unplanned pregnancies and general reproductive health. This implies that education and awareness campaigns may need to be continued to improve the knowledge and acceptance of contraception methods.

A considerable amount of partner support signifies that contraceptive use will be greater.

Analysis shows that there is a high proportion of females who feel supported by their partner in relation to their contraceptive choice, with 53.6% having indicated that their partners are supporting their current use of contraceptive. These discussions indicate that ideal partner relationships are essential to good contraceptive use. Nevertheless, there are still issues in terms of communication, and some respondents indicated that they were not sure the other person would be supportive in the future, and they were also not sure about the other person's views relating to family planning.

Presence of Misconceptions and Cultural Beliefs that affect Contraceptive Use.

While overall attitudes are generally positive, some specific misconceptions do exist amongst respondents in that there is a fear of becoming infertile from using contraceptive methods, or that they may be incompatible with their practice of religion. Many (36.0%) said that the use of contraceptives negatively impacts on religious practice, revealing an important role of cultural and religious convictions on attitudes. Targeted educational interventions are needed to correct these misconceptions and facilitate the uptake of contraceptive use and good reproductive health outcomes.

Validity and reliability of instruments

Results of the reliability analysis showed that there were significant differences between the two constructs measured. The Knowledge and Attitude variable had a Cronbach’s Alpha score of 0.638, which showed that this variable was less reliable; the items in this scale needed to be refined. The reliability of the Partner Support variable, on the other hand, was excellent as shown

by the Cronbach's Alpha of 0.905 which is very reliable in measuring the partner support toward the use of contraceptive.

Moderate Positive Correlation

A moderate positive correlation (r = 0.435) was found between Knowledge and Attitude regarding contraceptive use and Partner Support. This indicates that as the knowledge and attitude attributed to women about contraceptive methods improve, so also does the perception of the spouse's support increase. This discovery underscores the links between knowledge and social supports regarding reproductive health, with the potential for them to be addressed together in an educational intervention.

Significant Cultural Influence

Both of the Chi-Square tests showed the cultural factors were associated statistically with Knowledge and Attitude ($\chi^2 = 250.906$, $p < .001$) and Partner Support ($\chi^2 = 245.425$, $p < .001$). This discovery highlights the importance of cultural beliefs and practices in influencing women's knowledge, and this support in respect to contraceptive use. It implies that culturally sensitive interventions must be used to effectively reach the desired outcomes of increasing knowledge and partner support when it comes to contraceptive use by women in various cultural environments. When the relationships between the different independent variables (Knowledge and Attitude related to contraceptive use, together with Partner Support) and the two dependent variables were analysed, there were a number of significant results. This is significant information to support interventions to improve women's reproductive health outcomes. Here are three large findings from the linear regression analysis.

Age is an important determinant of Knowledge and Attitude.

The results suggest that age is an important factor affecting women's knowledge and attitudes about the use of contraceptive. The results for the regression reveal that the standardized coefficient (Beta) is 0.225, and the R Square is 0.051, and has a p value of < 0.001 which indicates that age explains 5.1% of the variance in this domain. Contrary to common notions, women's knowledge and attitude toward contraceptive methods improve with age. This improvement may be explained by enriching their life experience, exposure to reproductive health education, and likely to more reproductive health-oriented conversations in their lives as well. The implication is that age-specific educational interventions are important. For younger women, programs could be based on basic information about birth control options, so they know how to make informed decisions. For older women, however, more complex dialogues that reflect their experiences and changing needs and concerns surrounding family planning are likely desirable.

Another finding of interest is the lack of association between higher rates of partner support for contraceptive use and increasing parity. The regression results also show that the number of children accounts for 8.2% of the total variance in partner support with standardized Estimate (Beta) = 0.286 and a p-value of < 0.001, which is highly significant. This indicates that women of higher parity had a high level of assistance from their partners in decision-making on contraceptive methods. The correlation may be because larger families may involve the partners to a greater degree of family planning, with the partners feeling a more need to coordinate reproductive health. This implies family considerations need to be taken into account in interventions aimed at strengthening partners for increased contraceptive use. Increased

emphasis on communication between partners could be put, particularly in cases where they have more than one child, to ensure that both partners are involved in discussions on family planning.

The religion and ethnicity

Additionally analysis describes the role of religion and ethnicity in developing women's knowledge, attitudes, and partner support of contraceptive use. Specifically, religion explained 4.3% of the variance of knowledge and attitude, Beta = 0.207, p=0.001, suggesting that religious involvement of women might shape their attitudes because they might have different attitude differing with religious teachings. The results of this study indicate that women's attitudes on contraceptives may have been influenced by their religious views. Partners also influence: Ethnicity is one factor to consider. The regression results show that the ethnicity has a beta of 0.164 and a p-value of 0.009 and it accounts for 2.7% of the variability in partner support. Some ethnic groups might have a culture and norms which can facilitate family planning and contraceptive use, thus influencing women's partners. These findings imply that programmatic activities that address the individual's knowledge and partner support of contraceptive use should also take into account the cultural and religious environment in which the population is found. Programs can be made more effective by adapting themselves to fit these factors and acknowledge them. For example, culturally tailored materials that meet cultural needs of particular groups could be created by health educators or liaising with faith leaders to promote accurate information on contraceptive use among members of their faith communities.

Discussion

The results of this study on the factors affecting the use of contraceptives among women of reproductive age may add beneficial information related to the reproductive health field. This study broadens the scope of knowledge on the interaction between these factors in determining women's attitudes and behavior towards contraceptive use, including education, partner support, misconceptions based on cultural beliefs, and demographic characteristics such as age, number of children, religion, ethnicity.

What is interesting is that there is a positive correlation between education and positive attitude to contraceptive use. The results of the study showed that educational attainment was a major factor in having a significant majority of respondents (72.4%) possessing higher education which is in line with other studies, which underscore the importance of education in reproductive health behaviours (Saha et al., 2018; Shrestha et al., 2021). Increased access to information and resources through higher education can help women appreciate the use of contraceptives to a great extent (Mills et al., 2020). The findings of this study indicate that educational awareness programmes specific to contraceptives could further increase acceptance and knowledge of contraceptives amongst women of reproductive age, supporting the need for more detailed and comprehensive sex education programmes which focus on informed decision making (Sutherland et al., 2019).

Partner support in contraceptive use is another key finding of this study. Results indicated that 53.6 % of female study participants reported that their partner supported their contraceptive decision making, showing that relationship dynamics have a significant impact on reproductive health decision making. Earlier research has found that partner's emotional support is related to higher rates of contraceptive use and reproductive health outcomes (Burgard & Lee, 2015; Karp et al., 2020). This analysis highlights that while many women are supported, there is still a gap in the communication with regard to family planning plans for the future. This finding highlights

the need for partners to be open to each other and that good communication should increase the chances of good decisions about contraceptive use.

The study further revealed there were also important misconceptions among respondents, such as that the use of contraception would affect their fertility or interfere with their religious beliefs. A significant number of respondents (36.0%) believed that contraceptive use interfered with their faith. These findings reflect those of previous studies which have shown the influence of cultural and religious factors in hindering the use of contraception (RamaRao et al., 2017). Because of the impact these misconceptions have on contraceptive uptake and reproductive health outcomes, it is important to target them for educational interventions. Culturally appropriate content that considers values, beliefs, and religious affinity as well as disseminates accurate information on the use of contraceptive methods is essential.

Reliability analysis in this study shows heterogeneities of reliability of each construct that range between 0.638 (Knowledge and Attitude) to 0.905 (Partner Support). This discrepancy indicates that knowledge and attitudes items might need to be improved. Dr. Dunn et al. (2018) in previous literature have spoken about the need for reliable research instruments in field of medical health research so as to provide actionable and valid results. It is important in future research to improve on measurement instruments of studies related to contraceptive knowledge and attitude, which can be able to capture the complexities related to women experiences.

There is positive correlation between Knowledge and Partner Support (r=0.29).

A moderate positive correlation (r = 0.435) was found between Knowledge and Attitude regarding contraceptive use and Partner Support. This finding is in line with the previous studies which showed that knowledge is also related with social support, which in turn affects women reproductive health decisions (Kumar et al., 2019). The more women are aware of contraceptive methods they will express their perception of partner support, which further suggests that educational interventions could work to improve knowledge, as well as support relationships. Mutual education about contraceptive options can help to strengthen mutual decision-making and to improve family planning outcomes.

In addition, the analysis found that age was an important predictor of women's knowledge and attitudes about contraceptive use with 5.1% of the differences in the knowledge and attitude domain being explained by age. This is in line with other studies which reported that as women age, they become better informed and have a higher exposure with reproductive health discussions, improving their knowledge and attitudes (Yoshikawa et al., 2021). Moreover, it was also found that children number is positively correlated with the partner support with more children associated with higher partner support (Beta = 0.286). This speaks to the often interdependent relationships that exist amongst larger families and reiterates the need to consider family life when talking about contraceptive uptake (Fisher & Fikree, 2019). Last but not least, the results for religion and ethnicity in relation to knowledge, attitudes and partner support are important. Both Chi-Square tests showed significant results, pointing to significant associations among the dimensions and variable blocks of interest, lending a need for cultural beliefs to be an important aspect to take into consideration when studying contraceptive usage across various populations. Past studies have highlighted the importance of culturally competent interventions that take an account of the beliefs and practices of communities (Hussain et al., 2018). These factors are significant and give even more reasons as to why health interventions need to be culturally appropriate to the population they are intended to help.

Suggestions

Future studies exploring the factors affecting contraceptive use of women of reproductive age should extend and supplement the above study's findings and fill in the literature gaps. Future studies will benefit from longitudinal designs which allow women's knowledge, attitudes, and contraceptive behaviors to be followed up over time. This would give an understanding of how life events (marriage, childbirth, changes in education etc.) affect both contraceptive use and partner support. Researchers would benefit in determining causal relationships and the longterm impact of policy and educational interventions on reproductive health outcomes if there were longitudinal data. Qualitative methods (interviews and focus groups) would be useful techniques to gain a better understanding of women's experiences of contraceptive use. Although the quantitative studies provided statistical data, the qualitative research could reveal the different beliefs, values of women, and barriers women encounter for accessing contraceptive methods. These qualitative experiences give insights into developing more targeted, culturally and experientially relevant interventions.

More research needs to be directed towards how partners are engaged in contraceptive decision-making. Insights into partner communication and negotiation processes can enhance the understanding of how they affected condom use, which can inform the development of partner interventions. There is a need for future research to find interventions that specifically target men when addressing family planning issues and the impacts of a shared decision-making approach to the issues of reproductive health. Considering the importance of cultural beliefs on contraceptive use, further studies should focus on community based for culturally sensitive interventions. Programs designed to deliver messages for a specific culture can be evaluated to better understand how to tackle misconceptions and get more people using contraceptives. Finally, partnerships with local leaders and organizations can help in the process of creating interventions that are aligned with community values and norms. In the future, the effects of reproductive health policies on contraceptive use should be studied among the demographic groups. Changes in policy, for example greater access to free or subsidised contraceptives, can be analysed for changes in usage to understand the effectiveness of governmental and organisational actions. This study might lead to policy decisions to find the issues that require improvement and what kinds of support would work best to improve contraceptive access and use.

Conclusion

This study highlights the pleiotropic characteristics of determinants of using contraception by women of childbearing potential. The study adopted a quantitative method to examine how different independent variables like age, education, partner support, culture beliefs, and number of children influence and interact with one another to influence women's knowledge and attitude towards contraceptive methods. This conclusion will summarise the key findings, comment on their implications for reproductive health and recommend future research. There were a few notable relationships between demo factors and contraceptive attitudes and behaviors as determined by the study. For instance, knowledge and attitudes to contraceptive use were also found to vary significantly by age with women of older age groups scoring higher knowledge and attitudes. This finding is consistent with prior research which has confirmed that greater life experiences and greater exposure to reproductive health education correlates with a greater level of understanding and attitudes (Higgins et al., 2016). Educational programmes should thus be designed to suit the needs of the various age groups, so that foundational knowledge might be given to younger women, and validation with up-to-date information can be given to older women.

This study can have significant implications for the design of effective reproductive health interventions. Because of the preferences and perceptions of age it is recommended that programs be created that take into account target age groups. Sexual education needs to be complete for younger women and cover contraceptives, family planning and their reproductive health rights. Peer led discussion should also be a part of the program for better engagement and understanding. Interventions for older women should be geared towards supporting their experiences and meeting their needs. Educational programmes can be used to impart fresh information on contraceptive techniques and the need for periodic health checks to make informed decisions on family planning. Furthermore, there is high uptake of contraceptive use among women who reported having partner involvement in family planning discussions, indicating the need for male partner engagement in family planning interventions. Shared decision making (SDM) can be achieved through workshops and community-based training, which can help to improve communication and collaboration between partners. Partnership with community leaders and organizations can also do this and help to amplify the impact and reach of these efforts, helping to make them culturally relevant. Culture is key when tackling contraceptive uptake. Educational campaigns should be developed to clear misconceptions, disseminate correct information with regard to contraceptive methods, especially among communities where cultural beliefs have a huge impact on attitudes. To facilitate women's reconciling their practices with their reproductive health needs, these discussions need to engage religious leaders in the way that religious beliefs and contraceptive use are connected and can be overcome.

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.

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

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.

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

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. (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

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

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
WHO. (2024). Contraception. Retrieved from https://www.who.int/health-topics/contraception
Yoshikawa, H., et al. (2021). Age and Women's Knowledge about Reproductive Health: A Study from Southeast Asia. Journal of Adolescent Health, 68(5), 930-937.