

Media Influence on The Use of Modern Family Planning Methods among Married Couples: A Cross-Sectional Study Conducted in Khyber Pakhtunkhwa

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Abstract: Modern family planning has the potential to ensure better maternal health and socio-economic prosperity. However, perceptions regarding its methods vary significantly across different communities. This study explores how media influences the attitudes of married men and women regarding the use of modern family planning methods, an insight from Khyber Pakhtunkhwa. This study used a quantitative survey approach, whereas cross-sectional surveys were based on time, as suggested by research studies. The current study was conducted in two districts of Khyber Pakhtunkhwa, Lower Dir and Upper Dir. The population of interest included all married men and women (reproductive age 15-49), excluding divorced and widows. A Multistage sampling technique was adopted for representative sampling, which yielded a total sample of 768. An interview schedule based on the Likert Scale was designed to include social media influence and the usage of family planning methods. SPSS was used for data analysis, including univariate statistical techniques (frequencies and percentages), and was computed to present the descriptive analysis, while in bivariate analysis, binary logistic regression was used to explore relationships to test the hypotheses. This study concludes that media contact also influences how individuals choose contraceptives. The research data confirms previously documented findings that show media contact increases awareness levels while fighting misconceptions and drives people to choose modern birth control methods.

Key Words: Family Planning, Maternal, Attitude, Quantitative, Survey and Cross-Sectional

Introduction

Media (television, radio, social media and online platforms) have the potential to shaping public awareness and attitudes toward modern family planning methods by disseminating information particularly in regions where cultural or religious barriers may limit open discussions about contraception and reproductive health (Brown et al., 2017). Additionally, the representation of family planning in dramas, talk shows and advertisements normalizes contraceptive use, making it more socially acceptable (Khan et al., 2024). Despite these positive influences of media, Pakistan is one of the most important countries in terms of population. At this point in time, Pakistan is ranked as 5th most populous country in the world, but what is more important is the annual growth rate. The annual growth rate of the population in Pakistan has been 2.4 per cent for two decades, i.e., 1998-2017 (Ali et al., 2021; Population Welfare Department, 2017). Historically, the trends of population growth in Pakistan are intriguing; for example, Pakistan's population increased six-fold from 1951 to 2017. This higher rate of population growth led to an increase in population from 34 million in 1951 and 208 million in 2017 (Alam et al., 2019). Keeping this trend in view, an important dimension is a future prediction whereby the Population Division Medium Projection of the United Nations indicates that the population of Pakistan will be 263 million by 2030 and 383 million by 2050 (Hackett et al., 2021).

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The Pakistan Demographic and Health Survey (PDHS) 2017–18 indicate that the fertility rate in the country is high, with 3.6 children of a married woman by the end of her reproductive age (15–49 years) (National Institute of Population Studies [NIPS], 2019). This study has been conducted in Khyber Pakhtunkhwa, Pakistan. Therefore, statistics in this regard are important. It is statistically shown that in Khyber Pakhtunkhwa province of Pakistan and Newly Merged Districts (NMDs), previously called FATA, the use of modern contraceptive methods is lowest at 23% in the province and 14% in the newly merged seven districts (Sarfranz et al., 2021). The demand for the use of contraceptive methods is 52% in the country, including 19% demand for contraceptive methods for birth spacing and 33% for limiting births. It is also statistically shown that the unmet need for contraceptive methods among nonusers of any family planning method is 17%, including 10% for birth spacing and 7% to limit births (Madni, 2017).

With the amalgamation of the abovementioned statistics, media exposure in Pakistan is not positively associated with the use of modern family planning methods (Sarfranz, 2020). However, to achieve higher contraceptive prevalence rates, it is imperative to enhance the reach and effectiveness of media campaigns and academic research to address existing misconceptions about contraception (Madni, 2017). So far, research is limited on the issue of unmet needs regarding fertility considering a web of factors (media usage) in Khyber Pakhtunkhwa. The research conducted so far is about statistics and profiling different causes of unmet needs. However, the lack of academic knowledge and peer-reviewed research so far is very limited. The aim of this research is framing men's and women's perception towards family planning that is guided by media platform.

This study is significant in many ways broadly including its contribution to knowledge and policy making. As far as knowledge is concerned, Babbie (2014) asserts that applied research is a way to increase knowledge about social problems existing in society. This study directly contributes to the body of knowledge in the field of population studies and demography. First, this study extends knowledge regarding married men and women's perception towards family planning, considering media factors impacting perception in Khyber Pakhtunkhwa, Pakistan. Secondly, this study frames the media factors impacting married men and women's perception towards family planning into culture lag theory, either contributing to the non-use of modern family planning methods and discontinuation of family planning methods in the study area or not. Neuman (2014) illustrates that applied research aims to frame factors contributing to social problems into different theories which are relevant.

Theoretical Framework

Professor William Ogburn's Cultural Lag Theory is a relevant framework for analyzing the influence of media on modern family planning methods. The main theme of this theory is changes in material culture (technology) occur faster than changes in non-material culture (beliefs and norms) while creating a lag where society struggles to adapt to new innovations due to traditional or outdated social structures (Osborne, 2023). In the context of family planning, while modern contraceptive methods such as oral pills or intrauterine devices (IUDs) are widely available, deeply rooted traditional norms and socio-cultural barriers often delay their acceptance among eligible couples. The study area holds conservative views on reproductive health, perceiving contraception as inconsistent with religious or cultural values. This resistance reflects a cultural lag, where social attitudes fail to keep pace with scientific advancements in reproductive health. Media bridging this gap by acting as a change agent by using television, radio, social media and public health campaigns; media disseminates information about the safety, efficacy and benefits of modern contraceptive methods, challenging misconceptions and encouraging informed decision-making.

Methodology

This research study is developed from the first author's PhD dissertation as one of the PhD degree completion requirements. The second author of this research is the principal supervisor of the scholar. Methodology describes systematic procedures and approaches used in collecting data, analysis data, and interprets data (Creswell, 2014). In this study, quantitative methodology was employed to analyze the influence of media on the attitudes of married men and women regarding modern family planning methods. The quantitative methodology for this study is well suited because it allows for objective measurement and generalization led by positivist philosophy. The current study is based on cross-



sectional research design to assess study objective at one point in time, allows the researcher to capture the attitudes of the respondents at a particular point and enables to identify patterns and relationships among important variables (Taylor et al., 2006).

This study is restricted to two districts, Dir Lower and Dir Upper, within Khyber Pakhtunkhwa, Pakistan, characterized predominantly by rural mountains and traditional social and cultural environments while making consensus on all married men and women (reproductive age 15–49), excluding divorced and widows as a unit of analysis. A multistage sampling technique was adopted to ensure that the data collected was representative and yielded a total sample of 768. A structured interview schedule was designed very carefully after an in-depth literature review and consultations with subject matter experts in sociology and public health (DeVellis, 2016). The schedule comprises on closed ended questions on demographic information, knowledge, perceptions and usage of family planning methods to analyze the responses in a quantitative manner with standardized Likert Scale response options (Fowler, 2013).

Data analysis is the process of inspecting, cleaning, transforming, and modelling the data in order to understand it and extract useful meaning, conclusions, and support for decision-making. Systematic data analysis increases the reliability and validity of the research findings (Neuman, 2014). The following are statistical techniques employed in the current study. In data analysis phase used univariate a statistical technique to present a single variable at a time, providing insights into its distribution by frequencies and percentages as a descriptive analysis. Binary logistic regression was used to explore relationships between demographic variables (i.e. media used vs. attitude towards family planning).

Result and Discussion

Descriptive Analysis

Descriptive statistics involve summarizing and presenting data in a meaningful way to describe the basic features of a dataset through numerical measures, tables and graphical representations (Kaur et al., 2018). Descriptive statistics often do not make predictions beyond the given data while helping to simplify large amounts of data. The following is a descriptive analysis of primary data:

Table

Descriptive Statistics of Media Exposure among Married Women and Men in the Use of Modern Family Planning Methods

Variables	F	(%)
Reading of Newspaper		
Frequently	472	(61.5)
Rarely	296	(38.5)
Reading of Books		
Frequently	439	(57.2)
Rarely	329	(42.8)
Listening to FM Radio		
Frequently	321	(41.8)
Rarely	447	(58.2)
Watching of TV		
Frequently	434	(56.5)
Rarely	334	(43.5)
Use of Facebook		
Frequently	538	(70.1)
Rarely	230	(29.9)
Use of YouTube		
Frequently	590	(76.8)
Rarely	178	(23.2)

Variables	F	(%)
Married couple's exposure to television public service message encourages the use of modern family planning Methods.		
Frequently	507	(66.0)
Rarely	261	(34.0)
Printed materials Modern Family Planning methods messages encourage the use of family planning methods among couples.		
Frequently	521	(67.8)
Rarely	247	(32.2)
Social networks and social media channels spread messages about Modern family methods.		
Frequently	525	(68.4)
Rarely	243	(31.6)

Table 1 reveals significant trends in media consumption and the exposure of married couples to messages related to modern family planning methods. These insights are crucial for understanding the channels through which family planning awareness can be effectively promoted.

According to the univariate analysis, 61.5% of married couples frequently read newspapers, while 38.5% rarely expose themselves to newspapers. Reading books is slightly less frequent, with 57.2% frequently engaging in this activity and 42.8% doing so rarely. These figures suggest that print media remains a moderately popular source of information, though it does not dominate as the primary channel. According to the table, only 41.8% of couples frequently listen to FM radio, whereas 58.2% rarely listen to FM radio. This indicates that radio may be a less effective medium for disseminating information about family planning than other platforms.

Watching television remains a favoured medium, with 56.5% frequently watching it and 43.5% watching rarely. TV's broad reach makes it a vital tool for spreading awareness about family planning and reproductive health. Social media engagement: 70.1% frequently use Facebook, and 76.8% frequently use YouTube. Social media platforms exhibit the highest engagement levels. According to the table, 66% of couples frequently report being encouraged by TV public service announcements to use modern family planning methods, while 34% rarely experience such influence. Family planning messages in printed materials encircle 67.8% of couples frequently, with 32.2% exposed rarely.

Bivariate Analysis

Bivariate analysis led a statistical method to examine the relationship between two variables to help the researchers to understand that how one variable influence another by identifying patterns, associations or dependencies between them (Reitsma et al., 2005). The following section represents the bivariate analysis for this study:

Table 2

Relationship between Married Men and Women Exposure to Media (Print/Electronic) and Use of Modern Family Planning Methods (n=768)

Variables	Use of FPM		OR, 95% C. I	P. Value
	No F (%)	Yes F (%)		
Reading of newspaper				
Frequently	200(42)	276(58.0)	1.50(1.10-2.04)	0.015
Rarely	102(34.5)	194(65.5)	1.00	
Reading of books				
Frequently	180(40.1)	270(60.0)	1.011(1.100-2.05)	0.014
Rarely	123(37.4)	206(62.6)	1.00	
Listening to FM radio				
Frequently	123(38.3)	198(61.7)	.924(.687-1.242)	.600
Rarely	163(36.5)	284(63.5)	1.00	



Watching of TV				
Frequently	190(42.0)	260(58.0)	1.50(1.10–2.02)	0.016
Rarely	96(30.0)	224(70.0)	1.00	
Use of Facebook				
Frequently	200(39.2)	310(60.8)	1.32(1.05–1.75)	0.021
Rarely	100(33.3)	200(66.7)	1.00	
Use of YouTube				
Frequently	180(35.0)	334(65.0)	220(1.50–3.25)	0.001
Rarely	98(50.0)	102(71.9)	1.00	
Married couple's exposure to television public service message regarding the use of FPM				
Frequently	187(36.9)	320(63.1)	1.046(.768–1.423)	.776
Rarely	99(37.9)	162(62.1)	1.00	
Social networks and social media channels spread messages about Modern family methods				
Frequently	199(37.9)	326(62.1)	.914(.666–1.253)	.575
Rarely	87(35.8)	156(64.2)	1.00	

Regression Table 2 shows the relationship between married couples' exposures to media (print/electronic) and the use of FPM. According to the cross-tabulation, 58.0% of respondents who frequently read newspapers reported using family planning methods, compared to 69.5% of those who rarely read. This suggests that frequent newspaper readers are more likely to use FPM compared to rare readers. According to the binary logistic regression results in a significant relationship between frequent newspaper reading and FPM use. Respondents who were newspaper readers frequently had 1.50 times higher odds of using FPM compared to those who rarely read newspapers (OR 1.50, CI: 1.10–2.04, P-value=0.015). A similar observation was noted in the study of Sarfraz (2020), which states that newspaper readers are often more knowledgeable about family planning methods due to their exposure to articles, health campaigns, and expert opinions published in newspapers. These sources provide critical information on contraception, reproductive health, and government initiatives, influencing readers' attitudes and decisions regarding family planning.

The cross-tabulation analysis shows that among respondents who frequently read books, 60.0% reported using family planning methods, compared to 70.0% among those who rarely read books. This indicates that frequent readers of books are more likely to use family planning methods than those who rarely read books. The binary logistic regression analysis indicated a significant association between frequent book reading and FPM use. Respondents who frequently read books had 1.50 times higher odds of using FPM compared to those who rarely read books (Or 1.50, CI 1.10–2.05, P=0.014). The finding highlights the potential role of book reading in shaping family planning behaviours; it suggests that frequent readers may have better access to or understanding of relevant information, which can positively impact their decisions about family planning. As a similar observation was noted in the study of Mustafa et al., (2015) that books readers are more conscious people regarding family planning methods as they gain in-depth knowledge from various sources including medical, social, and psychological perspectives. Readers who engage with such literature develop a broader understanding of family planning's role in improving economic stability, gender equality, and overall well-being.

The cross-tabulation analysis revealed that among respondents who frequently listened to FM radio, 61.7% reported using family planning methods, compared to 63.5% of those who rarely listened to FM radio. This indicates that frequent FM listeners are slightly less likely to use FPM compared to rare listeners. According to binary logistic regression analysis, there was no significant association between frequent listening to FM and FPM use. Respondents who frequently listened to FM had 0.924 times lower odds of using FPM compared to those who rarely listened (OR 0.924, CI: 0.687–1.242, p=0.600). As a similar observation was noted in the study of Ali, et al., (2024) that FM radio listeners are influenced by family planning methods through awareness campaigns, expert discussions and public service messages broadcasted on various stations. Since radio is an accessible medium, especially in rural areas, it helps reach diverse audiences, including those with limited literacy.

The cross-tabulation analysis indicates that among respondents who frequently watch TV, 58.0% reported using family planning methods, whereas among those who rarely watch TV, 70.0% reported using FPM. This implies that frequent TV watchers are more likely to use FPM compared to those who rarely watch TV. The binary logistic regression analysis revealed a significant association between TV-watching frequency and FPM use. Respondents who frequently watched TV had 1.50 higher odds of using FPM compared to those who rarely watched TV (OR 1.50, CI: 1.110-1.02 P=0.016). A similar observation was noted in Khan's study (2023), which showed that frequent TV watching may have a notable impact on the use of family planning methods. The positive association could be attributed to exposure to educational programs or family planning advertisements.

The cross-tabulation analysis shows that 60.8% of respondents who frequently use Facebook reported using family planning methods, while 66.7% among those who rarely use Facebook. According to binary logistic regression there are significant association between Facebook usage and FPM use. respondents who frequently use Facebook had 1.32 times higher odds of using FPM compared to those who rarely use Facebook (social media) (OR 1.32 CI:1.05-1.75, p=0.021) as a similar observation was noted in the study of Ataullahjan et al., (2019) that potential influence of Facebook usage on family planning shows a significant positive association.

According to the cross-tabulation, 65.0% of respondents who frequently use YouTube reported using family planning methods, compared to 50.0% among those who rarely use YouTube. This suggests that frequent YouTube users are more likely to adopt FPM compared to rare users. The binary logistic regression analysis revealed a strong and significant positive association between YouTube usage frequency and FPM use. Respondents who frequently use YouTube have 2.20 times higher odds of using FPM compared to those who rarely use YouTube (OR 2.20, CI: 1.50-3.25, P=0.001). As a similar observation was noted in the study of Mustafa et al., (2015) that frequent YouTube usage is strongly and positively associated with the use of family planning methods. The positive relationship may be due to greater exposure to educational content, advertisements, or campaigns related to FPM on YouTube.

Conclusion and Recommendations

Modern family planning has the potential to ensure better maternal health and socio-economic prosperity. However, perceptions regarding its methods vary significantly across different communities. This study explores how media influence the attitude of married men and women regarding modern family planning methods, as seen in an insight from Khyber Pakhtunkhwa. The result of descriptive statistics demonstrates that communication patterns among married couples about various aspects of reproductive health, including contraceptives, birth spacing, and unplanned pregnancies, occur frequently (78%) among married couples, while the couples frequently discuss birth spacing in 75.5% of cases. Discussion about the types of contraceptives is the most common, with 79% of couples frequently engaging in such conversations, while discussion about the number of children frequently occurs in 78.1% of relationships. Communication about sexual relations happens frequently among 74.3% of couples. The trends in media consumption and the exposure of married couples to messages related to modern family planning methods led by 61.5% of married couples frequently read newspapers while only 41.8% of couples frequently listen to FM radio. Watching television remains a favoured medium, with 56.5% frequently watching it, while in social media engagement, 70.1% of the respondents frequently use Facebook, and 76.8% frequently use YouTube.

The synthesis of bivariate concluded the relationship between married couples' exposures to media (print/electronic) and the use of FPM. According to the binary logistic regression results, there is a significant relationship between frequent newspaper reading and FPM use, where respondents who were newspaper readers frequently had 1.50 times higher odds of using FPM compared to those who rarely read newspapers (OR 1.50, CI: 1.10-2.04, P-value=0.015). Respondents who frequently read books had 1.50 times higher odds of using FPM compared to those who rarely read books (Or 1.50, CI 1. 10-2.05, P=0.014). Respondents who frequently listened to FM had 0.924 times lower odds of using FPM compared to those who rarely listened (OR 0.924, CI: 0.687-1.242, p=0.600). Respondents who frequently watched TV had 1.50 higher odds of using FPM compared to those who rarely watched TV (OR 1.50, CI: 1.1.10-1.02 P=0.016). Respondents who frequently use Facebook had 1.32 times higher odds of using FPM compared to those



who rarely use Facebook (social media) (OR 1.32 CI:1.05-1.75, $p=0.021$). Respondents who frequently use YouTube have 2.20 times higher odds of using FPM compared to those who rarely use YouTube (OR 2.20, CI: 1.50-3.25, $P=0.001$).

The primary and secondary data reveals a strong trend of media effect most of household matters, particularly in routine and collective responsibilities like purchasing contraceptive. The data further highlights the media's influence of family on women's mobility and decision-making. The important role of the media platform in FPM adoption is prominent. While discussions about contraceptive use and sexual relations positively influence FPM utilization, conversations on topics like the number of children or equitable decision-making showed unexpected patterns, likely due to socio-cultural dynamics. Media contact also influences how individuals choose contraceptives. Modern family planning methods receive meaningful promotion through print and television media and social media platforms because these platforms deliver accessible interactive content about these methods. The research data confirms previously documented findings that show media contact increases awareness levels while fighting misconceptions and drives people to choose modern birth control methods.

Based on descriptive and inferential statistics, the following recommendations provided a roadmap by addressing educational gaps, cultural and gender barriers, service accessibility and policy frameworks involving government, healthcare professionals, community leaders and media platforms:

- ▶ First and foremost, the recommendation of this study is to include modern family planning education into formal curricula to foster early awareness and informed decision-making among young individuals. The curricula should include reproductive health and family planning topics to equip students with accurate knowledge about contraception and its benefits, while structured training programs can be entertained to tailor for married couples to help them understand modern contraceptive methods.
- ▶ Local community leaders can be instrumental in spreading accurate information about family planning because these trusted figures can address misconceptions, provide culturally sensitive guidance and encourage open discussions on reproductive health.
- ▶ Involve religious leaders for promoting family planning within religiously sensitive contexts by align family planning awareness with faith-based principles open a space for dialogues in religious gatherings to encourage informed reproductive health decisions among their followers.
- ▶ Utilize medial platform including television, radio and social media on effective way to broadcast educational programs, expert discussions and testimonials that address common misconceptions and highlight the benefits of family planning.
- ▶ Carry out targeted drives in rural and less educated social settings to dispel misconceptions and myths surrounding family planning by designed culturally relevant messaging and delivered through trusted local figures such as community leaders, religious scholars and healthcare workers.
- ▶ Challenging gender norms and stereotypes based on an inclusive approach by developing gender-sensitive programs that specifically address men's misconceptions about contraceptive use can help break traditional blockades and create a more supportive environment for learned choices.

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