

# Exposure of Family Planning Messages and its Association with Knowledge, Attitude, and Practices of Contraception in Karachi

Family  
Planning  
Messages and  
Effects on  
Knowledge of  
Contraception

Sanjay Kumar, Muhammad Talha Khan, Payal Kumari, Sheharyar Latif and Ferrukh Zehravi

## ABSTRACT

**Objective:** To observe the association between family planning messages and knowledge, attitudes, and practices of contraception in Karachi.

**Study Design:** Cross-sectional study.

**Place and Duration of Study:** This study was conducted at the Department of Community Health Sciences, Bahria University of Health Sciences Campus Karachi from April 1<sup>st</sup> to July 15<sup>th</sup>, 2021.

**Materials and Methods:** The data was collected via an online questionnaire incorporated in Google Form. Epi Info version 7.2.5 was used to calculate a sample size of 346. The sampling method was convenience sampling. Chi-square test was used to analyze data using SPSS version 23.

**Results:** Most of the participants were females with mean age of  $35.5 \pm 20$ . The study results showed that persuasion to use contraceptives because of family planning messages was associated with participants knowledge and self-belief in family planning. Out of total 346 participants, participants who persuaded to use contraceptives because of family planning messages and had knowledge of family planning were higher (69.1%) than who were not persuaded (23.7%).  $X^2(2) = 24.358$ ,  $p = 0.000$ . Likewise, participants who were persuaded and believed that family planning is of benefit was higher (67.3%) than who were not persuaded (18.5%).  $X^2(2) = 55.179$ ,  $p = 0.000$ .

**Conclusion:** The study highlights the potential of media and the internet in promoting family planning usage. However, it also emphasizes the importance of considering cultural and social factors when designing effective family planning campaigns.

**Key Words:** Contraception, family planning, Health Promotion, Mass media, Program Evaluation

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## INTRODUCTION

Millions of women worldwide continue to have an unmet need for contraception, and the utilization of modern contraception remains low.<sup>1</sup> Similarly, Pakistan is also facing barriers to family planning (FP) as it has become the fifth most populated country in the world with a population of around 207.7 million and a growth rate of 2.4%.<sup>2</sup> The high growth rate is due to barriers faced by the community, such as limited choices of FP methods, physical inaccessibility, fear or experience of

side effects, and men's dominance in decision-making. In addition, other factors that also play a role are lack of knowledge, lack of communication between couples, religious and cultural opposition, unaffordability, and insufficient health sector facilities. Women's age and unmet needs are also associated, as younger women have a greater need for modern contraceptives than older women who have completed their families.<sup>3</sup> The availability of free FP services at government centers is a positive step towards improving access to contraception. However, challenges such as frequent stock-outs and governance issues remain significant barriers to effective service delivery. To ensure individuals can access the FP methods they need, it is crucial to address these issues and strengthen the health systems supporting service provision. This may involve improving supply chain management, increasing funding for FP programs, and investing in training and support for healthcare providers.<sup>2-5</sup>

The use of contraceptives is considered a primary determinant in decreasing the fertility rate, which plays a part in the economic growth of a country.<sup>6,7</sup> It has been shown that the use of contraception reduces

Department of Community Health Sciences, Bahria University Medical and Dental College, Karachi

Correspondence: Sanjay Kumar, M.B.B.S, Student, Bahria University Medical and Dental College, Karachi, Pakistan  
Contact No: 03343509699  
Email: Srathi00@gmail.com

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maternal and child morbidity and mortality[6,8], resulting from preventing unintended pregnancies and empowering women to access FP strategies.<sup>4</sup> This aligns with the third Sustainable development Goals (SDG) envisioned by the United Nations in 2015, as it indicates that FP helps to provide better care for children, improve women's educational and economic opportunities, and enhance overall well-being.<sup>9</sup> In 2022, Pakistan aimed to achieve a contraceptive prevalence rate (CPR) of 55%.<sup>2</sup> However, the target is still far from being achieved, as the Pakistan Demographic Health Survey (PDHS) 2017-18 shows a CPR of 34%.<sup>2</sup> Pakistan currently has a total fertility rate (TFR) of 3.8 and a low modern contraceptive prevalence rate (mCPR) of 26%.<sup>10</sup> Furthermore, half of the users of modern contraception discontinued use due to health concerns and switched to traditional methods, which increased the risk of unintended pregnancies.<sup>11</sup> However, having good knowledge of FP methods is not sufficient to meet the SDG goal unless good FP practices are adopted in conjunction.<sup>12</sup>

To tackle this issue, various approaches have been introduced, such as awareness campaigns, celebrity appeals, access to free services, and appeals through religious scholars.<sup>6</sup> However, to our knowledge, studies on the effect of FP messages on the use of contraceptives are scarce in the context of Pakistan. Therefore, we attempted to observe whether FP messages are associated with the knowledge, attitudes, and practices of contraception in Karachi.

## MATERIALS AND METHODS

The cross-sectional study was conducted by the Department of Community Health Sciences, Bahria University of Health Sciences Campus Karachi, after obtaining ethical approval. Convenience sampling was used to collect data through an online questionnaire in English and Urdu languages. Informed consent was obtained from participants, and data collection took place from 1<sup>st</sup> April to July 15<sup>th</sup>, 2021. The inclusion criteria involved married females aged 15-49 years and married males aged 18 years and above, while exclusion criteria included unmarried individuals and those outside the specified age range. The sample size was calculated using Epi Info version 7.2.5, with an anticipated frequency of contraception use of 34%, 95% confidence level, a margin of error of 5%, and a design effect of 1.2, resulting in a sample size of 345. The data was analyzed using SPSS version 23, and the chi-square test was used to observe the association between independent and dependent variables.

## RESULTS

Out of 400 participants, 346 completed the online questionnaire, resulting in a response rate of 86.5%. The majority of the participants were female, and most were aged between 26 and 35 years. The mean age of

the study participants was 30.9 years, and 34.3% of them were graduates. In terms of occupation, 46.2% of participants were unemployed, while only 28% were employed full-time. Among the earners, 60.8% of participants earned less than 50 thousand Pakistani rupees. The majority of the participants (82%) identified as Muslim, and 99.1% were married (Table 1).

**Table No. 1: Socio demographic characteristics of the participants (n = 346).**

Characteristics	n (%)
<b>Gender:</b>	
Male	129 (37.2)
Female	217 (62.7)
<b>Age:</b>	
15-25	73(21.08)
26-35	145(41.9)
36-45	83(23.9)
46-55	38(10.7)
>55	7(2.02)
<b>Level of education:</b>	
Primary	45 (13)
Secondary	67 (19.3)
Higher secondary	49 (14.1)
Graduation	119 (34.3)
Post-graduation	39 (11.2)
None	27 (7.8)
<b>Occupation:</b>	
Part-time employment	53 (15.3)
Full-time employment	97 (28)
Un-employed	160 (46.2)
Other	36 (10.4)
<b>Monthly income in Pakistani rupees:</b>	
0-20,999	83 (23.9)
21,000-49,999	128 (36.9)
50,000-99,999	102 (29.2)
≥ 100,000	33 (9.5)
<b>Religion:</b>	
Muslim	284 (82)
Hindu	38 (10.9)
Christian	23 (6.6)
Other	1 (0.28)
<b>Marital status:</b>	
Married	343 (99.1)
Divorced	3 (0.8)
Widow	None

Figure 1 represents percentage of participants having knowledge of FP in Karachi. Out of total sample of 345, 320 (92.77%) had knowledge to FP. While only 25 (7.23%) did not had knowledge of FP.

Figure 2 represents percentage of participants who were persuaded by FP messages to use contraceptives in Karachi. Out of total, 71.1% participants reported that they were persuaded by FP messages to use contraceptive. Conversely, 28.9% participants were not persuaded by the FP messages.

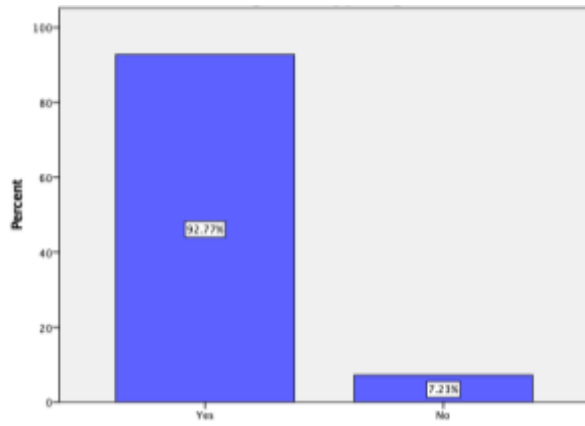


Figure No. 1: Knowledge of family planning among participants in Karachi (n = 346)

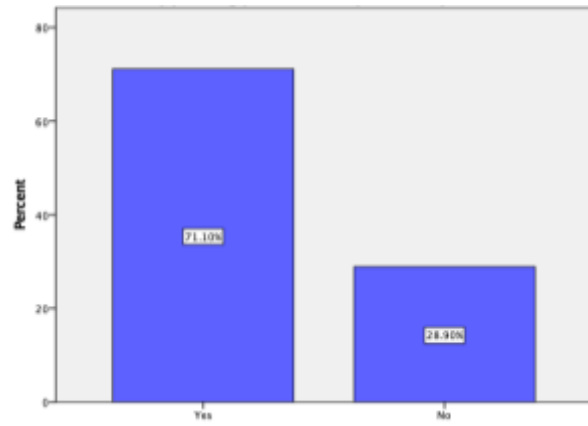


Figure No. 2: Contraceptive use among participants in Karachi persuaded by family planning messages (n=346).

Table No. 2: Association between persuasion to use contraceptives because of family planning messages and knowledge of family planning among participants in Karachi (n=346).

	Knowledge of Family planning			Pearson Chi-Square	P-Value
	Yes	No	Total		
Family planning message persuaded contraceptive use					
Yes	239(69.1%)	7(2%)	246(71.1%)	24.358	0.000
No	82(23.7%)	18(5.2%)	100(28.9%)		
Total	321(92.8%)	25(7.2%)	346(100%)		

Table No. 3: Association between persuasion to use contraceptives because of family planning messages and self-belief of family planning benefit among participants in Karachi (n=346).

	Family planning benefits self-belief			Pearson Chi-Square	P-Value
	Yes	No	Total		
Family planning message persuaded contraceptive use					
Yes	233(67.3%)	13(3.8%)	246(71%)	55.179	0.000
No	64(18.5%)	36(10.4%)	100(29%)		
Total	297(85.8%)	49(14.2%)	346(100%)		

Table No. 4: Association between persuasion to use contraceptives because of Family planning messages and current use of contraceptives by the participants in Karachi (n=346).

	Currently using contraceptive			Pearson Chi-Square	P-Value
	Yes	No	Total		
Family planning message persuaded contraceptive use					
Yes	165(47.7%)	81(23.4%)	246(71%)	29.986	0.000
No	35(10.1%)	65(18.8%)	100(29%)		
Total	200(57.8%)	146(42.2%)	346(100%)		

Out of total 346 participants, percentage of participants who were persuaded to use contraception because of FP messages and had knowledge of FP were higher (69.1%) than who were not persuaded (23.7%). Conversely, participants' who were persuaded and had

no knowledge of FP was less i.e., 2%, as compare to those who were not persuaded (5.2%). Additionally, analysis using the Chi square test showed that there is a strong significant association between persuasion to use contraceptive because of FP messages and the

knowledge of FP among participants in Karachi,  $X^2(2) = 24.358$ ,  $p = 0.000$  (Table 2). Table 3 indicates that a higher percentage of participants (67.3%) who were persuaded by FP messages to use contraceptives believed that FP is beneficial, compared to those who were not persuaded (18.5%). Conversely, a lower percentage of participants (3.8%) who were persuaded to use contraceptives and believed that FP is not beneficial, compared to those who were not persuaded (10.4%). Chi-square analysis revealed a strong significant association between persuasion by FP messages and self-belief in FP benefits among participants in Karachi,  $X^2(2) = 55.179$ ,  $p = 0.000$ . Percentage of participants persuaded by FP messages to use contraceptives and currently using them was higher (47.7%) compared to those not persuaded (10.1%). However, participants persuaded but not currently using contraceptives were also higher (23.4%) compared to those not persuaded (18.8%). Chi-square analysis revealed a strong significant association between persuasion by FP messages and current contraceptive use among participants in Karachi,  $X^2(2) = 29.986$ ,  $p = 0.000$ . (Table 4).

## DISCUSSION

Goal 3 of the SDG calls for "universal access to sexual and reproductive health services, including FP." FP is a well-known technique for lowering maternal and infant mortality and improving the health of women and children, and it is regarded as a "best buy".<sup>13</sup> Despite a significant rise in the coverage of reproductive, maternity, and child health services, Pakistan's health outcomes have improved slowly. Approximately 14,000 women die each year as a result of pregnancy-related problems, placing Pakistan among the six developing countries responsible for more than half of all maternal deaths globally.<sup>14</sup> FP is the most cost-effective intervention to promote mother and child health and survival.<sup>15</sup> Nonetheless, millions of Pakistanis do not have access to FP services. Modern FP approaches account for only 26% of FP use in Pakistan, and levels of modern FP use in rural regions (23%) remain lower than in urban areas (32%).<sup>1</sup> Studies demonstrate that providing consumers with information regarding the advantages and potential side effects of modern methods of contraception is insufficient.<sup>16</sup>

With the widespread use of internet and social media globally, it is crucial to study the influence of messages from different sources on FP. Our study achieved a high response rate of 86.5% from mainly female participants aged 26 to 35. Findings indicate that FP messages positively impact contraception adoption, with 71% of participants reporting persuasion in their FP practices, and approximately 29% reporting no persuasion.

In this study, we examined the impact of media on knowledge, beliefs, and behaviors related to FP. We found that the percentage of participants who were

aware of FP messages and persuaded to use contraception was higher than those who were not persuaded by media communications. This suggests a significant relationship between knowledge of FP and the inducement to use contraception due to FP messages in Karachi. However, a recent study in Ethiopia reported no significant link between exposure to mass media FP messages and contemporary contraception use in rural areas. In contrast, women exposed to FP messages in metropolitan areas were less likely to use contemporary contraception. This highlights the importance of considering structural and intermediary factors such as religion, location, household wealth, education, and child count in understanding the discrepancies in modern contraceptive use influenced by media messages. As a result, tackling cultural, geographic, and societal barriers to contemporary contraception use may have a greater impact.<sup>17</sup>

In addition to the main findings of our study, we concluded that self-belief in the benefits of FP plays a crucial role in persuading couples to use FP strategies. Participants who were persuaded by FP messages to use contraceptives and believed in the benefits of FP had higher usage rates compared to those who were not persuaded. However, some participants who were persuaded but not currently using contraceptives were also higher compared to those who were not persuaded, possibly due to religious, cultural, and social factors influencing FP decision-making. Another study showed that Instagram was an effective platform for mediating health behavior change among Malaysian university students, as it facilitated health knowledge acquisition, weight loss goals, and social interactions related to health behavior modification. This adds to the understanding of behavioral science and the role of Instagram in promoting health behavior change.<sup>18</sup> Another study found that social media, as an information source, has a significant impact on consumer motivation formation and green cosmetic purchasing intentions.<sup>19</sup>

## CONCLUSION

In conclusion, our study emphasizes the importance of internet and mass media in spreading FP awareness, while acknowledging that other factors like religion, culture, and social influences impact decision-making. Addressing these factors and providing comprehensive information is crucial for effective FP promotion. However, our study has limitations including its cross-sectional design and convenience sampling. Further research with rigorous designs and diverse populations is needed to enhance the validity and generalizability of the findings.

### Author's Contribution:

Concept & Design of Study: Sanjay Kumar

Drafting: Muhammad Talha Khan,  
Payal Kumari  
Data Analysis: Sheharyar Latif, Ferrukh  
Zehravi  
Revisiting Critically: Sanjay Kumar,  
Muhammad Talha Khan  
Final Approval of version: Sanjay Kumar

**Conflict of Interest:** The study has no conflict of interest to declare by any author.

## REFERENCES

- Azmat SK, Ali M, Hameed W, Awan MA. Original Article Assessing FP Service Quality and User Experiences in Social Franchising Programme – Case Studies From Two Rural Districts in Pakistan. *Assess Fam Plan Serv Qual User Exp Soc Franch Program* 2020;30(2):187–97.
- Imran M, Yasmeen R. Barriers To FP In Pakistan. *J Ayub Med Coll Abbottabad* 2020;32(4):588–91.
- Asif MF, Pervaiz Z, Afridi JR, Abid G, Lassi ZS. Role of husband’s attitude towards the usage of contraceptives for unmet need of FP among married women of reproductive age in Pakistan. *BMC Womens Heal* 2021;21(1):163.
- Shah AM, Lee K, Nisa Mir J. Exploring Readiness for Birth Control in Improving Women Health Status: Factors Influencing the Adoption of Modern Contraceptives Methods for FP Practices. *Int J Env Res Public Heal* 2021;18(22).
- Ali M, Azmat SK, Hamza HB. Assessment of modern contraceptives continuation, switching and discontinuation among clients in Pakistan: study protocol of 24-months post FP voucher intervention follow up. *BMC Heal Serv Res* 2018;18(1):359.
- Jabeen S, Rathor A, Riaz M, Zakar R, Fischer F. Demand- and supply-side factors associated with the use of contraceptive methods in Pakistan: a comparative study of demographic and health surveys, 1990-2018. *BMC Womens Heal* 2020; 20(1):265.
- Asif MF, Pervaiz Z. Socio-demographic determinants of unmet need for FP among married women in Pakistan. *BMC Public Health* 2019;19(1):1226.
- Dixit A, Johns NE, Ghule M, Battala M, Begum S, Yore J, et al. Male-female concordance in reported involvement of women in contraceptive decision-making and its association with modern contraceptive use among couples in rural Maharashtra, India. *Reprod Heal* 2021;18(1):139.
- Sreeramreddy CT, Acharya K, Tiwari I. Inequalities in demand satisfied with modern methods of FP among women aged 15-49 years: a secondary data analysis of Demographic and Health Surveys of six South Asian countries. *BMJ Open* 2022;12(6):e049630.
- Ali M, Azmat SK, Hamza H Bin, Rahman MM, Hameed W. Are FP vouchers effective in increasing use, improving equity and reaching the underserved? An evaluation of a voucher program in Pakistan. *BMC Health Serv Res* 2019;19(1).
- Dehingia N, Dixit A, Averbach S, Choudhry V, Dey A, Ch, et al. FP counseling and its associations with modern contraceptive use, initiation, and continuation in rural Uttar Pradesh, India. *Reprod Heal* 2019;16(1):178.
- Ahirwar RK, Kumar S, Gupta S, Niranjana A, Prajapati K, Rawal S. A study to assess the socio-demographic factor and knowledge, attitude, and practice of family planning methods in Ilopeeta migrants tribe located in Shivpuri Central India. *J Family Med Primary Care* 2021;10(3):1308.
- Starbird E, Norton M, Marcus R. Investing in family planning: Key to achieving the Sustainable Development Goals. *Global Health: Science and Practice* 2016;4(2):191–210.
- Azmat SK, Ali M, Ishaque M, Mustafa G, Hameed W, Khan OF, et al. Assessing predictors of contraceptive use and demand for FP services in underserved areas of Punjab province in Pakistan: Results of a cross-sectional baseline survey. *Reprod Health* 2015;12(1):1–10.
- Cleland J, Conde-Agudelo A, Peterson H, Ross J, Tsui A. Contraception and health. *Lancet* 2012;380(9837):149–56.
- Goldie SJ, Sweet S, Carvalho N, Natchu UCM, Hu D. Alternative Strategies to Reduce Maternal Mortality in India: A Cost-Effectiveness Analysis. *PLoS Med*;7(4). Available from: /pmc/articles/PMC2857650/
- Ahmed M, Seid A. Association between exposure to mass media family planning messages and utilization of modern contraceptive among urban and rural youth women in Ethiopia. *Int J Women’s Health* 2020;12:719–29.
- Razak AA, Mansor NA, Razak RA, Nawi NMM, Yusoff AM, Din N. Changing Awareness about Health Behavior: A Study among Young Instagram Users. *J Behavioral Sci* 2022;15(1):19-33.
- Pop RA, Săplăcan Z, Alt MA. Social Media Goes Green—the impact of social media on Green Cosmetics purchase motivation and intention. *Information* 2020;11(9):447.