

Trend Analysis of Contraceptive Usage and Reasons of Low Contraceptive Use in Pakistan: A Narrative Review on Available Literature

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ABSTRACT

The Pakistani government has been struggling continuously to slow down the population rise despite making easy accessibility of family planning services. Various factors including economic crisis, poverty, unemployment, and inflation have been identified that influence family planning practices leading to a low contraceptive prevalence rate (CPR). The main aim of this review was to understand the positive and negative predictors and the trends of contraceptive use. Pakistan, currently facing the issues of high morbidity and mortality of mother and child as a consequence of low CPR secondary to the high risk of unplanned and/or teenage pregnancies, abortion, and miscarriages. Low CPR produces a drastic effect on the nation's economy, as a high growth rate causes uncontrolled urbanization. Old age, education, and mothers' employment, wealth, and better lifestyle have positive influences while it is evident rural life, traditional religion, illiteracy, poverty, non-working mothers, and fear of side effects, *etc.* navigate low CPR. Although contraception in terms of modern contraceptive techniques has increased in Pakistan over the past two decades, still there is a need for efforts to increase CPR among reproductive and fertile age groups. Further, interventions such as the provision of affordable family planning practices and facilitating access to women near their homes, improving awareness must be targeted as a priority.

Keywords: Contraceptive, contraceptive use prevalence, contraceptives methods, family planning, family planning services.

BACKGROUND

Pakistan is an under-developing nation located in the region of South Asia. It ranks among the top ten nations across the globe in terms of population, with a rapid growth rate [1]. Contraceptive prevalence and the unmet need for family planning are crucial indicators for measuring improvements in access to reproductive health as stated in target 3.7 of the 2030 Agenda for Sustainable Development Goal 3. Family planning and access to contraceptives are essential for lowering the morbidity and mortality associated with pregnancy, enhancing the health of young girls and women, and their offspring, as well as lowering the associated social and economic costs of early pregnancy [2].

By making family planning services more accessible, the Pakistani government has been struggling continuously to slow down the population rise. Regardless of putting efforts, Pakistan has the highest pace of population increase *i.e.* 2 percent per year in the South Asian Region [1]. United Nations' Sustainable Development Goal (SDG) for developing countries to raise the contraceptive prevalence rate (CPR) remained unachievable for Pakistan. The unmet need for family planning in Pakistan has been considered one of the basic causes for the high population growth rate [3] However, health

departments of the Pakistan government as well as private sector health organizations have been constantly striving to increase the CPR by improving availability and accessibility of family planning services.

Identifying the overriding problems and analyzing the outcomes it has been observed that the determinants related to culture, religion, and social and economic perspectives that directly or indirectly involved and acted as barriers to the use of contraceptives among reproductive age group women [4, 5]. Even though the fertility rate reduction has been progressing in Pakistan but CPR of Pakistan (34%) is still the lowest among average CPR (53%) South Asian countries. Moreover, high morbidity and mortality of mother and child are the consequences of low CPR secondary to the high risk of unplanned and/or teenage pregnancies, abortion, and miscarriages [6]. Further, a low rate of contraceptive prevalence produces a drastic effect on the nation's economy, as a high growth rate causes uncontrolled urbanization that ultimately leads to destitution, crime, pollution, and political turmoil.

Despite the efforts it is required to understand, what are the positive and negative predictors of contraceptive use? Moreover, what are the trends of contraceptive prevalence? These questions are further discussed in this review. Additionally, to assess the true economic impact of the policies for family planning, investigators must detangle causal effects from other socioeconomic factors that may be driving the use and access of contraceptive use and economic outcomes later in life.

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Received: March 28, 2023; Revised: June 05, 2023; Accepted: June 08, 2023

DOI: <https://doi.org/10.37184/lnjpc.2707-3521.6.3>

METHODOLOGY

For a thorough literature search, Google Scholar and PubMed were used. The selected published articles were in the English Language. Contraceptive, contraceptive use prevalence, contraceptive methods, family planning, family planning services, socio-demographic traits related to contraceptive uses, and prevalence were the terms used for the search. Studies included in this review article consisted of original articles, meta-analysis, thematic analysis, national and international surveys and reports like national health survey reports and World Health Organization reports for statistics and latest information. EndNote software was used for referencing.

RESULTS

55 articles including original articles (quantitative and qualitative studies) meta-analysis, thematic analysis, and national and international surveys were shortlisted in the search, out of which 31 were cited in the review. 4 articles mentioned the socio-demographic factors influencing the CPR and types of contraception practiced in Pakistan. For the prevalence of contraceptive use, 9 articles were included. While 22 articles were added that show different trends in contraceptive use.

Socio-demographic Factors Influencing Low Family Planning Practices

Numerous factors have been identified that influence family planning (FP) practices leading to low CPR. These include household earnings, number of children /households, women's age, region of residence (rural/urban), women's educational and employment status, mass media exposure, spouse's education, cultural and religious restrictions, limited choice and accessibility of family planning methods and inadequate FP services, etc. [7, 8].

A few decades ago, reproductive behaviors were gendered, and the fertility goals of couples faced disagreements. However, in Pakistan, remarkable changes in women's empowerment and reproductive-related behaviors in recent years might have affected women's characteristics, and their harmony with husbands on fertility goals is associated with contraception [8]. Unfortunately, there are some cases influenced by a patriarchal society where men are dominant and considered superior to take major decisions that affect women's autonomy and limit their decision-making power [9].

Types of Contraceptive Practices Used in Pakistan

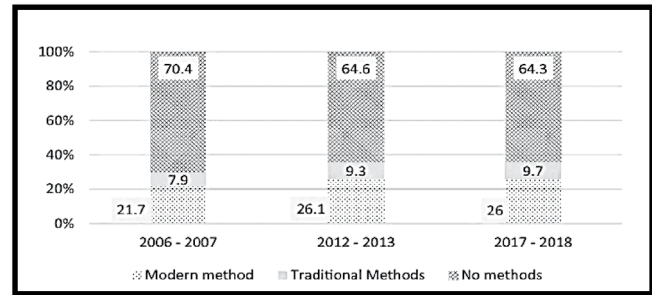
In Pakistan, there are three common contraceptive methods in practice [10]. The contraceptive techniques differ in different regions of the country. They are:

1. Traditional Methods e.g. Rhythm and withdrawal
2. Folkloric Methods (local tribal practices and spiritual methods of unproven effectiveness e.g. use of amulets, herbs, and beads

Table 1: Overall prevalence of modern methods contraceptive usage in South Asian countries.

Name of Countries	Contraceptive Prevalence Rate (%)
Sri Lanka	83.7%
Iran	72.5%
Bangladesh	52%
Nepal	43%
Pakistan	26%

Source: Ref # 12,14,15



Source: Pakistan Demographic and Health Survey, 2018 [13].

Fig. (1): Prevalence of contraceptive utilization among Pakistani Women (2006 to 2018).

3. Modern Methods e.g. hormonal pills, male condoms, IUCD (intrauterine contraceptives devices), injectable hormonal implants, emergency contraceptives, male (vasectomy) and female (tubal ligation) sterilization procedures

Prevalence of the Use of Contraception in Pakistani Women

Overall, there has been a slight rise in the use of contraception among Pakistani women from 29.6% to 35.7% in the last decade (2006 to 2018) [10]. The use of traditional and folkloric methods was 10% and remain stable in the last 20 years [11]. In South Asian countries, Sri Lanka has been named as one of the countries with high use of traditional methods of family planning [8]. Traditional contraceptive methods are also the most prevalent methods of contraception in Iran (Table 1) [12]. Although the proportion of women accessing family planning services is still low the rate is lesser, particularly in terms of adopting modern techniques of contraception [10]. From 2006 to 2018, the use of both traditional and modern contraceptive techniques was increased but, the percentage of women using modern methods was stable at around 26% from 2012 to 2018 (Fig. 1) [13].

Compared to other South Asian Countries, Nepal, Bangladesh, Iran, and Sri Lanka has a utilization rate of modern methods of contraception are 43%, 52%, 73% [12], and 83.7% respectively (Table 1) [14, 15]. The percentage of using modern techniques of contraception among women found significantly increased in the last few decades from 20% to 50% approximately [11]. Nevertheless, the rise in the usage of modern contraceptive methods was significantly slow with only 5% after 10 years [10] (Table 2).

Table 2: Age group specific contraceptive utilization rates in South Asian countries.

Country	Survey Year	Age Group	Any Method	Any Moder Method	Any Traditional Method	Family Planning Unmet need (%)
Bangladesh	2001	13-49	50.2	43.9	6.3	-
	2004	15-49	58.5	47.6	10.8	15
	2007	15-49	55.8	47.5	8.3	16.8
	2013	15-49	61.8	59.3	2.5	13.9
	2014	15-49	62.3	53.9	8.4	12
India	2019	15-49	62.7	59.1	3.6	13.7
	2000	15-49	49.9	42.3	4.6	-
	2004	15-44	53	45.7	7.3	21.1
	2006	15-49	56.3	48.5	7.8	13.9
	2008	15-49	54.8	48.1	6.4	20.5
Iran	2016	15-49	53.5	47.8	5.7	12.9
	2000	15-49	73.8	56	17.8	-
	2002	15-49	73.3	58.9	14.3	-
	2004	15-49	39.3	35.4	3.9	27.8
	2006	15-49	48.1	44.2	3.7	24.7
	2011	15-49	49.7	43.2	6.5	27.5
	2017	15-49	52.6	42.8	9.8	23.7
Pakistan	2019	15-49	46.7	44.2	2.5	24.7
	2001	15-49	27.6	20.2	7.4	33
	2007	15-49	29.6	21.7	7.9	25.2
	2013	15-49	35.4	26.1	9.3	20.1
	2018	15-49	34.2	25	9.2	17.3
Sri Lanka	2019	15-49	34	23.4	10.6	-
	2000	15-49	7	49.6	20.4	18.2
	2007	15-49	68.4	52.5	16	7.3
	2016	15-49	64.6	53.6	11	7.5

*Source: United Nations <https://www.un.org/development/desa/pd/data/world-contraceptive-use>

Trends of Contraceptives Use

The increasing usage of contraceptives among uneducated and less educated women weakened the misconception of a positive link between education in women and the use of contraceptives. Regardless of the educational status contraceptive use is increasing in women of reproductive age women of Pakistan and their fertility preferences are reflected in their contraceptive use-related behavior. On the contrary, research conducted in Pakistan and India showed higher usage of contraceptives among educated women as they might be more able to understand the benefits of contraceptives which could have brought behavioral change [16, 17]. A similar trend was observed among women living in rural areas [16]. Socioeconomic status is directly linked to the educational status of the individuals as people of lower and lower middle class usually do not have strong educational backgrounds. The level of education is strongly associated with the desire for children [18]. Consequently, women with many children have been known to be more involved in family income generation [17, 18].

Educated women are more empowered and can handle situations in a much better way especially if they are working in a good working environment [19]. Education and employment are the important factors that develop the negotiation skills in women that can contribute to increasing the likelihood of spousal joint participation

in household and other family decisions.20 In India, a researcher mentioned a strong association between women's empowerment with spousal communication regarding the use of contraception [20]. Similarly, the socioeconomic and educational status of women and husbands were found strongly associated with Nepali women's empowerment [21]. Studies from Bangladesh and India revealed that consultation with doctors particularly related to family planning was more common among employed mothers [6, 22]. The number of antenatal visits is directly proportional to the higher use of contraception and family planning services [23]. This could be attributed to the women's empowerment secondary to their education and employment which further influences their behavior towards health-seeking facilities [24].

Pakistan is among one of the nation with great gender discrimination that favors men's power because of the patriarchal system [10]. Women are believed to be men dependent with little independence to determine their social and economic identity, hence they have limited decision-making powers [10]. The nature of autonomy differs among women as an educated woman might take health-related decisions for herself and her children and other household budgetary issues but can't decide fertility decisions for herself [19]. Pakistani women are still dependent on their spouses for decision-making in every aspect of life. Dependence is less in educated

women to a certain extent but they are still the hold of life partners over their life is present [25].

The prevalence of contraception in women of Pakistan was noted to be less among the age group 45 and over as compared to women aged 15 to 24 years to use contraception measures especially modern contraceptive methods [26]. Generally, the tendency of contraceptive usage was higher in women aged 33-44 years (36%). It could be explained that women aged 45 years old or over have usually completed their family and had a certain number of living children. Also, this age is close to menopause, hence they believe that it is less likely they will conceive at this age [10]. Similarly, Nepal has a high contraceptive prevalence rate in women of reproductive age span *i.e.* between 15-49 years [15]. Contradictory, in India, the higher CPR is found in the age group of 35-49 years, probably due to early marriage and the couple would have completed their family [16]. The number of births per woman influences their decisions regarding the use of contraceptives. Women who had three more living children become more inclined to use contraceptive techniques as compared to the women who had two or fewer children [10]. Also, the desire to have male child prevent them avoid contraception. Hence, having more than one living son increases the likelihood of contraceptive use when compared with several living daughters [13, 18]. Furthermore, women's autonomy, choice, and decision-making ability and power increase with their increased age which may be attributed to the cultural factors whereby recently married women are not expected to become primary decision-makers of the family [27]. Thus, cultural norms along with the impact of reproductive age and the greater risk of mortality associated with pregnancies can lead to early parenting, unwanted teenage pregnancies, and higher maternal mortality [6, 28].

Religious beliefs and social and cultural attitudes in Pakistan influence the decision on contraceptive usage and preference for contraceptive techniques [29]. The myths prevailing in society related to contraception pass down from generation to generation. The most common myths are displeasure of God and disapproval [29]. Religious, social, and cultural beliefs have a substantial impact on the use of contraception that prevent its use because of strong disapproval. Religious Muslim women and followers of traditional religions avoid visiting family planning centers, and hence, are least likely to use any of the modern contraceptive methods. Also, myths regarding modern contraceptives and their associated possible side effects are prevalent in the population [19, 17, 29]. The most common misconceptions and side effects dreaded were health issues, weight gain, excessive bleeding, post-use infertility, impact on milk supply, birth defects, reduced sexual pleasure, abortions and miscarriages after ceasing the use of contraception method, and cancer [4, 29]. Fear of the adverse effects of contraceptives and unawareness about the hazards

of teenage pregnancy were instigated by the limited or no information about the benefits of family planning techniques [30]. Also, such fears increase the likelihood of not adopting contraceptive measures in even those who intend to use contraceptive methods.

Communication and/or information regarding family planning is considered to be a factor that encouraged and helped them to persuade for contraception use. Pakistani women who were exposed to family planning information through media were most likely to use contraception especially modern contraceptive techniques. Exposure to media is an effective medium for providing information regarding the availability and usefulness of different family planning techniques [29]. Contraceptive use was reported less among women living in rural areas of Pakistan. The lack of media channels might justify the low CPR rate among rural women as compared to urban women. Also, accessibility to the reproductive health facility center in terms of distance is lesser in rural areas along with the lack of transport facilities [26]. Usually, a husband who is the breadwinner of the family and holds financial power is considered the prime decision-maker. Women, especially in rural areas have limited mobility, as they require money and permission from their husbands to travel alone to a health facility.6 Further, the remoteness of healthcare facilities and family planning and reproductive centers in urban areas decreases the chance of getting information related to family planning methodologies which reflects low usage of contraceptives [31].

CONCLUSION

Even though, the use of family planning methods has increased over time; the rate of growth is inconsistent and unsatisfactory. Contraception in terms of modern contraceptive techniques has increased in Pakistan over the past two decades (2006 to 2018). However, there is still a need for efforts to increase the contraceptive prevalence rate among reproductive and fertile age groups.

Several socio-demographic factors and demand-side factors such as exposure to media, a desire for more children, and mothers' decisional autonomy, *etc.* are associated with contraceptive usage. Positive predictors of contraceptive use in these groups include being older, educated, and mothers' employment, wealthier, and living in urban areas of Pakistan. Among these, differences are evident in negative predictors of contraceptive use such as rural, traditional religion, illiteracy, poverty, non-working mothers, and fear of side effects all of which answer our research question in a nutshell.

We also recommend that there is a dire need to target the interventions such as the provision of affordable family planning practices and facilitating access to women near their homes, improving awareness among disadvantaged groups. Also, community mobilization and increasing education levels in women of rural

communities can further increase the awareness and possibility of to use of contraceptives.

FUNDING

None.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

ACKNOWLEDGEMENTS

Declared none.

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