

DETERMINANTS OF FAMILY PLANNING UTILIZATION IN PAKISTAN: A THEORETICAL PROSPECTIVE

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Abstract

Population planning is inevitable for a sustainable and secure future of a lower middle-income economy, like, Pakistan which stands fifth populous economy across the globe and has high population growth rate. Based on Pakistan Demographic and Health Survey 2017-18 data and by covering a sample of 12339 ever-married females, the study intends to investigate the correlates of family planning services use in Pakistan as well as the use of contraceptives across the regions and districts of Pakistan. An exploration of 34 studies (spanning over a time from 1989 to 2021), specifically on Pakistan, with respect to family planning services utilization, have found that the use of family planning services was an outcome of a woman's education, awareness status, wealth or economic status, religion, husband's approval, area of residence, number of living children, prevalence of the desired family planning method, desire for more children, subsidized healthcare services and other social or individual factors. In Pakistan, the average contraceptive use rate was recorded as between 19-49 percent across the regions and between 0-71 percent across the districts. The region Islamabad Capital Territory (ICT) had the highest contraceptive usage rate, i.e., 49%, followed by: Punjab (42%), Khyber Pakhtunkhwa (KPK) and Gilgit Baltistan (39% each), Sindh and Azad Jammu and Kashmir (AJK) (34% each), Federally Administered Tribal Areas (FATA) (24%), and Balochistan (19%). Amongst the districts, top three districts with highest contraceptive usage were Jafarabad, Sheikhpura and Jhang whereas the districts of Rajanpur, Tor Ghar and Kohlu were lying at the bottom. Region-wise disaggregation found that in the province of Punjab and Sindh, the range of contraceptive use across the districts was respectively ranged between 0-70 percent and 8-60 percent. Likewise, in KPK and Balochistan provinces, the range of contraceptive use had been recorded between 0-59 percent and between 2-71 percent. While the range of contraceptive use in Gilgit-Baltistan, FATA region, and in AJK had been respectively recorded between 9-48 percent, 11-39 percent, and 17-47 percent.

Keywords: Determinants, Family planning, Utilization, Pakistan

INTRODUCTION

Contraception is a way of family planning by controlling the number of children one has and the space between child births. Pakistan is the first country in the world, where the wide-ranging family planning program was started during 1960s. In South Asia, Pakistan is the country with highest population growth rate. Pakistan is the world's fifth most populated country and the second largest South Asian country having 207 million people where population growth rate is 2.4% (WDI, 2018). Where, men are more than women; men are 51% and women are approximately 49% of total population. Because of high population size, Pakistan is facing a demographic youth bulge where two third of its population is <25 years in age (UNW, 2018). Failure to efficiently control the fertility rate and fast population growth had opposing effects on education, poverty, and life expectation etc. Table 1 gives some essential indicators regarding the demographic transition of the country.

Table 1: Trends in Demographic and Health indicators: 1969-2019

	1969	1980	1990	2001	2012	2019
Population growth rate	2.69	3.30	2.86	2.41	2.10	1.97
Total fertility rate (birth per women)	111.58	105.03	86.08	53.75	41.50	37.61
Contraceptive prevalence rate (% of females 15-49)	5.5	3.3	14.5	27.6	29	34

Source: World Development Indicators (WDI) (Author's own calculations)

According to Pakistan Demographic and Health Survey (PDHS) 2017-18, on average woman tolerates 3.6 children in her lifespan. The rate of fertility is also very high (3.9 in rural areas, in urban areas is 2.9). In Pakistan only 34% women used contraceptives (in urban area is 43%, in rural area is 29%). Over the past 5 years, the use of contraceptives has remained stationary (35% in PDHS, 2012-13, and 34% in PDHS 2017-18). Although in Pakistan the contraceptive prevalence rate (CPR) is 34%, but still the situation is alarming. In the last one- and-half year, due to the low contraceptive usage, there were still 3.1 million unplanned pregnancies. To control the population, contraceptive use must be increased (WDI,2018; FP,2020; WHO; UNW,2018).

Continuously increasing population is causing many social, political, environmental, and economic issues. To tackle these problems and to meet "Sustainable Development Goals (SDGs)" there is a need to control population. Contraceptive use is a vital zone to be considered if somebody wants to control the population burst. It is time to investigate the prevalence of contraceptive use which could be helpful in family planning perspective if adopted by the masses. It is important to look at the political-economic dynamic forces of the family planning programs, which could help us to know our failure

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in controlling our population growth. Total fertility rate (TFR), which has fallen over the last few decades, depends upon different social, economic, demographic indicators as well as the use of contraception. There is a noticeable fall in TFR in large cities as compared with rural areas. Like a basic human right, the ability to choose family size is also important for economic authorization. Family planning can endorse economies and contribute to the maintainable development. Not only it protects lives, but it also saves money. Investment in reproductive health services for one dollar, can save healthcare cost of \$2.20 related to pregnancy.

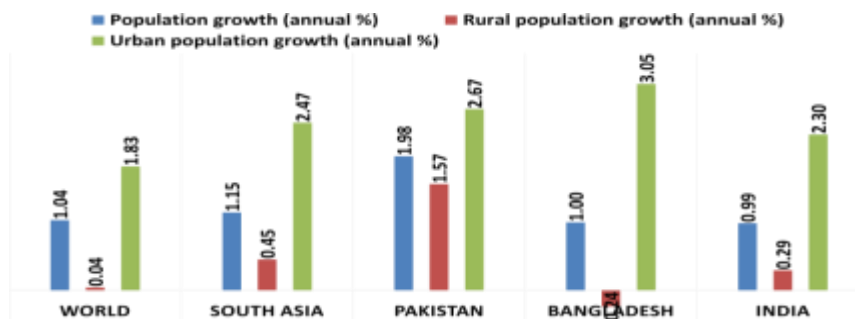


Figure 1: Population Growth Rates: Global, Regional, and National

Source: [World Development Indicators (WDI); (Author's own calculations)]

To attain Sustainable Development Goal (SDG) 1, "to eradicate poverty" contraceptive use is significant. It helps to achieve other goals, such as eradicating hunger, reducing infant and maternal deaths, promoting good health, gender equality and empowering women. This is very thoughtful and disturbing situation if we do not take serious steps to control population on emergency basis otherwise this might be impossible to control upcoming population blast. Future population crisis could be awful. This may lead to food crisis, which could disturb law and order situations resulting violence. Many people attempt suicide due to hunger therefore it will be a big disaster if we are not able to make strategies at the accurate time by giving awareness to the people about this calamity in future (Kenim, 2018). A lot of studies have investigated the prevalence of contraceptive use. In this area, a lot of work has been done in Pakistan but still regional and district wise inequalities in terms of contraceptive use are underexplored. Hence, the study has two objectives: (a) to explore the literature pertinent to the use of family planning services in Pakistan (b) to gauge the situation regarding contraceptive use across the regions as well as across the districts of Pakistan. In this way, the findings of the study may help in geographical targeting to allocate resources related to family planning services across Pakistan. That could finally contribute to population planning and control in order to reduce the various socioeconomic problems.

DRIVERS OF FAMILY PLANNING SERVICES UTILIZATION IN PAKISTAN: A LITERATURE SURVEY

Many studies have been conducted to explore the socioeconomic determinants of family planning in past years. There have been some similarities and also some differences in their results. In terms of socioeconomic factors, the most commonly found determinant of the use of reproductive health service specifically family planning is a woman's education level (Abdulghani et al., 2009; Agha, 2010; Ali & White, 2005; Asif et al., 2021; Douthwaite & Ward, 2005; Fikree et al., 2005; Kiani, 2003; Mahmood & Ringheim, 1996; Ali & Rehman, 2015; Mubarik et al., 2016; Ali & Audi, 2016; Mustafa et al., 2008; Naqvi et al., 2011; Nasir, Tahir, & Zaidi, 2010; Raheel et al., 2012; Sajid & Malik, 2010; Khan, 2020; Saleem et al., 2020; Akbar & Hayat, 2020; Siddiqui et al., 2020; Stephenson & Hennink, 2004a; Russo, 2022; Shah & Iqbal, 2025). According to all of these studies, education plays a vital role in making family planning decisions. As female's education level increases, her utilization of family planning methods increases. It is considered that with the increase in women's education level her decision-making power increases which also have has a great impact on opting family planning methods. Studies showed the positive relationship among female's decision-making power and the usage of family planning methods (Douthwaite & Ward, 2005; Fikree et al., 2005; Mahmood & Ringheim, 1996; Mustafa et al., 2015; Naqvi et al., 2011; Nasir et al., 2010; Saleem et al., 2020; Stephenson & Hennink, 2004b; Raja & Iqbal, 2019).

Awareness status of a female regarding family planning techniques is also a key determinant in the utilization of family planning methods (Ali & White, 2005; Memon, & Bibi, 2008; Douthwaite & Ward, 2005; Fikree et al., 2005; Finlay, 2021; Gul et al., 2019; Irfan et al., 2009; Jabeen et al., 2011; Mubarik et al., 2016; Mustafa et al., 2015; Naqvi et al., 2011; Nasir et al., 2010; Olenick, 2000; Sajid & Malik, 2010; Rehman & Malik, 2020). As the awareness of family planning methods among women increases, tend towards family planning increases. Wealth or economic status plays a key role in the demand or purchase of any commodity. Studies showed its positive association with the use of family planning services (Abdulghani et al., 2009; Anees & Yan, 2019; Ali & White, 2005; Ali & Senturk, 2019; Asif et al., 2021; Bibi et al., 2008; Douthwaite & Ward, 2005; Fikree et al., 2001; Fikree et al., 2005; Mubarik et al., 2016; Sajid & Ali, 2018; Raheel et al., 2012; Modibbo & Inuwa, 2020; Siddiqui et al., 2020; Stephenson & Hennink, 2004b). As economic status improves probability of using family planning methods increases. Religion has a great influence on the decision making of human beings. In Pakistan, where majority of the population is of Muslims, due to some improper or lack of knowledge about the Islamic commands on family planning, considered it against to the Islam which is a major obstacle in its use (Abdulghani et al., 2009; Asif et al., 2021; Jabeen et al., 2011; Kiani, 2003; Mahmood & Ringheim, 1996; Raheel et al., 2012; Adeel, 2019; Asif et al., 2022).

In Pakistan, being a male dominant society, man's approval in any matter is considered to be very important. Like in all other matters, husband's approval is also important in deciding family size or number of children. Higher the approval of

husband leads the higher use of family planning services (Agha, 2010; Ali & White, 2005; Marc & Roussel, 2024; Asif et al., 2021; Casterline, Sathar, & ul Haque, 2001; Kiani, 2003; Raheel et al., 2012; Siddiqui et al., 2020; Stephenson & Hennink, 2004a; Asif et al., 2021). Still there is a huge gap between urban and rural areas regarding the provision of even some basic facilities. In rural areas of Pakistan, number of health centers is very low, and the facilities provided there are also insufficient. Due to which people of rural areas have minimum access to family planning services while as compared to rural areas, people living in urban areas have higher access to health centers and family planning services (Ahn & Mira, 2002; Mustafa et al., 2008; Nasir et al., 2010; Asif et al., 2024). Number of living children has been considered as a primary determinant of using family planning services. Families with higher number of living children are more likely to opt family planning methods as compared to the families with smaller family size (Ali & White, 2005; Ali, 1989; Amin et al., 2020; Asif & Pervaiz, 2019; Bibi et al., 2008; Feyisetan, 2000; Khan & Awan, 2011; Mahmood & Ringheim, 1996; Nasir et al., 2010; Raheel et al., 2012; Saleem et al., 2020; Sharan & Valente, 2002; Siddiqui et al., 2020; Asif et al., 2023). Fear of side effects associated to family planning services are one of the major obstacles of its usage (Agha, 2010; Azmat et al., 2015; Baig et al., 2020; Bibi et al., 2008; Irfan et al., 2009; Kiani, 2003; Mustafa et al., 2015; Naqvi et al., 2011; Sajid & Malik, 2010). Prevalence of the desired method also plays a key role in the utilization of family planning services (Ali & White, 2005; Azmat et al., 2015; Asif et al., 2022). Many studies have showed that the couples who want more children are less likely to use any family planning method (Douthwaite & Ward, 2005; Jabeen et al., 2011; Kiani, 2003; Nasir et al., 2010; Raheel et al., 2012; Sajid & Malik, 2010; Siddiqui et al., 2020; Asif et al., 2024). Subsidized healthcare services particularly family planning services can increase its usage (Raheel et al., 2012; Asif et al., 2022). Social or individual gatherings increases the awareness and knowledge. Mobility of a woman can also increase the chances to use family planning services (Khan, 1999; Asif et al., 2022).

DATA AND METHODOLOGY

In order to explore the determinants of family planning services utilization in Pakistan, we made a literature survey of 36 studies conducted specifically in the context of Pakistan with respect to family planning services utilization. The studies covered a time period from 1996 to 2021. As it has already been mentioned in the objectives of the study that the current study explores the relevant literature regarding contraceptive use in the context of Pakistan. So, in order to explore and find the relevant studies conducted in Pakistan we used and searched for the key phrase “contraceptive use in Pakistan” in Google Scholar search engine for any time. As an output to that phrase the search engine exhibited 31,900 results. Again, we used and searched for the key phrase “contraceptive use in Pakistan” in Google Scholar search engine for a customized time period, 1996 to 2021 this time the search engine exhibited 16,900 results. Most of the exhibited studies were not pertinent to the context, hence were irrelevant. Finally, out of the relevant studies only those studies were considered and further read that were conducted on the required theme in Pakistan during the time span 1996 to 2021. So, in total 36 studies are included in the current research paper. For the purpose of gauging contraceptive usage trend across the regions as well as across the districts of Pakistan, data of Pakistan Demographic and Health Survey (PDHS) 2017-18 was used. The Pakistan Demographic and Health Survey of 2017-18 is fourth survey conducted as part of Demographic and Health Survey (DHS) international series. Data of 12339 ever-married females was used for this purpose. Descriptive statistics was applied by using SPSS and MS Excel. For mapping the contraceptive usage trend across the regions and districts of Pakistan, Philcarto—an open access mapping software was used.

RESULTS AND DISCUSSION

CONTRACEPTIVE USE LANDSCAPE OF PAKISTAN: NATIONAL LEVEL SCENARIO

As it is evident from the figure (4), the graph clearly depicts the contraceptives usage percentage across the regions of Pakistan. The range of average contraceptive use rate across the regions is 19-49%. Islamabad Capital Territory (ICT) has the highest contraceptive usage rate, i.e., 49%, while Balochistan secures minimum contraceptive usage rate that is 19%. The regions of Punjab (42%), KPK and Gilgit Baltistan (39% each), Sindh and AJK (34% each), and FATA (24%) had the intermediate status with respect to contraceptive usage rate over Pakistan. The data of Contraceptive's users is arranged in ascending order. In Pakistan, the range of contraceptive's users is between 0% to 71%.

There are many regional disparities regarding education, health and wealth status in Pakistan. Literature shows that these are the main factors that are positively associated with the use of contraceptives (Abdulghani et al., 2009; Agha, 2010; Ali, 1989; Bibi et al., 2008; Douthwaite & Ward, 2005; Fikree et al., 2001; Mahmood & Ringheim, 1997; Mustafa et al., 2008; Nasir et al., 2010; Sajid & Malik, 2010; Stephenson & Hennink, 2004b). Islamabad Capital Territory and Punjab are considered as developed regions where socioeconomic status is high as compared to the other regions. In these regions, literacy rate is high, wealth status is much better, people are more aware about contraceptive use, better health services as compared to other regions. While the socioeconomic status of the residence of Sindh, Balochistan, AJK and FATA are low due to which the contraceptive usage rate is low in these regions. Due to these inequalities, they are not at the same or equal status. As compared to Punjab, Sindh, Balochistan, AJK and FATA are at low level in using contraceptives. Hence, geographical targeting could be a feasible mode to allocate resources for family planning services. Efficiency can be increased by targeting needy areas.

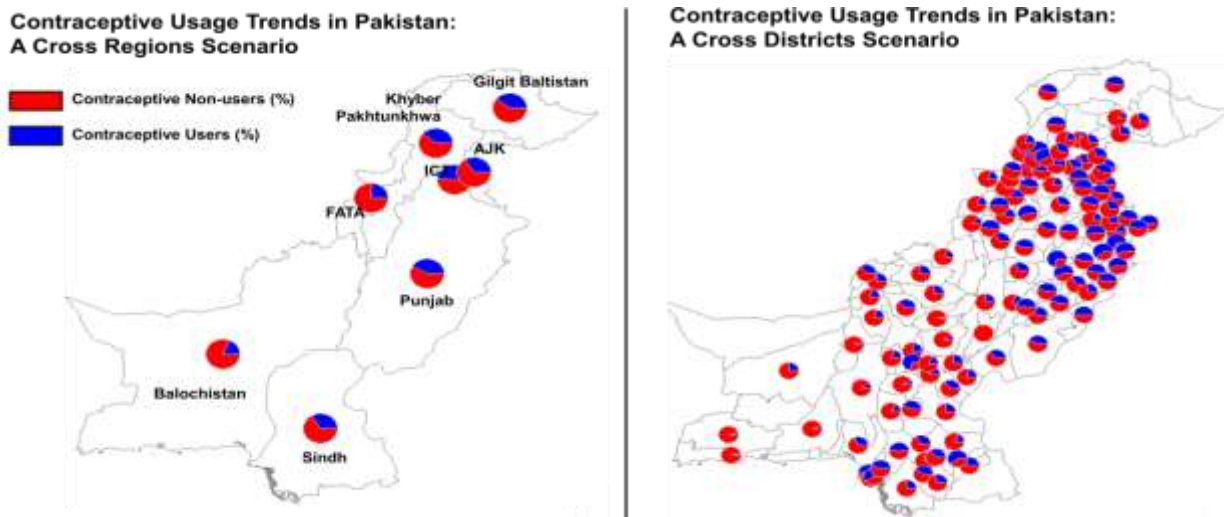
CONTRACEPTIVE USE LANDSCAPE OF PAKISTAN: SUB-NATIONAL LEVEL SCENARIO

In case of Pakistan the districts with highest contraceptive's usage (%) are Jafarabad (71%), Sheikupura (70%) and Jhang (68%). In Rajanpur, contraceptive usage rate is minimum.

In Punjab, contraceptive usage rate lies between 0-70%. In case of Punjab regarding contraceptive usage, Sheikupura, Jhang and Nankana Sahib are the districts where highest contraceptive usage is prevailed (70%, 68% and 63%), while Rajanpur (0%) district stands at the bottom. In Sindh, the range of contraceptive usage (users) is between 8% to 60.4%. The top three districts with highest contraceptive usage are Mirpurkhas (60%), Karachi East (60%) and Korangi (58%),

while Larkana (8%) district stands at the bottom. The topmost three districts of KPK (contraceptive use range 0-59 percent) in terms of highest contraceptive usage are Mardan (59%), Malakand (57%) and Bannu (50%), while Tor Ghar (0%) district carries the lowest rank with respect to contraceptive usage. In Balochistan, the range of contraceptive use has been recorded between 2-71 percent. Where the topmost three districts with highest contraceptive usage are Jafarabad (71%), Sibi (36%) and Killa Abdullah (35%), whereas Kohlu (2%) district is at the lowest.

Figure 4: Mapping of the regions and districts of Pakistan with respect to Contraceptive use (%)



The range of contraceptive usage (users) in Gilgit-Baltistan is between 28.2% to 46.6%. Kharmang (9%) district stands at the bottom with respect to contraceptive usage, while the top three districts with highest usage are Hunza (48%), Shigar (48%), and Ghizer (47%). Overall, in AJK, the range of contraceptive users lies between 17% to 48%. The districts with highest contraceptive's usage (%) are Mirpur (47%), Poonch (38%), and Kotli (36%) while Haveli (17%) district stands at the lowest rank. In FATA, the range of contraceptive usage (users) is between 11% to 40%. Regarding contraceptive usage, Khyber Agency (39%), Mohmand Agency (32%), and Bajaur Agency (21%) are the top three districts with highest contraceptive usage while Orakzai Agency (11%) district is at the bottom in FATA.

Same as regions, social disparities also exist at districts level. A huge gap exists among urban and rural areas of Pakistan. Rural areas are far behind in having all the facilities than the urban areas. Education, awareness and health facilities provided in the rural areas of Pakistan are very low and insufficient as comparison to urban areas. People of rural areas are more conservatives. In rural areas, household decision maker is mostly a male family member, hence his approval or support regarding contraceptive is required. Number of healthcare centers is also very minimum in rural areas (Ali, 1989; Douthwaite & Ward, 2005; Fikree et al., 2001; Mahmood & Ringheim, 1997; Mustafa et al., 2008; Stephenson & Hennink, 2004b). These are the possible reasons concluded from the literature survey as previously mentioned due to which people of rural areas have minimum access to family planning services as compared to people living in urban areas. In Pakistan, more than 60% population is living in rural areas. The contraceptive usage is high in the districts where most of the population is living in urban areas due to higher socioeconomic status.

CONCLUSION AND POLICY RECOMMENDATIONS

Access to family planning services is a basic human right. In the absence of which, the efforts to control population could not be carried out in more organized way. In Pakistan, a huge gap exists between urban and rural areas regarding the provision of even some basic facilities. The health facilities provided in the rural areas of Pakistan are insufficient. Due to which people of rural areas have minimum access to family planning services as compared to people living in urban areas. In Pakistan, the geographical targeting could be a feasible mode to allocate resources for family planning services. Efficiency can be increased by targeting needy areas. Hence, based on the data of PDHS, this study helps to point out areas of need, taking steps on regional and sectoral priorities and enabling targeted public interferences through special family planning programs, which further leads to help governments in the proper allocation of funds on territorial basis. Governments should take serious steps to raise education and awareness among the residents of the areas where the use of family planning services is low.

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