

## ORIGINAL ARTICLE

## Use of Contraceptive Methods among Pakistani Women in Southern Punjab and Perception about their Effectiveness

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### ABSTRACT

**Objective:** To study the general trends about the use of different contraceptive methods among rural and urban women; and ascertain their perception about the effectiveness of contraceptives and associate desire for fertility, parity, and birth control measures among the women of rural and urban areas.

**Study Design:** A cross-sectional descriptive study.

**Place and Duration of the Study:** The study was conducted in the Gynecology department of Mukhtar. A Sheikh Hospital, Multan from 3<sup>rd</sup> of October 2019 to 3<sup>rd</sup> of March 2020.

**Materials and Methods:** A total of 200 women aged between 31-41 years and varying literacy rates were included in the study. The participants belonged to both rural and urban areas and interviewed for their desirability for fertility. Negative responses were asked further probed regarding their perspective about contraception and preferred method. Data was analyzed on SPSS software 23.0.

**Results:** Out of 200 female patients, 75% urban and 65.4% rural women expressed no desire for fertility, The contraceptive utilization was reported 91.6% among urban and 76.9% among rural women. Among the rural and urban users of contraceptives, the barrier method was the most frequently used method with the percentage of 50% and 42.3%, respectively. Among women with parity less than or equal to 3, 61.5% had no desire for fertility and 56.4% were using the barrier method while all the women (31.4%) with parity greater than 3 expressed no desire for fertility and were using copper IUDs for contraception. Although, 30.4% of urban women regarded contraception methods as most effective yet only 18.8% found them completely effective.

**Conclusion:** The prevalence rate of contraception in Pakistan has drastically risen among both rural and urban women but traditional barrier methods remain the frequent method of use. However, majority still believe that contraceptive methods are not effective. Therefore, awareness campaigns should be launched to increase their acceptability and eliminate myths.

**Key Words:** Contraception, Contraceptive Methods, Desire of Fertility, Family Planning, Parity.

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### Introduction

Contraceptive is defined as the use of various methods to prevent pregnancy. It is a contributing

factor in fetomaternal health and their wellbeing as family planning holds prime importance in the health of mother and child.<sup>1,2</sup> Across the world, there is a significant drop in the rate of fertility, from as high as 5 children in the 1950s to an average of 2.6 children per woman, currently mainly due to the use of contraceptives.<sup>3,4</sup> According to a study published in *Lancet*, increased utilization of contraception in developing countries has allowed a drastic reduction in maternal mortality rate by 40% in the last two decades by reducing undesired and high-risk pregnancies.<sup>5</sup> However, according to the World Health Organization (WHO) data on family planning,

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over 2 million fertile women in developing countries are not utilizing novel contraceptive methods regardless of their desire to avoid pregnancy.<sup>6</sup>

In Pakistan concept of family planning is not largely endorsed. Pakistan maternal mortality rate is 176 per 100,000 of live births annually or around 30,000 Pakistani women die each year owing to pregnancy-related causes.<sup>7</sup> Among many reasons for the high maternal mortality rate, the nonuse of contraceptives has been identified as a significant cause as proper family planning is critical for reproductive health.<sup>8</sup> Besides high maternal mortality rate in Pakistan, Pakistan Demographic and Health Survey (PDHS) 2018-2019 has highlighted that the neonatal mortality rate (NMR) has also been constantly high.<sup>9</sup> The national abortion rate in 2019 was 50 in every 1,000 reproductive women, which was significantly higher when compared with 2002 statistics.<sup>10</sup> Moreover, 25% of Pakistani women of reproductive age don't have enough facilities for contraception. Given the decline in resources of Pakistan, the state urgently requires to cap its growing population. Although contraception prevalence rates are already been investigated by some authors, the evaluation about types of contraceptive methods use and the perception of women about their effectiveness is still not investigated in Pakistan. Therefore, the aim of this study is to investigate the trend among rural and urban women of Southern Punjab about the use of contraceptives to develop an association between parity and contraception. and record their perceptions related to the effectiveness or non-effectiveness of different methods of contraception.

### Materials and Methods

The cross-sectional descriptive study was conducted at the Gynecology Department of Mukhtar A. Sheikh Hospital, Multan for 6 months from the 3<sup>rd</sup> of October 2019 to the 3<sup>rd</sup> of March 2020. A total of 200 women, aged between 31-41 years with diverse educational backgrounds were included in the study after seeking their informed consent. The sample size was calculated with 80% power of the study and a 5% level of significance. Married women were selected through a random sampling technique with the intent to include women from both rural and urban areas in the final study. Women who refused to give consent or who were unaware of contraceptives

were excluded from the study. After, getting approval from the ethical review committee of the hospital, a self-designed questionnaire was administered to them by a trained interviewer. The participants were questioned about the use of contraceptives, the preferred contraceptive method, and their desire for having more children. Contraception was defined to the participants as a deliberate attempt to prevent conception through the use of diverse devices, drugs chemicals, and sexual practices.<sup>11</sup> The users of contraceptives were also inquired about the preferred method of contraception along with their perception about the effectiveness of contraception. The perception was graded from less effective to very effective. These participants were also asked if they consider 'no method' as an effective way of birth control. Parity of women (characterized as the number of occasions at which a woman has given birth to a fetus irrespective of the fact that whether the child was stillborn or born alive<sup>11</sup> was assessed through their medical records. Based on parity, the participants were divided into two groups:  $\leq 3$  and  $> 3$ . The responses of participants in terms of desire for fertility and contraceptive methods used were noted against the classification criteria.

### Statistical Analysis

Computer software SPSS version 23.0 was used for data analyses. For each study variable, percentages were calculated. The student's t-test was used to compare quantitative data between two groups while qualitative data was compared through the fisher chi-square test. For all the calculations,  $p < 0.05$  was considered statistically significant.

### Results

A total of 200 women participated in the study. Out of which 96 (48%) were urban while 104 (52%) were rural. The percentage of participants between 31-38 years were 48% and between 38 years to 41 years were 52%. The majority of women, both urban (75%) and rural (80.8%), had a parity less than or equal to 3. When women were inquired about their desire for fertility, 75% of urban women and 65.4% of rural women expressed non-desirability for more children. Among those who gave a negative response against the desire for fertility, 91.6% urban and 76.9% rural women were using contraceptives. Majority among both the categories, preferred barrier method of contraception, 50% urban and

42.3% rural women. (Table 1). Further, the association of rate of parity with the desire for fertility and use of the contraceptive method is established. (Table 2). 30.4% of urban women found contraceptive methods as effective while only 18.8% of rural women graded contraceptive methods as effective (Table 3).

**Table 1 : Association of Study Outcomes among Women of Rural and Urban Areas (n=200)**

Characteristics		Women from areas				P-value
		Urban areas		Rural areas		
		n	%	n	%	
contraception use	Yes	88	91.6	80	76.9	P<0.05
	No	8	8.3	24	23.1	
Age Group	31 - 38 years	48	50.0	48	46.2	P=1.02
	38 -41 years	48	50.0	56	53.8	
Parity	≥3	72	75.0	84	80.8	P=0.06
	>3	24	25.0	20	19.2	
Desire for fertility	Yes	24	25.0	36	34.6	P=0.04
	No	72	75.0	68	65.4	
Method used	Calendar	16	16.7	0	0.0	P<0.001
	Barrier	48	50.0	44	42.3	P=0.08
	OCPs	0	0.0	24	23.1	P<0.001
	Copper IUDs	16	16.7	4	3.8	P<0.05
	Mirena	4	4.2	0	0.0	P<0.001
	Tubal ligation	4	4.2	0	0.0	P<0.001
	No method	8	8.3	32	30.8	P<0.001

**Table 2: Association of Parity with Desire for Fertility and Method used (n=200)**

Characteristics		Parity				P-value
		<=3		>3		
		N	%	N	%	
Desire for fertility	Yes	60	38.5	0	0.0	P<0.001
	No	96	61.5	44	31.4	
Method used	Calendar/ Natural	12	7.7	4	18.2	P=0.04
	Barrier	88	56.4	4	18.2	P=0.02
	Oral Contraceptive Pills	16	10.3	8	36.4	P<0.05
	Copper IUDs	0	0	20	91	P<0.001
	Mirena	4	2.6	0	0	P<0.001
	Tubal ligation	0	0	4	9.1	P<0.001
	No Method	36	23.1	4	9.1	P<0.005

### Discussion

The growing population of Pakistan is an issue for our

**Table 3: Effective Use of Contraception in Urban and Rural Residence (n=200)**

Percentage	Urban residence	Rural residence	P-value
No method	21%	21%	P=1.00
Less effective	25.3%	38.6%	P=0.08
Moderately effective	23.3%	21.6%	P=0.063
Most effectively	30.4%	18.8%	P<0.05

policy makers. According to the census of 2017, the population of Pakistan has increased from only 132.4 million in 1998 to 207.8 million.<sup>12</sup> Further, despite the decrease in mortality rate throughout the world, Pakistan still has an alarming rate of maternal mortality.<sup>7</sup>

Our study has revealed that the majority of women expressed no desire for fertility which projects that generally women of Pakistan endorse the concept of family planning. The low desire for fertility among the women of Pakistan is found to be in-consistence with the fertility desires in the outer world which has capped their population growth.<sup>13</sup> Similarly, a satisfactory number of both urban and rural women were using contraceptives while later reported comparatively less utilization rate. The prevalence of contraceptive use in our study is similar to a previous study with the same objective in which 71.6% of women were using contraceptives<sup>14</sup>; however, Mustafa et al., found that although the majority of women are aware of contraceptives, the rate of their use is very low due to several reasons including religious concerns, family perceptions, and unavailability to effective contraceptives.<sup>15</sup> This is in contrast to our study and could be due to the smaller sample size of our study and the inclusion of the majority of women with low parity. Despite having awareness about family planning, the growing rate of the population indicates the lack of education regarding the correct use of contraceptives among women. According to a study based on community counseling programs, it was concluded that counseling programs were ineffective in sustaining the contraceptive use for long, and formulating an effective counseling program was suggestive.<sup>16</sup> Therefore, it can be interpreted that women might be using contraceptives at the time of study and might stop using them in the future since the majority of them found contraceptive methods not completely effective. A study conducted by

Attaullahjan et al. revealed various factors behind the ineffective family planning program of Pakistan. According to the authors, the political agendas of the Pakistani government have also played a prime role in the unsuccessful campaigning of contraceptives.<sup>17</sup> Furthermore, among the users of contraceptives, the barrier method was found to be the most prevalent method for birth control among both rural and urban women which is in contrast with a previous study that regarded tubal ligation as the most used method of contraception.<sup>14</sup> The result of the study depicts the backwardness of Pakistan in modern medicine as best practices suggests use of long-term contraceptive methods.<sup>18</sup> A study of the USA concluded that women have shifted their preference towards long-acting contraceptive methods since 2002.<sup>19</sup>

Interviews reveal that mostly rural women of Pakistan have misconceptions and myths related to the use of contraceptives and only 18% found them fully effective. Even most of the users believed that contraceptives are mostly ineffective in birth control or could induce negative consequences on reproductive health. These results go hand in hand with a previous study that concluded negative perceptions about rural women about the effectiveness of contraception.<sup>20</sup>

The study has contributed to the literature by trying to create awareness related to the ignorance of women of Pakistan. The study will assist the policymakers in drafting an effective policy against population growth and maternal mortality. Moreover, the medical community should take notice of the use of traditional methods of contraception and should counsel patients about the more effective and modern method.

However, the study is majorly limited in terms of evaluating the reasons behind the non-use of contraception methods. It also failed to justify the major difference in the prevalence of the use of contraceptive methods between rural and urban populations. Therefore, it is suggested to conduct further studies to address these shortcomings.

### Conclusion

The study reflects that although majority of women, especially urban, were aware of contraceptive use, yet the frequent method remained the traditional barrier method. Moreover, a significant number of

women still believe that these methods are not effective. It is therefore recommended to launch an effective country-wide counseling program, especially in rural areas to create awareness about new contraceptive methods and their effectiveness.

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