Demographic Characteristics Associated with Knowledge and Practice of Contraceptive Methods among Married Women (Aged 15-35) In Punjab, Pakistan

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Abstract
Background: Knowledge and uptake of contraceptive methods play very instrumental role in the reproductive health of women. The demographic and background characteristics of married women are the major determinants of contraceptive use. The core objective of this study was to assess the relationship of demographic characteristics of respondents with their knowledge and their status of currently contraceptive use.
Materials and Methods: The proposed sample size 8640 of married women aged 15-35 years was drawn from ten sampled districts of the Punjab Province. The selection criteria of the districts was based on contraceptive prevalence rate, fertility rate and literacy rate. The unit of analysis in urban areas was blocks which identified by the help of Pakistan Bureau of Statistics. Similarly, in rural areas, Muzas/villages were used as unit of analysis. The rural part was comprised on 70% and urban was 30%.
Results: .Data shows that 40.5% of women had knowledge of contraceptive methods and 59.5% of women had no knowledge of contraceptive methods. Similarly, 51.9% of women were currently using different contraceptive methods and 48.9% of women were not using any methods of contraceptive. The chi-square value of residential area and family type have significant association with knowledge of contraceptive methods, Educational status of husband, Educational status of Women and Monthly household income have highly significant association with knowledge of contraceptive methods and Occupation of Women have no significant association with knowledge of contraceptive methods. Additionally, chi-square value of residential area, family type and monthly household income shows highly significant association with status of currently contraceptive use. Occupation of wife has also positive association with status of currently contraceptive use. Interestingly, it is found that educational status of husband has no association with status of currently contraceptive use.
Conclusion: Conclusively, it is proved that demographic characteristics of respondents have strong association with their knowledge and practice of contraceptive methods. Resultantly, lower use of contraceptive methods unleashed the unrestrained population growth in the Punjab, Pakistan.
Key Words: Demographic Characteristics, Contraceptive Methods, Fertility Rate, Contraceptive Prevalence Rate

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I. INTRODUCTION

The main purpose of this research study is to unfold the link between the demographic characteristics (Women's education, Husband's education, women's occupation, household income, residential area and family structure) of respondents and their knowledge and use of contraceptive methods. The several studies have suggested that demographic characteristics of married women age of contraceptive use pave the ways regarding uptake of contraceptive methods. It is also found that socio-economic status of women has important role in their knowledge and uptake of contraceptive methods. It is found that uptake of contraceptive methods is lower among marginalized and under-resourced women. Resultantly, they have greater chance and risk of unwanted births (Ranjit, Bankole, Darroch, & Singh, 2001).

Indeed, World is making holistic progress towards stabilization of population growth. The situation of Pakistan is quite bleak and grim. It has ranked 6th among nations of world with 2.4 percent annual growth rate. The population of the country is increasing at fast pace. The country's annual growth rate of 2.4 percent implies that Pakistan will rank the fourth highest populated country of the world in 2050.There is an escalation of 57

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percent in population growth since 1998. The high fertility rate of 3.4 children per women in Pakistan has deteriorated the development and advancement of Pakistan (Agha, 2010)

The contraceptive prevalence rate for Punjab showed very slow increase from 30 percent to 41 percent (with only 21%-29% modern method use) during 2001-2013(Huisman & Wallaart, 2016) Unfortunately, the CPR remained stagnant during 2000-2007 with a high discontinuation of contraceptive use due to lack of good counseling and follow up care. As a result, women in Punjab, on average, have around one birth in excess of their desired fertility (Actual TFR of 3.8 vs. Wanted TFR of 2.8) (NIPS and ICF International, 2013). This phenomenon is expected to have contributed to a significant increase in population over and above the desired family size level, which could have been avoided, if quality of family planning services and adequate contraceptive supplies were ensured. A research study witnessed that every married woman must has knowledge of at least one contraceptive method. It is also found that there is a greater vacuum between knowledge and practice of contraceptive methods in Punjab (BOS & UNICEF, 2015).

It is well-known fact that residential area, educational status of spouses, family type, occupation of spouses and household monthly income have greater influence on the knowledge and utilization of contraceptive methods among married women. It is revealed that women from rural areas have less use of contraceptive as compared to women from urban areas. The main reason is that urban areas have better opportunities in terms of education, family planning information and services (NIPS and ICF International, 2013).

Objective of the Study
The core objective of the present research is "to assess the relationship between the demographic characteristics of the respondents and use of contraceptive methods."

Hypothesis of the study
It is expected positive relationship of residential area, educational status of spouses, occupation, household income and family structure with knowledge and practice of contraceptive methods.

II. RESEARCH METHODOLOGY
The universe of the present research was married women (Aged 15-35) in Punjab. The proposed sample of married women aged 15-35 years was drawn from ten sampled districts of the Punjab province. The selection criteria of the districts was based on contraceptive prevalence rate, fertility rate and literacy rate. The unit of analysis in urban areas was blocks which identified by the help of Pakistan Bureau of Statistics. Similarly, in rural areas, Muzas/villages were used as unit of analysis. The rural part was comprised on 70% and urban was 30%.

Selected Sample Size and Blocks
A sample of **8640** households had been considered appropriate to yield reliable estimates of population parameters within acceptable reliability limits. The following formula was used to estimate the required sample size at district level:-

$$N = \frac{t^2 * r * (1-r) * Deff}{d^2 * p * hhsize * RR}$$

Parameters were as under:
* Variable: Contraceptive prevalence Rate (CPR),
* Deff: 2,
* Level of confidence (t) : 95%,
* Margin of Error (d): 15%
* Response Rate (RR): 95%
* Proportion of exposed population (p) has been used from PSLM 2014-15 as age wise population from census was not available at that time.
* HH size has been taken from Census 2017,
* Prevalence rate (r) has been used from MICS Punjab report 2014,
* Intake is 20.

Sample had been allocated in urban rural domains on the basis of frame proportions with detail as under:

Sr.#	District	Urban	Rural	Total
1	Attock	140	440	580
2	Chakwal	80	460	540
3	Bhakkar	100	740	840
4	Chiniot	200	600	800

5	Gujranwala	620	580	1200
6	Kasur	220	760	980
7	Okara	200	700	900
8	Vehari	120	660	780
9	MuzaffarGarh	160	840	1000
10	BahawalPur	240	780	1020
	Total	**2080**	**6560**	**8640**

A standardized semi-structures questionnaire was used for the collection of data from the married women aged 15-35 years of Attock, Bahawalpur, Bhakkar, Chakwal, Chiniot, Gujranwala, Kasur, Muzaffargarh, Okara and Vehari districts.

III. RESULTS AND DISCUSSION
Table 1: Demographic Characteristics of Respondents (N= 8640)

Demographic Characteristics		
Variables	**Descriptive Analysis**	**Percent**
Residential Areas	Urban	25.2
	Rural	74.8
Educational Status of Women	Literate	54.6
	Illiterate	45.4
Educational Status of Husband	Literate	69.2
	Illiterate	30.8
Family Type	Joint Family	41.1
	Nuclear	58.9
Occupation of Women	Housewife	90.6
	Forming	4.2
	Government Employee	1.2
	Private Employee	1.8
	Others	2.3
Monthly Household Income	5,000 to 10,000	17
	11,000 to 15,000	25.8
	16,000 to 20,000	21.6
	21,000 to 25,000	14
	26,000 to 30,000	9.2
	Above 30,000	12.4

The above table depicted that 25.2% of women were urban and 74.8% of women were rural, 54.6% of women literate and 45.4% of women were illiterate, 69.2% of husbands of women were literate and 30.8% were illiterate, 41.1% of women had joint family system and 58.9% of women had nuclear family system. Pertaining to occupation of women, 90.6% of women were housewives, 4.2% of women were involved in agriculture work, 1.2% of women were government employee, 1.8% of women were private employee and 2.3% of women were involved in other works. 17% of women had 5000 to 10,000 monthly household income, 25.8% of women had 11,000 to 15,000 monthly household income, 21.6% of women had 16,000 to 20,000 monthly household income, 14% of women had 21,000 to 25,000 monthly household income, 9.2% of women had 26,000 to 30,000 monthly household income and 12.4% of women had above 30,000 monthly household income.

Table 2: Distribution of Respondents by Knowledge of Contraceptive Methods and Current Status of Contraceptive Use

Variables	Description	Percent
Knowledge of Contraceptive Methods	Yes	40.5
	No	59.5
Current Status of Contraceptive Use	Yes	51.9
	No	48.9

The above table reveals that 40.5% of women had knowledge of contraceptive methods and 59.5% of women had no knowledge of contraceptive methods. Similarly, 51.9% of women were currently using different contraceptive methods and 48.9% of women were affirmed in negative.

Table 3: Chi-square values showing relationship between demographic characteristics and their knowledge of contraceptive methods

	Variables	Chi-Square Value	D.F.	Sig.
Background Characteristics	Residential Area	7.815	1	0.005**
	Educational status of Women	40.892	5	0.000***
	Educational Status of Husband	26.716	6	.000***
	Family Type	7.509	1	0.006**
	Occupation of Women	8.825	5	.116 N.S
	Monthly Household Income	52.071	5	0.000***

Dependent Variable: Knowledge of Contraceptive methods
*(***=Highly Significant), (**=Significant), (N.S= Non-Significant)*

It is gauged by different researches that demographic characteristics and knowledge of contraceptive methods have strong relationship. Chi-Square test is used to know the association between demographic characteristics and knowledge of contraceptive methods. The results show that residential area (X^2=7.815) and family type (X^2=7.509) have significant association with knowledge of contraceptive methods, Educational status of husband (X^2=26.716), Educational status of Women (X^2=40.892) and Monthly household income (X^2=52.071) have highly significant association with knowledge of contraceptive methods. It is revealed by data that occupation of Women (X^2=8.825) have no significant association with knowledge of contraceptive methods.

Table 4: Chi-square values showing relationship between demographic characteristics and their status of currently contraceptive use

	Variables	Chi-Square Value	D.F.	Sig.
Background Characteristics	Residential Area	52.806	1	0.000***
	Educational status of Wife	21.071	6	0.002**
	Educational Status of Husband	5.902	6	0.434 N.S
	Family Type	46.982	1	0.000***
	Occupation of wife	20.548	5	0.003**
	Monthly Household Income	28.128	5	0.000***

Dependent Variable: Status of Currently Contraceptive use
*(***=Highly Significant), (**=Significant), (N.S= Non-Significant)*

The above table uncovers that chi-square value (X^2=52.806) shows highly significant (P=.000) association between residential and status of currently contraceptive use. The chi-square value (X^2=21.071) reflects significant relationship (P=.002) between educational status of women and status of currently contraceptive use at 5% level of significant. Interestingly, educational status of husband ((X^2=5.902) has not association (P=0.434) with status of currently contraceptive use. The chi-square value of family type ((X^2=46.982) and Monthly household income (X^2=28.128) have highly significant association (P=.000) with status of currently contraceptive use at 5% level of significant. It is found that occupation of wife (X^2=20.548) has association (P=0.003) with status of currently contraceptive use.

IV. CONCLUSION
In the light of the findings of research, it can be concluded that demographic characteristics of respondents have positive relationship with their knowledge and practice of contraceptive uptake. The hypothesis of present research that it is expected positive relationship of women's age, education, occupation, residential area, monthly household income and family structure with their knowledge and status of currently contraceptive use is also verified. It is also proved that geographical area, educational status of husband and

wife, family type, occupation of husband and wife and household monthly income have pivotal role in increasing knowledge and practice of contraceptive uptake among married women (Aged-15-35). This research suggests that government with all stakeholders must devise an organized and coherent policies to emphasize on the, particularly, demographic characteristics of the population in order to enhance the knowledge and use of contraceptive uptake.

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