

Relationship between Some Socio-Demographic Variables and Contraceptive use

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ABSTRACT

Fertility is considered a positive factor for growth of a population. Countries with high proportion of couples using contraception generally have lower fertility. When a women is married, she is deemed to be susceptible to conception and time of conception is a random variable determined by fecundity which may depend on age, frequency of coitus, use of contraceptives etc. In this paper, the relationship between some selected socio-demographic variables and contraceptive use is studied and statistical chi-square test is used to test the significance of the relationship.

Keywords: *Population, urban area, contraception, socio-demographic variables, chi-square test.*

INTRODUCTION

Fertility is one of the three components of population variation. The other two are mortality and migration. High fertility rates accelerate the population growth. The contraceptive methods commonly used in a population are important determinants of fertility, it may affect fertility by spacing the birth and sterilization process [1]. It recognizes the existence of differential birth rates due to different socio-economic and demographic variables[2]. In a recent study of urban population, it was found that majority of husbands whose wives are aged 25 and above were obtained still of the opinion to have 03 children with composition of 2 sons and 1 daughter[3] and significant relation was obtained between socio-economic and demographic variables and fertility[4]. Long term global population trends are driven largely by trends in fertility[5]. It is important to understand the relationship between contraceptive use and fertility; especially in high fertility contexts the "proximate determinants" frame work for the analysis of fertility included contraceptive use as a key component [6][7]. The results of several studies reveal that the use of contraceptives to limit the family size is still rare, though a large majority of couple possesses the knowledge of various contraceptives and have favourable attitude towards the use[1][8][9]. From the previous studies, it was seen that for 4 or more children however, family planning practices are more prevalent in rural areas than in urban areas[10]. The contraceptive use is most common among urban women age 30-39 years with 2 or more children and at least some primary school education[11]. In a recent study, the current use of any contraceptive was found 58 percent, female sterilization was preferred by 13 percent[12].

In the present study, some socio-demographic variables such as age of wives and number of surviving children are chosen to examine the relationship between these variables (called independent variables) and contraceptive use (called dependent variable). Statistical chi-square test (X^2 test) was used to test the significance of the relationship between independent and dependent variables.

METHODOLOGY

To achieve our aim, the data on the number of contraceptive users according to chosen socio-demographic variables were collected from 253 husbands (called respondents) whose wives age were 15-49 years from 300 sample households of an urban area with the help of an interview schedule.

RESULTS AND DISCUSSIONS

Study revealed that 51 percent of sample respondents had ever used a contraceptive method, 49 percent never used any method and 36 percent were currently using. To find relation between chosen demographic variables and contraceptive use the data were classified accordingly and discussed as follows :-

(i) Contraceptive use and age of wives :

Table-1(a)

Age of wife (years)	Ever users	Current users	Total respondents
15-19	--	--	08
20-24	07 (14.5)*	02 (6.2)	32
25-29	23 (50.0)	19 (41.3)	46
30-34	43 (75.4)	32 (56.1)	57
35-39	23 (63.9)	21 (58.3)	36
40-44	29 (47.5)	14 (22.9)	61
45-49	04 (30.7)	03 (23.1)	13
All ages	129 (50.9)	91 (35.9)	253

* Table in brackets denote percent

Table-1(b) Chi-square test : Ever user of contraceptives and age of wives

Age of wife (years)	Ever users	Number of respondents who never used	Total respondents
15-24	07 (17.5)*	33 (82.5)	40
25-34	66 (64.1)	37 (35.9)	103
35-44	52 (53.6)	45 (46.3)	97
45-49	04 (30.7)	09 (69.2)	13
All ages	129 (50.9)	124 (49.0)	253

* Table in brackets denote percent

Chi-square value is $X^2 = 27.43$, HS at 3 df, $P = 7.8$ at 5%, $P = 11.3$ at 1%, significant at both levels.

Table 1(a) shows that the percentage of current acceptors of any method of contraception increased rapidly to 58 percent upto age 39 years of wife. In later years this percentage declined. One of the reasons for the decline may be that the older women do not feel the need of contraception. It was also found that 70 percent of ever users are currently using a contraceptive. The current use was least common among the youngest women age group, gradually increasing and peaking during 30-39 years of age, then dropping off after that age. Calculated chi-square value is obtained highly significant. Thus the age of wife influences significantly the use of contraceptives (Table 1(b)).

(ii) Contraceptive use and number of surviving children

Table-2

Number of surviving Children	Current users	Not currently using	Total respondents
0	2 (8.6)*	21 (91.3)	23
1	25 (22.1)	88 (77.8)	113
2	42 (55.3)	34 (44.7)	76
3+	22 (53.6)	19 (46.3)	41
Total respondents	91 (35.9)	162 (64.0)	253

* Table in brackets denote percent

Chi-square value is $X^2 = 34.85$, HS at 3 df, $P = 7.8$ at 5%, $P = 11.3$ at 1%, significant at both levels

Table-2 shows that the practice rate of contraception was positively related with number of surviving children. Among the couples who had only one child, only 22 percent were using a contraceptive method and who had 2 or more, above to 50% were using contraceptives. This indicates that normally a couple desire at least two children. Chi-square value is obtained significant at both level 5% and 1%. Thus the number of surviving children significantly influences the use of contraceptives.

CONCLUSION

In the present study, it was found that the age of wife and the number of surviving children both significantly influence the use of contraceptives. In the sample, about 36 percent couples were found currently using a contraception. The

highest practice rate was found in age-group 30-39 of wife. Seeing the result, it is needed to promote the larger use of contraceptives where practice rate is very low because these groups are high fertile[8].

REFERENCES

- [1]. Das, N. (1972) : Factors related to knowledge, family size, preference and practice of family planning in India, The Journal of Family Welfare, 19(1), 40-52.
- [2]. Thompson, W.S. and Lewis, D.T. (1965) : Population Problems. Tata McGraw Hill Publishing Co. Ltd., New Delhi.
- [3]. Yadav, Ranjana and Lal, V.C. (2023) : Opinion on number of children with gender preference and human fertility in India, International J. of All Res. Edu. and Sci. Methods (IJARESM) ISSN : 2455-6211, Vol. 11, Issue 12, pp. 420-422.
- [4]. Srivastava, Amit Kumar (2023) : On population dynamics : Differential birth rates and human fertility in an urban population, International J. of Ench. Res. in Sci., Tech. & Eng. (IJERSTE) ISSN : 2319-7463, Vol. 12, Issue 12, pp. 15-17.
- [5]. Andreev, K.V.; Kantorova and J. Bongaarts (2013) : Demographic Components of Future Population Growth. United Nations, Department of Economic and Social Affairs, Population Division, Technical Paper No. 2013/3.
- [6]. Bongaarts, J. (1978) : A frame work for analysing the proximate determinants of fertility. Population and Development Review, Vol. 4, No. 1, pp. 105-132.
- [7]. (2015) : Modelling the fertility impact of the proximate determinants : Time for a tune-up. Demographic Research, Vol. 33, No. 19, pp. 535-560.
- [8]. Stover, J. (1998) : Revising the proximate determinants of fertility frame work : What have we learned in the past 20 years? Studies in Family Planning, Vol. 24, No. 3, pp. 255-267.
- [9]. Krishnamurthy, K.G. (1968) : Research in Family Planning in India Sterling Publishers Ltd., pp. 19-20.
- [10]. Sarkar, B.N. and Raman, M.V. (1974) : Practices of Family Planning Methods in Calcutta, Technical Report No. Demo/6/74.
- [11]. National Sample survey 22 round reports (1970).
- [12]. Population Report (1985) : September-October Series M.
- [13]. Jissa Vinoda Thulaseedharan (2018) : Contraceptive use and performance of young married women in Keral, India. J. Contracept; 9; 1-10, Published on line 2018 Jan.