

# On Population Dynamics: Correlates of Contraceptive use and Fertility

Dr. Amit Kumar Srivastava

Former Assistant Professor of Mathematics, D.N.M. Engineering College, Lucknow, Uttar Pradesh (India)

## ABSTRACT

Fertility is considered a positive factor for growth of a population. Contraceptives are used for birth control and for spacing the birth. In this paper, an attempt has been made to study the relationship between contraceptive uses and fertility. Significant relationship is obtained between some-chosen independent variables such as education of husbands, standard of living index, and the dependent variable contraceptive use.

**Keywords:** Contraceptive, education, standard of living, population.

## INTRODUCTION

In population dynamics, fertility is a complex phenomenon and is affected by a number of socio-economic and biological factors<sup>[1]</sup>. The use of contraceptives is one of those variables which may affect fertility rate by spacing the birth and sterilization process<sup>[2]</sup>. Sexually active fertile women found that immunization is well tolerated without disturbance of menstrual cycle.<sup>[3]</sup> Srivastava<sup>[4]</sup> obtained relation between some socio-economic variables and fertility. The results of several studies reveal that the use of contraceptives is still rare, though a large majority of couple possesses the knowledge of various contraceptives and have favourable attitude towards it use.<sup>[2,5,6]</sup> Attitude is important factor in choosing the contraceptive method.<sup>[7]</sup>

In this paper, an attempt has been made to find the current rates of contraceptive use in an urban population in relation to some chosen socio-economic variables such as education of husband and standard of living index. Statistical chi-square ( $\chi^2$ ) test was used to find relationship between these independent variables and contraceptive use (the dependent variable)

## METHODOLOGY

To achieve the aim, the data on the number of contraceptive users according to chosen socio-economic variables were collected from 257 husbands. Whose wives were in fertile age group that is, 15-49 year, from 300 sample households of an urban population in State Uttar Pradesh, India. The data were collected with the help of an interview schedule and the husbands were called respondent for this paper.

## RESULTS AND DISCUSSIONS

Survey revealed that 50 percent of respondents of sample households were found who had ever used any contraceptive and 49.8 percent were found who never used any contraceptive. The 43 percent of respondents were found currently using a contraceptive. To find out variations in contraceptive use according to selected independent variables, the data were classified accordingly and discussed as follows:-

(i) Contraceptive use and education of respondents:

**Table-1(a) Use of contraceptives by education of respondents**

Education of respondent	Ever users	Current users	Total respondents
Illiterate	32(32.9)*	31(31.9)	97
Upto Primary	14(50.0)	13(46.4)	28
Upto Intermediate	76(63.8)	61(51.2)	119
Graduate and above	07(53.8)	06(46.1)	13
Total	129(50.2)	111(43)	257

\*Figures in brackets denote percent

**Table-1(b) X<sup>2</sup>-test : Ever users of contraceptives by education of respondents.**

Education of respondents	Ever users	Member of respondents who never used.	Total
Illiterate	32(32.9)*	65(67.0)	97
Upto Primary	14(50.0)	14(50.0)	28
Upto Intermediate	76(63.8)	43(36.1)	119
Graduate and above	07(53.8)	06(46.2)	13
Total	129(50.2)	128(49.8)	257

\*Figures in brackets denote percent

Chi-square ( $\chi^2$ ) = 22.54, df = 3, significant at 0.05 level

Table 1(a) presents the ever users and current users of contraceptives by education of respondents. From table-1(a), it is evident that lowest percentage of use was found in illiterates and it increased with education. Table-1(b) shows that above 67percent of the couple where husbands were illiterate never used any contraceptive. This may be perhaps one of the reasons that the illiterates have higher fertility rate than literates. Chi-square value is obtained 22.54 which is significant at 0.05 level at 3 degree of freedom.

(ii) Contraceptive use and standard of living index.

**Table-2 x<sup>2</sup>-rest : Ever user of contraceptive by standard of living index**

Standard of living index	Ever users	Number of respondents who never used	Total respondents
Low	25(39.0)*	39(61.0)	64
Middle	83(50.6)	81(49.4)	164
High	21(72.4)	08(27.6)	29
Total	129(50.2)	128(48.8)	257

\* Figure in brackets denote percent

Chi-squire ( $\chi^2$ )=11.90, df = 2, significant at 0.05 levels.

From Table-2, it is evident that ever user of contraceptives increased with increasing the standard of living index. Minimum percentage of uses ware found in low standard and maximum percentage of use were found about 72 percent in high standard of living index. This may result in the higher fertility rate in poor economic status and low fertility rate in high economic status. Chi-square( $\chi^2$ ) is obtained 11.90 which is significant at 0.05 level at 2 degree of freedom.

## CONCLUSION

In the study, it was found that there is variation in use of contraceptive by both education level of husbands and by standard of living index. In the sample, about 43 percent were found currently using a contraceptive. With increasing education, the practice rate was found increasing and highest practice rate was found in high status family. On the other hand, in illiterates and in family of low standard of living index, the practice rate of contraceptive was found very low. Chi-square test reveals that there is significant relation between dependant and chosen independent variables.

## REFERENCES

- [1]. Thompson, W.S. and Lewis, D.T. : Population problems, Tata McGraw Hill Publishing Co. Ltd. New Delhi 1965.
- [2]. Das, N. : factors related to knowledge, family size, preference and practice of family planning in India, the Journal of Family Welfare, 19(1), 40-52, 1972.
- [3]. Talwar G.P. et al.: The HSD-hCG vaccine prevents pregnancy in women; feasibility study of a reversible safe contraceptive vaccine, American Jr. of Reproduction immunology, 1997, 37(2), 153-160
- [4]. Srivastava, Dr. Amit Kumar : On Population Dynamics- differential birth rates and human fertility in an urban population, Intemational Journal of Enhanced Research in Science, Technology & Engineering, ISSN: 2319-7463, Vol. 12, Issue 12, December-2023
- [5]. Krishnamurthy, K.G. : Research in Family Planning in India, Sterling Publishers Limited, pp. 19-20, 1968
- [6]. Sarkar, B.N. and Raman, M.V. : Practice of Family Planning Methods in Calcutta, Technical Report No. Demo/6/74, 1974.
- [7]. Iran J Nurs Midwifery Res. 2010 Dec. 15 (Suppl 1) : 363-370, Google.