

Study of factors affecting total number of living children among married women of reproductive age group in a slum area in Mumbai.

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Abstract

Background: Marriages and having children is a universal phenomenon in India and in slum areas of cities there is a tendency to have more number of children in married women due to many interrelated causes. In the current study we have tried to explore some of the reasons for having more number of children in urban slum area.

Objective: To study the effect of education, age at marriage of women and socioeconomic status of the family on number of children among married women of reproductive age group in a slum area of Mumbai.

Materials and Methods: A cross sectional observational study was carried out in the field practice area of an Urban Health Training Centre of a teaching hospital in Mumbai.

Results: A sample of 342 women was taken by random sampling. Questionnaire was administered in the local language. It was found that illiteracy, marriage before 18 years of age and low socioeconomic status, are significantly associated with more than 3 living children. Out of these, socioeconomic status of the family had the greatest influence on bearing of the total number of children, followed by the age of women at marriage and then educational status of the women.

Conclusion: Improvement in education, socioeconomic status and increasing the age at marriage can prove to be very effective for the control of population.

Key words: number of children, socioeconomic class, illiteracy, age at marriage.

Introduction:

India's annual population growth rate is 1.74%, contributing about 20% of the births worldwide. There is a societal preference in India for early marriage soon followed by child-bearing. Although the average age at marriage for women is 19 years, this conceals regional variations with some regions having an average age of just 16 years¹. Socio-economic constraints in India such as high levels of illiteracy, poor access to information, poverty, and gender-based disparities serve as significant barriers to family planning. Other factors include social stereotyping, lack of male involvement in family planning, and continuing open discrimination against the girl child, adolescent girls and women². Improved women's status and overall economic development reveal a strong impact on fertility reduction and better reproductive and child health care utilization. Women's empowerment and other enabling factors like female education and work-participation also

depict a significant and inhibitive impact on fertility³. With this background the current study was conducted to study the effect of education, age at marriage of women and socioeconomic status of the family on number of children among married women of reproductive age group in a slum area of Mumbai.

Materials and Methods:

The present study was conducted in a slum which is field practice area of the Urban Health Training Center associated with a Teaching College/Hospital in Mumbai. Study design was community based cross sectional observational study. Married women of reproductive age group in the community were included in the study according to the inclusion criteria.

From the list of family folders available in the urban health training centre families having women in the reproductive age group were enlisted. Pilot study was carried out to determine approximate sample size and to test the questionnaire. In the pilot study, out of sample

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of 100 women 19 were found to have more than three children. By taking allowable error of 4.44% (CI: 14.56-23.44) sample size was determined as 300. In the study area list of households was prepared as a sampling frame. 300 households were selected randomly by using a table of random numbers. In these 300 households 342 married women of reproductive age group were found. A pre tested questionnaire was administered to the study population in the local language. Study duration was about seven months.

Women who were not ready for interview, unmarried women, single or widows, women in age group less 15 and above 45 were excluded from the study. Total of 342 women were interviewed. Data was entered into SPSS software and tables were prepared. 'Z' test (standard error of difference between two proportions) was applied. Odds ratio with 95 % Confidence Interval was calculated with the help of Chi square test (Mantel Haenszel)

Results:

Out of 342 married women in the reproductive age group 120 (35.1%) were in the age group 25 to 29 years and

94(27.5%) were in the age group 20 to 24 years. Majority 276(80.7%) women were from joint families. 159(46.5%) women were illiterate. Majority 322(94.1%) were housewives. 254 (74.3%) women belong to upper lower socio economic class as per updated (2007) Kupuswamy Scale⁴.

As seen in Table 1, 159 (46.5%) [95% CI 41.2% to 51.8%], were illiterate, 41 (12.0%) learned primary school, 98 (28.7%) learned middle school, 44 (12.8%) learned high school. There is a significant difference in the proportion of illiterate women having more than 3 children (40.3%) as compared to that of literate women (22.4%).

Table 1 shows that more than 3 children were observed significantly more in women who got married before 18 years of age ($p=0.0000$). There is extreme difference between proportion of women having more than 3 living children, between lower and middle socioeconomic classes (39.8% & 4.5%). ($p=0.0000$)

Table1: Factors affecting total number of living children among married women of reproductive age group

Factors	Number of children (percentage)		Total	Statistical significance
	>3	<3		
Women's education				
Illiterate	64 (40.3)	95 (59.7)	159 (46.5)	d = 17.9%; SE= 4.96%; Z= 3.61; p= 0.0003 Odds ratio= 2.33 [95% CI (1.46 to 3.72)]. Chi-Square Test (MH) = 12.7
Literate	41 (22.4)	142 (77.6)	183 (53.5)	
Total	105 (30.7)	237 (69.3)	342 (100)	
Age of women at marriage				
<18 years	102 (36.6)	177 (63.4)	279 (81.6)	d= 31.8%; SE= 6.44; Z= 4.94 p= 0.0000 Odds ratio= 11.53 [95% CI (4.34 to 30.65)] Chi-square test (MH) = 24.35.
>18years	3 (4.8)	60 (95.2)	63 (18.4)	
Total	105 (30.7)	237 (69.3)	342 (100)	
Socio-economic status of the family				
Upper Lower	101 (39.8)	153 (60.2)	254 (74.3)	d= 35.3%; SE= 5.71; Z= 6.18 p= 0.0000 Odds ratio= 13.86 [95% CI (5.98 to 32.15)] Chi-square test (MH) = 37.99
Upper & Lower Middle	4 (4.5)	84 (95.5)	88 (25.7)	
Total	105 (30.7)	237 (69.3)	342 (100)	

Discussion:

40.3% women, in the present study were illiterate. Similarly, in a trial conducted among females in Dharavi slums in Mumbai, 35 % women were found to be illiterate⁵. Illiterate women significantly gave birth to more than 3 children than the literate women. Similar findings were observed in other studies conducted in Mumbai and Rohtak^{6,7}. Castro- Martin T studied the relationship between women's education and from 26 demographic and public health survey and observed similar findings⁸. The National Family Health Survey- 3 (2005 – 2006) shows that the total fertility rate is 1.7, higher for illiterate women than for women with at least a high school education⁹. The analysis confirms that higher education is consistently associated with lower fertility. Education of female helps in raising general awareness of a small family norm and a better quality of life for children, thus contributing towards declining fertility¹⁰.

279 (81.5%) women in the present study got married at an age less than 18 years. In a trial conducted in the slums of Dharavi, 56% of respondents had been married by the age of 18⁵.

Women married at early age significantly give birth more than 3 children as compared to women married late ($p=0.0000$). This indicates that early marriage, which is a common Indian custom, exposes women to longer periods of reproductive life and thus leads to increased fertility. In a study Bhuyan et al found that age at marriage influences reduction the total number of children¹¹. Similarly it was also observed in a study conducted in urban slums of Rohtak by Saini et al and Harvinder Kaur that majority of those who were married below the legal age prescribed by the government, were not using any spacing methods^{7,12}. The number of spacing methods users increased and mean fertility rate decreased significantly as the age at marriage increased⁸. In a study by Tripathy and Sarangi, in which they evaluated important proximate principles related to fertility in India, based on NFHS I and NFHS II data, it was observed that age of woman at marriage had a negative effect on fertility¹⁰. This similarity in observations of multiple studies, confirms the fact that early marriages lead to high fertility. In India, some demographers have estimated that if marriages were postponed from the age of 16 to 20-21, the number of births would decrease by 20–30%⁹.

39.8% women of the upper lower socioeconomic class had more than three living children; while the percentage

of women of the lower middle and upper middle class who had more than three living children was 4.5%. In the study conducted by Kaur it was observed that a positive relationship existed between economic status of the family and age at marriage of women, which in turn had a negative relationship with fertility¹². Jayanta Upadhyaya et al studied the socio-economic background characteristics of slum residents of Kanpur. Averages of 7.5 children were born to women¹³. The world Population Conference at Bucharest stressed that economic development is the best contraceptive⁹.

Conclusion:

Fertility in India continues to remain well above the replacement level although it is decreasing. India has made progress in economic, social, demographic and health fields, but still there exists a very wide regional disparity. Out of the three factors studied, socioeconomic status of the family (higher Odd's ratio) was found to influence the total bearing of the children more strongly than the other two factors i.e., educational status of the women and age of the women at marriage.

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Corundum

This is for the reader that the Article entitled “**A Comparative study of utilization of Janani Suraksha Yojana (Maternity Benefit Scheme) in rural areas and urban slums**” published in Indian Journal of Community Health Vol. 22 No. 2, Vol. 23 No. 1 July 2010-June 2011 should be read as:

A Comparative study of utilization of Janani Suraksha Yojana (Maternity Benefit Scheme) in rural areas and urban slums

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