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## Socio-economic determinants of fertility: A study among the Muslim women of Dangohir village, Pipli block, Puri

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### Abstract

*India is the first country to adopt a family planning program as official policy, but India's population is still growing at a rate that threatens to cause even more serious social and environmental problems in the future. The highest decadal growth rate of the Muslims among the six major religious communities prompts much interest among the scholars to conduct micro level researches to know the relationship between religion and fertility behaviour. The objectives in this paper are (i) to assess the contribution of different socio-economic factors in the fertility behaviour of the Muslim women in a rural village of Odisha and (ii) to interpret different crude indicators of fertility. The present study reveals that the high fertility rate of the said population is positively contributed by a number of socio-economic and religious factors. It is therefore a matter of concern that needs implementation of proactive public policies addressing various concerns of Muslims, particularly in the domain of education, employment and health care facility.*

### Introduction

The population growth in any area is determined by the levels of births, deaths and migration in a specific geographical area. Fertility and mortality being two vital events of life is of critical concern not only to the women themselves but also to the society to which they belong and also determines the quality of life. Different countries, religious and ethnic groups have different fertility patterns. Time and again, the higher

fertility of Muslim population has become a source of intense controversy in India which primarily revolves around Fertility, as the impact of mortality and migration has been rather negligible in the country in recent years (James and Nair, 2005). In the demographic literature, several reasons have been put forth to explain the differentials in fertility by religion. Chamie (1977) suggests that one could observe fertility differentials by religion because of the theological content of religion, or from differences in socio-economic characteristics among members of different religious groups, or from the insecurity associated with their minority status (Bhat and Francis Zavier, 2005). The theological content of religious texts could differ with respect to values or injunctions placed on monogamy, celibacy, divorce, remarriage, marriageable age, sexual abstinence, all of which could have intended or unintended effects on fertility. The codes of conduct prescribed by various religions could differ with respect to their pronatalist slant and acceptability of contraception and abortion. Different Religious perception could affect the autonomy of women, their access to economic resources and preference for children of particular sex and thus influence the fertility levels. Some religious doctrines could be more fatalist than others, influence the content of education, resist individualism and rationalism, and thus inhibit

economic progress and emergence of small family norm. While some minority religious or ethnic groups might try to overcome their sense of insecurity through enhancing their chances of socio-economic mobility by reducing family sizes, others might try to conquer it through larger family sizes and by forging worldwide solidarity with members of their own clan (Bhat and Francis Xavier, 2005).

So, micro study of fertility variation is useful in identifying the factors which determine fertility levels in various settings. The present study is an attempt to show the impact of various sociological and biological variables on fertility performance among the Muslims in *Dangohir* village, *Pipli* block of *Puri* district.

### **Objective of the study**

The objective of this paper is (i) to assess the contribution of different socio- economic factors in the fertility performance of the Muslim women in a rural village of Odisha, (ii) to interpret different crude indicators of fertility for the studied population. The focus of this study is highlighted on ( a) the women of age 15-45 and above years who are living with their husbands at the time of survey, (b) The women those become widow after age 45 years there by using their reproductive life completely without any disturbance.

### **Methodology**

The present study has been conducted in four *Sahis* of village *Dangohir* viz. *Talabania*, *Hata sahi*, *Dangohir* and *Naya sahi* with the help of a census survey method. All the households (185 no) of four *sahis* has been included in the sample with 214 target couples who has at least one live birth. Among these 214

sample mothers 69.2% (148 no) belongs to the reproductive age group (15- 44 years) and the rest 30.8 % (66 no) belongs to the age 45 years and above who have completed their fertility period. These women were interviewed for calculating the complete fertility rate.

The survey has been conducted with the help of a structured schedule that contained the questions regarding different variables of fertility like the family structure, age at marriage, education, occupation as well as the birth control methods. Different qualitative research techniques like participatory and non-participatory observation, personal interview, group discussion, census as well as the case study methods are also followed.

### **Demographic and socio-economic features of the studied area**

India is a multi-ethnic, multi-cultural and multi-linguistic country. People belonging to many religious communities live side by side. the Muslims of India form the largest minority in the country. According to 2011 census, total Muslim population of India is 172,245,158, that constitutes 14.23% of the total population of the India.. The current population of Muslims in *Odisha* is 911,670, roughly 2.17% of the total population of the state and 0.75% of the total Muslim population of the country. However, the percentage of Muslim population in the state shows a steady decadal increase. The decadal growth of the Muslim population in India and Odisha is 24.6% and 19.64% respectively. Their concentration increases in districts like Bhadrak (6.9), Cuttack (5.4), Jajpur (5.1), balasore (4.0), Kendrapada (3.5), and Puri (2.7).

The total population of the studied area is 1422. The age and sex structure of the population indicates 41.8% as child population, 51.97% as working population and 7% are coming under the old age population. The sex ratio is unfavourable to the females i.e. 929. The main sources of income are the traditional occupations of agriculture/butchering, business and driving, there by being the main reason behind their poverty. Though literacy rate shows a high percentage, yet most of them are gone up to a primary level of education. Only 7% males and 1.5% females have been passed matriculation, 12% males and 2% females have been completed the higher education. While focusing on the socio cultural life, the inhabitants of *Dangohir* show an ideal example of community life. Though caste system is prevalent, it is not very strict and the interaction with each other is very cordial. The village level political body ‘*Panchu*’, with the elderly influential persons as its

member, is the decision making authority of the village. The ‘*Panchu*’ also remains in charge of the *Masjid* and all tasks relating to it. So far as the sanitation of village is concerned, it is quite unhealthy and unhygienic. They are still continuing living a backward life with all its advantages like poor educational, economical and health status.

### **Fertility performance of the Muslim women of the studied village Dangohir**

Reproductive history of women throws light on the fertility performance of a population and describes the average number of conceptions, actual live births, child deaths and the actual number of living children per woman. Here it is studied separately for different reproductive age group of women as it varies according to the age. The age groups of women of the studied area are the reproductive age group of (15- 44) years and the elder women above 45 years.

**Table 1: Reproductive history of Muslim women of *Dangohir* village**

Age Group (In yrs)	No of Women	Avg. No of Conceptions per woman	Avg. No of Live Births Per woman	Avg. No of Living Children per woman	Avg. no of <sup>(a)</sup> deaths per woman
15- 44	148 (69.2%)	4.6	4.4	3.7	0.7
45- 50+	66 (30.8%)	8.0	7.6	5.6	2.0
<b>Total</b>	214 (100%)	5.6	5.4	4.3	1.1

Source: Field Survey

Note: Figures in the bracket represents percentage to total number of women.

<sup>(a)</sup> Child death statistics has been taken between 0 to 10 years of age.

Table 1 describes the average fertility performance of the elder women above 45 years to be quite high with 7.6 than the the average fertility rate of the women of

reproductive age group of 15- 44 years. Likewise per woman average conception rate and average surviving children rate are also high for the elder women than

the women of reproductive age group. The visible difference in fertility rate of these two groups clearly indicates the increase of fertility performance with increase of age of women.

The average fertility rate (4.4) of the studied area for the 15-44 years women is also higher than the average fertility rate of Hindus (3.0). Average child death per elder woman above 45 years, is also high (2.0) than the women of reproductive age group (0.7). These establish a direct relationship between the two which implies high mortality rate resulting in high fertility performance and vice versa.

### Age at marriage of women and fertility performance for the Muslim women

Age at marriage is the most important bio- social factor to determine the level of fertility. Fertility goes down when marriage takes place at a later age. After puberty though a girl is biologically capable of bearing a child, but in India it is socially approved to bear a child after marriage. Age at marriage is always related negatively with the fertility performance of a woman, but the situation deviates in case of use of birth control methods.

**Table 2: Age at marriage for women and their fertility trend in the studied village Dangohir, pipli**

Age at marriage →	Age group 15- 44 years					
	Below 13 years	(13- 15) years	(16- 18) years	(19- 21) years	(22-24) years	Total
No of women	02 (1.3%)	39 (26.4%)	49 (33.1%)	46 (31.1%)	12 (8.1%)	148 (100%)
Avg live birth per woman	8.5	5.9	4.7	3.0	2.9	4.4
Age at marriage →	Age group 45- 50 + years					
	Below 13 years	(13-15) years	(16-18) years	(19-21) years	(22-24) years	Total no. of women
No of women	4 (6.1%)	22 (33.3%)	25 (37.9%)	15 (22.7%)	-	66 (100%)
Avg live birth per woman	8.0	8.2	7.3	7.1	-	7.6

Source: Field Survey

Note: Figures in the brackets represents the percentage to total number of women.

The above table shows that the women those are married early at the age of 13 to 15 years are having a highest fertility rate (5.9) in comparison to those women who married at a late age (2.9). Average number of fertility per woman decreases with the increase in age at marriage showing a negative relation between the two. However the age at marriage on the fertility performance for elder women

of age above 45 years and more is not showing any remarkable difference since they had used their reproductive period completely.

### Family type and fertility performance of the Muslim women of studied village Dangohir

Family as a social variable plays an important role in regulating life and attitude of its members.

The nuclear family system in my studied area among the Muslims is low in comparison to the joint family system even after the impact of modernization and

urbanization. The present study shows that 50.9 percent of the total families are joint families and 49.1 percent are nuclear family.

**Table 3: Family type and fertility performance**

Family Type	Number of Couple	Average Number of Live Birth
Nuclear	105 (49.1%)	5.9
Joint	109 (50.9%)	4.9
Total	214 (100%)	5.4

Source: Field Survey

Note: Figures in the brackets represents the percentage value

The above table shows a negative correlation between the family type and fertility performance of Muslim women. The average fertility rate in nuclear family is 5.9 and in joint family it is 4.9. The high performance of fertility rate in nuclear families is due to the greater privacy and the freeness from traditional taboos of their society.

In developing countries, achieving higher female literacy rates is one of the keys to reducing fertility levels. The education of wives is more important than husbands in determining the fertility pattern of the couples. Inverse relationship between education and fertility, not only depends on educational standard of husband, but also educational level of the wife. Through education the age at marriage increases automatically and adoption of contraception can be attempted with better access to information about the means for fertility control.

### Education and fertility behaviour of the Muslim women of the studied village Dangohir

**Table 4: Literacy status of Muslim women and their fertility trend in the studied village of Dangohir**

Fertility Trend of Women	Literacy Level of mothers					
	Illiterate	Literate	Below Matric	+2 level	+3 level	Total
<b>(15- 44+ )</b>						
Number of Mother	58 (39.2%)	52 (35.1%)	14 (9.5%)	19 (12.8%)	5 (3.4%)	148 (100%)
Average Live birth per mother	5.2	4.7	3.4	2.3	2.6	4.4
<b>(45 – 50+)</b>						
Number of Mother	50 (75.8%)	10 (16.7%)	6 (7.6%)	--	--	66 (100%)
Average Live birth per mother	7.8	7.3	6.4	--	--	7.6

Source: Field survey

Note: Figures in the brackets represents percentage to total number of women.

The above table describes an inverse relationship of literacy level and the fertility performance of the Muslim women of the studied area. The findings show that only 39.2 percent respondents of ever married group of 15 to 44 years are illiterate with an average fertility rate of 5.2. Almost similar fertility

performance (4.7) is observed for the women those who are literate. However the trend of fertility rate gradually decreases with the increase in the level of education i.e. women of level (2.3) and women of +3 level (2.6).

**Table 5: Literacy status of the couple and their fertility trend**

Educational Status Of the couple	No of couple	Avg no of children born
Both Hus and Wife both are literate	98 (45.8%)	4.1
Hus Literate & Wife Illiterate	73 (34.1%)	6.5
Hus Illiterate & wife Literate	08 (3.7%)	6.2
Both Hus and Wife are illiterate	35 (16.4%)	8.5
Total	214 (100%)	5.4

Source: Field survey

Note: Figures in the brackets represents percentage to total number of women.

The above table shows that the fertility rate also varies according to the educational status of the couples. The analysis indicates visibly difference between the literate couples and illiterate couples. When both the couples are literate (45%), their average fertility rate is 4.1 which is comparatively low than the couples those who are illiterate (8.5). It is seen that when either of the partner is illiterate, it is reflected in high average fertility of approximately 6.5 and 6.2 in both the cases.

### **Occupational structure of the husbands and the fertility performance of the Muslim women of studied village Dangohir**

Fertility pattern mainly depends on the economic condition of the population belonging to any caste, religious groups. The economic condition gives the opportunity to the people for better education and health status. The preferred occupations of the Muslims of *Dangohir* village are butchering, agriculture, driving, business as well as the government and private sector jobs.

**Table 6: Occupational pattern of husbands and fertility trend of Muslim women of the studied village Dangohir**

Fertility Trend of ↓ Wives	Occupational Category					
	Driving/ Business	Agriculture/ butchering	Private sector	Govt. employ ee	Daily Labourer	Total
No of Husband	57	54	53	9	41	214
Avg Live birth per wife	4.5	6.3	5.9	4.9	6.4	5.4

Source: Field Survey

Note: Figures in the brackets represents percentage to total number of women.

The above table describes the difference in fertility rate according to the husband's occupation taking into consideration the present age of the husbands. Most of the Muslim women whose husbands are engaged in the occupations like butchering, agriculture, private sector job and daily wage labourer are having of high fertility rate where as in case of government employee and business as well as driving occupation, the fertility rate is low.

### Family planning and fertility performance of Muslim women of studied village Dangohir

Religion plays a vital role in the fertility behavior of the Muslim women. As Durkheim had pointed out,

central to all religious beliefs of Muslims is their classification of things or conducts as sacred or profane". Some modern scholars have argued that Islam is not against the family planning (Bhat and Zavier 2005). However, the Muslim men, women and children of the studied area are generally traditional as well as idealistic in their behaviour. They have high regards for the religion and religious life. The important part of religious life is the concept of hell and heaven, the belief in sin and fatalism and the influence of the priest in different aspects of life. They believe that the small family size norm is an anachronism to Islam and any attempt to curtail fertility is against the wishes of God.

**Table 7: Family Planning and Number of Living children per Muslim woman in the studied village Dangohir:**

Trend of Fertility →	Family Planning Adopter	Family Planning Non-Adopter	Total
<b>Age group of 15- 44 years</b>			
No of women	18	130	148
Avg Living Children per mother	3.1	4.4	
<b>Age Group of 45 – 50 + years</b>			
No of women	-	66	66
Avg Living Children per mother	-	5.6	5.6

Source: field survey

Note: Figures in the brackets represents percentage to total number of women.

The above table shows that only 18 respondents of ever married group of 15- 44 years have been adopted family planning methods. The family planning adopters have an average of 3.1 living children, which is significantly less than the family planning non-adopters (4.4). It is clear from the available data that the elder Muslim women above 45 years have not been adopted any family planning methods.

### **Crude Birth (CBR) and Crude Death Rate (CDR) for the studied Muslim population of village Dangohir**

Among Muslims of *Dangohir*, child loss per woman is taken as the indicator of Crude death rate. More Child deaths results in more number of live births as women try to compensate their loss in order to achieve their desired number of surviving children. In the studied area the number of live births per ever married women is having positive effect on child mortality. Women who have higher child mortality tend to have higher fertility and vice-a-versa, which is a well established fact (Debral and Malik, 2005).

**Table 8: Estimates of crude birth rate and crude death rate**

Population	CBR	CDR
India	21.8	7.1
Muslims, Dangohir	35.9	9.1

Note: Average number of child deaths occurred from 0 – 10 years. Source Census

CBR= Crude birth rate, CDR= Crude Death Rate

The above table describes that the women having higher child mortality tend to have higher fertility rate and vice-a-versa. The elder Muslim women above 45 years have a high average child death rate, followed by a high average fertility rate of 7.6.

The CBR and CDR of the studied Muslim population (35.9, 9.1) is higher than the all India level (21.8 and 7.1).

### **Child Woman Ratio (CWR)**

CWR is a relative measure to compare the fertility performances of different group of population. It is the number of children age 0-4 years per 1000 women of child bearing age in a given year. The available data shows that child-woman ratio of Muslims of the *Dangohir* village is much higher (1318). It may also be noted that CWR of Muslims is higher by 24% than that of Hindus at the all-India level (Bhat and Francis Zavier, 2005).

### **Net reproductive index**

Net reproductive index indicates the rate at which the female population is replacing it. In the Muslim population of studied village *Dangohir*, the NRI is calculated as 2.85 indicating the high survivability of female population and the increasing trend of the reproductive capacity of the Muslim women.

### **Conclusion**

The present study among the Muslims of *Dangohir* village is the outcome of the field survey which highlights the fertility pattern of the Muslim women. The findings reveal a high fertility rate that is far away



from the national target. The reasons behind this high fertility is found to be the early age at marriage, low educational level, high child mortality, poor economic conditions in general and less adoption of family planning methods in particular. Therefore to bring down the high fertility level, it is necessary to implement public policies which should become more proactive in addressing the concerns of Muslims, particularly in the domain of education, employment and health care facilities. As Muslims are generally averse to the birth control methods and modern sterilization methods, motivational awareness programs with alternative contraceptive methods should also be offered under family planning programs, with adequate safeguards for the management of adverse health effects.

In present scenario the government has taken different kinds of awareness programs to control the fertility rate through different agencies to aware the Muslim women in particular and the rural area women general. It is the duty of the civil society to take appropriate steps to aware the Muslim personal law board about the control of fertility among the Muslim women of Odisha.

## Reference

- [1] Alagarajan, M. and P.M. Kulkarni, (1998): Fertility differentials by religion in Kerala: A period prity progression ratio analysis, *Demography India*, pg 213-227.
- [2] Bhat, P N Mari and A J Francis Zavier (2005): 'Role of Religion in Fertility Decline: The case of Indian Muslims', *Economic and Political Weekly*, January 29, pg- (385- 402).

- [3] Bhende, Asha A. & Tara Kanitkar,(1992): *Principle of population studies*, Himalayan publishing house.
- [4] Chamie, Joseph. (1981), *Religion and fertility*, Cambridge University press.
- [5] Chamie, Joseph. (1977): 'Religious differentials in fertility': Lebanon 1971. *Population Studies*, pg 365- 382.
- [6] Goyal, R.P. (1974): 'Fertility and family planning in urban Delhi', *Population in India's Development*, Vikash publishing private limited, pg 355-356.
- [7] Guilamoto, C.Z and Rajan, Irudaya. (2013): 'Fertility at district level in India: Lessons from the 2011 census', working paper du CEPED, University of Paris.
- [8] Kanungo, Jyoti (1989): 'Raising the educational level of the couples: A means to check the population growth', *Manav, Anthropological Society of Orissa*.
- [9] Mahadevan, k. (1986): *Fertility and mortality: Theory Methodology and Empirical issues*, Sage publication.
- [10] Mitra, R. Y. (1993): 'Fertility and its determinants: Mizoram', *Family welfare*, Vol. 39 June, No. 2.
- [11] Raj, hans (1993): *Fundamentals of Demography*, Surjeet publication.
- [12] Sajini, B Nair and K S James (2005): 'Accelerated decline in fertility in India since the 1980s: Trends among Hindus and Muslims', *Economic and Political weekly*, Jan 29, pg (375-83).
- [13] Sharma, A. K. (1994): 'Muslim Fertility in Urban U.P: A qualitative study', *Journal of Demography India*, Vol. 23, Nos 1& 2.
- [14] Singh, Amarjeet, L.K. Dhaliwal and Arvinder Kaur (1996): 'Infertility in a primary health centre of North India', *Journal of Family welfare*.
- [15] Veleti, Kalyani. (2001): 'Fmily structure and its effective influence on fertility', *Journal of human ecology*, 12(5), pg 387-390.