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Determinants of Rural Fertility: Evidence from Dibrugarh District of Assam

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Abstract:
Investigating the determinants of rural fertility, the study confirms that socio-economic factors determine the fertility level in the rural area significantly. In the multivariate regression age at marriage, education of both the parents and institutional efforts for population awareness generation have been found to have significant fertility inhibiting effect. On the other hand, infant and child mortality experience of the couples and household size have significant positive impact on fertility. The study concludes that until and unless socio-economic changes are not instituted fertility decline will not be possible.

Keywords: *Rural fertility, Live births, Reproductive age, Population awareness*

1. Introduction

Around the world a continuous and rapid growth of population in rural areas, due largely to high fertility and declining mortality, has been observed. Adaptation to and socialization in an urban environment are found significantly correlated with fertility decline (White, Tagoe, Stiff, Adazu and Smith, 2005). Earlier studies on rural-urban fertility differentials have documented higher fertility rate in the rural area than in the urban area (Kuznets, 1974; Okore, 1980; Findley, 1980; Rodriguez and Cleland, 1981). Lower fertility in urban area than in the rural area has been reported in the studies done in India (Robinson, 1961; Rele, 1987). Recent data revealed by the Sample Registration System, 2013 have shown that birth rate in rural area (23.1) exceeds that in urban area (17.4). High birth rate relative to death rate has caused higher natural growth of the rural population (15.7) than that of the urban population (11.9). Evidence of high birth rate in rural area as compared to urban area of Assam (a State located in the northeastern region of India) is also found in the data released by the Sample Registration System, 2013 which has documented birth rate in rural area and urban area of Assam as 23.7 and 15.6 respectively.

Dibrugarh is one of the districts of Assam located in the Brahmaputra valley with a share of 4.26 per cent of the total population of the state. The total population of Dibrugarh district was 11,85,072 in 2001 which increased to 13,27,748 in 2011 registering a 12.04 per cent growth during the decade. The district is overwhelmingly rural with 81.64 per cent of its population living in rural area. The rural population of the district grew at a (13.17 per cent) much faster rate than the rate of growth of urban population (6.69 per cent) during the decade 2001-11. The high rate of growth of rural population may be attributed, inter alia, to high fertility. Therefore, it is pertinent to study the correlates of fertility in a rural set up, as reduction in rural fertility shall contribute towards the population stabilization upon which the countries like India have persistently been emphasizing. Identification of the fertility determinants, especially the demographic and socioeconomic indices, may provide information that can help in designing the fertility controlling programmes.

Though earlier studies have adequately dealt with the rural-urban differential in fertility, limited attempts at identifying the correlates of fertility in the rural area have been made in India in general and Assam in particular. Especially, study based on cross-section data is scanty. This paper, therefore, attempts to examine the pattern of fertility differentials among rural women of Dibrugarh district with respect to demographic and socioeconomic characteristics and to investigate whether these characteristics have an impact on the levels of fertility.

2. Data and Methodology

The study is based on the data collected through an extensive field survey. All the seven development blocks of Dibrugarh district have been covered in the survey. Two gaon panchayats from each development block of the district have been randomly selected from which 932 households have been selected at random for field investigation. The study was administered to these 932 households. Information collection on demographic and socioeconomic characteristics of the sample population was accomplished within four months period (from January 2012 to May 2012) through an interview schedule.

The analysis is confined to the married women of the reproductive age group 15-49 years. Bivariate analysis has been made to examine the association between fertility and demographic and socioeconomic characteristics of the respondents. Furthermore, multivariate linear regression model was applied to focus on the net effect of each predictor variable on fertility differentials of the rural population of the district after controlling for the effect of other predictors.

2.1. Dependent Variable

Fertility has been measured in terms of live births ever born to each sample woman. In the regression model live births ever born to each sample women have been taken as the dependent variable. Live births includes the total number of children ever born alive to the respondents, i.e. the surviving children and the children who were not surviving at the time of survey.

2.2. Independent Variables

The regression model considers age at marriage of the sample women as an independent variable. It is defined as the age at which first marriage to the sample women took place. The practice of any modern contraceptive is taken as a dichotomized variable representing whether or not the couple has ever used modern contraceptives. The infant and child mortality is included in the model as a categorical variable qualifying whether or not the respondent has experienced infant and child mortality. The household size is taken as a predictor of fertility and is interpreted as the total members living together in the household. Two variables to represent the education level of the wife and husband are considered in the model and both are measured in terms of number of years of schooling completed by them. The nature of occupation of the wife is considered as categorical variable. The categories considered are employed in non-farm occupation and otherwise. Non-farm employment means employment in government or private sector jobs, business, professional service etc. The last independent variable included in the regression model is the institutional effort towards population awareness. It is taken as a categorical variable representing whether or not knowledge on population phenomena from medical personnel, rural health activists, non-government organisations etc. either at health institution or at home has been received.

3. Conceptual Framework

Past literatures have identified different factors which influence fertility either directly or indirectly. Recent studies (Chaudhry, 1990; Dreze, and Murthi, 2001; Akin, 2005; Amonker and Brinker, 2007) have also demonstrated the impact of different factors on fertility. Marriage usually marks the beginning of family formation. The age at marriage of the woman affects fertility through its impact on the duration of exposure to pregnancy. Higher fertility is anticipated when the age marriage is low and vice-versa. A rise in the age at marriage may contribute significantly towards reduction of the level of fertility by shortening the total reproductive span of women (Yadav and Badari, 1997; Maitra, 2004). The females of the rural area usually experience marriage earlier than those of the urban area. The Annual Health Survey, 2011-12 reported the female age at marriage as 21.7 and 23.7 years in the rural and urban areas of Assam respectively. It suggests that females in the rural area of Assam experience 2 years more exposure to the reproductive life than the females of the urban area.

Practice of contraceptives has fertility inhibiting impact (Richard & Rao, 1995; Visaria, 1999; Arokiasamy, 2009). Practice of family planning in India is lower among the rural women as compared to the urban women. NFHS-III (2005-06) reported that 55.8 per cent of the currently married women aged 15-49 of urban area have used any modern method of family planning against 45.3 per cent women of the rural area in India as a whole. The same source reported the figures as 37.2 and 24.8 per cent for urban and rural area of Assam respectively. Given the less contraceptive prevalence, high fertility is expected in rural area.

The fertility level of a community may be greatly influenced by the family type. High fertility may be achieved if parents share the burden of child rearing with other members of the household (Chi & Hsin, 1996). In undivided or extended families where the size of family is large, high birth rate is encouraged. In such families the responsibility of feeding, rearing and educating the children are taken up by all the earning members of the family. Therefore, the married members do not experience the urgency and necessity of restricting the number of issues. This system, in fact, serves as an important source of social security and protection against economic hardship. Accordingly, there is no check on family size. On the contrary, couples in nuclear families enjoy greater privacy and experience less kinship pressure for observing the periods of abstinence strictly than those in joint family. Therefore, nuclear family structure may increase fertility. Few studies (Pillai, 1981; Sengupta & Chakravarty, 1995; Veleti, 2001) have found higher fertility in nuclear families than in joint families.

Religion, by prescribing a set of specific beliefs, attitude and practice, exerts a profound influence in shaping one's personal life style as well as fertility behaviour. Studies in India reveal that the fertility rate among Muslim women is significantly higher than that among Hindu women (Moulasha and Rama Rao, 1999; Reddy, 2003; Mari Bhat and Francis Zavier, 2005). Lower level of contraceptive use among Muslims is said to be the most important factor responsible for the fertility differential (Bhagat and Praharaj, 2005). However, it is argued that inter-religious fertility differences must be analyzed on the basis of specific social, economic and political contexts (Jeffery and Jeffery, 2000).

Mother's education is one of the most crucial factors in accounting for lifetime fertility differentials. A number of studies predicted that women with higher level of education tend to have less number of children than those with lower level of education (Dreze, and Murthi, 2001; White, Tagoe, Stiff, Adazu and Smith, 2005; Bbaale and Mpuga, 2011). Increased educational attainment increases the likelihood of having knowledge and using contraceptives and reduces fertility (Goldberg, McNeil and Spitz, 1989; Bbaale and Mpuga, 2001; Cheng, 2011). Contrastingly, some studies (Mutharayappa, 1994; Parikh and Gupta, 2001) report no significant relation between female education and fertility. Yet some others (Nguyen-Dinh, 1997) find negative effects of higher maternal and paternal education on fertility, but higher maternal education has a somewhat larger impact on fertility than

higher paternal education. It is expected that increased female education will lower fertility through its influence on years spent in schooling, delayed entry into marriage and fertility control through increased contraceptive use.

Improvement in female education may enable them to join the labour force. Greater female participation in the labour force may be a fertility-inhibiting factor. Women employed in the organized formal sector require continuous working hours away from their home that might not be compatible with child-care and family activities. Moreover, employment and consequent economic independence reduce the need to have children as a source of income and security for old age. But, female employment in agriculture or any other household-run activity may not retard fertility as such employment may not require sacrifice of working hour for childbearing and rearing. Absence of conflict between work and family roles in rural society results in a minimum effect of labour force participation on fertility (Goldstein, 1972). It has been observed that women engaged in non agricultural sectors have fewer children than those working in agriculture, while those who are not employed have the highest fertility (Nguyen-Dinh, 1997).

Husband's occupation is of special interest in any analysis of differential fertility within the rural farm population (Rindfuss and Sweet, 1975). The women with husbands employed in the agricultural sector have been found to have higher fertility than those with husbands working in non-agriculture sector (Nguyen-Dinh, 1997). Agriculture sector can absorb more persons, as agricultural activity requires more hands for labour. Non-agricultural occupation of the men raises the cost of rearing children and hence, the desire to have fewer children gets stronger. It is therefore, expected that wives of men engaged in agricultural and allied occupation are likely to have more children than the wives of those engaged in non-agricultural occupation.

The fertility behavior of the couples may also be influenced by level of income. However, contrasting empirical results and theoretical link between income and fertility have been found. It is stated that as income increases couples demand fewer children, because with increasing income couples demand better quality children who are more expensive. But, given the child quality, the relationship between income and total family size is positive (Becker and Lewis, 1973). Fertility may be higher in poorer families as in low income families children are regarded not as a burden but as potential bread earners from an early age and also as a source of old age security of the parents. In his economic theory of fertility, Leibenstein (1974) pointed out that as the per capita income grows, the number of children for the representative family falls. Pörtner (2001) explained that fertility might rise with increasing income when income is low and decrease when income is high. It is also observed that income differentiates fertility only when some basic threshold of economic development is passed, before which income is unrelated to fertility (Alachkar and Eberstein, 1988). A recent study (Black, Kolesnikova, Sanders and Taylor, 2013), on the contrary, has shown the evidence that fertility increases with men's income.

Fertility may also be determined by infant and child mortality experience. Studies have found a positive relationship between infant mortality and fertility (Akin, 2005; Nanda, 2005). More recent studies have shown that decline in child mortality lowers fertility (Doepke, 2005; Azarnert, 2006). Experience of child mortality may pressurize parents to have additional children either to replace those who have already died or as an insurance against expected deaths (Kimani, 2001; Sandberg, 2006). Unless infant mortality levels are reasonably reduced the couples would not seriously think of limiting their size of family. On the contrary, Gopal and Mouli (1981) found that the experience of or fear of mortality has not pressurized couples to have a large number of children.

Institutional effort for population awareness generation can also motivate people to choose small family. Institutional effort is used to mean organised efforts made by the medical personnel, health activists, non-government organisations etc. towards population awareness. Population awareness is defined as a process of providing knowledge on large population and the problems arising of rapid population growth. It makes people aware of population problems and motivates them to limit the family size.

4. Results and Discussion

The average number of live births ever born to the sample women is 2.18. Several demographic and socioeconomic variables are correlated with children ever born. Though majority of the respondents (i.e. 55.47 per cent) got married at age 20-24 years, a significant portion of the sample women (i.e. 29.72 per cent) got married at less than 20 years of age. The mean age at marriage has been found to be 21.24 years, which is lower than that of the rural women of Assam (21.7 years) and the overall average of the state (22.0 years). The level of fertility measured in terms of mean number of live births ever born has gone down with the increase in the age at marriage of the females. Moreover, correlation coefficient shows that live births ever born and the age of the sample females at marriage are linearly related.

Characteristics	N	%	Mean fertility	St.deviation	R
Age of the female at marriage					
19 years	277	29.72	2.45	1.26	-0.19**
20-24 years	517	55.47	2.11	1.31	
25 and above years	138	14.81	1.88	1.12	
Household size					
Up to 4 members	539	57.83	1.49	0.64	0.71**
5 to 6 members	306	32.83	2.76	1.02	
7 to 8 members	72	7.73	4.36	1.50	
9 and more members	15	1.61	4.60	1.88	
Mother's years of schooling					
Up to 5	266	28.54	2.52	1.59	-0.21**

Up to 8	177	19.00	2.33	1.27	
Up to 10	339	36.37	1.98	1.00	
Up to 12	123	13.20	1.86	1.13	
More than 12	27	2.90	1.78	0.85	
Father's years of schooling					
Up to 5	201	21.57	2.60	1.56	-0.18**
Up to 8	161	17.27	2.27	1.37	
Up to 10	370	39.70	2.03	1.13	
Up to 12	147	15.77	1.98	1.02	
More than 12	53	5.69	1.94	1.13	
Monthly household income (in Rs.)					
Up to 5000	601	64.48	2.22	1.30	0.04
5001 to 10000	196	21.03	2.15	1.35	
10001 to 15000	62	6.65	2.14	1.29	
15001 to 20000	30	3.22	2.10	0.96	
20001+	43	4.61	1.88	0.90	

Table 1: Fertility Level by Effective Married Life, Household Size, Years of Schooling and Household Income
*** Correlation coefficient (R) is significant at 0.01 level*

With 90.77 per cent of the sample households, nuclear family has been found to be dominant in the rural area of Dibrugarh, while joint family shares the remaining 9.23 per cent. Joint families are characterized by larger household size, which by offering childcare services may encourage fertility. The household size of majority of the sample households is up to 4 members. The average fertility has been found to increase with the increase in the household size. The correlation coefficient between the number of live births ever born and the household size of each sample household is positive and is statistically significant.

The level of education of the rural women is not satisfactory. Majority of the sample women (i.e. 36.37 per cent) had completed 10 years of schooling i.e. education up to high school level and least proportion of the women (i.e. 16.10 per cent) have obtained education beyond high school level. The mean years of schooling completed by the sample women is 7.78 years. The mean number of children born is lower among those women who have completed more years of schooling. Similar is the case with husband's education. Moreover, the negative link between fertility and years of schooling of both the parents is found statistically significant.

Close to two-third of the sample households (i.e. 64.5 per cent) fall in the income range up to Rs.5000/- per month. The mean household income of all the sample households has been estimated to be Rs.6.73 thousand. This suggests that a small portion of the sample households is having relatively greater proportion of income. Though the level of fertility has shown a declining trend with the rise in the income level, the association is not found statistically significant.

Characteristics	**N**	**%**	**Mean fertility**	**St.deviation**	**t-statistic**
Modern contraceptives					
Used	301	32.30	1.93	0.92	4.721**
Not used	631	67.70	2.30	1.41	
Infant and child mortality					
Ever experienced	157	16.85	3.75	1.52	15.007**
Never experienced	775	83.15	1.86	0.96	
Religion					
Muslim	201	21.57	2.22	1.35	-0.544
Others	731	78.43	2.17	1.27	
Wife's nature of employment					
Employed in non-farm occupation	52	5.58	1.77	0.90	3.294**
Others	880	94.42	2.20	1.30	
Husband's source of income					
Agriculture sector	341	36.59	2.23	1.28	-0.875
Others	591	63.41	2.15	1.29	
Institutional population awareness					
Have received	654	70.2	2.11	1.25	0.266**
Have not received	278	29.8	2.36	1.34	

Table 2: Fertility Level by Contraception, Infant and Child Mortality, Religion and Nature of Employment
*** P < 0.01*

Practice of modern contraceptive is found very less. Majority of the women (67.70 per cent) had never used any modern contraceptive. Among the contraceptive users, mean number of live births is lower (1.93) than that among the non-users (2.30).

Whether the difference between the means of the two groups is statistically significant or not has been verified by applying T test. The result of T test suggests that there is significant difference between the two means. 16.85 per cent of the respondents had experienced infant and child death and the mean number of live births ever born to them is 3.75. On the contrary, 83.15 per cent respondents had never experienced infant and child death and the mean number of live births ever born to them is 1.86. The result of T test suggests that the difference between the two means is statistically significant.

Regarding religion it is noticed that Muslim women have realized slightly higher fertility as compared to the women of other religions. However, the difference between the mean fertility of the Muslim women and the women of other religions is not statistically significant.

The prime economic activity in the rural area is agriculture. Only 5.58 per cent of the sample women have been found to be employed in non-farm occupation like, job in public or private sector, professional service, business etc. and the mean number of children born to them is less than that among the others, i.e. those engaged in farm sector and unemployed. The difference between the mean fertility of the two groups is statistically significant. On the other hand, the fertility of the women whose husbands' source of income is agriculture is not significantly different from that of those women whose husbands earn income from sources other than agriculture. Likewise, the mean fertility of those wives who have received knowledge on population phenomena from medical personnel, rural health activists etc. either at health institution or at home is higher as compared to those who have not. Moreover, the difference in fertility between the two groups is statistically significant.

The bivariate analysis confirms that fertility level is closely associated with the age at marriage of the females, household size, years of schooling of the parents, practice of modern contraceptives, infant and child mortality experience, nature of occupation of the wife and institutional efforts for population awareness generation. The net impact of each of these variables on fertility differentials of the rural population of the district after controlling for the effect of other variables has been examined in a multivariate regression analysis. In the regression model three variables viz. household income, religion and husband's source of income have not been considered, as bivariate analysis did not obtain their significant association with fertility. The results of the regression have been presented in Table 3 which shows that except practice of modern contraceptives and occupation of the wife, the rest 6 variables have emerged as significant factors determining the variations in live births among the sample rural population. All the variables of the model have explained about 76 percent of the total variations in the number of children ever born.

The regression analysis finds a significant negative impact of age of the females at marriage on fertility. The estimated coefficient indicates that as the age at marriage increases by one year the live births decreases by 0.02 units. Early marriage increases the duration of effective married life during which reproduction is possible and hence, raises the likelihood of experiencing higher fertility. The estimated Pearson correlation coefficient between duration of effective married life and the number of live births ever born (0.59 which is significant at 1 per cent level) indicates that fertility goes up with the increase in the duration of effective marital union. This confirms that age at marriage negatively influences fertility by affecting marital duration positively.

Regressor	**β**	**t**	**VIF**
Constant	0.25	1.35	
Age at marriage of the female	-0.02	-2.22*	1.08
Practice of modern contraceptive	-0.02	-0.42	1.03
Infant and child mortality experience	1.24	21.11**	1.11
Number of family members	0.59	39.25**	1.09
Years of schooling of the wife	-0.02	-3.86**	1.53
Years of schooling of the husband	-0.03	-3.92**	1.50
Occupation of the wife	-0.16	-1.74	1.02
Institutional effort for population education	-0.17	-3.73**	1.01

Table 3: Determinants of Fertility: Multiple Regression Results
$R^2 = 0.76$, Adjusted $R^2 = 0.75$, $F = 360.27$ ($P < 0.01$)
*** $P < 0.01$, * $P < 0.05$*

Significant positive impact of infant and child mortality experience of the couples on their fertility level has been found. The coefficient for infant and child mortality experience indicates that the average fertility of the couples experiencing infant and child mortality is 1.24 units higher as compared to those couples which have never experienced infant and child loss. Experience of child mortality may pressurize parents to have additional children either to replace those who have already died or as an insurance against expected deaths.

Regression results show that there is a positive impact of household size on the live births ever born. Given the other regressors, increase in the household size by one member increases the live births by 0.59 unit**.** In large families of the rural area it is a common culture to treat feeding, rearing and educating the children as a familial responsibility. Therefore, married members may not experience the urgency and necessity of restricting the number of issues for which contraceptives may not be used. To verify the argument the number of family members is cross-classified by the use of modern contraceptives. It has been noticed that the percentage of couples using modern contraceptives has come down with the increase in the household size. The chi-square statistic being significant at 1 per cent level, it can be commented that there is close association between the household size and the use of modern contraceptives.

Household size	Modern contraceptives		Total	χ^2
	Used	Not used		
Up to 4 members	183 (33.95)	356 (66.05)	539	9.95** (with d.f. 4)
5 to 6 members	103 (33.66)	203 (66.34)	306	
7 and more members	15 (17.24)	72 (82.76)	87	
Total	301 (32.30)	631 (67.70)	932	

Table 4: Association between Household Size and the Use of Contraceptives
*** P < 0.01*

Education of both mother and father reveals a negative impact on the number of live births. The regression coefficient for mother's education shows that the number of live births ever born reduces by 0.02 units with each year increase in the schooling of the wives. Likewise, as the years of schooling completed by the husband scales up by one year, the fertility level decreases by 0.03 units. The fertility limiting impact of years of schooling may be explained along two lines.

Firstly, education for longer period or higher level of education instills quality, self-esteem and decision making ability. More educated people are more informed and they want to limit fertility for a better future through the adoption of modern contraceptives. It has been found that percentage of modern contraceptive adopters has increased with the increase in the years of schooling of the wives (Table 5). Furthermore, the chi-square statistic confirms that there is significant association between the years of schooling of the wives and the use of modern contraceptives at 1 per cent significance level.

Secondly, schooling for longer duration delays marriage that in turn, inhibits fertility. The argument is supported by the findings that the mean age at marriage of both wives and husbands has increased with the increase in the duration of schooling. Moreover, the correlation coefficient is estimated to test whether the years of schooling and marriage age are correlated or not. The estimation finds that increase in the years of schooling significantly increases the age at marriage of both wives and husbands. It can, hence, be commented that the longer the duration of schooling - the more the marriage will be delayed, the more the contraceptives will be adopted and the less the children will be born.

Years of schooling	Modern contraceptives			Age of the wives at marriage		Age of the husbands at marriage	
	Used	Not used	Total	Mean	Std. Deviation	Mean	Std. Deviation
Up to 5	58 (21.80)	208 (78.20)	266	20.95	2.95	25.86	5.63
Up to 8	62 (35.03)	115 (64.97)	177	20.97	2.66	25.89	5.76
Up to 10	122 (36.00)	217 (64.00)	339	20.97	2.78	25.91	4.17
Up to 12	48 (39.02)	75 (60.98)	123	22.43	2.58	27.36	4.70
> 12	11 (40.74)	16 (59.26)	27	23.96	2.12	29.64	4.60
Total	301 (32.30)	631 (67.70)	932	21.24	2.84	26.34	4.99
Statistical results	χ^2 Statistic = 19.54** (with d.f. 4)			R = 0.16**		R = 0.12**	

Table 5: Contraceptive prevalence and Age at Marriage by Completed Years of Schooling
Figures within brackets represent percentage in total
*** P < 0.01*

Likewise, institutional efforts for population awareness generation have been found to have significant fertility inhibiting effect. The regression coefficient of the variable suggests that the number of live births ever born is 0.17 lower for those wives who have received knowledge on population phenomena as compared to those who have not.

5. Conclusion

Investigating the determinants of rural fertility, the study confirms that socio-economic factors determine the fertility level in the rural area significantly. The bivariate analysis finds that fertility level is closely associated with the age at marriage of the females, household size, years of schooling of the parents, practice of modern contraceptives, infant and child mortality experience, nature of occupation of the wife and institutional efforts for population awareness generation. In the multivariate regression study age at marriage, education of both the parents and institutional efforts for population awareness have been found to have significant fertility inhibiting effect. On the other hand, infant and child mortality experience of the couples and household size have significant positive impact on fertility. Though the multivariate regression analysis finds no statistically significant impact of practice of modern contraceptives and nature of occupation of the wife on fertility, their impact is in the expected direction, that is, the contraceptive users have lower fertility than the non-users and the women employed in non-farm occupation have less fertility than the others.

The study concludes that until and unless socio-economic changes are not instituted fertility decline will not be possible. There is a need to sensitize the general public and parents regarding the disadvantages of early marriage like, physiological immaturity, inexperience in child-care practices, drop out from education etc. Efforts should be made to improve the level of education of both males and females. The study establishes that mere improvement in the level of literacy shall not bring fertility decline. It has been observed that low level of education is not likely to have a significant impact on fertility, as up to a certain level of education the age at marriage of males and females and their family planning beaviour are indifferent. But, people having higher level of education exhibit high marital age and more adoption of contraceptives that result in low fertility. Therefore, policies for extension of and retention in education should be taken. Impart of education by the medical and non-medical personnel, non-government organization etc. on population control, family limitation can have significant retarding impact on fertility. Mass media can also be utilized extensively as a means of providing population education. The significant impact of infant and child mortality on the fertility level establishes that improvement in child health is necessary to bring down fertility and thereby, to promote reproductive health.

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