

# IMPACT OF FEMALE EDUCATION ON FERTILITY IN DEVELOPING COUNTRIES

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## Abstract

*Education is a key determinant of human capital because it empowers human being with skills and knowledge. Education plays an important role in the socio-economic growth and development of the countries. Education reduces unemployment and poverty in the country. Educated women are taking active part in the growth and progress of the developing countries like Pakistan. They are engaged in agriculture, industry, production, services sector and household activities. Education in developing countries like Pakistan has visible impact upon the fertility reduction. The results of the research studies about education and fertility in Pakistan and other countries establish strong linkages between female education and fertility. Therefore, literacy rate in developing countries is suggested to control the problem of over population in these counties.*

**Keywords:** Female Education, Population, Fertility and Developing Countries

## Introduction

Education is a key determinant of human capital because it empowers human beings with skills and knowledge. Education plays an important role in the socio-economic growth and development of the country. Education reduces unemployment and poverty in the country. The people of the society become more aware about their rights and health through education (GOP, 2009). Education of females performs key role in the society ranging from upbringing of children to active participation in the economic activities of the countries. Educated women are taking active part in the growth and progress of Pakistan.

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They are engaged in agriculture, industry, production, services sector and household activities.

Education in developing countries like Pakistan has visible impact upon the fertility reduction. The results of the research studies about education and fertility in Pakistan and other countries establish strong linkages between female education and fertility. It is established fact that female education brings consciousness in women for their health and reproductive behaviour. Jain and Nag (1986) studied the impact of education on the fertility and concluded that educated women use the family planning methods at high frequency as compared to uneducated women. They also find that marriage age of educated females is higher than their illiterate women counterparts. Jejeebhoy (1996) explains that education creates knowledge and awareness of the modern world in females. They participate in family decision making and control over household resources due to education. Elo (1990) concludes that educated mothers take more interest in child health than illiterate mothers.

The population of the world is growing very rapidly as compared to the available resources of the world. Rapid growth of population results in shortage of food and other needs of human being without proper planning and management. The rapidly increasing population of Canada and United States constitute a serious danger to the global environment. The per-capita consumption of natural resources by individual North Americans, who draw on land and energy resources from the rest of the world, is several time that of the individuals in the poorer countries (Wackernagel and Rees; 1997).

### **Statement of the Problem**

The objective of the present study is to analyse the relationship of education with the fertility in general and in developing countries in particular. The meta analysis approach is used in the study. It is based upon the results of the case studies of developing countries. Therefore, several studies have been analysed to establish the relationship between education and fertility. It is tried to observe the impact of education on the behaviour of human fertility. The results of the study are important and beneficial for the policy makers and the administrators who want to plan about the population matters and necessary food problem.

Education is recognized as a crucial and important factor influencing women's fertility patterns. An extensive demographic literature is devoted to examine the role of female education in promoting fertility decline. The connection between education and fertility was a subject matter in the early literature. The accessibility of data for the large number of countries to facilitate

the World Fertility Surveys (WFS) in the 1970s significantly improved the understanding of relationship between the fertility and education.

### **Review of Literature**

Toor, (2007) investigates and quantifies the impact of women's education on fertility using aggregate cross-section data at the districts level in Pakistan. A macro model of fertility is estimated to know the impact of education on fertility in Pakistan. School Life Expectancy at the district level, education of married women, Index of Economic Development, District Health Status, Female Labour Force, Infant Mortality Rate, and locational and regional variables are included in the model. Negative but statistically insignificant effects of aggregate female education and positive impact of aggregate male education on fertility are found in the study. A weak relationship between health and reproductive health facilities and fertility rate in Pakistan are also exhibited in the study.

Jennifer (2003) observes that Cameroonian women who attend school have higher premarital fertility than do their age-mates who never attended school. The logistic regression results explain that marital fertility decreases with the increase in woman's education up to secondary or higher level. Bongaarts (2003) finds that educational differentials in wanted fertility tend to decline and differentials in unwanted fertility tend to rise. The findings of Jennifer (2003) and Bongaarts (2003) are similar. Bongaarts say nothing about the premarital fertility while the Jennifer is silent about the wanted and unwanted fertility. According to Bongaarts (2003) education is a key predictor that plays the significant role in the reduction of population like the Jennifer (2003).

Parikh and Gupta (2001) explain that not only the literacy rate of female affects the fertility but also the age of marriage and environmental conditions are the key determinants of fertility. The development of women, their participation in work, provision of health and family planning services; and socio economic development contribute much in the reduction of fertility. Schultz (1997) cites the results of 38 countries from the World Fertility Surveys conducted during 1970 to illustrate the anticipated general pattern of woman's education upon fertility. The multiple regression results from data of 70 countries for three time points are provided to explain the relation between education and fertility. The coefficients of number of years of female education explain that the education lowers the fertility rate and these coefficients are statistically significant.

Demographic and Health Surveys (DHS) was carried out in the late 1980s. These provide the evidence on the relationship between fertility and female education in Africa. Ainsworth, Beegle, and Nyamete (1996) use the data of

fourteen sub-Saharan African countries from Demographic and Health Surveys (DHS) conducted in mid of the 1980s to study the impact of education on fertility. They keep the background variables constant during the analysis. The results explain that the primary education of females has a negative relation with fertility in about half the countries. The secondary schooling is related to a large extent with low level of fertility in all countries. There was a positive relationship of female education with the use of contraceptive at all levels. Women with primary education found to have fewer children in most countries and this relationship was not strong. By contrast, women with post-primary education have markedly fewer children. The UN International Conference (1994) on Population and Development in Cairo highlights the importance of enhancing female education as a integral part of a successful population policy. More educated women commonly tend to have smaller families.

Martin (1995) calculates the mean ideal family size according to women's education. The study is based on the Demographic and Health Surveys (DHS) for 26 developing countries including 10 sub-Saharan countries. For Uganda, the results indicate that women having no education tend to have 7.2 children at average, and this number is decreasing with education to 5.1 for educated women. Martin and Juarez (1995) find for the nine Latin American countries that women with no education have large families of 6-7 children, whereas better educated women have family sizes of 2-3 children, analogous to those of women in the developed world. The gap in contraceptive prevalence in the two groups is in between 20-50 percentage points. Women with better education have vast knowledge, higher socioeconomic status and less fatalistic attitudes toward reproduction than do less educated women.

Pritchett (1994) Concludes that the effect of family planning programs on fertility is quantitatively small. Contraceptive prevalence is highly (positively) related with fertility and explains 87 percent of variation in the total fertility rate. He finds that female education is an important determinant of fertility. However, adding female literacy to the regression, together with contraceptive prevalence, increases the variance explained by less than one percent. It means that the women literacy insignificantly affects the fertility. Kirk and Pillet (1998) find that desired fertility falls down from 6.2 for women with no education to 4.0 for women with secondary education in case of Uganda. It is worth mentioning that Uganda is included in the group of sub-Saharan countries with the highest fertility rates.

King and Hill (1993) conclude that a better-educated mother has fewer and better-educated children. She is more productive at home and in the

workplace. Educated woman raises a healthier family because she applies improved hygiene and nutritional practices through her acquired knowledge. It provides an inverse relationship between education and fertility. Sharma and Retherford (1990) use 1981 Census data for 326 districts of India and find that female literacy has a significant negative impact on fertility. They conclude that a district with 20 per cent female literacy would predict Total Fertility Rate (TFR) of 5.1 and with a further 20 percentage point increase in female literacy, the TFR will fall by 0.94. The results of the study are similar to King and Hill (1993).

Anrudh (1981) finds that at household level female education is inversely related with a marital fertility and the magnitude of association varies from country to country. The use of contraception increases with the increase in the level of education. Ahmad and Chand (2006) find that attainment of education by husband is highly associated with the acceptance of family planning which causes to reduce the fertility rate at household level. The results of the Ahmad and Chand (2006) support the results of Anrudh (1981).

### **Conclusions and Policy Implications**

Following conclusions are drawn from the results of studies about education and fertility.

1. The educated women have fewer children as compared to the uneducated women. The marital fertility rate reduces with the increase in education level.
2. The education of the husbands also affects the fertility level inversely. The marital fertility rate also reduces as the education of the husbands increases. The impact of husbands' education is affecting fertility very less as compared to the education of women.
3. The premarital fertility rate increases in the women having education at primary level than women having no education. The premarital fertility rate becomes lower for women having secondary education or higher education as compared to the women having primary education.
4. The use of contraceptive has positive relation with the women education. The contraceptive use increases as the women's level of education increases to reduce the fertility rate.
5. Acceptance of family planning increases due to increase in education level of the women and their husbands.

The following suggestions are made in order to reduce the human fertility.

1. Efforts may be made to increase the literacy rate both in males and females but the education of females must be focused specially.
2. Female education may be enhanced up to the secondary and higher level in order to reduce the premarital fertility.
3. The Government may continue long-term policies to enhance family planning programme to reduce the fertility rates.
4. Population growth depends upon several social and economic factors including education of women, employment, religious affiliation, environment and customs of the society. In the light of these factors, the government should continue the long term policies to settle the issue. The key impact of education especially of female education on fertility and human capital formation is an important question for development economists and policy makers. Therefore, policy maker and government should take necessary measures to avoid the situation of over population.

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