



Impact of Female Literacy on Fertility: A Review

KEYWORDS

Female Literacy, Fertility, Age at Marriage

Firdous Ansari

Assistant Professor (Statistics), Department of Mathematics and Statistics, Jai Narain Vyas University, Jodhpur, Rajasthan

ABSTRACT Education has its impact on the social, economical and health development of a nation especially female education as it bounds the next generation to be educated. Educated women are known to be more aware to take reproductive and healthcare decisions. This study is a critical review of literature which includes different variables that get affected by female literacy. In the last section of the study discussion is made for further research point of view.

Discussion

On the basis of studies considered, we come to know that female literacy plays an important role in reduction of fertility rate. As studies considered revealed that still literacy rate requires improvement so there is a need to work in rural areas with special efforts on Muslim females.

Introduction

The education of women is an important instrument for development of families (Basu et al, 2002). Education level of mothers positively affects the literacy rate of children (Beheman et al, 1995). Indian Census defines literacy as both ability to read and write in any language, whereas according to UNESCO, a person is literate who can with understanding both read and write a short simple statement on his (her) everyday life (UNESCO, 2008, p. 18). According to the 2011 census, literacy rate was found to be 74.04% in India with a 9% increment in youth literacy rate (Indian Census).

In this paper various studies concerning female literacy rate, sex differential in literacy rates, female activity rate in income-earning activities, incidence of marriage, status of a woman, age at marriage, decision power, capability to access health care services, women's self-confidence, employment, demand for children, health-seeking behavior and use of contraceptive methods etc. have been considered.

In one of the studies female literacy rate, sex differential in literacy rates, female activity rate in income-earning activities, timing of marriage, and the incidence of marriage were observed for the fertility levels of Muslim populations by women's status and position. The predictor variables were observed for 65.7% of the variance in gross reproduction rate. Female literacy variable and female activity rate in nonagricultural work were also found negatively correlated with the gross reproduction rate. In this study sex differential in literacy attainment was observed less predictive value than the female literacy rate variable. (Youssef NH, 1978)

In another study the impact of female education on fertility in India was analyzed using 1971 female literacy rates and crude birth rates for 18 states and 4 union territories. In this study rural female literacy rates were found varying from 3.85 in Rajasthan to over 50 in Kerala, while corresponding urban rates were reported ranging from 22.42 in Assam to over 60 in Kerala. Study revealed range of rural crude birth rates from 31.3 per 1000 population in Kerala to 46.3 in Uttar Pradesh, whereas urban crude birth

rates were observed ranging from 21.6 per 1000 in Jammu and Kashmir to 35.8 in Gujarat. For rural areas female literacy and crude birth rates were found with a significantly inverse relation, with a correlation coefficient of 0.53 but for urban areas the same was found non-significant. (Javali VP, 1978)

One of the studies considered data from the 1981 census. This study revealed that an increase in the literacy rate decrease fertility rates, on the basis of variable considered viz. total fertility rate, female literacy, the proportion urban, child mortality, and mean age at first marriage (Sharma OP et al, 1990).

One of the study showed that urban wives had more than twice the literacy rate of rural wives. It was reported that in rural areas, literacy decreased women's perceptions of having reached a sufficient number of living children, whereas the opposite was observed true for urban areas (Khalida P. et al, 1993).

Yadav et al considered data of the period 1900-1920, using caste, occupation, and education of husband and wife, educational status of the household, role of female in the society, autonomy in decision-making, interaction and exposure to mass media as variables of the study. It was revealed that there exists a difference of approximately two births in the total fertility rate between low status and high status groups of women. In the same study an inverse relationship between the autonomy in decision-making and the level of fertility was also observed (K.N.S. Yadava et al, 1999).

A cross sectional study covered 117 countries for the year 1993 and resulted that fertility rates, female participation in the labour force, per capita GNP, and female literacy rates were significantly affected by infant mortality rates (Mohammed Zakir et al, 1999).

Negative relation between female education and fertility, was also reported in one of the studies (Alaka M. Basu et al, 2002). Another study accessed the literacy skills of 167 urban and rural mothers of school-aged children in Nepal. This study indicated retention of literacy skills in

adulthood and their influence on health behavior (LeVine et al, 2004).

A contradiction was appeared when we came across a cross sectional study reporting that female literacy has no impact on fertility as a whole. Study analyzed a total of 671 females of reproductive age group. This study resulted that average number of pregnancies ever occurred among Muslim mothers (2.8) were higher in comparison with Hindu mothers (1.68). In the same study differences were found statistically significant in both the cases (NK Mandal et al, 2007).

In another study out of 150 married women of reproductive age were interviewed. Among literate women, 61% were observed using a contraceptive method as compared with 38.5% women in illiterate group. In this study 66.6% women with matric or higher education were observed using a contraceptive method as compared to 57% women with education less than matric. About 43% literate women were reported with use of condoms while 21.4% were observed using injections, whereas 32.5% illiterate women were found using pills. In the same study literate women were observed having 2.7 children on an average whereas illiterate women were reported having 4 children. (Rubina Sarmad et al, 2007)

Total fertility rates were reported decline from a high level of 5 children per woman in the period 1950-1955 to 2.8 in the period 1995-2000. In this study during the period 1950-1955, TFR was observed very high in the Asian region, at around 6 children per woman. Over the past 50 years a diverse trend in fertility was also observed in Asia. (Bhakta Gubhaju, 2007)

Khan utilized the census data of 34 districts of Punjab and reported inverse relationship between literacy ratio and fertility and between age at marriage and fertility. A strong positive association was pinpointed between literacy ratio and age at marriage (Asad A, 2009).

Another study concluded that knowledge about birth control techniques increase the use of different preventative methods. It was also reported that female education increase the age at first marriage, which reduce the pregnancies, and make aware a woman of available contraceptive methods and helps in reducing the household size (Zaheer K. Kakar, 2011).

Garima et al revealed that there is a direct connection between literacy and status of a woman, her age at marriage, her decision power and her capability to access

health care services. It was also reported that literacy increases woman's self-confidence and makes a woman more exposed to information. The study explored that female literacy improves the chances of getting a meaningful employment, it imposes reduction in demand for children, improvement in health-seeking behavior and makes a woman aware of nutritional requirements. (Garima Jain et al, 2012).

We came across a study that observed relationship of male and female literacy rates with crude birth rates and infant mortality rates of the states and union territories of India. An inverse relation between crude birth rates and literacy rates was reported (slope parameter = -0.402, $P < 0.001$). A significant inverse relationship was also found emerged between female literacy rate and crude birth rate (slope = -0.363, $P < 0.001$), whereas male literacy rate was observed with a non-significant relation as far as crude birth rate is concerned ($P = 0.674$). If we consider infant mortality rates of the states, these were also found inversely related to respective literacy rates (slope = -1.254, $P < 0.001$). This study concluded that for stable population and better infant health, female literacy plays an important role. (Suman Saurabh et al, 2013)

We came across another study that considered data obtained from the World Development Indicator from 1998-2011. It was revealed that there is a positive influence of literacy rate and contraceptive prevalence on fertility (Oyeyemi O. Adebisi et al, 2014).

In one of the studies official maternal mortality data from 32 federal states of Mexico between 2002 and 2011 was analyzed. The study showed that mortality outcomes were independently associated with female literacy ($\beta = -0.061$ to -1.100). Study also outcome that TFR had an inverse association with maternal mortality ratio ($\beta = -14.329$) and maternal mortality ratio with any abortive outcome ($\beta = -1.750$) and a direct association with induced abortion mortality ratio ($\beta = 1.383$). Study did not reported any statistically independent effect for abortion legislation and constitutional amendment (Elard Koch et al, 2015).

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