Impact of Mother’s Selected Attributes on Children’s Educational Attainment: A Household Level Study

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Abstract

The importance of education in nation building and economic development is now a well-established fact in relevant literature. The governments of less developed countries have been taking great efforts to spread education among the masses through awareness building and establishment of large number of schools, colleges in every part of the nations. However, the literature suggests that the ultimate decision regarding schooling and non-schooling of children rests with their parents. In this context, the back ground characteristics of parents and the households have come into close scrutiny for examining the relationship between these and the children’s educational attainments. The present paper examines the role of some attributes of mother and households in that direction. The study is based on primary data and geographical area of study is the urban area of Karimganj district of Southern Assam. The results obtained indicate that Mother’s empowerment and mother’s education have negative impact on Children’s Educational Attainments. This overbearing negative impact is probably because of the fact that the younger mothers have younger children who were found to have low educational attainments at the time of survey. This observation is vindicated by the observed fact that the control variables have turned up statistically significant exhibiting their negative impact on children’s educational attainments. However, household income and nuclear family structure are found to have positive and statistically significant impact on the educational attainments of children.

Key Words: Mother’s empowerment, Mother’s education, Children’s educational attainments, Correlation Coefficient, Multiple Regression.

JEL Classification: J16, I20

1. Introduction: Education imparts skills and competencies that are central to human development. It enhances quality of life and brings wide-ranging benefits to both individuals and societies. The instrumental and intrinsic benefits of education are widely recognized as pivotal in transforming the life of women in particular since they are underprivileged by social conditioning in most of the developing societies from time immemorial. The existing literature suggests that the opportunities of education and higher education are relatively restricted for young women than for young men. The present gender bias in higher education and professional training in India manifest that fact. The same, nevertheless, prevail even in some of the richest countries of the world as well. Education facilitates women empowerment including her ability to take independent decision which is a primary condition for emancipation from the bondage of poverty and gender-based subjugation. Education of women have also intergenerational ramifications. It is commonly observed that children of parents with higher levels of education do better in standard tests of school attainment than those of parents with less education and education have stronger impact on children’s overall educational attainments. Educated mothers invest more in their children’s cognitive development and thereby, contribute to the welfare of the next generation. It is expected that educated mothers can give better education to her children, make better decision regarding their children’s education and educated mothers can also take better decision within family which reflect positively on mother’s empowerment level. These observations,
found in studies conducted in different settings of India and in other countries, are put to test in this paper with new data set for verification in the context of the developing but backward society of Karimganj district of southern Assam.

2. Theoretical Background: The level of empowerment of women and her overall wellbeing is perceptibly monotonically associated with the level of her education. Higher education is important for women to take better and appropriate decision within family regarding many important aspects e.g., health of family members, education of children, investment for sustained development of the economic status of the family etc. Literatures suggest that, at household level, many factors affect the educational attainment of children. Parents’ education, especially mother’s education is likely to be an important factor for the educational outcome of their children. Dearden (1998) observed that mother’s education is an important determinant of children’s educational attainment. Highly educated mother can give better education to her children, can take better decision regarding her children education, regarding household and as well as a highly educated women have greater chance to become employed than lower educated women and can live a better life than low educated women.

The human capital of mother is usually more closely related to the educational attainments of the child than is that of the father. Parental completion of high school and one or two years of post-secondary schooling are typically found to have a larger effect on children’s schooling than years of parental schooling beyond that level (Haveman, Robert and Barbara Wolfe, 1995). Glick and Sahn (2000), for West Africa, found that rise in household income leads to greater rise in investment in girls’ education but have no significant impact on schooling for boys. Rise in father’s education raises the schooling of both sons and daughters but mother’s education has significant impact only on daughters’ schooling. Male dominance implying lower empowerment of women in the household has also negative impact on children’s education.

Kalmijn (1994) tried to examine the influence of mother’s occupational status on children’s educational attainment. He found that mother’s occupational status has a strong effect on schooling of both sons and daughters.

Durrant and Sathar (2000) conducted a study in Pakistan tried to focus on the link between mother’s status and their investment in children. They found that women with higher status are better able to make positive investments in their children as a result their children’s chances of survival during infancy increases and hence ever attending school of their children also increases.

Deding and Hussain (2002) tried to focus on the importance of parental education and living conditions on children’s educational attainment. The authors found that parents’ education, especially mother’s education is more important for children’s educational attainment. Furthermore, the study revealed the importance of living conditions. They found significant effect of living conditions on children’s educational attainments.

Parveen and Leonhauser (2004), in their study conducted in Bangladesh, tried to focus on the nature and extent empowerment of rural women and factors influencing it. The authors used stratified random sampling to select responds. Total 156 respondents were selected for survey. A Cumulative Empowerment Index (CEI) was developed after obtaining the scores of six empowerment indicators. They found the majority of rural women have a very low to moderate (82%) level of empowerment. The study demonstrated that the place of residence may also have profound impact on the empowerment level and the economic status of women. Furthermore, the multiple regression analysis showed that there were strong positive effects of formal and non-formal education, information media exposure and spatial mobility on women's CEI, whereas, traditional socio-cultural norms have a strong negative effect.

Niaz et al (2010) conducted a study in Pakistan, focused on the impact of women’s empowerment on the socio-economic conditions of their families. Purposive sampling technique was followed to select households. The authors found that empowered women played an important role in supplementing their family budget. They participated in all kinds of decision-making related to family matters, they observed no gender discrimination in health and education of their children and their children got better education and developed better personality.
In the perspective drawn above that underlies the formative role of women’s education at both family and societal level, the objective of the study is set as to investigate the degree of association between mothers’ education and their empowerment level and how these two are associated with their children’s educational attainment level. The study would also try to find out the impact of mother’s education and empowerment on the educational attainments of their children, the causal direction that have significant bearings on the process of the intergenerational transmission of education as the literatures suggest.

3. Research Design: The study is based on primary data which is generated through household survey conducted in the Karimganj District of Assam. The total sample comprises of 108 children from selected 52 households. The unit of the study is household and the mothers of the households are the respondents. Out of the selected 52 mothers, 14 respondents have high level of education (Graduation and above), another 11 respondents have attained twelve level of education (higher secondary) and the rest respondents have high school and below high school level of education. The variables taken in the study are listed below.

i. Education of mother in years (MEd)

ii. Mother’s Empowerment Index (MEI): This is determined with the help of nine variables which reflect on mother’s decision making power in the household. The variables represent mother’s decision making power regarding (a) FHC= Family Health Care, (b) MLH=Making Large Household Purchases, (c) MRHP=Making Routine Household Purchases (d) FS=Family Size, (e) FPS= Family Planning Services, (f) JOW= Job of Women, (g) GOH= Going Outside Home, (h) FDTDE= Family Day to Day Expenditure. (i) SPI= Spending Personal Income. These are quantified as follows. Value 2 is assigned in case mother takes decision about each of the above entirely by herself and 1, if jointly along with her husband or male Head of Household. Value 0 is assigned to a variable in case mother is found to have no role in decision making regarding the above 9 variables.

iii. Children’s Average Education (CAEd): This is estimated by taking the average of completed education in years of all the children in a household (excluding 0-5 age group)

iv. Average Age of Children (AAC): This represent the average age of all the children of the household in years

v. Number of living Children (NOC) in a household.

vi. Family Type (FT): Dummy, 1 if Nuclear, 0 if Joint

vii. Earning Mother (EM): Dummy; 1 if yes, 0 otherwise.

viii. Household’s Annual Income (HAI) in INR from all sources.

ix. Age of Mother (AM) in years.

Some of these variables need no elaboration as these are self-defined.

4. Methodolody: Purposive random sampling technique is followed for selection of sample households from all urban parts of the district of Karimganj. The data is collected with the help of a structured pre-tested schedule and information are obtained through personal interview method and household survey. Mother’s Empowerment Index (MEI) is estimated by taking simple arithmetic average of mother’s decision making power which is evaluated by 9 different indicators of empowerment as stated above. Simple Correlation Coefficient (r) is found out to show the degree of association between Mother’s Education and Mother’s Empowerment Index. Finally multiple regression equations are constructed to identify the proximate determinants of Children’s Average Education.

5. Results: The data set is used to find out the degree of association between Children’s Average Education and Mother’s Education by finding out the correlation coefficient value of these variables. Similarly the correlation coefficient is estimated for variables Children’s Average Education and Mother’s Empowerment Index; Mother’s Education and Mother’s Empowerment Index. The result is shown in Table 1. It is found that there exists a very high positive and statistically significant correlation between Mother’s Education and Mother’s Empowerment Index (r=0.788, significant at 1% level). However, the correlation between Children’s Education and Mother’s Education is found to be negative and statistically insignificant. Similar is the case with Children’s Education and Mother’s Empowerment Index.
The positive high and statistically significant degree of association between Mother’s Education and Mother’s Empowerment Index is expected. It corroborates the fact that as Mother’s Education increases, Mother’s Empowerment also improves. The association between these two variables is explained from the point of view of education to empowerment since education is generally attained in the early part of life (if it is low as is the case in the present study, average education of mothers being only 11.33 years) and empowerment is a derived notion, a function of education. However, at higher level of education, empowerment and education reinforces each other. The negative association between Children’s Education and Mother’s Education; Children’s Education and Mother’s Empowerment Index is unexpected. Literature suggests a positive association between Mother’s Education and Children’s Education which however could not be established here. But the result shows that the correlation coefficient values between children’s Education and Mother’s Education and Children’s Education and Mother’s Empowerment Index are statistically insignificant. This leaves ample scope for further investigation of the nature of these relationships.

In order to carry the investigation forward, two regression equations are constituted to identify the proximate determinants of Children’s Educational Attainments. This includes identification of the causal impact of mother’s education and mother’s empowerment on children’s education. Two models are constituted (Model 1 and Model 2) with dependent variable CAEd. In the first model Mother’s Education is taken as an explanatory variable along with other eight variables. In Model 2 Mother’s Education as explanatory variable is dropped and substituted by Mother’s Empowerment Index (MEI), keeping the other variables unchanged. This has been done to avoid the problem of multicolinearity (since MEI and MEd are found to be highly correlated with each other). In both the models variables AAC1, AM1 and AM2 are introduced as control variables where the variables are defined as under.

AAC1 = Average Age of Children is (10-20) years, 1 if yes; 0 otherwise. The reference group is average age of children above 20 years as there are no children in the age group below 10 years.
AM1 = Mother in the age group (30-40) years, 1 if yes; 0 otherwise.
AM2 = Mother in the age group (40-50) years, 1 if yes; 0 otherwise. Here the reference group is mother in the age group of above 50 years as there is no mother in the sample whose age is less than 30 years.

The regression results are shown in Table 2. The results show that the variables AAC1, HAI, AM1, AM2 have statistically significant impact on CAEd in Model 1. In Model 2, the variables MEI, AAC1, FT, HAI, AM1 and AM2 are found to have statistically significant impact on children’s educational attainments. However, as in Model 1, MEd has no statistically significant impact on CAEd. More perplexing is the finding that, in Model 2, MEI is seen to have negative statistically significant impact (at about 5% level) on CAEd.

### Table 2

**Regression Results**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model: 1</th>
<th></th>
<th></th>
<th>Model: 2</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>t</td>
<td>sig</td>
<td>Coefficient</td>
<td>t</td>
<td>sig</td>
</tr>
<tr>
<td>MEI</td>
<td>-</td>
<td></td>
<td></td>
<td>-4.564</td>
<td>-2.006</td>
<td>.051</td>
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<tr>
<td>MEd</td>
<td>-1.81</td>
<td>-1.422</td>
<td>.162</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AAC1</td>
<td>-2.380</td>
<td>-2.398</td>
<td>.021</td>
<td>-2.117</td>
<td>-2.155</td>
<td>.037</td>
</tr>
<tr>
<td>NOC</td>
<td>-3.55</td>
<td>-1.010</td>
<td>.318</td>
<td>-.388</td>
<td>-1.128</td>
<td>.266</td>
</tr>
<tr>
<td>FT</td>
<td>1.049</td>
<td>1.599</td>
<td>.117</td>
<td>1.084</td>
<td>1.739</td>
<td>.089</td>
</tr>
<tr>
<td>EM</td>
<td>-.980</td>
<td>-1.456</td>
<td>.153</td>
<td>-.423</td>
<td>-.551</td>
<td>.585</td>
</tr>
</tbody>
</table>

**Table 1**

**Estimated Correlation Coefficient (r)**

<table>
<thead>
<tr>
<th>Correlation Between</th>
<th>Value</th>
<th>Statistical Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>r(CAEd, MEd)</td>
<td>-0.059</td>
<td>Insignificant</td>
</tr>
<tr>
<td>r(CAEd, MEI)</td>
<td>-0.066</td>
<td>Insignificant</td>
</tr>
<tr>
<td>r(MEd, MEI)</td>
<td>0.788</td>
<td>Significant at 1% level</td>
</tr>
</tbody>
</table>

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Impact of Mother’s Selected Attributes on Children’s Educational Attainments

<table>
<thead>
<tr>
<th></th>
<th>HAI</th>
<th>R²</th>
<th>AM₁</th>
<th>Adj R²</th>
<th>F-Value</th>
<th>AM₂</th>
<th>Adj R²</th>
<th>F-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.356E-06</td>
<td>0.67</td>
<td>-4.133</td>
<td>0.608</td>
<td>10.906</td>
<td>-2.105</td>
<td>0.625</td>
<td>11.63</td>
</tr>
<tr>
<td>Model Fit</td>
<td>3.043</td>
<td>.001</td>
<td>-3.762</td>
<td>0.000</td>
<td>3.043</td>
<td>-2.317</td>
<td>.002</td>
<td>11.63</td>
</tr>
<tr>
<td>CONSTANT</td>
<td>6.805E-06</td>
<td>0.684</td>
<td>-4.635</td>
<td>0.625</td>
<td>15.036</td>
<td>-2.661</td>
<td>0.000</td>
<td>10.235</td>
</tr>
</tbody>
</table>

From the results, it is very clear that Mother’s Empowerment and Mother’s Education have negative impact on Children’s Educational Attainments. This overbearing negative impact is probably because of the fact that the younger mothers have younger children who were found to have low educational attainments at the time of survey. This observation is vindicated by the observed fact that the control variables have turned up statistically significant exhibiting their negative impact on children’s educational attainments. With reference to mothers aged above 50 years, the children of younger mothers have lower level of education. Similar is the case of younger children. The variable AAC₁ has turned up statistically significant, showing its negative impact on children’s educational attainments in both Model 1 and Model 2 with reference to relatively older children of the sample. The acceptability of the Models is substantiated by the values of adjusted R² and F-values.

7. Conclusion: The study reestablishes the importance of Household Income (HAI) and Family Type (nuclear family) in children’s educational attainments. The variable HAI is found to have strong positive and statistically significant impact on the educational attainments of children. Similarly, nuclear family structure is also found to have a positive and statistically significant impact on children’s educational attainments. The study, however, finds insignificant impact of mother’s education on the educational attainments of children.

Reference:


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