

The Effect of Women's Empowerment on Child Health Status: Study on two Developing Nations

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ABSTRACT

Women's empowerment direct indicator and its relationship to child health outcomes have been investigated using a sample of 22,462 under five years' children in Nigeria and 45,516 India. The data used in the study was obtained from the 2008 Nigerian Demographic and Health Survey (NDHS) as well as the third round of National Family and Health Survey NFHS-3 India. Women's empowerment in both study areas were examined through women's decision-making autonomy in the household. In relation to this further, we examined the determinants of child health using two important indicators, viz: Child's immunization status and child's nutritional status (stunting status). The influence of women's decision-making autonomy on the child health practices appears to be paramount for every child's well-being and for their healthy growth and development. In this study, women's empowerment major indicator was used as the independent variable, while the indicators of child health status as dependent variables. Descriptive and multivariate statistics were employed in order to establish a relationship between of women's empowerment indicator and child health outcomes. Alongside with these measures of empowerment and child health status, we equally considered their relationship with some of the socio economic and background characteristics of women, men and children. The results obtained in the study revealed that there is a strong and positive influence of the active participation of women in making decisions in the household on their children's health status.

KEYWORDS: Decision making, child health, stunting, immunization, developing nations.

I. INTRODUCTION

Women empowerment is believed to be an important factor in determining the utilization of child health practices. "When women are empowered, children thrive, and the countries flourish reaping a double dividend for women and children" (Former UN secretary Kofi .A. Annan). The issue of women's right, autonomy as well as empowerment have become a subject of serious concern of both academician and policy makers and have received tremendous attention in planning discussions and forums at the national and global platforms in both developed and developing countries. The concept of women's empowerment is instrumentally valuable for achieving positive developmental outcomes and for the well-being of men, women and children. Women's empowerment can be measured using some direct indicators such as the decision making ability of women in their

individual homes, as this affect their personal circumstances and is an essential aspect of their empowerment.

Furthermore, the influence of women's empowerment and/or autonomy on children's health and well-being has emerged as an issue of considerable research and interest in the developed as well as developing countries. In order to achieve higher levels of child health and reduce child mortality, it is necessary that the governments have better information on the home environment in which children are most at risk of adverse health outcomes, DHS analytical report (1996).

The "Millennium Development Goals" (MDGs) stated eight developmental goals that were set to target for year 2015. These goals includes the empowerment of women as well as promotion of child health as part in which all the member States have agreed to meet by the year 2015. The Goals were adopted on 8 September 2000 by the United Nations General Assembly in its fifty-fifth session with a resolution 55/2 "United Nations Millennium Declaration". The leaders recognized that they "have a duty to the entire people in the world, especially the most vulnerable and, in particular, the children of the world, to whom the future belongs".

II. OBJECTIVE OF THE STUDY

The objective of the study is to examine the impact of women's decision making autonomy on child health outcomes in two developing countries. The study also examine the effect of some socio and demographic factors on women's decision making and child health status, using some descriptive analysis.

III. LITERATURE REVIEW

Several studies have been carried out on different aspects of women's empowerment in relation to reproductive and child health status. But so far, there are only few studies conducted on a comparative basis of women's empowerment and child health outcomes. This study, therefore, seeks to compare two developing nations (Nigeria and India) in the area of women's empowerment in relation to child health practices.

Parashar (2004), in a study examined how mother's empowerment in India is linked to child nutrition and immunization and suggested women to be empowered simultaneously along several different dimensions if they and their children were to benefit across the whole spectrum of their health and survival needs.

A study by Tuladhar et al. (2013), Suggested that women's empowerment and spousal violence appeared to have significant implications for the health of women and their children.

IV. METHODOLOGY

This study was based on secondary data obtained from two countries' national surveys. The surveys are:

- i). The 2008 Nigeria Demographic and Health Survey (NDHS) with reference to women of reproductive age 15-49 years having sampled of 22,462 under-five children 0-59 months, and
- ii). The India 2005/2006 National Family and Health Survey (NFHS-3) also making reference to women of reproductive age 15 - 49 years having 45,516 number of children 12 - 59 months.

Bivariate and multivariate analyses were employed in the study to examine the selected determinants of women's empowerment and child health status. The analyses in the study focused on only one direct indicator of women's empowerment - women's decision-making autonomy and two determinants of child health - immunization and nutritional status. Since the interest here is in examining whether the selected indicator women's empowerment have any effect on child health outcomes, the dependent variable used in the study therefore is the child health outcome, which was measured for the purpose of this study through the data obtained on the child's immunization status and nutritional (stunting) status. These variables were each in turn coded 1 if the child was fully immunized or/and stunted, while 0 otherwise.

Furthermore, the independent variable used in the study is the women's empowerment which was measured through the direct indicator - women's decision-making autonomy. The five decision making variables used in order to assess women's decision making autonomy was adopted from the DHS: Women were asked who in the household decision maker on each of the following areas:

- Her own health care
- Major household purchases
- Purchases for daily household needs
- Visit to family or relatives
- Husband's earnings

In response to the above, were six options; respondent alone, husband/partner alone, respondent and husband jointly, respondent and someone jointly, someone else, other. Here, responses were divided into two - women who participate in making decision either alone or jointly were coded 1 and the code 0 were assigned to women who responded not participating in any of the household decisions.

In the analyses, chi-square test was run to examine the association between the independent and dependent variables. The odds ratio, which was determined from the logistic regression coefficients, revealed the increase or decrease chance of a child being fully immunized and/or stunted under the given set levels of the independent variable. The estimates of odds ratio greater than 1.0 indicate that the chance of a child being either fully immunized or stunted is higher than that of the reference category. Estimates of odds less than 1.0 indicate that the chance of the child being fully immunized or stunted is less than that of the reference category of each variable. Similar interpretation of the odds ratios is applied to each measure of the independent variable.

V. LIMITATIONS OF THE STUDY

This study is limited in some areas such as;

1. Consideration was given to recorded data of only currently married women at the time of the survey who are in the reproductive age (15-49) years and the statistical analyses was based on the information obtained on this group of women. This may be bias in representing all categories of women.
2. For child immunization, we considered under-five children who received full immunization (i.e. BCG, 3doses DPT, 3 doses of Polio and Measles vaccines) based on mother's report even without showing health card. The sample of children used in the analyses may not be the actual number of children in the entire sample in both study area, this is because we excluded children whose mothers have died as well as those whose mothers are younger than 15 and older than 49 years at the time of the survey. We further examined stunting as an outcome of children's nutritional status without giving regards to hereditary cases from both or either of the parents.

However, there is need for further study using consistent concepts and additional or other indicators for women's empowerment and child health outcomes, using other sophisticated methods for analysis and evaluation of the relationship of women's empowerment with child health outcomes.

VI. RESULTS AND DISCUSSION

The result presented in Table 1 gives the percentage distribution of the socioeconomic and demographic characteristics of children and their parents in the two study areas. From the table, it can be observed that most of the women were between the ages 25-34 years (Nigeria-49.3%, India-49.4%), of which almost half of them have no education and only 26.8% and 35.9% of them have secondary/higher education respectively, and most of them have parity between 0 and 2 in both countries. More than half (68.3%) of the women in Nigeria reported they are working while only 37.3% in India reported working. Almost one-half of children in both areas are between the age 36-59 months and 70.1% of the men in the Nigerian sample observed were of age 35 and above while it is 55.1 percent for India are in the same age category, more than half (56.6%) of men in Indian sample were within the age group 25-34 years. More than half of the men (62.8%) in Nigeria have either no or primary education and 44.6% in India have no or primary education. Table 1 also revealed that almost three-fourth of the households in both population lives in the rural areas, and half of them have poor wealth status.

Table 2 present the distribution of the dependent and independent variables with the socio and demographic characteristics of children and their parents. The results obtained clearly shows that in Nigeria and India, women of older age (35-49) years participate more in decision making than their younger counterparts. Similarly in both study areas, lower parity women (0 -2) have the highest percentage participation in household decision making. The results further revealed that education of both women and men contributes to women's decision making autonomy. This is seen in the increasing trend in percentage from

no education to secondary /higher education. The result also revealed that place residence, wealth status and work status of women have a direct contribution to their decision making autonomy in the two populations. This is seen in the distributions given in Table 2; urban women have greater percentage of decision making autonomy than those in the rural areas; women in the rich wealth status have higher percentage decision making autonomy than those in middle and poor status; women who reported working have high percent autonomy than those not working. The result is consistent in both samples of India and Nigeria.

Results on child immunization shows that children of women in the middle age group (25–34) years tend to receive full immunization compared children of women from the other age groups of both countries. Similar pattern was observed with the results on father's age. An obvious case was seen in the child's age, where greater percentage of immunization is observed among children in the age group 12 – 35 months. Parents' education, place of residence, wealth status were also found to be contributing factors to the immunization status of children in that the proportion of full immunization increases with increase in men and women's education; children in the urban residence were found to be fully immunized more than those in the rural areas; children from the rich households received full immunization than those from poor households. This result is common in the two populations. However, differences have been observed in the result on work status, in Nigeria, children of working women receive full immunization more than those of none working women, while reverse is the case in India.

Similarly, results on child's stunting status revealed that in Nigeria, children of younger women (15 – 24) years, have the highest percentage (45.2%) of being stunted, while in India, it is the children of older women (35 -49) years that have highest percentage (47.6%) of being stunted. Stunting was observed to be more among younger children (12 -35) months in both countries. Child's stunting status is affected by parent's education, place of residence, wealth status as well as work status of women in both populations.

The logistic regression results in Table 3 also confirmed the fact that women's decision making autonomy has a direct influence on the health of children. It further revealed that women's autonomy in decision making and child health are dependent on the socio economic status and demographic characteristics of the household.

VII. CONCLUSION.

This work was based on national health survey data obtained from two developing countries-Nigeria and India. The study focus was on whether there exist an association or relationship between the major indicator of women's empowerment with child health status. In the study, we used decision making autonomy of women as a major and direct indicator that measured women's empowerment, and immunization, stunting status as indicators to measure child health status. Findings from the study revealed that women's decision making autonomy in the household as a direct measure of empowerment contributes significantly to child health outcomes in the two study areas considered. Since women's decision making ability in the household settings is a major indicator of their empowerment, it is in place to conclude that women should be empowered by

allowing them have a say in the household matters so as to have a better and healthy family set up.

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Background Characteristics	Nigeria		India	
	Frequency	Percentage	Frequency	Percentage
Mother's Age				
15 - 24 years	7249	25.3	23723	42
25 - 34 years	14111	49.3	27864	49.4
35 - 49 years	7287	25.4	4850	8.6
Age of child				
12 - 35 months	11030	49.1	22193	48.8
36 - 59 months	11432	50.9	23323	51.2
Father's' Age				
Below 24 years	543	2	4723	10.8
25 - 34 years	7652	27.9	31962	34.1
35 and above	19183	70.1	18729	55.1
Parity				
0 - 2 children	19495	68.1	45249	80.2
Above 2 children	9152	31.9	11188	19.8
Mother's education				
No education	14418	50.3	28237	50
Primary	6552	22.9	7920	14
Secondary/Higher	7677	26.8	20280	35.9
Father's education				
No education	11477	41.4	16412	29.4
Primary	5934	21.4	8480	15.2
Secondary/Higher	10291	37.1	30892	55.4
Place of residence				
Urban	7613	26.6	14303	25.3
Rural	21034	73.4	42135	74.7
Wealth status				
Poor	14475	50.5	27031	47.9
Middle	5609	19.6	11181	19.8
Rich	8563	29.9	18226	32.3
Mother's Work status				
Not working	9035	31.7	35383	62.7
Working	19455	68.3	21042	37.3

Table 2. Percentage Distributions of Women's Empowerment Variable and Child Health Status						
	Nigeria			India		
Background Characteristics	Decision making autonomy	Fully Immunized	Stunted	Decision making autonomy	Fully Immunized	Stunted
Mother's Age	Yes	Yes	Yes	Yes	yes	Yes
15 - 24 years	37.0	10.8	45.2	59.1	36.5	44.5
25 - 34 years	48.8	20.0	41.3	72.2	45.7	42.4
35 - 49 years	49.5	18.2	41.6	78.1	34.5	47.6
Age of child						
12 - 35 months	45.9	21.6	49.4	66.5	44.7	54.1
36 - 59 months	46.1	19.8	44.4	70.4	43.8	52.5
Father's' Age						
Below 24 years	47.5	10.6	43.5	52.5	25.1	46.7
25 - 34 years	50.7	16.3	41.7	65.5	39.6	46.6
35 and above	47.1	17.5	42.8	76.8	36	50.6
Parity						
0 - 2 children	49.4	19.6	41.4	68.6	42.9	42.7
Above 2 children	38.8	12.4	44.0	61.3	33.8	48.1
Mother's education						
No education	30.4	5.9	51.5	65.8	25.7	54.7
Primary	56.6	20.2	41.1	65.4	39.4	47.3
Secondary/Higher	66.3	34.7	28.5	69.8	55.3	32.8
Father's education						
No education	29.7	5.1	51.2	67.9	23.2	58.1
Primary	55.0	19.9	41.9	68.5	34.8	43.2
Secondary/Higher	61.7	28.4	34.3	66.7	45.1	41.5
Place of residence						
Urban	54.3	27.7	33.2	74.9	50.1	36.9
Rural	43.0	13.2	45.9	64.6	35.7	47.6
Wealth status						
Poor	35.0	7.2	50.9	66.9	24.8	55.7
Middle	49.7	18.3	42.4	63.2	39.3	47.2
Rich	62.2	32.5	29.7	70.1	55.4	32.0

Mother's Work status							
Not working	32.7	11.3	45.7	66.7	43.7	48.8	
Working	52.2	19.9	40.8	68.1	36.4	54.5	

Table 3 Odds ratios and confidence interval Women's Empowerment Variable and Child Health Status in Nigeria and India

Characteristics	Nigeria			India		
	Decision making autonomy	Fully Immunized	Stunted	Decision making autonomy	Fully Immunized	Stunted
Mother's Age	Odds Ratio and 95% confidence Interval			Odds Ratio and 95% confidence Interval		
15 - 24 years (REF)						
25 - 34 years	1.551***[0.507, 0.621]	1.573***[1.390, 1.780]	0.896**[0.811, 0.989]	1.410*** [1.342,1.481]	1.075*** [1.022,1.131]	0.905*** [0.858,0.953]
35 - 49 years	1.786**[0.730, 0.845]	1.618***[1.397,1.874]	0.787***[0.699, 0.886]	1.738 *** [1.577,1.915]	0.78*** [0.713,0.862]	0.980 [0.892,1.077]
Age of child						
12 - 35 months (REF)						
36 - 59 months	0.983[0.926, 1.043]	0.873**[0.805, 0.947]	0.794***[0.741, 0.851]	1.102*** [1.057,1.150]	1.007 [0.964,1.051]	0.926*** [0.886,0.967]
Father's' Age						
Below 24 years (REF)						
25 - 34 years	1.535**[1.200, 1.964]	0.951[0.661, 1.369]	0.988[0.735,1.328]	1.287*** [1.185,1.397]	1.330*** [1.212,1.458]	0.863*** [0.784,0.949]
35 and above	1.275**[1.178, 1.380]	0.960[0.664, 1.389]	1.021[0.756, 1.378]	1.742*** [1.584,1.916]	1.257*** [1.133,1.394]	0.838*** [0.753,0.932]
Parity						
0 - 2 children (REF)						
Above 2 children	1.405***[1.316, 1.500]	0.782***[0.713, 0.857]	1.033[0.959, 1.112]	0.731*** [0.694,0.769]	0.765*** [0.725,0.808]	1.216*** [1.151,1.284]
Mother's education						
No education (REF)						
Primary	0.292***[0.265, 0.323]	2.093***[1.846, 2.373]	0.784***[0.710, 0.865]	1.153*** [1.081,1.229]	1.930*** [1.811,2.056]	0.787*** [0.737,0.841]
Secondary/Higher	0.664***[0.605, 0.730]	3.462***[3.037, 3.947]	0.510***[0.454, 0.573]	1.384*** [1.306,1.468]	3.022*** [2.853,3.200]	0.617*** [0.582,0.655]
Father's education						
No education (REF)						
Primary	0.688***[0.628, 0.753]	2.063***[1.790, 2.377]	0.949[0.856, 1.052]	1.053 [0.984,1.126]	1.334*** [1.255,1.440]	0.953 [0.889,1.022]
Secondary/Higher	1.090**[1.000, 1.187]	2.058***[1.786, 2.371]	0.969[0.871, 1.079]	0.885*** [0.837,0.936]	1.284*** [1.211,1.361]	0.831*** [0.783,0.882]
Place of residence						
Urban (REF)						
Rural	0.792***[0.730, 0.859]	0.877**[0.739, 0.964]	1.123**[1.024, 1.231]	0.613*** [0.587,0.639]	1.073 [1.016,1.133]	1.017 [0.961,1.076]
Wealth status						
Poor (REF)						
Middle	0.657***[0.596, 0.724]	1.958***[1.739, 2.206]	0.783***[0.712, 0.861]	0.789*** [0.746,0.883]	1.505 [1.420,1.594]	0.783 [0.738,0.831]**
Rich	0.899**[0.816, 0.990]	2.438***[2.156, 2.757]	0.536***[0.480, 0.598]	0.828*** [0.776,0.883]	1.937 [1.818,2.064]	0.501*** [0.469,0.535]

Mother's Work status						
Not working (REF)						
working	0.543***[0.508, 0.581]	1.448***[1.313, 1.597]	0.876**[0.810, 0.947]	1.164*** [1.113,1.218]	1.046 [0.998,1.095]	1.020 [0.973,1.068]
Note: *** = significant at 0.001, ** = significant at 0.05, = Not significant, CI = 95% confidence interval, REF = Reference category						