

Impact of women autonomy on under-five children health care practices in the slums of English Bazar municipality of Malda District, West Bengal

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Abstract: Poor child health care and women status are two major problems of the society. Worldwide researches have suggested women higher level of autonomy has a significant impact on child health care practices. The current study aims to estimate the impact of women autonomy on under-five children in the slums of English Bazar municipality of Malda district of West Bengal, India. The work is based on primary data collected from the slums of English Bazar municipality. Total 300 hundred mother and under-five child pairs have been taken as sample. Analysis has been done by descriptive statistics and binary logistic regression. Status of the autonomy of the women was low for the majority of the women. Even a huge number of children also recorded as not receiving basic child health care practices. Most importantly the regression analysis suggests women higher level of autonomy has positive association with many of the child care practices.

Keywords: Women autonomy, Under-five child health, Child nutrition,

Introduction:

Several research works have done on women's autonomy by researchers considered it as one of the important issue of the world. Women's autonomy helps to generate more self reliability of the women by providing better health care for children. It provides the women more access to resources which is necessary for children. Knowing the importance of MDG's (Millennium Development Goals: 2000) has taken gender equality and the reduction of child mortality two important goals along with the other eight goals. Although in our society women's issues and rights are neglected over the years. This situation is very poor in India. According to a recent report by Economic Survey (2017-18), a term has introduced "Meta Preference" of son child. In society have a belief existed, from the last thousands of years males are considered as more pure and valuable than female counterparts. So it has resulted in women's enjoyed a low amount of basic decision making power and fewer rights of education etc. Women's autonomy is largely based on their decision making power. The base of the decisions should relate to the interest level of women. (Acharya et al.2010). More information has suggested that autonomy is related to the power-consuming capacity of a woman and their decision-making ability (Carlson et al. 2015). Just like the autonomy, there is another quite similar subject, which is known as, women empowerment. The term 'Empowerment' is considered to be multidimensional in nature. Scholars have found multiple measures of empowerment. According to them women autonomy and empowerment are quite similar (Mason et al. 2000, Jejeehoy, 2000; Haque et al. 2010). There is also an opposite side; some scholars have considered women autonomy and empowerment is not a similar process. According to them, autonomy is the ultimate independence of women but empowerment is the only get by independence (Govindasamy and Malhotra, 1996; Malhotra and Mather, 1997). The concept of empowerment of women is directly related to women's wellbeing. For the development of the women, wellbeing is necessary (Grown et al.2005). The multidimensional nature of women's autonomy consists of many variables such as freedom of movement, decision-making autonomy, socio-economic autonomy, emotional autonomy and status in family and society (Jejeehoy et al.2001; Brunson et al. 2009). A

lot of research work has done on child care related practices concerning women's autonomy and empowerment. These research works suggest a strong association between these two elements. In a recent work on Bangladesh based on Bangladesh Demographic and Health Survey data (2007) made an important relation between child nutrition and gender inequality. This study also found a strong relationship between mother's decision making power and purchasing power. (Bhagowalia et al.2010). In earlier work in Nepal, women's decision making power has a statistically significant association with maternal and child health care (Allendorf, 2007).

Research work in Uttar Pradesh and Bihar has stated that women with poor financial access had a negative influence on child immunization and better freedom of movement had a better impact on prenatal care (Self et al.2012). Some more study on Varanasi in Uttar Pradesh has shown the autonomy of women is an important determinant of maternal health care utilization. The study revealed women with greater mobility autonomy has received more delivery care and antenatal care (Bloom et al.2001). In another research work in Nepal has shown that women's participation in household decision making and negative approach to wife-beating resulted in better postnatal care (Pandey et al.2012). In a comparative analysis in Eritrea and Ethiopia has stated that most autonomy indicators have a positive influence on the child and maternal health care. Decision-making autonomy of women in the family has a positive effect on child immunization and antenatal care services (Woldemicael, 2007).

In a very recent research work in Hyderabad, India the association between women's autonomy on economic participation and caregiving practices had an impact on all child care practices except dietary practices and feeding practices (Peter, 2015). Some of the work in the Sub-Saharan region also revealed the same result. A study in Nigeria based on DHS report (2008) has explained the household decision making power and negative attitude against wife-beating always has a significant influence on child immunization, after controlling all socio-economic variables constant (Singh et al.2012). Women's empowerment has an impact on health-related awareness. It helps to increase

participation in healthcare. The healthcare-related knowledge helps to improve the health condition of the women and family members (Nasrabadi et al. 2015). In most studies on women's autonomy and child, nutrition has been performed in the background of south Asia and Africa. In these societies, women enjoy less social status than men. Women's autonomy always has some positive and negative impacts on child nutrition and health (Kamiya et al.2018). In some more work in rural Andhra Pradesh has shown the same outcomes. Mothers with higher financial autonomy and negative experience of domestic violence had resulted in the more likely child is breastfed between age 3-5 months infant (Shroff, 2007). In this study, we attempt to make an association between women's autonomy and child health care practices in the slums of the English Bazar municipality of the Malda district in West Bengal.

Methods

Sample design and study sample

The research work was completely based on primary data. The data were collected from January 2019 to June 2019 in the various slums of the English Bazar municipality (EBM). A total of 300 households were taken for the survey. In every household, a mother with an under-five child pair has taken in the sample. The sample design is stratified random sampling in nature (Peter, 2015). Slums had chosen from six different wards and eight different slums of the Municipality. Wards have selected from the central and periphery location of the municipality. Later on, slums had chosen randomly from the selected wards. Finally from every ward 50 households have chosen randomly.

In the schedule questions, related mothers' autonomy and child health care practices have taken. Total 21 likert scale type questions were given in the schedule. These questions indicated the basic women autonomy in four dimensions like decision-making autonomy, financial autonomy, physical autonomy, and child health care autonomy. Answers related to less autonomy was indicated with '0' while a higher level of women autonomy was indicated by a higher score. The same way five major child healthcare-related aspects were given in the schedule like, fully immunization care, ORS during diarrhea,

exclusively breastfeeding up to six months of age, hygiene care and dietary diversity. Binary values have used to represent their answer, '0' was given for a negative answer and '1' was given for a positive answer.

Child health care practices: Outcome variable

Child health care variables were the main outcome variable of the study. Five types of child health care practices have taken such as immunization care, ORS during diarrhea, exclusively breastfeeding up to six months, use of soap before feeding the child as hygiene care and dietary diversity means food with various nutritional elements, etc. Every positive answer was represented by '1' and for negative answer coded by '0'.

Women autonomy: Main exploratory variable

Women's autonomy is the main exploratory variable of the study. Four basic women autonomy like decision-making autonomy, financial autonomy, physical autonomy, and child healthcare-related autonomy have taken as exploratory variables. The questions related to women autonomy are 2/3 point Likert scale in nature. The answer indicates negative autonomy was scored by '0'. Same way with higher autonomy more scores were given. based on that individual score two classes have divided, women with a higher level of autonomy and women with a lower level of autonomy. Some more variables like age of the women, their educational level birth order of the child, sex of the child, husband's level of education, type of the family and wealth status of the family also taken as the exploratory variable.

Statistical analyses

Some basic statistical technique has used in this study. For knowing the internal reliability among the autonomy variables Cronbach's alpha coefficient had used (Bloom et al.2001). Before running the Cronbach's alpha Exploratory Factor Analysis (EFA) has used for the sorting weak components from the autonomy variables. For knowing the association between women's autonomy with women's characteristics and women's socio-economic variables binary logistic regression was run with both adjusted and unadjusted odds ratio. All the analyses were conducted with the help of SPSS version 22.

Results

Measuring women's autonomy

As it already mentioned that the concept of women's autonomy is a multidimensional concept. For measuring the condition of women's autonomy four factors of autonomy have been selected. These four variables were physical autonomy, financial autonomy, decision-making autonomy, and childcare-related autonomy. The questions are shaped by the 2 or 3 points Likert Scale. There is a total twenty-one question is taken. Each question has a '0' score for the low level of autonomy, while with increasing autonomy level score is also increases. Below in table 1 & 2 various types of autonomy are displayed.

Table 1 has shown the financial autonomy, basic financial decisions and some financial rights of the women in the household has explained. For measuring their financial condition total of seven Likert scales has taken. Positive responses have taken as the higher level of autonomy scored by '1' and the negative response has shown less autonomy and scored by '0'. The data suggest around 48.7% (146) women do not participate in monthly family budgeting. The majority of the women (73.3%) got some money from their husbands for a few expenses. 62% of women have no right to finalize the gift budget for any occasion. The majority of women have no bank account. Almost fifty percent of women have personal mobile phones. Once again much of the women have no right to buy own dress without consult with husband. Just 18.3% (55) women participated in lending and borrowing. Table 2 has represented the physical movement;

household decision making autonomy and childcare-related autonomy by 3 Likert scales. In the physical autonomy portion, 41.3% of women responded that they can move along to the local market. 50% of women can go to market with someone in her family and 8.3% never go to market. In case of going fare and festival, 76% go with someone in the family. The results are almost the same for the other variables also like went to a friend's house, out of village and health check-up. In the household decision making autonomy five different variables are taken. In major household-related purchases, decisions have taken by other family members. Even in purchasing of own dress, fifty percent of the response is stated they need to consult with her husband. A huge number of women also find who didn't have the right to select their dress to wear. Here in cooking of food item 52.3%, women had the right to select the item and 11.7% had no right to select the food item. Child-related care was also very important to measure women's autonomy. Three childcare-related variables were taken for the study. Here as per the expected maximum of the variables suggest women have more responsibility related to child care.

Table 1: Financial autonomy among the respondents (n=300)

Financial Autonomy	No		Yes	
	No.	%	No.	%
Monthly Family Budget	146	48.7	154	51.3
A Part of Husband Salary as Monthly Expense	80	26.7	220	73.3
Gift Budget Finalization	186	62	114	38
Personal Bank Account	167	55.6	133	44.4
Personal Mobile	147	49	153	51
Buy Own Dress Without Consulting With Husband	164	54.7	136	45.3
Participation in Lending And Borrowing	245	81.7	55	18.3

Source: Field Survey 2019

Table 2 :Women autonomy on physical movement, household decision and child care practices among the respondents (n=300)

Physical autonomy	Alone		With someone		Never	
	No.	%	No.	%	No.	%
Market	124	41.3	150	50	25	8.3
Fare and festival	66	22	228	76	6	2
Friends house	93	31	176	58.7	31	10.3
Out of village	66	22	221	73.7	13	4.3

Relative's house	167	55.7	123	41	10	3.3
Health checkup	95	31.7	202	67.3	1	3
Household decision	Self		With husband		Never	
	No.	%	No.	%	No.	%
Major household purchase (e.g. Furniture, appliances, etc.)	18	6	207	69	75	25
Purchase of dress	76	25.3	153	51	71	23.7
Type of dress wore	139	46.3	107	35.7	54	18
Time and place of consultation with a doctor	73	24.33	172	57.33	55	18.33
Cooking of food	157	52.3	108	36	35	11.7
Child-related decision making	Self		With husband		Never	
	No.	%	No.	%	No.	%
Child health-related responsibility	209	69.7	74	24.7	17	5.7
Immunization care	209	69.7	72	24	18	6
Child feeding and dressing	207	69	78	26	15	5

Source: Field Survey 2019

For the analysis of autonomy variables, Exploratory Factor Analysis has run by SPSS. The reason to run exploratory factor analysis is to find out the reliability among the basic autonomy variables. For testing the reliability Cronbach's Alpha technique has used. Cronbach's Alpha helps to measure internal consistency among the variables. Before running Cronbach's alpha it is quite necessary to run exploratory factor analysis. With the help of exploratory factor, analysis variables set into some factors and it also helps to sort and summarized the data. In Factor loading table values less than 0.5 is excluded as they seem to be a weak variable in the list. After that with remain variables, the reliability test has performed.

Table 3: Factor loading of the various autonomy indicators of the respondent

Autonomy Indicators	Component			
	1	2	3	4
Fare and Festival	0.74			
Out of Village	0.727			
Friends House	0.723			
Health Checkup	0.621			
Market	0.601			
Relatives House	0.571			
Purchase of Dress		0.762		
Type of Dress to Wore		0.734		

Major Household Purchase (e.g. Furniture, Appliances, etc.)		0.716		
Time and Place of Consultation with Doctor		0.685		
Buy Own Dress Without Consult with Husband			0.697	
Personal Mobile Phone			0.694	
Monthly Family Budget			0.666	
Gift Budget Finalization			0.61	
Personal Bank Account			0.544	
Participation In Lending and Borrowing			0.519	
Child Feeding and Dressing				0.773
Child Care Related Responsibility				0.733
Immunization Care				0.709

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization. ^a

Rotation converged in 7 iterations; Factor Value Less than .05 is omitted from the factor components

Table 3 the rotated component matrix has done by Exploratory Factor Analysis. The table shows all the variables come under four independent components. In the 1st component column, six variables related to physical autonomy has shown. In the 2nd component column 4 variables related to decision-making autonomy, 3rd column six variables related to financial autonomy and in the last column three child-related variables have seen. The values of all the factors are more than 0.5. Below 0.5 variables are excluded as considering less important compared to other variables.

The test of reliability among all the variables in the individual autonomy factor has calculated by Cronbach's Alpha. In the physical autonomy section, six variables have seen. The value of physical autonomy has shown 0.822, it can consider as high internal consistency. Generally, more than 0.7 is considered acceptable as a high level of intensity. While other factors like household decision-making autonomy, financial autonomy, and child-related care decision value have shown as 0.798, 0.742 and 0.701. It means that all of the variables are highly reliable. Earlier all of the factors with their autonomy indicator are tested with Cronbach's Alpha. Now in table 4.5 internal reliability among all autonomy variables have performed. Cronbach's alpha coefficient value of physical autonomy, household decision-making autonomy, and financial

autonomy and childcare-related autonomy is 0.723. It can easily consider them a high level of internal consistency.

With the help of EFA out of 21 variables, 19 autonomy variables have taken to measure the status of women autonomy. 2 weak variables (factor score of less than 0.5) have excluded. Based on the total score of 19 variables in four different segments of women's autonomy every individual woman got a score. These scores have divided into two different sets of autonomy low and high. In table 4 it appears that about 60% of women have a low level of economic autonomy. Same way 56.3% and 66.3% of women respectively got an as low level of physical and decision making autonomy. Only in the case of child care, related autonomy women have a high prevalence of about 66.7%.

Table 4: Status of women autonomy of the women

Types of autonomy	Low		High	
	Number	Percentage (%)	Number	Percentage (%)
Financial Autonomy	178	59.3	122	40.7
Physical autonomy	169	56.3	131	43.7
Decision-making autonomy	199	66.3	101	33.7
Child health care autonomy	100	33.3	200	66.7

Child health care practices:

Table 5 has represented the various child-related care like their immunization care, ORS during diarrhea, exclusively breastfeeding up to six months from birth, hygiene care, and dietary practices, etc. These care practices have a direct influence on children's nutritional outcomes and health. There are still 24.7% of children reports as not received all the vaccines. ORS during the diarrhea of a child is very essential. 41.3% (124) women responses that their children are not getting ORS during Diarrhea. For the first six months of a child mother's milk is very essential. 72.3% (217) children are exclusively breastfed. The result of a hygiene care is quite depressing, only 20.7(62) child or mother uses soap before eating food. For proper nutrition of a child food with all nutritional elements are essential. Half of the children are not getting the proper diet.

Table 5: Child health care practices of the children

Child care practices	Yes		No	
	No.	%	No.	%
Immunization	226	75.3	74	24.7
ORS	176	58.7	124	41.3
Exclusively Breastfeeding	217	72.3	83	27.7
Use of Soap before Food	62	20.7	214	71.3
Dietary Diversity	153	51	147	49

Source: Field Survey 2019

Characteristics of the mother, child, and households:

Table 6 the basic characteristics of the mother, children, and the households have explained. In the age-wise classification, around 70% of women got between ages 16 to 26. Three basic levels of education group have divided. No formal education and primary education are taken at a low level of education. Upper primary and secondary education are taken as a medium level of education and higher secondary and more taken as a lower level of education. Almost half of the mothers have a low level of education. In the child section, the number of male and female children is equal. 60% of the child is the first child of the mother. In household characteristics, 60% of the family belongs to the joint family. Husbands of women have also a low level of education status. Finally, more than half of the household belongs from a poorer and poor section of wealth status.

Table 6 : Basic characteristics of the mother, child, and household in English Bazar municipality

Variables	Number	Percentage (%)
Mothers Characteristics		
Age		
16 to 21	105	35
21 to 26	108	36
26 to 31	61	20.3
31 to 36	21	7
36 to 41	5	1.7
Education		
Low	151	50.3
Medium	130	43.3

High	19	6.4
Children Characteristics		
Sex		
Male	150	50
Female	150	50
Birth Order		
1 st	175	58.3
2 nd	88	29.3
3 rd	24	8
4 th	11	3.7
4+	2	0.7
Household characteristics		
Family type		
Separate	127	42.3
Joint	173	57.7
Husbands education		
Low	146	48.7
Medium	123	41
High	31	10.3
Wealth index		
Poorer	85	28.3
Poor	86	28.7
Rich	63	21
Richer	66	22

Determinants of women autonomy:

The result of the regression analysis (Table 7) revealed that financial autonomy has a positive and significant association with immunization care (OR-4.98, $p < 0.01$). Other child health care practices also have a positive and significant association with financial autonomy. Physical autonomy of women has also a significant association with all of the health care practices except the dietary diversity of children. Although the crude odds ratio suggested dietary diversity of children is positively associated with better autonomy status of women (OR-1.40). The other two autonomy variables, decision-making autonomy and child health care autonomy of women also have a positive and significant association with all of the autonomy variables. Increasing the age of women have a positive impact on the likelihood of immunization status (OR-1.005) and dietary diversity (OR-1.100, $p < 0.01$). Except exclusively breastfeeding of children all of the health care

practices are positively associated with the mother's level of education. The male child gets better care of immunization, exclusively breastfeeding and hygiene care. The regression also suggests that children got better care in ORS taking, hygiene care and dietary diversity in a separate family. Finally, the wealth status of the family also indicates that except exclusively breastfeeding all of the child care practices are positively associated with women's level of autonomy.

Discussion:

This study discusses on the impact of maternal autonomy on under-five child health care practices in the slums of English Bazar municipality of Malda district, West Bengal, India. Around 300 mothers and under-five child pairs have taken as the sample. Four different sets of autonomy variables like financial autonomy, physical autonomy, decision-making autonomy, and childcare-related autonomy have taken in the study. Around fifty percent women have no right to participate in family budgeting. Other financial autonomy also indicates women have less autonomy. Many cases in physical autonomy women only allow with someone to move outside like market, health checkup, friend's house, out of the village, etc. Very few women have taken major family decisions by their capacity. In a comparative study between Eretria and Ethiopia Shown large purchasing decisions, household purchasing decisions and visiting relative's house decision making seems very low (Woldemicael 2007). Some more studies also suggested in family women hardly take part in family decision making (Chakrovorty et al.2012). In a similar study in the slums of Hyderabad, India indicates women have very little right to movement and basic household decision making (Peter, 2015).

Table 7: Results of logistic regression presenting odds ratio among the autonomy variables and child health care practices

Types of autonomy and violence	Model 1		Model 2		Model 3		Model 4		Model 5	
	Crude	Adjusted	Crude	Adjusted	Crude	Adjusted	Crude	Adjusted	Crude	Adjusted
<i>Financial autonomy_Low</i> ®	1	1	1	1	1	1	1	1	1	1
High	4.89***	2.498**	4.52***	2.883***	4.41***	2.883***	2.16***	1.257	1.72**	1.376
<i>Physical autonomy_Low</i> ®	1	1	1	1	1	1	1	1	1	1
High	3.11***	1.616	3.05***	1.552	1.65*	1.552	2.27***	1.21	1.4	0.771
<i>Decision-making autonomy_Low</i> ®	1	1	1	1	1	1	1	1	1	1
High	2.69***	1.405	2.51***	1.591	2.09***	1.591	2.27***	1.16	1.52*	1.202
<i>Child care autonomy_Low</i> ®	1	1	1	1	1	1	1	1	1	1
High	3.25***	2.901***	1.81**	1.145	2.11***	1.145	3.23***	3.130***	1.62*	1.233
Women's Age		1.005		0.989		0.975		0.953		1.100***
Women Education		1.547		1.381		0.842		1.67		1.746*
Birth Order of Child		0.719		1.097		0.89		1.515*		0.84
<i>Sex of the Child_Male</i> ®		1		1		1		1		1
Female		0.857		1.124		0.77		0.839		1.249
Husband's Education		2.07		0.761		2.305**		.446**		0.908
<i>Type of the Family_Separate</i> ®		1		1		1		1		1
Joint		1.227		0.864		1.227		0.82		.515**
<i>Wealth Index_Poorer</i> ®		1		1		1		1		1
Poor		3.210***		2.277**		0.835		0.911		3.960***
Rich		2.589**		2.694**		0.618		1.56		3.579***
Richer		4.061**		2.835**		0.894		3.704**		3.038***

Model-1=Immunization care, Model-2= ORS received, Model-3= Exclusively Breastfeeding, Model-4= Hygiene Care, Model-5= Dietary Diversity, *** P<0.01, ** P<0.05, *P<.10; ®= Reference Category

The findings indicate a higher level of financial autonomy has a positive impact on immunization care, ORS taking, exclusively breastfeeding, hygiene care and dietary diversity of children. Other autonomy variables like the physical autonomy of women, decision-making autonomy and childcare-related autonomy also indicate the positive association with these five child care practices. Most importantly the maximum of the association is significant in nature. All these findings somehow have a similar result with recent studies performed in south Asia (Bloom et al.2001; Allendorf 2007; Smith et al.2003; Self and Grabowshi 2012; Peter 2015). Along with the autonomy variables mothers with higher ages have a positive impact on immunization care and dietary diversity of children. Except for breastfeeding practices of the children other child care practices are positively associated with the educational level of the mother. Some study also suggests women's increasing age and educational level in India has a positive influence on women's level of autonomy and it has a positive impact on basic child home care and dietary diversity (Peter 2015; Bloom et al.2001). The child with first birth order received better care on immunization, breastfeeding, and dietary diversity. In similar research in Hyderabad also suggest a child with 1st and 2nd birth order received more hygiene care (peter 2015). The husband's education of the respondent has a positive impact on immunization care and exclusively breastfeeding practices. In a separate family, the child has better care of ORS taking, hygiene care, and dietary diversity. Except for six months exclusively breastfeeding of children, all of the child care practices are positively associated with better wealth status of the family. Our findings confirm the similarity of results among the socio-economic factors and child care practices (Shroff 2007; Heaton et al.2005; Peter 2015).

Conclusion:

The present study has indicated that women status in the slums were very poor. In many cases the women have very less rights of movement, family decision making and financial decisions making. Basic child health care practices (Fully immunization. ORS receiving, exclusively breastfeeding, hygiene care and dietary diversity) were also not received by the children in a proper manner. Finally the result of the regression analysis has suggested higher level of women autonomy (Financial autonomy, decision making autonomy, physical autonomy and child care

related autonomy) have positive and many cases significant association with the basic child health care practices.

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