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Maternal Autonomy and Child Health Care Utilization: Evidence from Bangladesh

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UNIVERSITY OF MINNESOTA

MORRIS

**MATERNAL AUTONOMY AND CHILD HEALTH
CARE UTILIZATION:
EVIDENCE FROM BANGLADESH**

ASHIQUL ALAM (SALVI)

BANGLADESH

- Area size: 148,460 km²
- Population: 161 million (2015 est.)
- Per capita income: \$1211.7
[US - \$56,115.7]
- Gini Coefficient: 32.13 (2010)
[US - 41.06 (2013)]
- Fertility rate: 2.144 births per woman
(2015)
[US - 1.843 (2015)]
- Infant mortality: 30.7 deaths/1000 live
births (2015 est.)
[US - 5.6 (2015)]
- Government expenditure
on healthcare: 27.9% (2014)
[US - 60.1% (2014)]



OBJECTIVES

- Examine the effect of maternal autonomy on child health care utilization in Bangladesh.
- This research is relevant given that Bangladesh is still a patriarchal society where father commands a greater role in the family's decision-making.
- Examine the effects of other important factors such as household socioeconomic characteristics (such as household economic status) and child and mother specific characteristics on healthcare utilization.

BACKGROUND

MATERNAL AUTONOMY

- United Nations (2013)
 - In 2000, the Millennium Development Goals were set up by the United Nations to reduce poverty worldwide.
 - Promoting gender equality and women's autonomy is on number 3 out of these 8 goals.
- Agarwala & Lurch (2006)
 - Autonomy is multidimensional.
 - Dimensions such as the ability to make purchases and control resources
 - Ability to make decisions about healthcare or childcare and the experience of domestic violence
- Shroff *et al.* (2011)
 - '7 dimensions in which women make decisions and control resources within the family', expanding the definition of autonomy to include more decision-making dimensions like 'household decision-making autonomy, child-related decision-making autonomy, financial control and access (financial autonomy), decisions regarding mobility (mobility autonomy), freedom of movement (mobility), acceptance of domestic violence, and experience of domestic violence'.

BACKGROUND

CHILD HEALTH

- Doan & Bisharat (1990)
 - In Jordan, less maternal autonomy associated with lower child weight-for-age z-score (WAZ).
- Merchant & Udipi (1997)
 - Studies in Bombay (India) found that less maternal autonomy in medical treatment and social decisions resulted in greater likelihood for children to be in the negative-deviant growth category.
- Chakraborty & Anderson (2011)
 - In India low maternal autonomy increased the likelihood of low birthweight in infants.

DATA

- The data comes from the Bangladesh Demographic and Health Survey (BDHS) for 2014.
- The survey provides rich information on child (under age 5) and maternal health conditions and health care utilization, and demographic and socioeconomic characteristics at individual and household level.
- The survey results from the completed interviews of randomly selected 17,863 women in the age-group of 15-49.

DATA

DEPENDENT VARIABLES ON CHILD HEALTH CARE UTILIZATION

1. A child's immunization status

- Takes a value 1 if the child is fully immunized: if the child has received 1 dose of BCG vaccine, 3 doses of DPT vaccine, 3 doses of Polio vaccine, and 1 dose of measles vaccine and the child is at-least a year older. Otherwise, the variable takes a value zero.

2. Health care utilization if child had fever/cough

- Takes a value 1 if the child was taken to a medical facility (all public and private sector medical facilities) for treatment, otherwise zero.
- Takes a value 1 if the child was given any treatment or advise, otherwise zero.

3. Health care utilization if child had diarrhea

- Takes a value 1 if the child was taken to a medical facility (all public and private sector medical facilities) for treatment, otherwise zero.
- Takes a value 1 if the child was given any treatment or advise, otherwise zero.

DATA

CONTROL VARIABLES

- Maternal Education: mothers with no education, mothers who have attended primary education (i.e. up to five years of schooling), and attended secondary or more education (i.e. more than five years of schooling).
- Maternal Autonomy Index on Household Decision Making
 - Based on the responses on three questions related to household decision making on obtaining health care for the mother (respondent), large household purchases, and visits to family or relatives.
 - The responses to each question is coded into a separate categorical variable that takes a value 1 if the mother has played a role in the decision making, otherwise zero.
 - We sum these three variables to construct a maternal autonomy index which has highest value of three and a lowest value of zero.
- Mother's employment status: takes a value 1 if the mother is currently working, otherwise zero.
- Other Variables - Child Specific Variables: Child's age, sex and birth order; Mother Specific Variables: Mother's age and mother's health status (BMI); Household Specific Factors: Household Wealth Status, Household Size, Rural Vs. Urban Household, and also, control for seven regions of Bangladesh

TABLE: I
SUMMARY STATISTICS

	Mean	Standard Deviation
Fully immunized (=1)	0.814	0.389
Consulted Treatment For Fever And Cough (=1)	0.838	0.369
Consulted Medical Treatment For Fever And Cough (=1)	0.396	0.490
Consulted Treatment For Diarrhea (=1)	0.786	0.411
Consulted Medical Treatment For Diarrhea (=1)	0.367	0.483
Age Of Child In Months	31.210	14.015
Order Of Birth	2.111	1.368
Mother's Age in Years	24.923	5.130
Mothers with Secondary Education (=1)	0.527	0.501
Mothers with Primary Education (=1)	0.336	0.474
Maternal Autonomy Index	1.822	1.218
Mother's Employment Status (=1)	0.230	0.422
Mother's Health Status In Terms Of BMI	21.481	3.315
Rural (=1)	0.757	0.430
Top 2 Quintiles For Wealth (=1)	0.369	0.4
Middle Quintile For Wealth (=1)	0.180	0.385

TABLE 2

Note: The regression models control for child specific variables like child's age, sex, and birth order, mother specific variables such as mother's age, education, employment status, health status, maternal autonomy index, and household specific factors such as household size, wealth status, location (Rural Vs Urban) as well as geographic controls by controlling for 7 regions.

*** < 1%, ** < 5%, and * < 10%

Dependent	Fully Vaccinated (1) N=1577	Fully Vaccinated (2) N=6038	Fever-Cough Medical Treatment N=3215	Fever-Cough Treatment N=3215	Diarrhea Medical Treatment N=433	Diarrhea Treatment N=433
Mother With Secondary Education	0.735*** (0.269)	0.747*** (0.161)	0.080 (0.205)	0.141 (0.189)	-0.123 (0.387)	-0.126 (0.528)
Mother With Primary Education	0.210 (0.264)	0.233 (0.164)	-0.034 (0.167)	0.038 (0.178)	-0.819* (0.475)	-0.337 (0.573)
Maternal Autonomy Index	0.186** (0.078)	0.111*** (0.041)	0.089** (0.041)	0.115** (0.050)	0.139 (0.168)	0.110 (0.198)
Mom Working	-0.368* (0.209)	-0.279** (0.124)	-0.252* (0.147)	-0.229 (0.168)	-0.736* (0.428)	0.363 (0.413)
Richest Two Quintiles	0.781*** (0.254)	0.410** (0.166)	0.196 (0.147)	-0.150 0.167	-0.082 (0.524)	-0.248 (0.471)
Middle Quintile	0.464** (0.224)	0.421** (0.173)	0.256 (0.196)	0.150 (0.150)	-0.171 (0.703)	-0.965* (0.550)

TABLE 3

Note: The regression models control for child specific variables like child's age, sex, and birth order, mother specific variable such as mother's age, education, employment status, health status, maternal autonomy index, father specific variables such as father's age and education, household specific factors such as household size, wealth status, location (Rural Vs Urban) as well as geographic controls by controlling for 7 regions.

*** < 1%, ** < 5%, and * < 10%

Dependent	Fully Vaccinated (1) N=1574	Fully Vaccinated (2) N=6029	Fever-Cough Medical Treatment N=3215	Fever-Cough Treatment N=3215	Diarrhea Medical Treatment N=433	Diarrhea Treatment N=433
Mother With Secondary Education	0.621** (0.290)	0.616*** (0.163)	0.030 (0.221)	0.200 (0.202)	-0.299 (0.364)	-0.198 (0.537)
Mother With Primary Education	0.165 (0.260)	0.181 (0.170)	-0.026 (0.170)	0.057 (0.187)	-0.733* (0.441)	-0.222 (0.591)
Maternal Autonomy Index	0.177** (0.076)	0.111*** (0.040)	0.087** (0.041)	0.114** (0.049)	0.122 (0.167)	0.062 (0.200)
Mom Working	-0.373* (0.212)	-0.275** (0.124)	-0.251* (0.146)	-0.228 (0.166)	-0.773* (0.435)	0.386 (0.418)
Richest Two Quintiles	0.748*** (0.262)	0.345** (0.171)	0.135 (0.152)	-0.112 (0.182)	-0.262 (0.549)	-0.411 (0.512)
Middle Quintile	0.445* (0.235)	0.397** (0.170)	0.232 (0.189)	0.164 (0.154)	-0.222 (0.688)	-1.09* (0.553)

POLICY IMPLICATIONS

FEMALE EDUCATION

AUTONOMY IN HOUSEHOLD DECISION MAKING

- Senerath and Nalika (2009)
 - Improving education level and economic circumstances not enough to address gender inequality.
 - Addressed at the core value at the policy level.
 - Education needs to aim to promote autonomy of women by helping to build up women's capacity to control over resources, and promote positive self-perceptions, self-confidence, awareness of rights, and the ability to achieve them.
- Asadullah and Chaudhury (2009)
 - Female Secondary Stipend (FSS) program helped to raise enrollment of girls in secondary schools.
 - Government took steps like increasing number of female teachers and funding more schools.
- Ahmed et al. (2010)
 - Autonomy can be achieved by accelerating socioeconomic development and effectively addressing basic human needs of schooling, economic welfare, and gender-based discrimination.

CONCLUSIONS

- This research examines the effect of maternal autonomy on child health care utilization in Bangladesh.
- The paper evaluates maternal autonomy using the information on maternal education, maternal autonomy in household decision making and mother's employment status.
- The research finds that maternal education and maternal autonomy in household decision making play significant roles in increasing the likelihood of health care utilization during fever/cough and immunization.
- These findings are significant given that Bangladesh is still a patriarchal society.
- Further, these findings have important policy implications for increasing female educational attainment, women autonomy and gender equality.

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THANK YOU
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QUESTIONS?