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*Full Length Research Paper*

# Effects of socio-demographic factors on children ever born for domestic and non-domestic violence: Application of Path model

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Bangladesh is a developing country with huge population. Along with various aspects of population problem, domestic violence against women is an important issue. In this regard, this article has been conducted the issues associated with the domestic violence against women using Bangladesh Demography and Health Survey (BDHS) 2007 data. This study contains 10,146 currently married women out of 10,996 ever married women, because the study is mainly violence related. The purpose of this study is to identify which factors associated with the domestic violence against women in Bangladesh. Path analysis is used to find out the direct, indirect and implied effects of the selected socio-demographic factors on children ever born (CEB). For domestic violence, total effects of exogenous variables like as respondent's education, respondent's occupation, religion and wealth index are observed negative direction on CEB and the remaining variables such as type of place of residence and contraceptive use are observed positive direction on CEB. Again the total effects of endogenous variables like as age at first marriage and duration of breast-feeding shows negative direction on CEB. It is also same for as non-domestic violence. In this case the total effects of exogenous variables like as respondent's education and religion are observed negative direction on CEB and the remaining variables like as type of place of residence, respondent's occupation, wealth index and contraceptive use are observed positive direction on CEB.

**Keywords:** Socio-demographic factors, Children ever born (CEB), Domestic and non-domestic violence and Path analysis.

## INTRODUCTION

Around the world Bangladesh is a developing country with accelerated population growth. Today, in the world, the control of population explosion is one of the most burning issues particularly in developing countries. The population of Bangladesh has increased from about 42 million in 1941 (BBS, 1998) to 142.9 million in 2011 (BBS, 2011) and it is expected to stabilize at around 240

to 250 million by the year 2025 to 2030 (UNFPA, 1994). There are serious consequences of this rapid population growth. The land-man ratio continues to decline considerably and at present population density is 946 per square kilometers (BBS, 2011). At least one woman in every three has been beaten, coerced into sex, or otherwise abused in her life time. Most often the abuser is a member of her own family (Heise et al., 1999). Domestic violence and abuse can happen to anyone, yet the problem is often overlooked, excused, or denied. This is especially true when the abuse is psychological, rather

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than physical. Emotional abuse is often minimized, yet it can leave deep and lasting scars. Domestic abuse, also known as spousal abuse, occurs when one person in an intimate relationship or marriage tries to dominate and control the other person. Domestic abuse that includes physical violence is called domestic violence. In our country domestic violence against women is not a new invented concept. People are familiar to the term "Domestic Violence". In our country, domestic violence against women starts after female births. If any mother gives a female child, she and her daughter will be neglected in the family and the society. Neglecting after birth, family jail in her adolescent, porda-protha in her adults, after marriage her husband and husband's family, dependents her children at elderly- in all sphere women have experienced violence. In our country, in any field, women are dominated by male.

Domestic violence is a pattern of violent and coercive behavior used by one partner in a relationship to control another; it affects all communities, regardless of socio-economic status, race, or religion. Domestic violence takes multiple forms, including physical, emotional and sexual abuse, financial control and social isolation. It is a problem that impacts the safety and well-being of individuals, families, and communities in Bangladesh. Domestic violence is not just hitting, or fighting, or an occasional meaning argument but it is a chronic abuse of power. The abuser tortures and controls the victim by calculated threats, intimidation and physical violence. Actual physical violence is often the end result of months or years of intimidation and control. Perhaps a better definition of domestic violence is emotional abuse, physical abuse or sexual abuse between people who have at sometimes had an intimate or family relationship (Newton, 2001).

Therefore, the main purpose of this study is to expose separating which factors under deliberation put in significantly give to the variation in CEB of domestic violence and non-domestic violence of women in Bangladesh

### Data Source

The data was collected from Bangladesh Demographic and Health Survey (BDHS) 2007. The BDHS-2007 survey was conducted under the authority of the National Institute for Population Research and Training (NIPORT) of the Ministry of Health and Family Welfare. The survey used the sampling frame provided by the list of census enumeration areas (EAs) with population and household information from the 2001 population census. The survey was designed to obtain 11,485 completed interviews with ever-married women age 10-49. In BDHS-2007 data, the total sample size is 10,996, since the study is mainly violence related, so only married women are included here and the sample size is 10,146. Now, this sample is

divided into two groups as domestic violence and non-domestic violence. For domestic violence the sample size is 4,213 (including the missing terms) but ignore the missing terms the sample size for domestic violence is finally 2,064 and the sample size for non-domestic violence is 2,736 out of 5,933 obtained in the same way.

### METHODS

Path analysis is a standardized multiple regression analysis in which a chain of relationships among the variables, arranged in an orderly manner, is examined through a series of regression equations which was developed by Duncan (1971). Duncan method requires the following steps. "For each endogenous variable in the model, obtain the successive reduced from equation". First regress the endogenous variables only on the exogenous variables. Next regress the endogenous variables on the exogenous variables and the intervening endogenous variables that come in sequence from cause to effect. While the first reduced form of equation of a particular endogenous variable gives the total effects, the last equation provides the direct effects (Alwin and Hauser's 1975). Successive deduction of path coefficients from first to second equation, from second to third equation etc, indicates the indirect effects. The variables which have been used in this analysis are shown in Table 1 below.

### Methods and Model Specification for Path Analysis

Path analysis is a straightforward extension of multiple regressions. Its aim is to provide estimates of the magnitude and significance of hypothesized causal connection between sets of variables. Path analysis provides a theoretical model specified as a system of simultaneous regression equations, which are linear, additive and usually recursive (Boyle, 1970). This is best explained by considering a path diagram. From the BDHS-2007 data a number of socio-economic and demographic variables are available. Among them, nine variables have been taken into consideration in the present study in order to construct a path analysis. Table 1 gives a detailed description of the selected variables. From the nine variables named: type of place of residence, respondent's education, respondent's occupation, religion, wealth index and contraceptive use are considered as the socio-economic variables and the demographic as well as intermediate variables regarded in this analysis are age at first marriage and duration of breast feeding and finally the children ever born (CEB) to ever married women aged 10-49 years is the dependent variable.

This model is a recursive path model in which each

**Table 1.** Variables Used in Path Analysis

|                     |  |
|---------------------|--|
| Exogenous variable  | X <sub>1</sub> = Type of place of residence<br>X <sub>2</sub> =Respondent's education<br>X <sub>3</sub> =Respondent's occupation,<br>X <sub>4</sub> =Religion<br>X <sub>5</sub> =Wealth index and<br>X <sub>6</sub> =Contraceptive use |
| Endogenous variable | X <sub>7</sub> =Age at first marriage and<br>X <sub>8</sub> =Duration of breast-feeding  |
| Dependent variable  | X <sub>9</sub> =Children ever born (CEB)   |

variable is assumed to be dependent upon all prior causal variables. This system of equations for the model can be written as:

$$\begin{aligned}
 X_7 &= P_{76} X_6 + P_{75} X_5 + P_{74} X_4 + P_{73} X_3 + P_{72} X_2 + P_{71} X_1 \\
 &+ P_{7u} R_u \\
 X_8 &= P_{87} X_7 + P_{86} X_6 + P_{85} X_5 + P_{84} X_4 + P_{83} X_3 + P_{82} \\
 &X_2 + P_{81} X_1 + P_{8v} R_v \\
 X_9 &= P_{98} X_8 + P_{97} X_7 + P_{96} X_6 + P_{95} X_5 + P_{94} X_4 + P_{93} X_3 \\
 &+ P_{92} X_2 + P_{91} X_1 + P_{9w} R_w
 \end{aligned}$$

Where, P<sub>ij</sub> are the path coefficients and R<sub>u</sub>, R<sub>v</sub> and R<sub>w</sub> are random disturbance terms. All the random disturbance terms are mutually independent and are independent of their corresponding explanatory variables. The residual of path coefficients can also be estimated with case from the regression equation as square root of (1-R<sup>2</sup>), where R<sup>2</sup> (unadjusted) is the multiple correlation coefficients (square) of the regression equation. From the path analysis the direct, indirect, implied and total effects of each selected explanatory variables on CEB are obtained separately for domestic and non-domestic violence.

**RESULTS AND DISCUSSION OF THE PATH MODEL ANALYSIS FOR DOMESTIC VIOLENCE**

The systems of fitted equations are as follows:

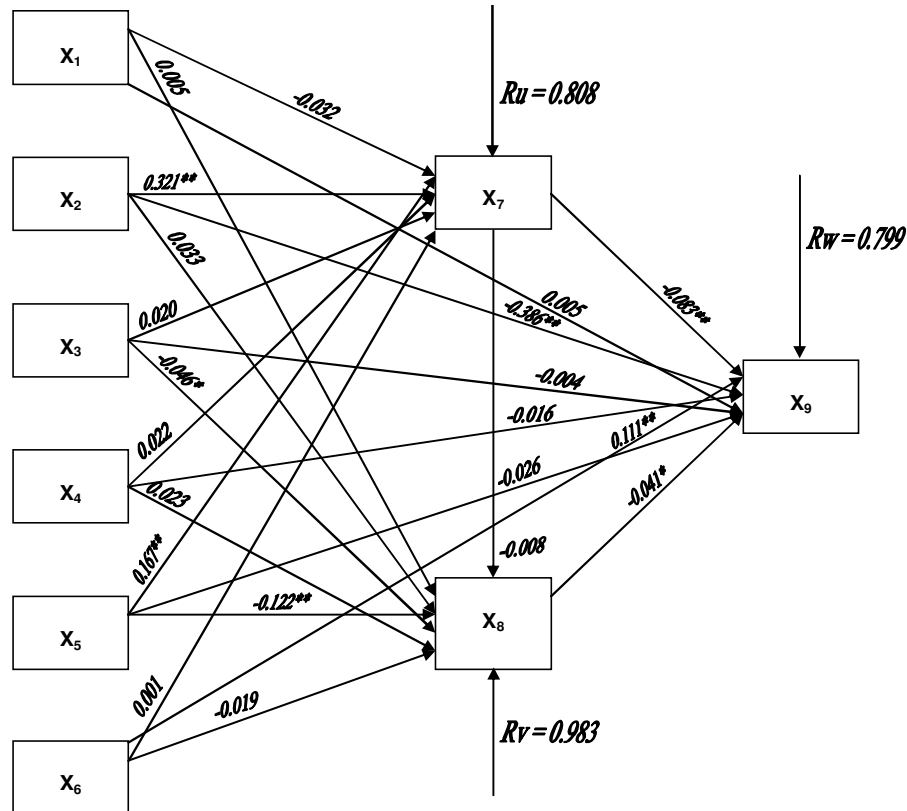
$$\begin{aligned}
 X_7 &= 0.001X_6 + 0.167X_5 + 0.022X_4 + 0.020X_3 + 0.321X_2 - \\
 &0.032X_1 \\
 \text{P-value} &(0.969) \quad (0.000) \quad (0.268) \quad (0.323) \\
 &(0.000) \quad (0.158) \\
 X_8 &= -0.008X_7 - 0.019X_6 - 0.122X_5 + 0.023X_4 - 0.046X_3 + \\
 &0.033X_2 + 0.005X_1 \\
 \text{P-value} &(0.749) \quad (0.392) \quad (0.000) \quad (0.285) \\
 &(0.039) \quad (0.212) \quad (0.836) \\
 X_9 &= -0.041X_8 - 0.083X_7 + 0.111 X_6 - 0.026X_5 - 0.016X_4 - \\
 &0.004X_3 - 0.386X_2 + 0.005X_1 \\
 \text{P-value} &(0.038) \quad (0.000) \quad (0.000) \quad (0.307) \\
 &(0.406) \quad (0.838) \quad (0.000) \quad (0.834)
 \end{aligned}$$

The zero order correlation coefficients of various socio-economic and demographic variables on CEB is presented in Table 2 which shows that with few expectations of the zero order correlation coefficients between CEB and each of the selected variables generally does not differ much from their corresponding total effects. The different types of effects are represented in Table 3. Also the Table 4 depicts the percentages of the total absolute effect on CEB. Path coefficients are shown in Figure 1. In Path Analysis, we obtain path coefficients direct, indirect, implied effect of the selected explanatory variables.

In Figure 1, it is observed that there are 8 paths out of 21 hypothesized paths are found to be statistically significant for CEB. The significant coefficients of the direct and indirect effect are discussed only. It is worth mentioning that the estimation of the non-significant path has only a small effect on the power of the explanation of the model. In the same figure, 4 variables out of 8 variables are found to have significant direct effect on CEB. Among them respondent's education (X<sub>2</sub>), age at first marriage (X<sub>6</sub>) and duration of breast feeding (X<sub>8</sub>) has direct significant negative effect and contraceptive use (X<sub>6</sub>) has direct significant positive effect on CEB. The path diagram of CEB and various socio-economic and demographic characteristics for domestic violence are given below:

From the Table 2 it is revealed that respondent's education, wealth index and age at first marriage are negative significant and type of place of residence and contraceptive use are positive significant on CEB. It also shows that respondent's occupation is positive and religion and duration of breast feeding are negative insignificant on CEB. This Table also showed that interrelationship among the selected variables. The zero order correlation co-efficients among the selected variables of CEB are given below:

For domestic violence, total effects of exogenous variables such as respondent's education (X<sub>2</sub>), respondent's occupation (X<sub>3</sub>), religion (X<sub>4</sub>) and wealth index (X<sub>5</sub>) are observed negative direction on CEB and the remaining variables, type of place of residence (X<sub>1</sub>)



**Figure 1.** Path Diagram of the CEB and Various Socio-Demographic Characteristics for Domestic Violence

**Table 2.** Zero Order Correlation Coefficients among the Selected Variables of CEB for Domestic Violence

| Variable       | X <sub>1</sub> | X <sub>2</sub> | X <sub>3</sub> | X <sub>4</sub> | X <sub>5</sub> | X <sub>6</sub> | X <sub>7</sub> | X <sub>8</sub> | X <sub>9</sub> |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| X <sub>1</sub> | 1.000          | -0.162**       | -0.096**       | 0.025          | -0.455**       | -0.090**       | -0.161**       | 0.063**        | 0.080**        |
| X <sub>2</sub> |                | 1.000          | -0.020         | -0.024         | 0.480**        | 0.059**        | 0.406**        | -0.031         | -0.425**       |
| X <sub>3</sub> |                |                | 1.000          | 0.001          | -0.019         | 0.069**        | 0.013          | -0.046*        | 0.012          |
| X <sub>4</sub> |                |                |                | 1.000          | -0.080         | -0.016         | 0.007          | 0.028          | -0.009         |
| X <sub>5</sub> |                |                |                |                | 1.000          | 0.085**        | 0.335**        | -0.113**       | -0.227**       |
| X <sub>6</sub> |                |                |                |                |                | 1.000          | 0.038          | -0.032         | 0.084**        |
| X <sub>7</sub> |                |                |                |                |                |                | 1.000          | -0.037         | -0.244**       |
| X <sub>8</sub> |                |                |                |                |                |                |                | 1.000          | -0.027         |
| X <sub>9</sub> |                |                |                |                |                |                |                |                | 1.000          |

**Note:** \*\* Significant at the 0.01 level, \* Significant at the 0.05 level.

and contraceptive use (X<sub>6</sub>) are observed positive direction on CEB. Again we also observed that the total effects of endogenous variables like as age at first marriage (X<sub>7</sub>) and duration of breast-feeding (X<sub>8</sub>) shows

negative direction on CEB.

Total effects of the types of place of residence (X<sub>1</sub>) on CEB (X<sub>9</sub>) is 0.007, of which about 55.6% is transmitted through its implied effect and indirect effect about 33.3%

**Table 3.** Analysis of Socio- Demographic Factors of CEB through Selected Variables for Domestic Violence

| Dependent Variable | Selected Variable | Total Association | Non-Causal Effect | Total Effect | Indirect Effect Via |                | Other Variables (Implied Effect) | Direct Effect |
|--------------------|-------------------|-------------------|-------------------|--------------|---------------------|----------------|----------------------------------|---------------|
|                    |                   |                   |                   |              | X <sub>7</sub>      | X <sub>8</sub> |                                  |               |
| X <sub>9</sub>     | X <sub>1</sub>    | 0.080**           | 0.073             | 0.007        | 0.003               | -0.001         | 0.005                            | ....          |
|                    | X <sub>2</sub>    | -0.425**          | -0.011            | -0.414       | -0.027              | -0.001         | -0.386                           | ....          |
|                    | X <sub>3</sub>    | 0.012             | 0.016             | -0.004       | -0.002              | 0.002          | -0.004                           | ....          |
|                    | X <sub>4</sub>    | -0.009            | 0.010             | -0.019       | -0.002              | -0.001         | -0.016                           | ....          |
|                    | X <sub>5</sub>    | -0.227**          | -0.192            | -0.035       | -0.014              | 0.005          | -0.026                           | ....          |
|                    | X <sub>6</sub>    | 0.084**           | -0.027            | 0.111        | 0.000               | 0.000          | 0.111                            | ....          |
|                    | X <sub>7</sub>    | -0.244**          | -0.161            | -0.083       | ....                | 0.000          | ....                             | -0.083        |
|                    | X <sub>8</sub>    | -0.027            | 0.014             | -0.041       | ....                | ....           | ....                             | -0.041        |

Note: Non-Causal Effect = Total Association – Total Effect

**Table 4.** Percentages of the Total Absolute Effect on CEB through Endogenous and Exogenous Variables

| Dependent Variable | Selected Variable | Percentage of Indirect Effect Via |                | Other Variables (Implied effect) | Direct Effect |
|--------------------|-------------------|-----------------------------------|----------------|----------------------------------|---------------|
|                    |                   | X <sub>7</sub>                    | X <sub>8</sub> |                                  |               |
| X <sub>9</sub>     | X <sub>1</sub>    | 33.3                              | 11.1           | 55.6                             | ....          |
|                    | X <sub>2</sub>    | 6.6                               | 0.24           | 93.2                             | ....          |
|                    | X <sub>3</sub>    | 25.0                              | 25.0           | 50.0                             | ....          |
|                    | X <sub>4</sub>    | 10.6                              | 5.2            | 84.2                             | ....          |
|                    | X <sub>5</sub>    | 31.1                              | 11.1           | 57.8                             | ....          |
|                    | X <sub>6</sub>    | 0.00                              | 0.00           | 100.0                            | ....          |
|                    | X <sub>7</sub>    | ....                              | 0.00           | ....                             | 100.0         |
|                    | X <sub>8</sub>    | ....                              | ....           | ....                             | 100.0         |

is acts through age at first marriage (X<sub>7</sub>) in the same direction and about 11.1% is transmitted through duration of breast feeding (X<sub>8</sub>) in the opposite direction. Again total effects of respondent's education (X<sub>2</sub>) on CEB (X<sub>9</sub>) is -0.414, of which about 93.2% is transmitted through its implied effect and indirect effect a very little percent that is only 0.24% and about 6.6% is transmitted in the same direction through duration of breast feeding and age at first marriage respectively.

From the Table 3 and Table 4, it is found that the total effects of respondent's occupation (X<sub>3</sub>) on CEB (X<sub>9</sub>) is -0.004, of which about 50.0% is conducted through its implied effect and indirect effect about 25.0% acts through age at first marriage (X<sub>7</sub>) and duration of breast feeding (X<sub>8</sub>) in the opposite direction. Again total effects of religion (X<sub>4</sub>) on CEB (X<sub>9</sub>) is -0.019, of which about 84.2% is conducted through its implied effect and about 5.2% and about 10.6% is transmitted in the same direction through duration of breast feeding (X<sub>8</sub>) and age at first marriage (X<sub>7</sub>) respectively. Table 3 shows that the

total effects of wealth index (X<sub>5</sub>) on CEB (X<sub>9</sub>) is -0.035, of which about 57.8% is transmitted through its implied effect and about 31.1% acts through age at first marriage (X<sub>7</sub>) in the same direction then about 11.1% is conducted through duration of breast feeding (X<sub>8</sub>) in the opposite direction (Table 5.4). Again total effects of contraceptive use (X<sub>6</sub>) on CEB (X<sub>9</sub>) is 0.111, of which about 100.0% is transmitted through its implied effect in the same direction but not transmitted through age at first marriage (X<sub>7</sub>) and duration of breast feeding (X<sub>8</sub>) respectively.

Direct effect of endogenous variables as like as age at first marriage (X<sub>7</sub>) and duration of breast feeding (X<sub>8</sub>) are observed negative direction. Total effect of age at first marriage (X<sub>7</sub>) and duration of breast feeding (X<sub>8</sub>) on CEB (X<sub>9</sub>) are -0.083 and -0.041, of which both are about 100.0% transmitted through its direct effect. Analysis of socio-economic and demographic variables of CEB through the selected variables for domestic violence and their corresponding percentage value are given above.

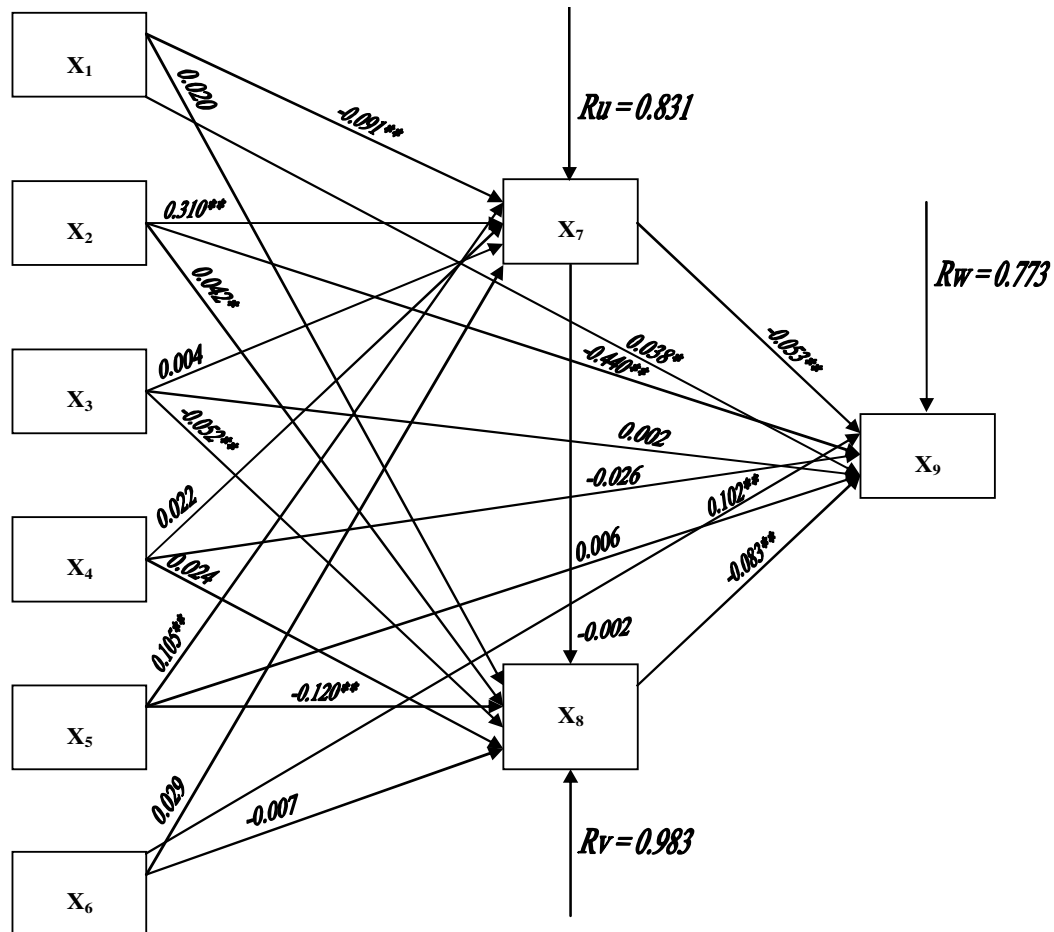


Figure 2. Path Diagram of the CEB and Various Socio-Demographic Characteristics for Non-Domestic Violence

Table 5. Zero Order Correlation Coefficients among the Selected Variables of CEB for Non-Domestic Violence

| Variable       | X <sub>1</sub> | X <sub>2</sub> | X <sub>3</sub> | X <sub>4</sub> | X <sub>5</sub> | X <sub>6</sub> | X <sub>7</sub> | X <sub>8</sub> | X <sub>9</sub> |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| X <sub>1</sub> | 1.000          | -0.189**       | -0.037         | 0.024          | -0.447**       | -0.100**       | -0.198**       | 0.070**        | 0.112**        |
| X <sub>2</sub> |                | 1.000          | -0.008         | -0.022         | 0.480**        | 0.074**        | 0.379**        | -0.021         | -0.455**       |
| X <sub>3</sub> |                |                | 1.000          | 0.024          | -0.029         | 0.064**        | 0.004          | -0.049**       | 0.014          |
| X <sub>4</sub> |                |                |                | 1.000          | -0.020         | 0.013          | 0.012          | 0.025          | -0.017         |
| X <sub>5</sub> |                |                |                |                | 1.000          | 0.053*         | 0.295**        | -0.109**       | -0.223**       |
| X <sub>6</sub> |                |                |                |                |                | 1.000          | 0.067**        | -0.015         | 0.064**        |
| X <sub>7</sub> |                |                |                |                |                |                | 1.000          | -0.026         | -0.217**       |
| X <sub>8</sub> |                |                |                |                |                |                |                | 1.000          | -0.072**       |
| X <sub>9</sub> |                |                |                |                |                |                |                |                | 1.000          |

Note: \*\* Significant at the 0.01 level, \* Significant at the 0.05 level

**Table 6.** Analysis of Socio- Demographic Factors of CEB through Selected Variables for Non- Domestic Violence

| Dependent Variable | Selected Variable | Total Association | Non-Causal Effect | Total Effect | Indirect Effect Via |                | Other Variables (Implied Effect) | Direct Effect |
|--------------------|-------------------|-------------------|-------------------|--------------|---------------------|----------------|----------------------------------|---------------|
|                    |                   |                   |                   |              | X <sub>7</sub>      | X <sub>8</sub> |                                  |               |
| X <sub>9</sub>     | X <sub>1</sub>    | 0.112**           | 0.071             | 0.041        | 0.005               | -0.002         | 0.038                            | ....          |
|                    | X <sub>2</sub>    | -0.455**          | 0.005             | -0.460       | -0.017              | -0.003         | -0.440                           | ....          |
|                    | X <sub>3</sub>    | 0.014             | 0.008             | 0.006        | 0.000               | 0.004          | 0.002                            | ....          |
|                    | X <sub>4</sub>    | -0.017            | 0.012             | -0.029       | -0.001              | -0.002         | -0.026                           | ....          |
|                    | X <sub>5</sub>    | -0.223**          | -0.233            | 0.010        | -0.006              | 0.010          | 0.006                            | ....          |
|                    | X <sub>6</sub>    | 0.064**           | -0.038            | 0.102        | -0.001              | 0.001          | 0.102                            | ....          |
|                    | X <sub>7</sub>    | -0.217**          | -0.164            | -0.053       | ....                | 0.000          | ....                             | -0.053        |
|                    | X <sub>8</sub>    | -0.072**          | 0.011             | -0.083       | ....                | ....           | ....                             | -0.083        |

**Note:** Non-Causal Effect = Total Association – Total Effect

**Table 7.** Percentages of the Total Absolute Effect on CEB through Endogenous and Exogenous Variables

| Dependent Variable | Selected Variable | Percentage of Indirect Effect Via |                | Other Variables (Implied effect) | Direct Effect |
|--------------------|-------------------|-----------------------------------|----------------|----------------------------------|---------------|
|                    |                   | X <sub>7</sub>                    | X <sub>8</sub> |                                  |               |
| X <sub>9</sub>     | X <sub>1</sub>    | 11.1                              | 4.5            | 84.4                             |               |
|                    | X <sub>2</sub>    | 3.7                               | 0.7            | 95.6                             |               |
|                    | X <sub>3</sub>    | 0.0                               | 66.7           | 33.3                             |               |
|                    | X <sub>4</sub>    | 3.4                               | 6.9            | 89.7                             |               |
|                    | X <sub>5</sub>    | 27.2                              | 45.5           | 27.3                             |               |
|                    | X <sub>6</sub>    | 0.96                              | 0.96           | 98.08                            |               |
|                    | X <sub>7</sub>    |                                   |                |                                  | 100.0         |
|                    | X <sub>8</sub>    |                                   |                |                                  | 100.0         |

**RESULTS AND DISCUSSION OF THE PATH MODEL ANALYSIS FOR NON-DOMESTIC VIOLENCE**

The system of estimated equations is as follows:

$$X_7 = 0.029X_6 + 0.105X_5 + 0.022X_4 + 0.004X_3 + 0.310X_2 - 0.091X_1$$

P-value (0.101) (0.000) (0.203) (0.821)  
(0.000) (0.000)

$$X_8 = -0.002X_7 - 0.007X_6 - 0.120X_5 + 0.024X_4 - 0.052X_3 + 0.042X_2 + 0.020X_1$$

P-value (0.917) (0.719) (0.000) (0.205)  
(0.007) (0.066) (0.341)

$$X_9 = -0.083X_8 - 0.053X_7 + 0.102 X_6 + 0.006X_5 - 0.026X_4 + 0.002X_3 - 0.440X_2 + 0.038X_1$$

P-value (0.000) (0.004) (0.000) (0.788)  
(0.130) (0.912) (0.000) (0.048)

In this section, the zero order correlation coefficients of various socio-economic and demographic variables on CEB is presented in the Table 5. Also the different types of effects are represented in the Table 6 and Table 7 shows the percentages of the total absolute effect on CEB. Path coefficients for non-domestic violence are

shown in Figure 2 above.

According to the Figure 2, we found that there are 11 paths out of 21 hypothesized paths are found to be statistically significant for CEB. Here, only significant coefficients of direct and indirect effects are discussed. It is worth mentioning that the estimation of the non-significant path has only a small effect on the power of the explanation of the model. In Figure 2, 5 variables out of 8 variables are found to have significant direct effect on CEB. Among them respondent's education (X<sub>2</sub>), age at first marriage (X<sub>6</sub>) and duration of breast-feeding (X<sub>8</sub>) has direct negative significant effect on CEB. On the other hand, type of place of residence (X<sub>1</sub>) and contraceptive use (X<sub>6</sub>) has direct positive significant effect on CEB. The path diagram of the CEB and various socio-demographic characteristics for non-domestic violence are given above.

From the Table 5, it is observed that 6 variables are statistically significant out of 8 variables. Among them type of place of residence (X<sub>1</sub>), respondent's education (X<sub>2</sub>), wealth index (X<sub>5</sub>), contraceptive use (X<sub>6</sub>), age at first marriage (X<sub>7</sub>) and duration of breast feeding (X<sub>8</sub>) are statistically significant and respondent's occupation (X<sub>3</sub>)

and religion ( $X_4$ ) are statistically insignificant. This Table also depicted that interrelationship among the selected variables. The zero order correlation co-efficient among the selected variables of CEB for non-domestic violence is given above.

For non-domestic violence, total effects of exogenous variables like as respondent's education ( $X_2$ ) and religion ( $X_4$ ) are observed negative direction on CEB and the remaining variables like as type of place of residence ( $X_1$ ), respondent's occupation ( $X_3$ ), wealth index ( $X_5$ ) and contraceptive use ( $X_6$ ) are observed positive direction on CEB. Again we also observed that the total effects of endogenous variables like as age at first marriage ( $X_7$ ) and duration of breast feeding ( $X_8$ ) shows negative direction on CEB.

According to the Table 7, it is found that the total effects of type of place of residence ( $X_1$ ) on CEB ( $X_9$ ) is 0.041, of which about 84.4% is conducted through its implied effect and about 11.1% is acts through age at first marriage ( $X_7$ ) in the same direction then about 4.5% is transmitted through duration of breast feeding ( $X_8$ ) in the opposite direction. In non-domestic violence, respondent's education and religion are negatively influence on CEB. We observed that implied effect of respondent's education ( $X_2$ ) and religion ( $X_4$ ) has contributed about 95.6% and 89.7% of its total effect on CEB ( $X_9$ ). It is also observed that respondent's education and religion on CEB are about 0.7% and about 6.9% is transmitted through duration of breast feeding ( $X_8$ ) and about 3.7% and about 3.4% is acts through age at first marriage ( $X_7$ ) in the same direction of its total effect.

From the Table 6, it is observed that the total effects of respondent's occupation ( $X_3$ ) on CEB ( $X_9$ ) is 0.006, of which about 33.3% is conducted through its implied effect and about 66.7% is transmitted through duration of breast feeding ( $X_8$ ) in the same direction but there is no effect acts through age at first marriage ( $X_7$ ) on CEB. Again the total effects of wealth index ( $X_5$ ) and contraceptive use ( $X_6$ ) on CEB ( $X_9$ ) is positive, of which about 27.3% and about 98.08% is conducted through its implied effect and about 45.5% and about 0.96% is transmitted through duration of breast feeding ( $X_8$ ) in the same direction respectively, but about 27.2% and about 0.96% acts through age at first marriage ( $X_7$ ) in the opposite direction.

For non-domestic violence, direct effect of endogenous variables as like as age at first marriage ( $X_7$ ) and duration of breast feeding ( $X_8$ ) are observed negative direction. Total effect of age at first marriage ( $X_7$ ) and duration of breast feeding ( $X_8$ ) on CEB ( $X_9$ ) are -0.053 and -0.083, of which both are about 100.0% is transmitted through its direct effect. Analysis of socio-demographic variables of CEB through the selected variables for non-domestic violence and their corresponding percentage value are given above.

## CONCLUSION

Bangladesh is a poor country with huge population. Women are half of the total population in the country. They enjoy much lower status than men. Tradition and socio-cultural norms limit their access to education, skills training, health and employment. Violence against women and the incidence of divorce, desertion and widowhood have been growing. Many of demographers can better handle most of these issues raised. Respondent's occupation has also come out as an important factor affecting the domestic violence. From the study, it is revealed that about 44.8% of the respondents who are involved to manual (day labor, farmer, poultry firming, fisherman, agricultural worker, domestic servant etc.) occupation are mostly violated. Education is one of the most important determinants of physical violence. In the study, it is observed that the majority of the Bangladeshi women have no educational qualification and they reported that most of them are physically violated by their partners. Respondent's wealth index is also another important factor of physical violence. Physical violence is directly related to the age at first marriage. It is seen from the study that about 20.9% of the respondents married before the age of 18 years and reported they are mostly physically violated.

For domestic violence the total effects of the type of place of residence, respondent's education, respondent's occupation, religion, wealth index and contraceptive use on CEB is transmitted through its implied effect about 55.6%, 93.2%, 50.0%, 84.2%, 57.8% and 100.0% respectively. Total effect of age at first marriage and duration of breast-feeding on CEB are about -0.083 and about -0.041 of which both are about 100.0% transmitted through its direct effect on CEB.

For non-domestic violence the total effects of the type of place of residence, respondent's education, respondent's occupation, religion, wealth index and contraceptive use on CEB is transmitted through its implied effect about 84.4%, 95.6%, 33.3%, 89.7%, 27.3% and 98.08% respectively. From the analysis, it is also observed that respondent's occupation on CEB is 0.006, of which about 66.7% is conducted through duration of breast feeding in the same direction but there is no effect act through age at first marriage on CEB. From our study, it is noticed that age at first marriage and duration of breast feeding have no indirect effect on CEB, they have 100.0% direct effect on CEB.

Finally we may conclude that creation of public awareness and mental transformation on gender equality and domestic violence against women in order to eradicate attitudes and behavior that generate and reinforce domestic violence. Efforts will be made to promote increased participation of women in public and private service and in decision making at international, national and local levels.



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