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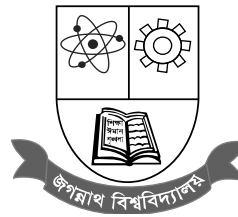
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## Association of Cigarette Smoking Behavior with Anxiety, Depression, and Stress

Md. Shahadat Hossain<sup>1</sup> and Kazi Saifuddin<sup>2</sup>

### Abstract

The present study was designed to investigate the effect of anxiety, depression and stress on cigarette smoking behavior. The present study comprised of 200 constables of police of Bangladesh and participants were selected through purposive sampling technique. In 200 sample there were 100 smokers and 100 non-smokers. Data were collected from them through Personal Information Sheet, Smoking Behavior Scale, Anxiety Scale, Depression Scale and Perceived Stress Scale. Data analysis was done by using Pearson product moment correlation, t-test, multiple regression on SPSS-20. The findings of t-test revealed that there was significant difference between smokers and non-smokers in levels of anxiety ( $t = 5.8, p < .05$ ), depression ( $t = 10.35, p < .05$ ) and stress ( $t = 2.44, p < .05$ ). The findings of Pearson product moment correlation showed that there was positive correlation among anxiety, depression and stress of smokers. The results of multiple regression indicated that anxiety, depression and stress had joint influence on cigarette consumption behavior and strongest predictor of cigarette consumption were anxiety ( $\beta = .631, p < .01$ ) and ( $\beta = .347, p < .01$ ) depression. These findings would help the researchers and practitioners to have better understanding on the effect of the level of anxiety, depression and stress on cigarette consumption behavior.

*Keywords:* cigarette smoking behavior, anxiety, depression, stress

### Introduction

Anxiety which is a complex blend of emotions that involves high levels of negative affect, worry about possible threat and the feeling of being unable to foretell warning or to manage it if it happens. It is a basic feeling of apprehension about possible insecurity (Carson et al., 2013). Depression is an emotional state specified by extraordinary sadness and despondency. People having depression may encounter an absence of interest and pleasure in everyday activities, notable weight loss or gain, insomnia or too much sleeping, deficiency of energy, helplessness to concentrate, feelings of emptiness or extreme guilt and repetitive thoughts of death or suicide (Carson et al., 2013). Stress has generally been used to define as the organism's adjustive demands place on an organism and the organism's internal organic and psychological responses to such demands. Adjustive demands refers to stressors, to the reaction they generate inside an organism as stress, and to attempt to handle stress as coping strategies (Carson et al., 2013). Cigarette smoking is an action taken by a person that is associated with the burning and inhalation of one or more processed or hand spin tobacco cigarettes every day. It does not encompass the inhalation of tobacco in cigars, pipes and cigarillos (Gellman & Turner, 2013).

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The initial footstep in seeking to recognize the feasible association between smoking and depression is to form that there is actually an association. Breslau et al. (1991) came upon a significant association between major depression with both mild nicotine dependence and moderate nicotine dependence. Home interview was used to collect data from a sample of young adults. This study denoted an interrelation between smoking and depression. Anda et al. (1990) gathered data from a non-institutionalized population by questionnaires and interviews to find an interconnection between depression and percentage of smokers. This study stated that when depression scores rise, current smokers percentage also rise significantly. Patton et al. (1996) conducted a statewide survey in a teenage sample to investigate the connection between constant smoking and depression and this study revealed a high significant connection. Goodman and Capitman (2000) used older sample in their study and assembled data by private interviews and supervised both baseline and one-year follow-up interviews. From this study it was said that participants who had smoked in the month earlier to their baseline assessment were higher probable to form severe symptoms of depressive after one year. These findings also indicated that smoking paves the way to symptoms of depression.

McCann and Lester (1996) stated that tobacco smoking and stress is positively correlated. They used undergraduate students as sample and gather data by an anonymous questionnaire. Lewinsohn et al. (2000) used high school students for their cross-sectional study that analyze smoking association not only with major life stress but also with everyday inconvenience on two separate occasions. Dividing smokers into six separate groups and performing analysis at a 0.01 alpha level, Lewinsohn et al. (2000) found that major life stress caused notable differences between smokers and non-smokers. They further found a significant difference between daily smokers and non-daily smokers due to major life stress. Parrott (1999) analyzed different studies based on smoking and stress providing the decision that smoking really brings about stress.

The idea that smoking and anxiety is correlated was supported by many researches. Delfino et al. (2001) conducted a study that needed adults to maintain course of their moods in a logbook during two 24- hour roaming keep an eye sessions and the study revealed that when smokers feel anxious they were more probable to report a longing to smoke as contrary to when they did not feel anxious. These results recommend that anxiety would cause to smoking. Breslau et al. (1991) conducted a study among young adults by home interview and concluded a significant association between anxiety disorders with two level of nicotine dependence such as mild and moderate. Moreover, Breslau et al. (1991) findings showed that anxiety disorders prevalence rate is higher among those participants having moderate nicotine dependence than those having mild nicotine dependence. These findings also showed positive correlation between smoking and anxiety and further showed that an elevated degree of smoking, or nicotine dependence lead to an immense frequency of anxiety disorders.

### **Rationale of the study**

Reasonable investigation was administered for finding the association between depression and smoking. Several studies come to an end that there was a significant interconnection between smoking and depression (Anda et al., 1990; Breslau et al., 1991; Glassman et al., 1990; Goodman & Capitman, 2000; Patton et al., 1996; Wu & Anthony, 1999). Several studies inferred that excessive amount of smoking was correlated to excessive depression (Patton et al., 1998). Other research established an association that induced by a third component (Fergusson et al., 1996;

Patton et al., 1998). Several studies constitute that there is no association between smoking and depression (Niaura et al., 1999; Winefield et al., 1992). With remarkably conflicting studies, further study on distinction between smokers and non-smokers cognate to depression and interrelation between depression and smoking is required. Slightest study was carried out to get the association between stress and smoking. The study that was carried on, though, leans to keep up the association between stress and smoking (Lewinsohn et al., 2000; McCann & Lester, 1996). Some theories have come out from this study but they have been sharply vilified (Gilbert & McClernon, 2000; Kassel, 2000; Parrott, 1999). The deficiency of research in this area manifest the requisite for further research on the differences between smokers and non-smokers associated to stress and the association between smoking and stress. Considerable research to observe the association between smoking and anxiety has been done. Some researches support differences between smokers and non-smokers in respect to anxiety and the correlation between smoking and anxiety (Delfino et al., 2001; Johnson et al., 2000; McCrae et al., 1978). Other researches established that smoking and anxiety is not correlated (Canals et al., 1996; Roy et al., 2001). The opposing type of the study encourage that additional study must be conducted in this area. There is no study conducted in Bangladesh to find the effect of anxiety, depression and stress on smoker that is starting point for their cigarette smoking behavior and the association among anxiety, depression and stress of smokers.

### **Objectives of the study**

The objectives of the present study were to explore-

1. Whether there is any significant difference between smokers and non-smokers in levels of anxiety, depression, and stress.
2. The relationship among anxiety, depression, and stress of smokers.
3. Whether there is any effect of the level of anxiety, depression and stress on cigarette consumption behavior of smoker.

## **Methods**

### **Participants**

The present study comprised of 200 constables of police of Bangladesh and participants were selected through purposive sampling technique. In 200 samples there were 100 smokers and 100 non-smokers.

### **Design**

Cross-sectional survey research design has been used in the present study. In this research data were collected from participants by questionnaire.

### **Measures**

For collecting data the instruments used for the present study were Consent Form, Personal Information Form, Smoking Behavior Scale, Anxiety Scale, Depression Scale and Perceived Stress Scale.

### **Consent Form**

This form was attached at first with questionnaire. A details of the study background was indicated here. Participant had to provide signature if he/she fill up the questionnaire by knowing all the aspects of the study.

### ***Demographic Information Form***

Demographic information sheet containing some personal information was attached with questionnaire. It included information about participants age, economic status, income. Smoking Behavior Question: Following questions are used to assess a smokers –Do you smoke cigarettes now? Participants answered either yes or no. Number of cigarettes inhaled was assessed by a follow-up question asking –If so, how many per day. Participants were replied to this question with a number. Both questions were adopted from Green and Pritchard (2003).

### ***Bangla Version of Anxiety Scale***

To measure anxiety Bangla version of this scale (Deeba & Begumn, 2004) was used in the present investigation. This scale was developed in cultural context of Bangladesh for measuring level of anxiety of Bangladeshi population. The scale consists of 36 positive items on a 5 point Likert scale. This scale was analyzed on 204 participants and experimental try out was done on 410 participants. Responses of the participants were given on a 5 point scale ranging from 0 for "*never occurs*", 1 for "*mildly occurs*", 2 for "*moderately occurs*", 3 for "*severely occurs*", and 4 for "*profoundly occurs*". Two types of reliability were found out for this scale: "internal consistency reliability" where "split-half reliability" was 0.916. ( $p < .01$ ) and "cronbach's - alpha reliability" was 0.9468, (b) test- retest reliability which was .688 ( $p < .01$ ) "content validity", " criterion related validity " and " construct validity " were estimated for this scale. The anxiety scale has shown positive correlation when compared to the anxiety sub scale of hospital anxiety and depression scale ( $r = 0.628$ ). The correlation between anxiety scale and psychiatrists' rating of depression was 0.317 and between anxiety scale and patient's self -rating depression scale was 0.591. All the values were significant  $p < .01$ . Norm was determined into two ways: "severity norm " was based on 207 clinical group that was divided into mild (54 & less), moderate (55 to 66), severe (67 to 77), profound (78 to 135 & above) and "screening norm " was based on 207 clinical and 204 non-clinical participants and whose cut off point was found 47.5. Reliability and validity were found high enough. The scoring is 54 & less = Mild; 55 to 66 = Moderate; 67 to 77 = Severe; 78 to 135 & above = Profound, cut of point is 47.5.

### ***Bangla Version of Depression Scale***

Bangla version of depression scale was used for the current investigation developed by (Uddin & Rahman, 2005). This scale is developed according to cultural context of Bangladesh. It is self-report rating scale of 30 item on a 5 point Likert scale ranging from '*not all applicable* (1)', '*not applicable* (2)', '*uncertain* (3)', '*a bit applicable* (4)' and '*totally applicable* (5)'. The split-half reliability was 0.6789; correlation of Guttman split-half was 0.8088; correlation of test-retest reliability was 0.599; that determine that the reliability was significant. Reliability and validity of this scale was high enough. The scoring is 94+ = Depressed; 30- 100 = Minimal; 101-114 = Mild; 115-123 = Moderate; 124-150 = Severe.

### ***Bangla Version of Stress Scale***

To measure stress Bangla version of this scale was used in the present investigation developed by Deeba et al. (2005). This scale is developed according to cultural context of Bangladesh. Perceived Stress Scale scoring each item is rated on a 5-point scale ranging from "0" for never, "1" for almost never, "2" for some times, "3" for fairly often, "4" for very often. Positively worded

items are reverse scored, and the ratings are summed, with higher scores indicating more perceived stress. PSS-14 scores are obtained by inverting the scores on the seven positive items: For example, 0 = 4, 1 = 3, 2 = 2, etc. and then summing across all 14 items. Items 4, 5, 6, 7, 10, 13 and 8 are the positively stated items.

In the study, to assess the level which situations in life are perceived as stressful the 14-items Perceived Stress Scale (PSS-14) was used (Cohen et al., 1983). The correlation coefficient between the Bangla version of the life stress questionnaire with the English was .90, which was significant  $p < .01$ . Test-retest reliabilities over a span of 2 weeks were .94 which was significant  $p < .01$ . This conveys that the scale was reliable.

### Procedure

The questionnaire was given to 200 respondents one by one; affinity was established through conversation with each of them. Then provided a combination of 3 questionnaires of anxiety scale, depression scale, stress scale with personal information and smoking behavior questions. The participants were told to express their real concerns and experiences in respect of the characters of each question. In where the respondent who did not realize questionnaire then I tried to clarify their questions. Participants were convinced that their details will be remained completely confidential and will be analyzed for fact finding purpose. Data were collected following standard procedure. After collecting the data the researcher gave thanks to the participants.

### Results

After screening the data and confirming the assumptions,  $t$ -test, correlation and multiple regressions were performed by using SPSS-20. The results are presented below in the following tables.

Table 1 indicated that smokers ( $M = 85.91$ ,  $SD = 11.85$ ) were significantly more depressed than non-smokers ( $M = 66.61$ ,  $SD = 14.41$ ), ( $t = 10.35$ ,  $p < .05$ ). Those that smoked ( $M = 22.91$ ,  $SD = 4.66$ ) have had significantly more stress than those that did not smoke ( $M = 21.06$ ,  $SD = 5.99$ ), ( $t = 2.44$ ,  $p < .05$ ). Smokers ( $M = 79.48$ ,  $SD = 12.34$ ) were significantly more anxious than non-smokers ( $M = 68.95$ ,  $SD = 14.09$ ), ( $t = 5.80$ ,  $p < .05$ ). The results of this study suggested that depression, stress and anxiety of smokers caused their smoking behavior.

**Table 1**

*Mean, Standard Deviation, and Mean Difference between Smokers and Non-smokers in the Level of Depression, Stress, and Anxiety*

Variable	Smoker		Non-smoker		$t$	$p$
	Mean	SD	Mean	SD		
Stress	22.91	4.66	21.06	5.99	2.44	.001
Anxiety	79.48	12.34	68.95	14.09	5.80	.04
Depression	85.91	11.85	66.61	14.41	10.35	.005

Table 2 indicated that there was significant positive correlation between anxiety and depression ( $r = 0.23, p < 0.01$ ). There was also positive correlation between anxiety and stress ( $r = 0.49, p < 0.01$ ) and there was significant positive correlation between depression and stress ( $r = 0.23, p < 0.01$ ).

**Table 2**

*Correlation among Anxiety, Depression, and Perceived Stress*

Variables	Anxiety	Depression	Stress
Anxiety	1	–	–
Depression	.23**	1	–
Stress	.49**	.23**	1

Note. \*\* $p < .01$ .

Results of the regression analysis represent that anxiety, depression, and perceived stress have effect on cigarette smoking behavior and these three variables account for 50.6% of variance in consumption of cigarette.

**Table 3**

*Regression of the Effect of Stress, Anxiety, and Depression on Cigarette Consumption Behavior*

Model	$R$	$R^2$	Adjusted R Square	Std. Error of the Estimate
1	.711	.506	.490	.71649

Table 4 indicated that anxiety, depression and perceived stress were accounted by joint linear influences on smoking behavior [ $F(3, 96) = 32.743, p < .01$ ].

**Table 4**

*The F-test of the Effect of Anxiety, Depression, and Stress on Cigarette Consumption Behavior*

Source of Variance	$SS$	$df$	$MS$	$F$	$p$
Regression	50.427	3	16.809	32.743	.001
Residual	49.283	96	.513		
Total	99.710	99			

Note. \*\* $p < .01$ .

The table 5 showed that the partial standardized beta indicated that two variables namely anxiety ( $\beta = .631, p < .01$ ) and depression ( $\beta = .347, p < .01$ ) were the strongest predictors for cigarette smoking behavior.

**Table 5**

*Multiple Regressions of the Effect of Stress, Anxiety, and Depression on Cigarette Consumption Behavior*

Independent variables	Standardized beta ( $\beta$ )	<i>t</i>	<i>p</i>
Constant	–	–5.023	.001
Anxiety	.631	8.588	.001
Depression	.347	4.769	.001
Perceived Stress	.043	.578	.565

*Note.* \*\* $p < .01$ .

### Discussion

The present study was designed to investigate the effect of anxiety, depression and stress on cigarette smoking behavior. First objective was to explore whether there is any significant difference between smokers and non-smokers in levels of anxiety, depression and stress. Table 1 indicated that levels of depression, stress and anxiety were higher among smoker than non-smoker suggesting that smoking was due to these differences. The findings were consistent with many researchers (Glassman et al., 1990; Lewinsohn et al., 2000) work that deal with the differences in smokers and non-smokers on levels of depression, stress and anxiety. Second **objective** was to explore the relationship among anxiety, depression and stress of smokers. Table 2 of Pearson correlation indicated that there was significant positive correlation among the level of depression, anxiety and stress of smokers. The present results were supported by research (Olson & Surrette, 2004) work that deals with the inter-relationship among stress, anxiety, and depression in law enforcement personnel. Third objective was to explore whether there is any effect of the level of anxiety, depression and stress on cigarette consumption behavior of smokers. The table 3 indicated that anxiety, depression and stress caused for 50.6% of variance in consumption of cigarette. Table 4 indicated that anxiety, depression and perceived stress had joint influence on cigarette smoking behavior. This result was similar with the study (Stanton et al., 2020) that deal with the associations of depression, anxiety and stress with changes in physical activity, sleep, tobacco and alcohol use during COVID-19. Table 5 showed that anxiety and depression were the strongest predictors of cigarette smoking behavior. The present result was supported by Cohen and Morrell (2006) work that deal with the analysis of anxiety and depression related to each stage of the cigarette smoking cycle. Although the study support the relation of cigarette smoking behavior with anxiety, depression and stress, its most important contribution may be that it raises a variety of intriguing question for future study.

The present study had some limitations, which should be addressed by the future researchers of this field. The sample size of the study was relatively small. The sample for the study was not selected randomly. Furthermore, some respondents did not give their exact feedback because they were afraid of negative consequences. Despite these limitations, these results suggested several theoretical and practical implications.

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## **Effect of Divorce on Somatic Complaints and Social Avoidance**

**Asoke Kumar Saha<sup>1</sup>, Sanjida Shahid Juthi<sup>2</sup> and Krishna Kumar<sup>3</sup>**

### **Abstract**

The study attempted to explore the effect of divorce on somatic complaints and social avoidance among the people of different circumstances. A total of 100 respondents were selected purposefully from different circumstances of Bangladesh. Out of them, 50 were male and 50 were female. Each group was equally sub-divided and given psychotherapy. The gender ratio of the respondents from both groups was the same. To collect data from the respondents some standardized instruments were used such as the Bangla version of Somatic Complaints Scale (Rahman et al., 2013) developed by Leslie (1991) and the Bangla version of Social Avoidance and Distress scale (Deeba & Begum, 2002) developed by Watson and Friend (1969). The results of the study were analyzed by using independent sample *t*-test. The results of the present study indicated that there was a significant difference between male and female on somatic complaints and social avoidance. It was also found that there were significant differences between psychotherapy and non-psychotherapy on somatic complaints and social avoidance and there were significant differences between gender and psychotherapy. The results seem to provide valuable information about the important types of mental disorder. These findings can help the counselor and the clinical psychologist to identify somatic complaints and social avoidance.

*Keywords:* divorce, somatic complaints, social avoidance

### **Introduction**

The diagnostic material for this area has been rearranged in DSM-5, with one new diagnosis being added and others being removed. Other classifications have been used to place research where it belongs. The Greek word soma refers to an organism's body. These illnesses manifest themselves as bodily or physical ailments. However, no physical lesion that adequately explains the observed symptoms has been discovered. Somatic symptom disorder, Illness anxiety disorder, Conversion disorder, and Factitious disorder are all listed as sub-categories in the DSM-5. The DSM 5 no longer includes the term "pain disorder." Chronic pain, on the other hand, is the most prevalent symptom of 'somatization' (Katon et al., 1982; Aigner, 1984).

This is a descriptive term (not a diagnostic) with no etiological conjecture. Somatization is characterized as a patient's proclivity for experiencing and reporting physical/somatic symptoms

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that have no pathological cause, misattributing them to disease, and seeking medical help for them (Lipowski, 1988). Individual scrutiny of some aspects of this definition is warranted. Because there is a "propensity," certain personality traits are present. Symptoms are "experienced" rather than "reported." As a result, patients' somatizations are not fabricating symptoms. There is no "path physiological explanation" for such a discovery in the organ or location where it may be expected.

The belief that disease is present may lead to or develop from the misattribution of symptoms to somatic disease. As population-based surveys show, healthy persons report more than one "somatic symptom" per week, there is plenty of room for misattribution. Medical attention is sought on a regular basis. In addition, relatives and friends are expected to pay a lot of attention. Somatization has been linked to information processing problems in neuropsychological tests (Shapiro, 1965; Rief & Hiller, 2011). Alexithymia, which means "lack of words to describe feelings," has been identified as a key element in somatization (Sifnes, 1996). Individuals respond to stressful life situations in the absence of the ability to describe feelings, according to the theory. Individuals with alexithymia tend to focus on facts, details, and external occurrences, and have a restricted imagination life. Somatization is influenced by a variety of factors, including education and culture/subculture (e.g., "macho" males). The quantity of "functional somatic symptoms" is adversely related to intelligence (Berkowitz, 1969). In the lowest socioeconomic levels, somatization is more common.

### **Social Avoidance**

Watson and Friend (1969) created a scale to measure Social Avoidance and Distress (SAD), one of the elements that contribute to social anxiety. Social avoidance was described as being with, talking to, or avoiding others for whatever reason. This encompassed both real avoidance and the intention to avoid others (Watson & Friend, 1969). Those who have a high level of SAD endure anxiety or distress. Need for Affiliation (nAff) has been associated with motivation for social approval (Atkinson et al., 1954) and defined as an approach and avoidance tendency (Byrme et al., 1963). The approach's propensity is visible in those who seek affiliation in order to benefit from the reinforcing effects of social engagement. When people wowed, Atkinson et al. (1954) found that nAff increased.

### **Scientific Understanding of Divorce**

Over the last decades, social and evolutionary scientists have investigated the proximate and ultimate causes of social avoidance somatic complaints among human being. In earlier studies, researchers have suggested that somatic complaints and social avoidance are influenced by a variety of variables, for example, personality dispositions (e.g., Eisenberg et al., 1999), emotion (e.g., Batson, 1998). Between 1968 and 1977 the majority of the states in the US enacted several legal reforms that simplified legal difficulties in obtaining a divorce. Before that time, in most states marital fault was the only ground for divorce, but mutual consent has been always permissible, given that willing conspirators could allege and admit to marital fault. With "no-

fault" divorce laws, divorce could be obtained upon mutual consent of the parties involved. Immediately after, or contemporaneously, unilateral divorce statutes made it possible for one spouse to obtain a divorce without the consent of the other.

Somatization condition and personality disorder frequently coexist. Neuroimaging is yielding some intriguing outcomes. Reduced volumes of the right and left basal ganglia, as well as the thalamus, have been found using structural MRI (Atmaca et al., 2006; Vuilleumier et al., 2001; Atmaca et al., 2006; Nichoson, 2013). People who have lost their senses have been examined using functional MRI. When vibration was applied to the skin, it caused the skin to vibrate.

In general, there is support for cognitive behavior therapy in the treatment of somatic complaints and related diseases, but there is less support for conversion than for the other treatments. The use of antidepressants and TMS has some support (Schonfeldt-Lecuona, 2006). According to traditional thinking, unconscious conflicts betweenid drives and the superego are addressed through the generation of bodily symptoms.

The word "secondary gain" has become more widely used; however it should only be used when applying psychoanalytic theories, according to purists. Conversion disorder has a wide range of outcomes. Acute onset that is actively treated usually has a positive outcome, especially if there is a concurrent psychiatric condition that responds to therapy. A chronic illness can be caused by a variety of factors.

Somatization is characterized as a patient's proclivity for experiencing and reporting physical/somatic symptoms that have no pathophysiological explanation, attributing them to disease, and seeking medical help for them (Lipowski, 1988). Individual scrutiny of some aspects of this definition is warranted. There is a "propensity," and as a result, specific personality traits (and repeated presentations) are present. Symptoms are "experienced" rather than "reported."

As a result, patients' somatizations are not fabricating (faking) symptoms. There is no "pathophysiological explanation" for such a discovery in the organ or location where it may be expected. Comorbid psychiatric symptoms, on the other hand, may exist. The idea that disease is caused by, or arises from, the misattribution of somatic disease symptoms may result in, or develop out of, the belief that disease is caused by, or originate out of, the belief that disease is caused by, or arise out of a population based survey found that healthy persons experience more than one "somatic symptom" per week, indicating that there is plenty of room for misattribution. Medical attention is sought on a regular basis. In addition, relatives, friends, pharmacists, and alternative therapists are solicited for assistance. Somatization is linked to somatization, according to neuropsychological tests.

Social avoidance is a nAff avoidance tendency. It has been suggested that persons who possess low nAff may have histories of unsuccessful interpersonal interaction and that their subsequent lower motivation for affiliation is a means by which to avoid further rejection. Geist and Borecki (1982) found that persons high in SAD had significantly lower levels of self-esteem. Gough and Heilbrun (1963) described persons who scored high on the Self-Confidence (S-Cfd) scale of the

Adjective Checklist (ACL) as "being afflictive, outgoing, and impatient with people or things standing in their way." Therefore, it might be assumed that individuals high in SAD are likely to be less self-confident as well as less afflictive. The ACL scale designed to assess need for Change (nCha) describes the low scorer as one who "seeks stability in his environment, is apprehensive of ill-defined and risk involving situations in temperament is patient and obliging but lacking inerve and energy (Heilbrun, 1963)." Moreover, Averett and McManis (1977) described persons who score low on assertiveness as retiring, inhibited lacking in self-confidence restricted in outlooks and interests uneasy and awkward in new and unfamiliar social situations; conventional, quiet, submissive, and unassuming suggestible and overly influenced by others' reactions and opinions, deliberate, patient and passive in action." Because high assertiveness was found to be positively connected with change and dominance by Green et al. (1979), a person with a high SAD would likely have a lower nCha and a reduced demand for dominance (nDom). Although comprehensive studies on the need for deference (nDeQ) are glaringly absent from the literature, there has been tangential research on the subject. Individuals with little assertiveness scored much higher on the California Personality Inventory (CPI) socializing scale, according to Averett and McManis (1977).

### **Rationale of the study**

From the above literature, it is evident that divorce is one of the major determinants of social avoidance and somatic complaints. In Bangladesh, there are people from urban and rural areas variation in their behavior in the context of environment setting. Separate life is becoming over painful and relation to others is very much superficial. People who are divorced are less interacting with their neighbors compared to married people. It is revealed that divorce plays a crucial role on somatic complaints from the literature review. Thus, measures of somatic complaints and social avoidance of separate people can be important in the context of personality development of Bangladesh. Somatic complaints are facilitated by the presence of relevant dispositional variables. There is no such study on dispositional factors of somatic complaints and social avoidance in Bangladeshi context. It is worthwhile to explore the differences between male and female somatic complaints and social avoidance. The findings of the study would help to understand an act of virtue and its role in the social system. However, the study would have some applied values and give new knowledge about helping behavior in the Bangladeshi context. The findings of the study can be helpful to those social organizations who are working on social systems.

### **Objectives**

The major objectives of the study were given as follows-

1. To examine the gender differences in somatic complaints and social avoidance.
2. To investigate the differences in somatic complaints and social avoidance in relation to psychotherapy.

## Methods

### Participants

The present study was consisted of 100 respondents. They were selected from four different hospitals in Dhaka city. Subjects were categorized equally into groups on the basis of their gender (male = 50 & female = 50). Each category included 50 subjects and the total number of subjects was  $(50 \times 2) = 100$ . Data were collected following the purposive sampling technique.

### Measures

The following measures were used to measure in somatic complaints and social avoidance.

#### *Social Avoidance and Distress Scale (SAD scale)*

The Social Avoidance and Distress (SAD) scale was developed by Watson and Friend (1969). There were 28 items in SAD. Each item of the list was a 2 point Scale with the response categories "Yes or No". Individuals responding to SAD items on two point Scale rating count as a one in the term of middle form. The method of split-half reliability was used for testing the reliability of the Social Avoidance and Distress (SAD) scale. The reliability of the test is ascertained by preparing a parallel form from the same material and presenting the both forms to the same individual. The correlation between these two scores obtained from each subject in a group indicates the reliability of the test. For determination of the reliability of the Social Avoidance and Distress (SAD) scale, the criterion of split-half was obtained with odd and even numbers of the 30 items ( $N = 195$ ) used in the pilot study and the correlation was found .48. Split-half reliability of the scores was again computed in the final study ( $N = 206$ ) with odd and even number of 28 items and the correlation was found .68. After applying Spearman Brown Prophecy formula (Garrett & Woodworth, 1973), the coefficient was found to rise from .68 to .80 which was very high. Thus, it can be said that the reliability of the Social Avoidance and Distress (SAD) scale is statistically sound and it is highly reliable.

#### *Somatic Complaints Scale*

The Bangla version (adapted by Rahman et al., 2013) of somatic complaints scale was developed by Morton and Leslie (1991) that was used for measuring somatic complaints. The scale contained 24 items and for each of the 24 items of the respondent was to give one of the four answers ranking from "strongly false" to "strongly true" Participants rate those statements on a six point scale ranging from 1 to 6, in which 1 indicates strong disagreement and 6 indicating strong agreement. The sum of the value of all the scale points marked by a respondent constituted the somatic complaints score. The highest score was 50 and the lowest score was 12. Highest score indicates greater somatic complaints. The reliability of the Bangla version of the scale was tested by administering both English and Bangla versions of the scale on a group of Dhaka University students ( $N = 50$ ) with an interval of three weeks. Pearson product moment correlation coefficient between the two scales was .54.

## Procedure

This study used somatic complaints and social avoidance scale as measures for data collection. This was a survey that was conducted via questionnaires. The hospital authorities gave permission for collecting data. On the scheduled date, the investigator went to the institutions for data collection. The head of the institutions as well as the doctor extended necessary cooperation. The patients were also very helpful. To collect data from this study, each of the respondents was approached individually and he/she was told about the purpose of the data collection. Before administering the questionnaires, the respondents were given proper instructions. The researcher ensured that their answer will be completely anonymous and confidential and that it will be used only for research purposes. The questionnaire was a self-administered type and the respondents found no difficulties in filling-up it. Each participant was asked to fill up the personal information sheet and then read the instruction. Following the procedure the investigator told the participants to record their responses in the answer sheet by ( $\surd$ ) marks. After collection of all data, the researchers gave him or her thanks.

## Results

The purpose of the present study was to investigate the effects of divorce on somatic complaints and social avoidance. Independent sample *t*-test was applied to see whether somatic complaints and social avoidance differed according to gender and psychotherapy. The results are presented in the following tables.

Table 1 shows that there are significant differences in somatic complaints between male ( $M = 1.76$ ) and females ( $M = 2.24$ ) and it is significant ( $t = -3.061$ ) at .001 level.

**Table 1**

*The Difference of Somatic Complaints between Male and Female*

Gender	<i>N</i>	Mean	<i>SD</i>	<i>df</i>	<i>t</i>
Male	50	1.76	.822	98	-3.061***
Female	50	2.24	.743		

Note. \*\*\* $p < .001$ .

Table 2 shows that the mean scores obtained by the male ( $M = 2.24$ ) is lower than the mean score obtained by the female ( $M = 2.46$ ). It also shows that mean difference in social avoidance of male and female is significant ( $t = -1.88$ ) at .05 level.

**Table 2**

*The Difference of Social Avoidance between Male and Female*

Gender	<i>N</i>	Mean	<i>SD</i>	<i>df</i>	<i>t</i>
Male	50	2.24	.656	98	-1.88*
Female	50	2.46	.503		

Note. \* $p < .05$ .

Table 3 shows that there are significant differences in somatic complaints between psychotherapy ( $M = 1.53$ ) and non-psychotherapy ( $M = 2.45$ ) and it is significant ( $t = -6.802$ ) at .001 level.

**Table 3**

*The Difference of Somatic Complaints between Psychotherapy and Non-psychotherapy*

Somatic complaints	<i>N</i>	Mean	<i>SD</i>	<i>df</i>	<i>t</i>
psychotherapy	50	1.53	.648	98	-6.802***
Non psychotherapy	50	2.45	.701		

Note. \*\*\* $p < .001$ .

Table 4 shows that there are significant differences in social avoidance between psychotherapy ( $M = 2.62$ ) and non-psychotherapy ( $M = 2.06$ ) and it is significant ( $t = -5.419$ ) at .001 level.

**Table 4**

*The Difference of Social Avoidance between Psychotherapy and Non-psychotherapy*

Social avoidance	<i>N</i>	Mean	<i>SD</i>	<i>df</i>	<i>t</i>
Psychotherapy	50	2.62	.555	98	-5.419***
Non Psychotherapy	50	2.06	.488		

Note. \*\*\* $p < .001$ .

### Discussion

The present study attempted to explore the effects of divorce on somatic complaints and social avoidance. The scores were analyzed by using independent sample *t*-test. The Bangla version of social avoidance and distress scale was adapted by Deeba and Begum (2002) that were developed by Watson and Friend (1969) and the somatic complaints scale was adapted by Rahman et al. (2013) that was developed by Leslie (1991).

The results showed differences in social avoidance and somatic complaints of male and female due to the variation in gender. The findings of the present study (Table 1) indicated that there was significant difference of somatic complaints between male and female. The findings from this study are consistent with another study (Corey et al., 2015). In previous times, the somatic complaints of females were higher than male probably because females tend to overestimate themselves while girls tend to underestimate themselves in our society. Their attitude and behavior pattern may be influenced by these social factors. Parents and peer give less importance to the female's achievements. Beside, male are more adventurous. They can move freely in everywhere. Society imposes many restrictions on girls. This might be the reason of findings that female in Bangladesh may show more somatic complaints than male. They are more aware about all social avoidance and somatic complaints. So, there is difference of between male and female. The findings also revealed that gender and psychotherapy has significant difference in social avoidance. It may be assumed that decreasing gender discrimination can change in child rearing

practice that increasing social support of female there was gender difference in somatic complaints. The findings were also consistent with the findings of earlier researches (Mamlin et al., 2001; Schultz & Schultz, 2005).

Another important findings presented in Table 2 showed the difference of social avoidance between male and female. This result also supports the findings of some previous research (Korte et al., 1975). Hedge and Yousif (1992) and Steblay (1987) found that in social avoidance, females are higher than male. It also shows that the mean difference in social avoidance of male and females is significant. Traditional cultures in which people live in extended family groups and share work seem to foster pro-social values. In our culture, people are generally helpful and encourage the act of social responsibility.

Table 3 also showed that there is a difference of somatic complaints between psychotherapy and non-psychotherapy groups and that is significant. Another important findings presented in Table 4 showed that there are significant differences in social avoidance between psychotherapy and non-psychotherapy. It may be explained that due to daily life behavior practice, they can freely make decisions in their life. Therefore, psychotherapy can help to adjust in society.

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## **Mental Health of Parents with and without Autistic Children: A Comparative Study**

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### **Abstract**

Caring for a child with autistic disorder is a challenging issue for parents because it requires more extra efforts to cope with daily life activities, and it is hard to adjust every time because it creates psychological disturbances in their lives. Research evidence indicates that parental mental health is negatively influenced by having a child with autistic disorder. The present study was designed to investigate the mental health of parents having autistic and non-autistic children in terms of demographic variables. Data were collected from a sample of 200 parents (100 parents with autistic children and 100 parents without autistic children) selected from different areas in Dhaka city of Bangladesh through purposive and convenience sampling techniques. Results of this study indicated that parents with autistic children had significantly higher depression, anxiety, and life stress than parents without autistic children. Results also revealed that mothers with autistic children had poorer mental health status (i.e., higher depression, anxiety, and life stress) than fathers with autistic children. But no significant differences were found among parents of autistic children in terms of different levels of education and income. The implications of the findings have been interpreted in the light of previous studies.

*Keywords:* mental health, parents, autistic children

### **Introduction**

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder usually noticed among children within the first two or three years of their lives which have a profound impairment in social communication and social interaction and restricted and repetitive behavior, interest, and activities (Landa, 2008; APA, 2013). It is estimated that 1 in 160 children worldwide (or 62.5 per 10,000) are identified with ASD (WHO, 2019). From a systematic review, it was found that the prevalence rate of autism spectrum disorder is between 0.15 to 0.8% in Bangladesh (Hossain et al., 2017). Besides, caring autistic children is a big challenge for both parents that affect both the diagnosed children and also their parents' life (Spore, 2012; Karst & Van Hecke, 2012).

Findings from some studies also concluded that parents having autistic children reported higher psychological distress and showed lower marital satisfaction, self-confidence and it increased negative emotions such as anger, fear, and resentment (Faso et al., 2013; Higgins et al., 2005).

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Analyzing the previous studies, researchers have found that the parents having autistic children showed significantly higher parental stress (Nikmat et al., 2008; Cramm et al., 2011), more anxiety (Athari et al., 2013), and depressive symptoms (Lajiness-O'Neill & Menard, 2008) and also poorer mental health (Kim et al., 2016; Kousha et al., 2019) as compared to parents having no autistic children which strongly affecting their coping in daily life. Moreover, few studies also reported that parents of children diagnosed with ASD experience lower quality of life, higher depression, stress, and more pessimism about the future than the parents of normal children and other developmental disorder. Moreover, mothers with autistic children reported higher stress than fathers, and parental stress was significantly related to parent's lower education (Johnson et al., 2011; Samadi & McConkey, 2011).

Athari et al. (2013) conducted a study where 250 mothers with autistic children participated and measured their depression, anxiety, and stress (using Depression Anxiety and Stress Scale, DASS-42), the severity of autism among children, and family income. Results reported that different income levels were the mediator of depression and stress of mothers of autistic children. It was also found that the severity of autism influenced the mother's income. Zablotsky et al. (2013) also found that mothers with an autistic child reported poorer mental health and higher stress than mothers with a non-autistic child. Findings also found that lower-income was the predictor of emotional problems of mothers having autistic children. Kausar et al. (2019) also conducted another study to identify whether there was any relation between socio-demographic variables and stress of parents of children with autism spectrum disorder. From the research it was found that parent's education, monthly income and age, and gender of special children were the contributing factors to parental stress. Hsiao (2018) observed that the income and stress of parents with autistic children were significant predictors when considering these variables together.

Every member of the family has a dream child concept that influences their attitudes towards the unborn baby. Parents and grandparents want the baby to be perfect mentally and emotionally and physically sound and along with the baby they want to enjoy a happy life. But every one does not get what he/she wishes. So, if any autistic baby is born in a family, it's dreams are broken down. Caring for an autistic baby needed more struggle and at the same time parents always think about the child's uncertain future that create psychological disturbances among the parents. Previous studies, conducting in various countries of the world, have indicated that the presence of an autistic child in a family became one of the reasons for poorer mental health status among parents as compared to parents with non-autistic children where the suffering of mothers was higher than that of the fathers (Zablotsky et al., 2013; Kim et al., 2016; Kousha et al., 2019). Some other studies found that parents mental health has significant relationship with income and education (Hsiao, 2018; Kausar et al., 2019).

In Bangladesh, Khatun et al. (2019) conducted a study with 60 parents (30 parents with ASD children and 30 parents without ASD children) from different areas of Dhaka City of Bangladesh and found a significant negative correlation between parental stress and life satisfaction among parents with ASD children. They also found a significant difference in stress and life satisfaction

between parents with and without ASD children. Karim et al. (2017) found that the mothers having autistic children reported higher depression as compared to mothers of normal children. But no such study was conducted to assess parent's mental health status in terms of anxiety, depression, and life stress. Moreover, no research has been carried out on a large sample to study whether mental health varied due to income and education.

However, autism is an important but sensitive issue to research on because of negative perceptions about autism that's why more relevant studies are needed to avoid the limitations of previous research and for better understanding. Almost all the studies have been conducted in Western countries. So, the present investigators would like to conduct this study in our country to assess stress, depression, and anxiety of the parents of autistic children and to explore whether mental health varies due to different education and income levels avoiding previous research limitations even at the Eastern countries.

### **Objectives of the study**

The main objective of the present study was to investigate the mental health of parents with and without autistic children. The specific objectives were to:

- i. examine the depression level of parents with and without autistic children
- ii. examine the anxiety level of parents with and without autistic children
- iii. examine life stress of parents with and without autistic children
- iv. explore whether depression, anxiety, and life stress differ between fathers and mothers of autistic children
- v. explore whether depression, anxiety, and life stress of parents with autistic children significantly vary in terms of education and income.

## **Methods**

### **Participants**

A total of 200 parents (100 parents with autistic children and 100 parents without autistic children) were chosen purposively as participants from the different areas of Dhaka city in Bangladesh. The fathers' age range was 27–56 years old and the mother's age range was 24–48 years old. The study was conducted by following a cross-sectional survey design.

### **Measures**

For data collection following tools were employed in this study:

#### ***Personal Information Form (PIF)***

Some personal information like parents' age, educational qualifications, professions, economic conditions was recorded.

#### ***The Bangla Version of Anxiety Measuring Questionnaire***

The anxiety measuring questionnaire was developed by Deeba and Begum (2004). It is a 5-point Likert-type scale consisted of 39 items. Item analysis of these items was done using 102 clinical and non-clinical participants and finally 36 items were selected for the scale. For every single

question there were five categories of response levels, the sequences were: *never occurs* = 0, *mildly occurs* = 1, *moderately occurs* = 2, *severely occurs* = 3, and *profoundly occurs* = 4. Participants were requested to respond to any of the five categories by giving tick mark. The sum of the item scores was the total score of the individual. Generally, score ranges are 54 and less = mild, 55 to 66 = moderate, 67 to 77 = severe, 78 to 135 and above = profound and cut off score = 47.5. A high score indicates higher anxiety, and low score indicates low anxiety. The split-half reliability was found 0.92 ( $\alpha = .01$ ) and the co-efficient alpha for 36 item was 0.95 ( $\alpha = .01$ ). Construct validity of anxiety scale was assessed based on clinical and non-clinical samples ( $F = 60.28$  at  $\alpha = .01$ ), and item total correlation (which range from  $r = .40$  to  $r = .75$ ,  $p = .01$ ). Both severity and screening norms were developed for the anxiety scale. In this present study Cronbach's alpha was calculated as .79.

#### ***The Bangla Version of Depression Measuring Questionnaire***

Bangla version of depression measuring questionnaire was adapted by Uddin and Rahman (2005) from Beck (1996) depression scale. It is a 5-point Likert-type scale consisted of 30 items. The response options and scoring are “*not at all applicable* = 1”, “*not applicable* = 2”, “*uncertain*=3”, “*a bit applicable* = 4”, and “*totally applicable* = 5”. All items were scored in positive direction. Generally, score ranges are 30 - 100 = minimal, 101 – 114 = mild, 115 – 123 = moderate, 124 – 150 = severe. A high score indicates higher depression. The adapted translating reliability is 0.67. The test re-test reliability was found 0.60 ( $p = .01$ ) and split half reliability was 0.76. The validity of the scale was estimated by using concurrent and construct validity. The scale was found to be positively correlated with the psychiatrists' rating of depression ( $r = 0.38$ ,  $p = .01$ ) and patients' self-rating of depression ( $r = 0.59$ ,  $p = .01$ ). In the present study Cronbach's alpha was calculated as 0.82.

#### ***The Bangla Version of Life Stress Measuring Questionnaire***

The original version of the scale was developed by Cohen (1999) and adapted it into Bangla by Fahim (2001) that is used to measure life stress. It is a 5-point Likert-type scale consisted of 10 items. The items 1, 2, 3, 7, 9 and 10 were scored as *never* = 0, *rarely* = 1, *sometimes* = 2, *often* = 3 and *constant* = 4. On the other hand, the items 4, 5, 6 and 8 were scored as *never* = 4, *rarely* = 3, *sometimes* = 2, *often* = 1 and *constant* = 0. Generally score ranges 10-19 = mild, 20-29 = moderate, and 30-40 = severe. The correlation co-efficient of the Bangla version of the Life Stress Questionnaire with English was found 0.90, which was significant at .01 levels. The test re-test reliability over a period of 2 weeks was 0.94, which was significant at 0.01 levels which indicates the reliability of the scale was satisfactory. In the present study, Cronbach's alpha was calculated as .85.

#### **Procedure**

For collecting proper information from participants, at first, permission was taken from the concerned authority to collect data and rapport was established with participants. After the establishment of rapport, the researcher expressed the objectives of the study and also assured them

of the confidentiality of the responses. After that the respondents were requested to fill up the personal information form. When the personal information blank was filled up, the booklet containing Bangla versions of the three scales was given to them. The respondents went through the instructions given on the front page of the booklet. Then the respondents were advised to start the task without wasting time. After collecting information, the respondents were thanked for their cooperation in the study.

### Results

In accordance with the objectives of the present study, the obtained data were analyzed using different statistical techniques such as independent sample *t*-test, oneway ANOVA and correlation coefficients with the help of computer software, called Statistical Package for Social Sciences (SPSS) version 23. The results are presented in the following Tables consecutively.

Results reported in Table 1 showed significant differences in depression, anxiety, and life stress between parents with and without autistic children. Results also revealed that parents with autistic children have severe depression and profound levels of anxiety whereas parents without autistic children have minimal depression and a moderate level of anxiety. Also, parents with autistic children have severe life stress than parents without autistic children. That means parents with autistic children have higher depression, anxiety, and life stress than parents without autistic children.

**Table 1**

*Mean Differences in Depression, Anxiety, and Life Stress between Parents with and without Autistic Children*

Variables	Mean		Standard deviation		Mid values	Levels		<i>t</i>
	PWA	PWOA	PWA	PWOA		PWA	PWOA	
Depression	125.10	98.70	18.97	9.49	75.00	Severe	Minimal	09.30**
Anxiety	82.42	61.58	11.53	7.53	72.00	Profound	Moderate	15.87**
Life Stress	29.56	16.25	05.29	3.08	18.00	Severe	Mild	21.89**

*Note.* \*\**p* < .01; PWA = Parents with Autistic Children, PWOA = Parents without Autistic Children.

Results presented in Table 2 indicated that all the mean scores of all variables of mothers were higher than fathers. For mothers, the depression level was severe, and the anxiety level was found profound. On the other hand, depression was found mild and anxiety level was found moderate for fathers. Results (*t*-value) also indicated that there was a significant difference in mental health between fathers and mothers having autistic children.

**Table 2**

*Levels and Mean Differences in Depression, Anxiety, and Life Stress between Mothers and Fathers of Autistic Children*

Variables	Mean		Standard deviation		Mid values	Levels		<i>t</i>
	Mother	Father	Mother	Father		Mother	Father	
Depression	137.20	113.00	9.90	8.49	75.00	Severe	Mild	18.75**
Anxiety	98.42	64.88	9.53	8.33	72.00	Profound	Moderate	24.84**
Life Stress	33.03	26.09	4.75	3.29	18.00	Severe	Moderate	12.39**

*Note.* \*\* $p < .01$ .

Results reported in Table 3 revealed that mean scores of mental health of mothers with autistic children were higher than fathers at every level of education.

**Table 3**

*Mean and Standard Deviation of Depression, Anxiety, and Life Stress of Fathers and Mothers with Autistic Children from Different Educational Groups*

Variables	Educational groups		<i>N</i>	<i>Mean</i>	<i>Standard deviation</i>
Depression	Father	Post-graduate	46	114.36	15.92
		Graduate	48	111.05	8.59
		Undergraduate	6	112.33	7.56
	Mother	Post-graduate	15	132.70	9.98
		Graduate	25	139.87	9.37
		Undergraduate	60	142.64	7.69
Anxiety	Father	Post-graduate	46	62.92	11.17
		Graduate	48	64.93	10.24
		Undergraduate	6	66.01	9.13
	Mother	Post-graduate	15	97.80	18.12
		Graduate	25	95.33	9.84
		Undergraduate	60	99.84	8.36
Life Stress	Father	Post-graduate	46	24.95	2.89
		Graduate	48	27.92	3.24
		Undergraduate	6	25.33	4.15
	Mother	Post-graduate	15	29.40	2.89
		Graduate	25	30.17	2.34
		Undergraduate	60	36.41	2.15

Results reported in Table 4 indicated that there were no significant differences in depression, anxiety, and life stress among fathers and mothers from different educational groups.

**Table 4**

*One Way ANOVA of Depression, Anxiety, and Life Stress among Parents with Autistic Children from Different Educational Groups*

Variables	Source of variations	SS	df	MS	F	p	
Depression	Father	Between group	65.54	2	32.77	0.75	.67
		Within group	4248.96	97	43.81		
		Total	4314.50	99			
	Mother	Between group	25.28	2	12.64	1.92	.21
		Within group	638.23	97	6.58		
		Total	663.51	99			
Anxiety	Father	Between group	438.49	2	217.24	1.73	.16
		Within group	12164.79	97	125.41		
		Total	12603.28	99			
	Mother	Between group	380.87	2	140.40	1.11	.36
		Within group	12231.37	97	126.10		
		Total	12612.24	99			
Life Stress	Father	Between group	16.02	2	8.01	0.87	.15
		Within group	897.56	97	9.25		
		Total	913.58	99			
	Mother	Between group	22.26	2	11.13	1.48	.23
		Within group	726.22	97	7.48		
		Total	748.48	99			

Descriptive statistics presented in Table 5 indicated that mean scores of mental health of parents from low income group were higher than those of the parents from high and middle income groups.

**Table 5**

*Mean and Standard Deviation of Depression, Anxiety, and Life Stress of Parents with Different Income Levels*

Variables	Income levels	N	Mean	Standard deviation
Depression	High	22	102.77	11.21
	Middle	62	126.56	11.31
	Low	16	133.14	9.61
Anxiety	High	22	78.06	11.91
	Middle	62	82.29	12.34
	Low	16	84.25	13.54
Life Stress	High	22	25.28	2.88
	Middle	62	28.89	2.66
	Low	16	32.06	2.92

Table 6 indicated that there were no significant differences in depression, anxiety, and life stress among parents of different income levels.

**Table 6**

*One Way ANOVA of Depression, Anxiety, and Life Stress among Parents with Different Income Levels*

Variables	Source of variations	SS	df	MS	F	p
Depression	Between group	66.70	2	33.35	.30	.75
	Within group	10863.55	97	111.99		
	Total	10930.25	99			
Anxiety	Between group	95.78	2	47.89	.30	.75
	Within group	15513.99	97	159.94		
	Total	15609.77	99			
Life Stress	Between group	11.54	2	5.77	1.13	.48
	Within group	482.42	97	4.97		
	Total	493.96	99			

Table-7 revealed that correlation co-efficient among dependent variables were positively correlated.

**Table 7**

*Correlation Matrix among Depression, Anxiety, and Life Stress of Parents with Autistic Children*

Variables	1	2	3
1. Life Stress	-		
2. Depression	.492**	-	
3. Anxiety	.503**	.785**	-

Note. \*\* $p < .01$ .

### Discussion

The first objective of the present study was to examine the depression level of parents with and without autistic children. Findings from Table 1 indicated that the depression levels of parents with and without autistic children were severe and minimal respectively. The results also revealed that the depression of parents with autistic children was higher than parents without autistic children. The finding is consistent with a recent study conducted by Karim et al. (2017). They also revealed that parents who felt that they could never do enough for their autistic child were likely to suffer from depression, frustration, adjustment problems. The results also resembled some previous studies (Lajiness-O'Neill & Menard, 2008).

The second objective was to observe the anxiety level of parents with and without autistic children. The findings presented in Table 1 indicated that the anxiety levels of parents with and without autistic children was profound and moderate respectively. Results also showed that the anxiety level of parents with autistic children was higher than that of the parents without autistic children. Results can be explained in the light of previous studies. For example, Ellouze et al. (2018) conducted a study on parents of children with ASD and revealed that 18.4% of parents of autistic children had anxiety symptoms. Dabrowska (2010) found that parents of children with autism have higher anxiety as compared to parents having children with Down syndrome or normally developed children. She also found that parents of children with ASD felt more anxiety than parents without autistic children but did not find this problem in either the Down's syndrome or the typically developing parents.

The third objective was to observe the level of life stress of parents with and without autistic children. Results presented in Table 1 indicated that stress levels of parents with and without autistic children were severe and mild respectively which was higher among parents with autistic children as compared to parents with non-autistic children. This finding can be explained by the findings of some studies. For example, Nikmat et. al. (2008) explained that parents with autistic children have higher levels of stress and psychological disturbances. Lai et al. (2015) also examined parents of children with ASD who reported significantly more parenting stress symptoms (i.e., negative parental self-views, lower satisfaction with parent-child bond, and experiences of difficult child behaviors), more depression symptoms, and more frequent use of active avoidance coping, than parents of typically developing children. This finding is also supported by the study of Padden and James (2017).

Bitsika and Sharpley (2004) reported that 90% of parents informed that they were sometimes unable to deal effectively with their child's behavior. Nearly half of the participants were severely anxious and nearly two-thirds were clinically depressed. Factors that emerged as significant in differentiating between parents with high versus low levels of anxiety and depression included access to family support, parents' estimation of family caregivers' expertise in dealing with the behavioral difficulties of a child with ASD, and parental health.

The fourth objective was to explore whether depression, anxiety, and life stress differ from mother to father with autistic children. Results presented in Table 2 showed that all the scores indicated that the mental health in terms of depression, anxiety, and life stress of mothers was higher than the fathers of the autistic children. Duarte et al. (2005) found significant relationships between anxiety and gender. The reason may be that mothers are the primary care givers of their children and spend most of the time with their children for managing their daily lives. The results are also supported by some previous research findings (Johnson et al., 2011; Samadi & McConkey, 2011).

The fifth objective of the present study was to examine whether the mental health of the parents with autistic children varies according to their education and income levels. The results reported

in Tables 3 to 6 suggested that the mental health of parents with autistic children did not significantly vary in terms of different levels of education and income. The parents-child relationship is a unique bonding where all children are equally important to them and every parents are equally attached and tensed about their child's future, which does not vary due to parent's different education and income levels.

The present study had some limitations. First, data were collected only from Dhaka city and it was hard to collect data from the parents with autistic children because they were very conservative to disclose their personal information. Second, the sample size was not so big to represent the whole population of Bangladesh.

### **Conclusion**

The aim of this study is to investigate the mental health status of parents with and without autistic children. Results suggested that the mental health status of parents with autistic children was significantly lower as compared to parents without autistic children whereas mothers expressed a higher level of depression, anxiety, and life stress as compared to fathers. Moreover, in this study no significant difference was found in the mental health status of parents with autistic children with different levels of education and income. So, it is suggested that parents of autistic children need to have a psycho-social intervention program for their psychological wellbeing which is ultimately a crucial issue for the betterment of their children.

### **Acknowledgment**

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### **Conflict of Interests**

The authors declared no conflict of interests.

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## Exploring the Demographic Factors Associated with Mental Health Condition of Antenatal Mothers

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### Abstract

Pregnancy is undoubtedly an exciting period for a mother but due to its tremendous effect on her both physical and mental health, it becomes challenging as well. The drive of this study was to explore the link between diverse demographic factors and the mental health of pregnant mothers in Bangladesh. Additionally, investigating the discrepancy in their mental health status (e.g. somatic symptoms, anxiety and insomnia, social dysfunction, and severe depression) in terms of numerous demographic factors (i.e., age, social status, educational qualification, number of children, types of residence) was the intent of this study. A total of 100 antenatal mothers (50 urban and 50 rural) holding 18-30 years were selected as a sample by following cross-sectional survey research design. The outcomes of this study illustrated that mental health was negatively connected to all selected demographical factors, whereas a reverse significant link was detected with education level, socio-economic status, and types of residence of the upcoming mothers. Moreover, notable variances in the mental health condition of expected mothers were identified in respect of their age, social status, educational qualification, number of children, and types of residence. To illustrate, significant differences were observed according to their age (somatic symptoms and social dysfunction), an education level (anxiety and insomnia), socio-economic status (somatic symptoms, anxiety and insomnia, social dysfunction and severe depression), number of children (anxiety and insomnia, social dysfunction, severe depression) and types of residence (reflecting somatic, anxiety and insomnia).

*Keywords:* antenatal mothers, demographic factors, mental health

### Introduction

Pregnancy or antenatal is a time of pleasure and contentment for a woman. It is a challenging phase that consists physiological, somatic, psychological and social changes which may lead to the high risk of mental illness (Bjelica & Kapor-Stanulović, 2004). Mental health is an indicator of well-being in which an individual comprehends his capabilities. He/she can cope with the stresses of life, work productively and fruitfully, and contribute to his community (WHO, 2004). According to WHO, nearly 10% of pregnant women and 13% of newly experienced mothers have a mental disorder around the world, where depression plays the most prominent role. Indeed, in developing countries this rate is larger, i.e., 15.6% during pregnancy and 19.8% after childbirth. Moreover,

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postpartum depression (Gulseren et al., 2006; Heron, 2004), underweight child, and premature delivery, (Field et al., 2004) may result from antepartum depressive and anxiety symptoms (ADS and AAS, respectively) of a pregnant mother and have a detrimental influence on child development (Austin et al., 2005;). However, depression, stress, and anxiety are the most commonly revealed constructs of maternal distress, and they are often co-morbid with other illnesses (Schetter & Tanner, 2012). Even, both of these psychological constructs (stress and anxiety) are identified to be the most potent maternal risk factors for adverse maternal and child outcomes compared with other mental health disturbances and disorders (Schette & Tanner, 2012). It is also reported that antenatal maternal stress and anxiety, even at a moderate level, may have a negative effect on pregnancy outcomes and offspring, more than antenatal depression (Schetter & Tanner, 2012).

Moreover, in the phase of antenatal, maternal education was explored as one of the strong predictors of depressive symptoms (Rezaee & Framarz, 2014). Similarly, uniformity status, education status, monthly income, residential property status, and partnership status, as well as interactions were found to be predictive factors for depression during and after pregnancy (Hein et al., 2014). By contrast, Miyake et al. (2012) reported that there was no relationship between household income or education and the prevalence of depressive symptoms during pregnancy. Johnson et al. (2018) noted that among the 208 pregnant mothers, who were in the third-trimester phase, overall 39.4% had suffered from one or more psychological symptoms, including fatigue, irritability, anxiety, and problems with sleep and concentration. In the study population, 5.8% of participants screened positive for antepartum mental morbidities, of which depression was the most common. About 3.8% of all women screened positive for depression, with 15.4% demonstrating depressive symptoms.

### **Rationale of the study**

Although the maternal physical state has drawn a great deal of concern in many studies earlier currently psychological health got the recognition of investigation due to its profound influence on both mother and upcoming child. For instance, pregnancy-related stressor anxiety (Kramer et al., 2009), life events (Khashan et al., 2009), and anxious (Mancuso et al., 2004) or depressive, (Dayan et al., 2006) symptoms might be associated with worse birth outcomes such as preterm birth, smaller birth weight, and smaller lead circumference (Hobel et al., 2008). Therefore, the idea of the present study was conceived to compute the mental health level of pregnant women which is obvious but got little consideration yet. Although, special attention has been paid to the psychological health of pregnant women during the last few years (Domar et al., 1992) no studies have been conducted integrating pregnant mothers' mental health issues considering their age, residence, educational qualification, and number of children. Therefore, the investigators choose to carry out the present research considering the importance of exploring the status of mental health of antenatal mothers which will provide additional knowledge to society regarding this issue.

### **Objectives of the study**

In the light of the previous literature and theories, the following objectives were formulated for the present investigation:

1. To explore the associations between demographic factors (i.e., age, social status, educational qualification, no. of children, types of residence) and mental health condition (i.e., reflecting somatic symptoms, anxiety and insomnia, social dysfunction, and severe depression) of antenatal mothers.
2. To assess the differences in the mental health of antenatal mothers in terms of selected demographic variables.

## **Methods**

### **Participants**

To study the mental health status of the antenatal mothers one hundred respondents (50 urban and 50 rural) who were belonging to three different trimesters of their pregnancy and aged 18-30 years were selected purposively from the different hospitals and medical centers in Bangladesh. They were also chosen in terms of their educational qualification level, socio-economic status, and a number of children.

### **Design**

The present study has been conducted by following the cross-sectional survey research design which means data have been collected from the respondents at a single point in time.

### **Measures**

The present investigation was conducted to find out the mental health conditions of antenatal mothers. For data collection, the Bangla version of the Mental Health Condition Scale was employed attached with a personal information form.

#### ***Personal Information Form***

The PIF elicited demographic, personal, educational qualifications, types of residence, number of children, and social status-related information which need to be collected for verification of the finding if desired results are attached before the instrument and developed by the researchers.

#### ***The General Health Questionnaire (GHQ-28)***

The Adapted Bangla version of the general health questionnaire (Bano, 2001) was employed for the present exploration originally developed by Goldberg and Williams in 1988. The short form of the measuring instrument contains 28 items that specifically concern the hinterland between psychological sickness and psychological health. It assesses the psychological disturbances in terms of both a full-scale score and scores on four subscales, reflecting somatic symptoms, anxiety and insomnia, social dysfunction, and severe depression. The highest possible score of GHQ-28 is 84 whereas a score below 39 is considered as not having a significant level of psychiatric disturbance. Moreover, a score of 39 and above is considered as having a significant level of psychiatric disturbance. The highest score of its sub-scale is 21. Score 0 to 6 considered as having low stress, 7 to 13 as moderate stress, and 14 to 21 as severe stress. Each item consists of a question asking whether the respondent has recently experienced a particular symptom or item of behavior on a scale ranging from “less than usual” to “much more than usual” on a scale ranging from “0” to “3”. This measure has been reported to have good psychometric properties (see Table 1).

**Table 1***Number of Items and Internal Consistency of Mental Health Status Sub-scales*

Mental Health Status	Item No & Type	Total Items	Internal Consistency
Mental Health Status	A1-D7	28	.818
i) Reflecting Somatic Symptoms	A1-A7	7	.824
ii) Anxiety and Insomnia	B1-B7	7	.672
iii) Social Dysfunction	C1-C7	7	.647
iv) Severe Depression	D1-D7	7	.560

**Table 2***Univariate Statistics for GHQ-28 Subscales and Constituent Items*

Subscale and Items	Mean	SD
<b><u>Reflecting Somatic Symptoms</u></b>	<b>2.67</b>	<b>.578</b>
2. Have you recently been feeling need of a good tonic?	1.67	.57
3. Have you recently been feeling run down and out of source?	1.36	.45
4. Have you recently been felt you are ill?	1.12	.34
5. Have you recently been getting any pain in your head?	1.46	.51
7. Have you recently been having hot or cold spells?	1.50	.53
<b><u>Anxiety and Insomnia</u></b>	<b>1.12</b>	<b>.35</b>
8. Have you recently lost much sleep over worry?	3.23	.89
9. Have you recently had difficulty in staying asleep once you are off?	1.32	.51
10. Have you recently been felt constantly under strain?	1.54	.52
11. Have you recently been getting edgy and bad tempered?	1.50	.57
3. Have you recently found everything getting top on you?	1.31	.36
14. Have you recently been feeling nervous and strung up all the time?	1.34	.51
<b><u>Social Dysfunction</u></b>	<b>4.42</b>	<b>1.36</b>
16. Have you recently been taking longer over the things you do?	1.40	.54
18. Have you recently been satisfied with the way you've carried out your task?	1.34	.58
20. Have you recently felt capable of making decisions about things?	1.50	.70
<b><u>Depression</u></b>	<b>3.50</b>	<b>1.03</b>
22. Have you recently been thinking of yourself as a worthless person?	1.60	.31
24. Have you recently been felt that life isn't worth living?	1.50	.52
27. Have you recently been found yourself wishing you are dead and away from it all?	1.50	.70
28. Have you recently been found that the idea of taking your own life kept coming into your mind?	1.02	.47

As shown in Table 2, the mean scores of reflecting somatic symptoms 2.67, anxiety and insomnia 1.12, social dysfunction 4.42, severe depression 3.50 respectively.

### Procedure

Participants who identified themselves as pregnant were taken as respondents for the study. Consent from the women was taken and the data was collected with the help of doctors and gynecologists from various hospitals and clinics. Expecting mothers were encouraged to ask any question that came into mind regarding the questionnaire. Upon initial meeting, each participant was informed about the confidentiality regarding information collected from them. There was no time limit for completing the questionnaire but the respondents completed it within 10 to 20 minutes. Many women were hesitant to rate different personal matters. A good rapport was built to get correct responses and some necessary instructions and guidelines were provided to them for properly filling the questionnaire. After completion, they returned the questionnaire and were thanked for their participation and cooperation.

### Statistical analysis

Data were analyzed using the (SPSS) software (version 25.0). Descriptive and inferential statistics including means, standard deviations, *t* test, *F*-test, and Pearson Product moment correlation, point biserial were performed.

### Results

The general rationale for the present study was to assess the mental health condition of expecting mothers. Further, the study continues to find out the differences and association between the mental health status level according to some demographical variables (i.e., age, social status, educational qualification, number of children, types of residence). The obtained results are presented in the following tables.

As shown in Table 3, the mean scores of the different age groups of expecting mothers were 11.80, 11.10 respectively. The table also reveals the mean scores of different groups in terms of socio-economic status of expecting mothers were 16.47, 10.41, and 6.75 and educational qualifications were 15.67, 11.51, and 6.56 respectively. Additionally, the table revealed the mean score of expecting mothers were 12.67, 10.53, and 10.91 respectively in terms of the number of children. Further, the table is also shown the average of expecting mothers were 6.88 and 16.20 respectively according to the type of area (i.e., rural and urban) they live.

**Table 3**

*Mean and SD of Mental Health Scores according to Some Demographical Variables*

<b>Demographic Variables</b>	<b>Mean</b>	<b>Std. deviation</b>	<b>N</b>
<b><u>Age</u></b>	11.54	7.98	100
Adult Age (20-25)	11.80	7.93	62
Middle Age (26-30)	11.10	8.14	38

<b><u>Social status</u></b>	11.54	7.98	100
Lower Class	16.47	7.47	21
Middle Class	10.41	7.78	75
High Class	6.75	2.06	04
<b><u>Educational Qualification</u></b>	11.54	7.98	100
SSC	15.67	8.17	28
HSC	11.51	8.25	49
Graduate	6.56	2.90	23
<b><u>Number of Children</u></b>	11.54	7.98	100
First	12.67	8.31	45
Second	10.53	7.51	43
Third	10.91	8.45	12
<b><u>Types of Residence</u></b>	11.54	7.98	100
Urban	6.88	2.77	50
Rural	16.20	8.75	50

The result presented in Table 4 shows that there are significant differences according to different age levels of antenatal mothers toward mental health conditions ( $t = -3.93$ ,  $p < .002$ ), reflecting somatic symptoms ( $t = -6.73$ ,  $p < .042$ ), and social dysfunction ( $t = -8.59$ ,  $p < .039$ ) respectively. Further, the findings also reveal significant differences among expecting mothers according to various educational qualifications toward mental health conditions ( $F = 2.38$ ,  $p < .041$ ), especially, in anxiety and insomnia ( $F = 1.21$ ,  $p < .03$ ). It has been seen that significant differences were observed according to the socio-economic status of antenatal mothers toward mental health ( $F = 5.19$ ,  $p < .02$ ), reflecting somatic symptoms ( $F = 4.82$ ,  $p < .01$ ), anxiety, and insomnia ( $F = 6.38$ ,  $p < .002$ ), social dysfunction ( $F = 8.63$ ,  $p < .001$ ), and severe depression ( $F = 3.55$ ,  $p < .038$ ) respectively. The table also revealed the significant differences in antenatal mothers' mental health condition ( $F = 2.32$ ,  $p < .003$ ), mainly in their anxiety and insomnia ( $F = 4.54$ ,  $p < .007$ ), social dysfunction ( $F = 7.46$ ,  $p < .003$ ) and severe depression ( $F = 1.82$ ,  $p < .004$ ) according to the number of children. Finally, significant differences were also seen in antenatal mothers' mental health condition ( $t = -3.19$ ,  $p < .002$ ), i. e., reflecting somatic symptoms ( $t = -5.87$ ,  $p < .042$ ), anxiety, and insomnia ( $t = -5.01$ ,  $p < .023$ ) in terms of their residence. Apart from these, in terms of age, education and socio-economic status results also display that mental health condition is better for 26-70 years, graduate and higher class pregnant mothers.

**Table 4**  
*Differences among Categorical Variables*

		<b>Levels of Mental Health Condition</b>				
Demographic Factors	Levels of Mental Health	of Mental Health Condition	Reflecting Somatic Symptoms	Anxiety and Insomnia	Social Dysfunction	Severe Depression
		<b>-3.93<sup>t</sup></b>	<b>-6.73<sup>t</sup></b>	<b>-5.79<sup>t</sup></b>	<b>-8.59<sup>t</sup></b>	<b>-1.60<sup>t</sup></b>
		<b>(.002*)</b>	<b>(.042*)</b>	<b>(.054)</b>	<b>(.039*)</b>	<b>(.85)</b>
Age	20-25	2.04(M)	3.04(M)	3.17(M)	3.80(M)	1.79(M)
		1.05(SD)	2.45(SD)	2.65(SD)	2.61(SD)	2.00(SD)
	26-30	4.2(M)	3.00(M)	2.52(M)	3.94(M)	1.57(M)
		2.10(SD)	2.32(SD)	2.44(SD)	3.24(SD)	1.94(SD)
		<b>2.38<sup>F</sup></b>	<b>.160<sup>F</sup></b>	<b>1.21<sup>F</sup></b>	<b>.327<sup>F</sup></b>	<b>1.06<sup>F</sup></b>
		<b>(.041*)</b>	<b>(.852)</b>	<b>(.03*)</b>	<b>(.722)</b>	<b>(.48)</b>
Educational Qualification	SSC	3.05(M)	3.82(M)	4.14(M)	5.39(M)	2.42(M)
		2.09(SD)	2.69(SD)	3.21(SD)	2.42(SD)	2.04(SD)
	HSC	5.02(M)	3.14(M)	2.81(M)	3.89(M)	1.61(M)
		2.39(SD)	2.48(SD)	2.41(SD)	2.91(SD)	2.15(SD)
	Graduate	2.19(M)	1.82(M)	1.69(M)	1.91(M)	1.04(M)
		0.83(SD)	1.07(SD)	1.06(SD)	.84(SD)	1.02(SD)
		<b>5.19<sup>F</sup></b>	<b>4.82<sup>F</sup></b>	<b>6.38<sup>F</sup></b>	<b>8.63<sup>F</sup></b>	<b>3.55<sup>F</sup></b>
		<b>(.002*)</b>	<b>(.010*)</b>	<b>(.002*)</b>	<b>(.001*)</b>	<b>(.038*)</b>
Socio-Economic Status	Lower class	3.33(M)	3.67(M)	4.42(M)	5.57(M)	2.95(M)
		1.89(SD)	2.63(SD)	2.76(SD)	2.69(SD)	2.01(SD)
	Middle class	2.05(M)	2.88(M)	2.58(M)	3.49(M)	1.40(M)
		1.65(SD)	2.37(SD)	2.44(SD)	2.74(SD)	1.87(SD)
	Higher class	1.47(M)	2.50(M)	1.50(M)	1.75(M)	1.00(M)
		0.92(SD)	.57(SD)	.57(SD)	2.36(SD)	.816(SD)
		<b>2.32<sup>F</sup></b>	<b>5.73<sup>F</sup></b>	<b>4.54<sup>F</sup></b>	<b>7.46<sup>F</sup></b>	<b>.182<sup>F</sup></b>
		<b>(.003*)</b>	<b>(.377)</b>	<b>(.007*)</b>	<b>(.003*)</b>	<b>(.004*)</b>
Number of Children	First Child	4.38(M)	3.17(M)	3.34(M)	3.95(M)	2.23(M)
		2.12(SD)	2.56(SD)	2.73(SD)	2.69(SD)	2.21(SD)
	Second child	2.85(M)	2.93(M)	2.72(M)	3.62(M)	1.20(M)
		1.04(SD)	2.24(SD)	2.48(SD)	3.01(SD)	1.62(SD)
	Third child	1.49 (M)	2.83(M)	2.16(M)	4.34(M)	1.58(M)
		.56(SD)	2.44(SD)	2.28(SD)	3.02(SD)	1.78(SD)

		<b>-3.19<sub>t</sub></b> <b>(.002*)</b>	<b>-5.87<sub>t</sub></b> <b>(.042*)</b>	<b>-5.01<sub>t</sub></b> <b>(.023*)</b>	<b>-7.34<sub>t</sub></b> <b>(.812)</b>	<b>-.94<sub>t</sub></b> <b>(.605)</b>
Types of Residence	Rural	1.89(M) 1.01(SD)	3.80(M) 3.00(SD)	4.14(M) 3.06(SD)	5.75(M) 2.79(SD)	2.56(M) 2.37(SD)
	Urban	3.47(M) 1.58(SD)	2.26(M) 1.17(SD)	1.72(M) 1.05(SD)	1.96(M) 1.14(SD)	.86(M) .85(SD)

Note. \*  $p < .05$ .

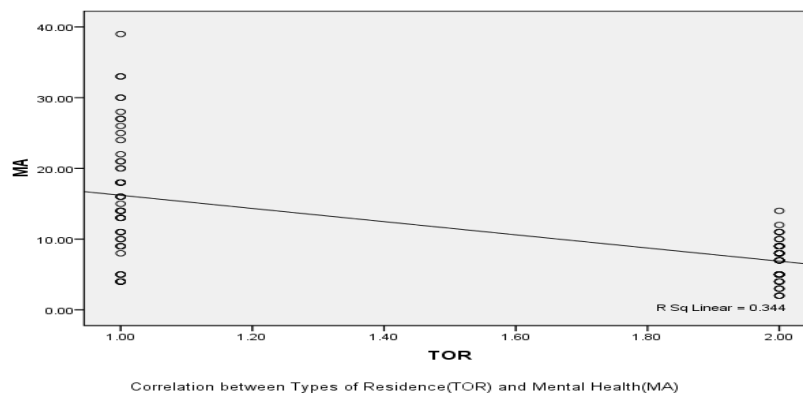
The result presented in Table 5 indicates all the mental health constructs are negatively related to selected demographic variables. A higher score of mental health is associated with. Here, negative significant correlation is identified between reflecting somatic symptoms, educational qualification ( $r = -.293, p < .01$ ), and types of residence ( $r = -.323, p < .01$ ). However, similar relations are observed between educational qualification ( $r = -.341, p < .01$ ), socio-economic status ( $r = -.308, p < .01$ ), and types of residence ( $r = -.471, p < .01$ ) with anxiety and insomnia. Moreover, social dysfunction of antenatal mothers is significantly and negatively associated to educational qualification ( $r = -.433, p < .01$ ), socio-economic status ( $r = -.332, p < .01$ ) and types of residence ( $r = -.668, p < .01$ ). However, the findings also revealed the significant negative correlation between severe depression and educational qualification ( $r = -.254, p < .01$ ), socio-economic status ( $r = -.314, p < .01$ ) and types of residence ( $r = -.433, p < .01$ ). Further, the table represents the negative significant correlation between educational qualification ( $r = -.407, p < .01$ ), socio-economic status ( $r = -.329, p < .01$ ), and types of residence (by applying point biserial correlation in the figure) ( $r = -.587, p < .01$ ) with the overall mental health status of antenatal mothers.

**Table 5**

*Correlations between Different Aspects of Personal and Demographic Information and Different Mental Health Character (N = 100)*

Variables	Age	Educational Qualification	Socio-Economic Status	Number of Children	Types of Residence
i) Reflecting Somatic Symptoms	-.010	-.293**	-.138	-.056	-.323**
ii) Anxiety and Insomnia	-.123	-.341**	-.308**	-.156	-.471**
iii) Social Dysfunction	-.024	-.433**	-.332**	.007	-.668**
iv) Severe Depression	-.052	-.254*	-.314**	-.023	-.433**
Mental Health	-.043	-.407**	-.329**	-.108	-.587**

Note. \* $p < .05$ ; Note. \*\* $p < .01$ .



### Discussion

To discover the association between mental health conditions (i.e. reflecting somatic symptoms, anxiety and insomnia, social dysfunction and severe depression) and some selected demographic variables (i.e. age, social status, educational qualification, number of children, types of residence) of antenatal mothers were the aims of this study. In this respect, two objectives were framed. According to the stated first objective, the result in Table 4 displayed that notable differences were observed in mental health conditions, e.g. reflecting somatic symptoms, and social dysfunction of antenatal mothers according to different age levels. Overall, it is seen that lower-aged mothers have less mental health problems than higher-aged pregnant mothers. Further, in the light of various education levels, significant differences were identified among antenatal mothers in mental health conditions, especially, anxiety and insomnia. Moreover, mentionable discrepancies have also been seen according to socio-economic status of antenatal mothers in mental health including reflecting somatic symptoms, anxiety and insomnia, social dysfunction, and severe depression respectively. The table also exposed the significant variances on antenatal mothers' mental health status, particularly, in anxiety and insomnia, social dysfunction, and severe depression according to number of children.

Finally, the outcome further indicates significant differences also were found in terms of types of residence of upcoming mothers' mental health status, including somatic symptoms, and anxiety and insomnia. The findings supported the first hypothesis partially. These findings were consistent with previous findings (Rezaee & Framarz, 2014; Hein et al., 2014). It can be explained that, since educated mothers have more knowledge, and capacity to adopt with their vulnerable situations by seeking help from different sources than less-educated mothers. Therefore, it is quite natural to find the good mental health condition of more educated mothers than less educated. Moreover, socio-economic status also a vital issue for mothers during pregnancy because economical support can provide security to maintain their needs. That's why mothers of higher economic level have shown sound mental health. However, according to the number of children, it is evident that pregnant mothers who have more than two children their mental health status was almost well than having the first or second children mothers. Although this finding was not significant it can be stated that new mothers are more concerned and excited about their upcoming child than experienced mothers

therefore having more children antenatal mothers are comparatively good in their mental health condition. Unfortunately, no previous finding was observed regarding this variable among antenatal mothers that's why the consistency with earlier results was not found.

Further according to the second objective the findings reported in Table 5 reflected that a significant negative correlation was observed between educational qualification, socio-economic status, and types of residence with mental health conditions. However, similar findings were observed between educational qualifications and mental health constructs, i.e. reflecting somatic symptoms, anxiety and insomnia, social dysfunction, and severe depression. Further, the findings also revealed the significant negative correlation between socio-economic status and mental health particularly, with anxiety and insomnia, social dysfunction, and severe depression. Additionally, notable links were found in reflecting somatic symptoms, anxiety and insomnia, social dysfunction, and severe depression with urban and rural antenatal mothers. So, it can be said that the findings partially supported the objective and earlier findings (Schetter & Tanner, 2012; Johnson et al., 2018). It is natural to find the negative connection of pregnant mothers' mental health conditions with various demographic factors because these factors, for instance, types of residence, social status, and educational qualifications are significantly influenced them to perceive their pregnancy journey.

There were certain limitations of this study. One of the prime limitations was the inability to measure all the aspects of mental health problems, particularly not directly using the antenatal mental health-related measurement. Moreover, cross-sectional study design issues related to causality could not be assessed. Finally, data were not collected from a particular trimester of pregnancy so it can be a barrier to explore the accurate scenario of mental health conditions from the mothers which vary in terms of all three trimesters. So, by considering these significant issues further researchers can conduct more advanced studies by covering the additional factors related to upcoming mothers' mental health. Additionally, the literature regarding the number of children of antenatal mothers is almost rare hence it was difficult to find the support of this result in this study.

However, this study recommends that the findings of this research may contribute to developing insight about the significance of mental health of pregnant mothers besides their physical status to all stakeholders include doctors, nurses, tangibles, and also the antenatal mothers. Moreover, it can be noted that to ensure the proper safety for both mother and child, mental health services can be integrated into physical care and other services.

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## **Fear of Death among General People and Psychiatric Patients**

**Farjana Ahmed<sup>1</sup> and Kazi Farhan Mohib<sup>2</sup>**

### **Abstract**

The present study aimed at comparing fear of death of general people with psychiatric patients. The objectives of the study were to investigate the fear of death among the general people and psychiatric patients. The sample comprised of randomly selected 150 respondents (50 were psychiatric patients and 100 were general people) from different hospitals and areas of the Dhaka City. The respondents were classified into 3 groups according to their age (18 years to 40 years, 41 years to 60 years and above 61 years). The Attitude toward Death Scale was used to measure fear of death of the respondents. Obtained data were analyzed by using one way analysis of variance and *t*-test. The findings revealed that there were significant differences ( $t = 3.08, p < .05$ ) in fear of death general people in comparison to psychiatric patients ( $M = 116.93$  for psychiatric patients, and  $M = 106.83$  for general people) and also according to age ( $F = 9.70, df = 2, 97, p < .01$ ).

*Keywords:* death, death anxiety, fear

### **Introduction**

Death is an inescapable part of human existence, as it is for all living creatures. Humans are unable to distinguish between distinct aspects of death. All physiological effects that keep a living creature alive stop working when it dies. The Oxford Advanced Learner's Dictionary (2012) defines death as "the end of life or the state of being dead." However, death is a procedure rather than an occurrence. According to Amenta (1984), death education for health and social professionals has been recognized in the applied sector.

Actually, emotions have a significant role in our lives. Fear is an instinctive reaction to imminent danger that is present in all animals and humans. Specific areas of the brain are active when a person feels scared, according to scientific definitions of fear. The amygdala and hypothalamus, for example, are engaged very instantly and appear to govern the first bodily reaction to fear. Fear has three major components that do not necessarily correspond to one another. The subjective sense of apprehension, together with psycho-physiological alterations and effort to prevent or exit from frightening circumstances, are defined as these components of dread (Rachman, 1990).

In the literature, the terms "fear of death" and "death anxiety" are used interchangeably, however it may be helpful to consider of dread of death as more particular and explicit, whereas death

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anxiety is more generic and sometimes inaccessible to consciousness. It's critical to be wary about adopting the amount of conscious fear of death at face value, as Feifel and Branscomb (1973) point out. Fear of death is generally considered to be universal, according to Becker (1973), and its absence indicates a denial of death. Several research have focused at the prevalence and intensity of death anxiety in people with a variety of psychological problems, including anxiety and somatic symptoms disorders (Arndt et al., 2005; Furer & Walker, 2008).

Death anxiety, according to Yalom (2008), has the potential to cause significant impact on the human subconscious. Death anxiety is a significant issue, both theoretically and clinically, according to Yalom's (1980) existential perspective research conducted on clinical and non-clinical populations. Death anxiety appears to be a basic dread underpinning a variety of mental illnesses, including idiopathic intracranial hypertension, anxiety disorders, behavioral issues, melancholy, and eating problems (Furer & Walker, 2008; Greenberg, 2012).

According to Durlak (1972), individuals who have a sense of meaning and purpose in their life are less afraid of mortality and have more positive and tolerant attitudes about dying. Humans, according to Butler (1975), are more terrified of a pointless existence than death. People who regard their life as satisfying and important may be less afraid of mortality and more accepting of dying.

According to life span psychologists, various age groups have diverse views regarding mortality, probably due to their different proximity and exposure to death. Previous study has mostly examined the connection between age and death phobia. Most of the research revealed that older individuals have been less afraid of death. According to Erikson (1963), accepting one's former history and the fact of death is a key developmental problem in late adulthood.

Since death is inevitable, fear of death and some degree is expected. However, individuals may face some problems if the fear level is high, especially mental problems in everyday living. At this point, they need help to cope with this situation. On the other hand, fear of death has some positive effects also. For example, when there is fear about death, it is expected that people will try to avoid some wrongdoings, and thus, the society will get free from some negative things like evils, corruption, etc. So, it is expected that the present study will give us a picture of how people see this matter, think about it, and help us identify those people who have extreme fear about it, which disrupts their lives.

Most of the evidence suggests that mental patients have a strong inclination to express more death anxiety, especially concerning their own death, according to Dattel and Neimeyer (1990). Most data shows that dread of death is higher in younger age groups and reduces as one becomes older (Neimeyer & Van Brunt, 1995; Thorson & Powell, 2000).

There has been a significant amount of psychological study on death phobia throughout the years. There is also anxiety produced by death, which a psychiatrist may characterize as morbid and abnormal in a therapeutic context. Death anxiety can lead to great apprehension when it comes to addressing topics related to death.

However, the clinical elements of this issue have rarely been studied. Especially clinicians, this study focuses on a practical method to assessing and treating death fear. Furthermore, describe instances in which it is appropriate to assess death anxiety and give questions to delicately approach this issue. Death phobia is a common symptom of health anxiety, and it may also play a significant role in other mental illnesses. Although there hasn't been much research on the treatment of death phobia, there has been a lot of research into anxiety disorders in general. Furthermore, health anxiety has assisted in the development of efficient techniques for treating death phobia.

### **Objectives of the study–**

The objectives of the study were

1. To investigate the fear of death among the general people and psychiatric patients.
2. To investigate the fear of death among people of different age groups.

## **Methods**

### **Participants**

The sample comprised 150 respondents (50 were psychiatric patients and 100 were general people) from different hospitals and areas of the Dhaka City. The psychiatric patients were selected from Dhaka Mitford hospital and the National Institute of Mental Health and Hospital (NIMH) and general people are selected from the different areas of the Dhaka City. The age ranges of the participants were 18 years to 65 years of age. The respondents were classified into 3 groups according to their age (18 years to 40 years, 41 years to 60 years and above 60 years).

### **Measures**

The following instruments were used to collect data of the present study:

#### ***Demographic and Personal Information Form***

This form was used to collect personal and demographic information such as age, gender, socio-economic status, occupation, and educational qualification.

#### ***Attitude toward Death (ATD) Scale***

This scale was developed by Sarkar and Mahmuda (2009). There were 39 items in ATD. Individuals respond to ATD items on a four-point scale ranging from "*strongly agree*" (4) to "*strongly disagree*" (1). Though the name of the scale is Attitude Toward Death (ATD), it measures the fear of a person's death.

The split-half reliability was computed by applying the Spearman-Brown Prophecy formula. The split-half reliability score of this scale was .97, which was significant at  $\alpha = 0.05$ . Chronbach's alpha was computed as a measure of this scale's reliability, which was .96, and it was highly significant. The ATD was developed based on face validity. The face validity scale was checked by 8 judges selected from the Department of Psychology, Sociology, Sanskrit, and Islamic History of the University of Dhaka.

This scale's total score for any individual was obtained by summing up the total scores on 39 items. The maximum possible score for this scale is 156, and the minimum possible score is 39, and the midpoint is 78. A high score indicates a strong fear of death, and a low score indicates a low fear of death.

### Procedure

At first, rapport was established through conversation with 150 respondents (100 general people and 50 psychiatric patients). Then data were collected individually from the respondents. Along with the written instructions within the questionnaires, the participants were given verbal instructions to make sure they understood the tasks. The participants were requested to indicate their actual feelings and thoughts regarding death through each question. Participants were assured that their information would be kept completely confidential and used only for research purposes. Each respondent took about twenty minutes to fill up the questionnaires. After the completion of the task, the participants were thanked for their cooperation.

### Results

The obtained data were analyzed by using *t*-test and one-way analysis of variance. Table 1 indicates that mean difference in fear of death between general people and psychiatric patients were significant ( $t = 3.08$ ) at .05 level. The mean score obtained by the psychiatric patients ( $M = 116.93$ ) was higher than the mean score obtained by the general people ( $M = 106.83$ ). This indicates that the psychiatric patients were more afraid of death.

**Table 1**

*Mean, SD and t-value of Fear of Death of the General People and Psychiatric Patients*

Attitude towards Death	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>
General People	100	106.83	22.01	148	3.08*
Psychiatric Patients	50	116.93	21.93		

*Note.* \* $p < .05$ .

Table 2 shows that mean score of fear of death 18-40 years age group was 121.82, 41 to 60 years age group was 107.67, and above 60 years age group was 106.17 respectively.

**Table 2**

*Mean and SD of Fear of Death According to Different Age Level*

Age (Years)	<i>N</i>	Mean	<i>SD</i>
18-40	60	121.82	24.69
41-60	50	107.67	20.64
60-Up	40	106.17	18.65

Table 3 shows that the difference in fear of death according to different level of age was significant ( $F = 8.06$ ,  $df = (2, 147)$ ,  $p < .01$ ). This finding indicates that younger people were more afraid of death than older people.

**Table 3**

*Analysis of Variance of Fear of Death in Different Level of Age*

Source of variation	SS	df	MS	F
Age	8947.90	2	4473.95	
Error	81612.65	147	555.19	8.06*
Total	90,560.55	149		

Note. \* $p < .01$ .

### Discussion

The present study's objectives were to investigate the fear of death among the general people and psychiatric patients and investigate the fear of death among the people of different age groups. The present study's findings show that the fear of death among the people varies significantly according to age (Table 2). Older adults were found to be less fearful than early and middle-aged adults. The fear of death among the people gradually decreases with the increase in age level. The findings are consistent with the findings of other researchers (Feifel & Brancomb, 1973). As people get older, their fear of death decreases, while their acceptance of death increases. Accepting one's previous life and the truth of death, according to Erikson (1963), is a significant developmental difficulty in old age. As a result, senior citizens are more tolerant of death.

The present study's findings also indicate that psychiatric patients expressed significantly more fear of death than the normal person (Table 3). The finding is consistent with those of others (Arndt et al., 2005, Furer & Walker, 2008). There are several explanations for this finding. First, the greater death fear reported by psychiatric patients might be due to their tendency to disclose their fears and anxiety. Dattel and Neimeyer (1990) conclude that the weight of evidence suggests that psychiatric patients do have a higher tendency to report more death fear, especially about their own death. The second reason is that psychiatric patients are more conservative and always retain their own feelings values. They fear death to think about the situation after death, which is described painfully in different ways. As a result, when they face any uncertain or unwanted events, they cannot complete the situation because of higher death anxiety. Thirdly, psychiatric patients are more dependent on their other counterparts. This feeling of dependency creates a feeling of uncertainty and anxiety among psychiatric patients and may create death anxiety, which itself is traumatic.

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## Relationship between Political Participation, Self-esteem, and Academic Achievement

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### Abstract

Recently, political participation has become one of the burning issues in the context of student politics of Bangladesh, but few investigations have been conducted in this regard. Therefore, the aim of the present study was first to develop a political participation questionnaire and then to investigate whether there was any relationship between political participation, self-esteem, and academic achievement. The first step of this study (Part 1) involved developing a political participation questionnaire based on literature in the context of Bangladesh. Then a panel consisting of experts reviewed the initial pool of political participation items. After revising (following the experts' suggestions) and pilot testing, a 12 items political participation questionnaire was developed. This questionnaire was administered on 70 university students, who were politically involved. Based on the item analysis result, two items were excluded because of the negative item-to-total correlation. Finally, we developed a final political participation questionnaire of 10 items. The preliminary evidence of the questionnaire in terms of internal consistency (reliability) and content validity was satisfactory. The results further (Part 2) showed that self-esteem was significant predictor of political participation, whereas no relationship was found between political participation and academic achievement. However, further studies with large sample size are needed to test the generalizability of the results.

*Keywords:* political participation, self-esteem, academic achievement, internal consistency

### Introduction

Political participation signifies voluntary activities, which are exercised by the group of people in order to control public policy through directly or by influencing the policymakers. Such kind of voluntary activities includes voting power in elections, working for a political campaign, preserving and upholding the right, and protesting. A cluster of these activities represents the modes of participation. Usually wealthier and educated people participate at higher rates in political activities than the less advantaged people (Quintelier & Hooghe, 2012), although this rate might vary across countries.

Politics is typically related to the activities of the state (Laski, 1931). Moreover, to conduct political activity, even in student politics at least two people are required. According to Giddens and Sutton

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(2017), student politics is defined as when students untidily play a chief role in politics through united power to affect the scope and governmental activities. Moreover, student politics is a way of socialization by which students can uphold their rights, perform duties for the state, and raise voices against the unfairness decisions by the authority as well as the government. However, based on the nature and structure of the country, different types of student politics exist.

Student politics is not a new phenomenon in the history of Bangladesh politics. Students played an important role in the anti-British movements under the British regime, the language movement of 1952, the six-point movement of 1966, the mass upsurge of 1969, and the liberation war of 1971 under the Pakistan regime. However, the glorious history and the present scenario of student politics in Bangladesh cannot be placed within one frame. After getting independence (especially after 1990), student politics of Bangladesh have become the political weapons of the mainstream political parties rather than student orientated. Most importantly, the standard of quality education moves back and forth due to nasty student politics, which is supported by mainstream politics (Kuttig et al., 2020).

In this regard, Nasrin and Rahman (2019) stated that student activists were more aggressively involved in social, institutional, and administrative violence, compared to general students. Therefore, the fact is that their academic performance may not be very satisfactory, especially in a developing country like Bangladesh. Rather, the scenario should be other way around, as prior works demonstrate that higher education fosters political engagement (e.g., Putnam, 2000). Academically sound people can easily uphold the civics responsibility through active participation in politics.

Nevertheless, Bangladeshi politics is dominated by a 'winner takes all' mentality. As a consequence, after every national election, it is very common scenario that the initial task of the ruling party's student wing is to confine all the educational institutions and its residential halls, and drive out the supporters of the opposing party from the halls instantly (Kuttig et al., 2020). Thus politics demonstrate power, which is used to affect the scope and control of governmental activities (Giddens & Sutton, 2017). In doing such kind of activities, people who involve in politics generally show increased confidence level and risk-taking ability, thereby leading to high self-esteem. In this regard, Salem (2015) demonstrated that political participation and self-esteem were interrelated. Moreover, self-esteem significantly contributes to the political attitudes of those people who perceive politics as a salient aspect of their life-space (Carmines, 1978). Also, self-esteem can predict the academic achievement of students (Aryana, 2010; Nelson & Mathia, 1995).

However, very few investigations have been conducted to examine the effect of political participation on self-esteem and academic achievement. Therefore, it is the very right time to first develop a political participation questionnaire to assess the students' involvement in politics, and then examine the relationship between political participation, self-esteem, and academic achievement. The findings of the present study may be helpful to the university authority, political persons, and policymakers to understand the nature of the relationship between political participation, self-esteem, and academic achievement. Apart from this, it will add new knowledge to existing literature relevant to political participation. In sum, the present study intended to: (1)

develop a measure of political participation; (2) investigate whether there was any relationship between political participation, academic achievement, and self-esteem.

## Methods

### Participants

A total of 70 students, who were involved in the politics of Jagannath University voluntarily, participated in this study. The male students were 64 and the rest of them were female. The mean age of the participants was 23.09 years ( $SD = 3.86$ ). On average the experience of their political participation was 5 years.

### Measures

#### *Political Participation Questionnaire*

A political participation questionnaire was developed for this study.

#### *Step 1: Developing a questionnaire*

The questionnaire was developed on the basis of a comprehensive review of the theoretical and empirical literature on political participation at the local and international levels.

#### *Step 2: Taking expert opinion*

After developing preliminary items, we requested experts in politics (a professor of psychology, and the president and secretary of the Bangladesh Student League of Jagannath University) to evaluate the items. They were asked to judge whether the items were socially, culturally, and legally relevant in Bangladesh context. Suggestions received from them were integrated into the revised version of the questionnaire.

#### *Step 3: Preparing the final draft and Pilot testing*

We finalized 12 items for this questionnaire. For example – “Have you ever worked for any political group?” The possible response option for each item are ‘always (3)’, ‘sometimes (2)’, and ‘never (1)’. All of the items are positive except item no. 4, which is reverse scored. The positive items are scored ranging from 3 to 1. High score indicates high political participation. Finally, we collected data from the 30 students, who were generally involved in student politics. We only calculated the reliability estimates (internal consistency) of the twelve items and found Chronbach’s alpha value of .57, which is acceptable.

#### *Self-esteem Scale*

The Rosenberg Self-Esteem Scale (Rosenberg, 1965) adapted in Bangla by Ilyas (2003) was used in this study. The scale comprises 10 items of which 6 items (item no. 1, 2, 4, 6, 7, 8) measure positive feelings and 4 items (no. 3, 5, 9, 10) measure negative feelings about the self. Each item has four response alternatives such as ‘strongly agree’, ‘agree’, ‘disagree’, and ‘strongly disagree’. The positive items are scored ranging from 4 (*strongly agree*) to 1 (*strongly disagree*) and the negative items are scored in a reversed order. The total score ranges from 10 to 40, with a higher score representing higher self-esteem. The original scale has satisfactory criterion and convergent validity. The test-retest reliability is typically in the range of .82 to .88,

and internal consistency (Cronbach's alpha) for various samples was in the range of .77 to .88 (Blascovich & Tomaka, 1991). The translation reliability (correlation with the English version) and internal consistency of the Bangla version of the self-esteem scale have been reported to be .87 and .87 respectively (Ilyas, 2003).

### ***Academic Achievement***

Academic achievement was assessed with semester final grades (CGPA) obtained at university. Semester final grades of the last two semesters were aggregated and averaged.

## **Results**

The results of this study are presented in two parts: 1) developing a political participation questionnaire; 2) investigating the relationship between political participation, self-esteem, and academic achievement.

### **Part 1: Developing a political participation questionnaire**

#### ***Item Analysis***

We computed corrected item-to-total correlations for the 12 items to see how individual items went with the total political participation score. The corrected item-total correlation values of 12 items ranged from  $r = -.04$  (item no. 10) to  $r = .49$  (item no. 8). After deleting item no. 7 and 10 (because of the negative value), we again computed this analysis and found that the deletion of any other item was not likely to improve the reliability of the scale (see Table 1).

**Table 1**

*Corrected Item-Total Correlation*

Item	Scale mean if item deleted	Scale variance if item deleted	Corrected item-total correlation	Cronbach's alpha if item deleted
Item1	25.03	8.84	.29	.54
Item2	25.51	8.11	.36	.52
Item3	25.09	7.96	.44	.50
Item4	25.60	9.03	.15	.57
Item5	25.59	8.30	.33	.53
Item6	25.14	7.98	.47	.50
Item7	25.97	9.91	-.10	.63
Item 8	25.19	7.835	.49	.49
Item 9	25.43	8.57	.27	.54
Item10	26.03	9.59	-.04	.612
Item 11	25.17	9.07	.17	.56
Item 12	25.27	8.93	.16	.55

**Reliability: Internal Consistency**

For understating the internal consistency of the 10 items, the Cronbach's alpha coefficient was computed and found to be acceptable ( $\alpha = .68$ ).

**Content Validity**

The experts were involved to assess whether the content of each political participation item reflected Bangladeshi context. They gave their essential remarks, and suggested that the items were in accordance with the concept of political involvement.

**Part 2: Correlating political participation with self-esteem and academic achievement**

The result (Table 2) indicated that political participation did not correlate with academic achievement. Result also revealed that political participation was positively correlated with self-esteem ( $r = .56$ ,  $p < .001$ ). This indicates that political participation and self-esteem shared 31% ( $r^2 = .56^2$ ) of variance.

**Table 2***Correlation Matrix between Political Participation, Self-esteem, and Academic Achievement*

Variables	Political Participation	Self-esteem	Academic Achievement
Political Participation	–		
Self-esteem	.56**	–	
Academic Achievement	-.01	.14	–

Note. \*\* $p < .001$ .

The results of the regression analysis (Table 3) showed that self-esteem was proved as a significant predictor of political participation ( $\beta = 0.56$ ), which accounted for roughly 30% of variance in political participation. However, academic achievement did not show any predictive power to explain the criterion variable.

**Table 3***Regression Analyses for Predicting Political Participation*

Predictor	Unstandardized Coefficient		Standardized Coefficient $\beta$	$t$
	$B$	$SE$		
Constant	13.06	3.64		4.22**
Self-esteem	0.46	0.08	0.57	5.57**
Academic Achievement	-0.93	0.97	-0.09	-0.96

Note. Adjusted  $R^2 = .30$ ,  $F(2, 67) = 15.92$ ,  $p < .001$ ;  $SE = Standard Error$ ; \*\* $p < .001$ .

### Discussion

The present study was designed to develop a political participation questionnaire and examine its psychometric properties, as well as to investigate whether there was any correlation between political participation, self-esteem, and academic achievement. To the best of our knowledge, this is the first study to develop a questionnaire like students political participation in Bangladesh. Results indicate that this questionnaire has satisfactory properties for utility as a screening tool, because it can assess the extent to which university students are politically involved.

The internal consistency of the questionnaire was relatively low (Cronbach's alpha of .68). The Cronbach's alpha value of .70 or above is considered as acceptable and the values ranging from .60 to .69 are marginally acceptable. Results further indicated that self esteem accounted for 30% variance in political participation ( $r = .56, p < .001$ ), which is consistent with Salem (2015). Political participation is likely to increase sense of self-esteem, because of an increased base of knowledge and feeling of competence (Weitz-Shapiro & Winters, 2008). However, academic achievements did not show any significant contribution to political participation. The present study was conducted with the students, who had strong participation in politics, and the average academic achievement of them was Grade point 3.5 (out of 4). It seems that participants of this study might not take the negative influence of politics. Rather, the finding reflects how education contributes to increase political knowledge, civic engagement as well as political involvement (Hillygus, 2005).

One of the most important limitations was the small sample size ( $N = 70$ ), which might limit the generalizability of the findings. Secondly, additional validation of factor solution of political participation questionnaire is obviously needed. Finally, other issues, such as parental political involvement, socio-economic status might also play role in this context. Future researchers may consider these issues.

### Conclusion

The present study is an initial step toward providing a standardized method for assessing political participation in the Bangla-speaking population. This present tool is a simple and applicable questionnaire, which was developed with appropriate psychometric properties. Although further studies are needed to test the generalizability of the results, this study may contribute in furthering the understanding of the nature of the relationship between political participation, self esteem, and academic achievement.

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### রাজনৈতিক অংশগ্রহণমূলক প্রশ্নাবলী

#### নির্দেশনা:

বিবৃতিগুলো মনোযোগ সহকারে পড়ুন। প্রতিটি বিবৃতির প্রতি আপনার অনুভূতির মাত্রা নির্দেশ করার জন্য তিনটি সম্ভাব্য উত্তর দেওয়া আছে। প্রতিটি বিবৃতির ক্ষেত্রে যে উত্তরটি আপনার মতামতকে সবচেয়ে ভালভাবে বর্ণনা করে সেটিতে (✓) চিহ্ন দিন।

১. আপনি কি কখনো রাজনৈতিক প্রার্থী বা রাজনৈতিক দলের হয়ে কাজ করেছেন ?
 

ক) সব সময়	খ) মাঝে মাঝে	গ) কখনোই না
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২. আপনি কি কখনো এমন কোনো বিক্ষোভ বা সমাবেশে অংশগ্রহণ করেছেন, যার উদ্দেশ্য স্থানীয় বা জাতীয় রাজনৈতিক নীতিকে প্রভাবিত করা ?
 

ক) সব সময়	খ) মাঝে মাঝে	গ) কখনোই না
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৩. আপনি কি বর্তমানে বা পূর্বে কোন দলের সক্রিয় সদস্য আছেন/ছিলেন ?
 

ক) সব সময়	খ) মাঝে মাঝে	গ) কখনোই না
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৪. আপনি কি বিভিন্ন ম্যাগাজিন এবং সংবাদপত্রের নেতিবাচক ঘটনাগুলো পড়ে রাজনৈতিক কার্যকলাপকে ঘৃণ্য মনে করেন ?  
ক) সব সময়                      খ) মাঝে মাঝে                      গ) কখনোই না
৫. আপনি কি কখনো কোনো রাজনৈতিক প্রতীক পরিধান করেছেন?  
ক) সব সময়                      খ) মাঝে মাঝে                      গ) কখনোই না
৬. আপনি কি কখনো এমন একটি দলকে প্রতিনিধিত্ব করেছেন, যার উদ্দেশ্য ছিল সামাজিক পরিবর্তন ?  
ক) সব সময়                      খ) মাঝে মাঝে                      গ) কখনোই না
৭. নতুন কাউকে আপনার রাজনৈতিক দলে যোগদানের জন্য আপনি কি কোন অনুপ্রেরণা দিয়ে থাকেন ?  
ক) সব সময়                      খ) মাঝে মাঝে                      গ) কখনোই না
৮. আপনার রাজনৈতিক দল কি সব সময় সঠিক সিদ্ধান্ত নিতে পারে বলে আপনি মনে করেন ?  
ক) সব সময়                      খ) মাঝে মাঝে                      গ) কখনোই না
৯. আপনার দলের যৌক্তিক সমালোচনা আপনি ইতিবাচক ভাবে গ্রহণ করেন কি ?  
ক) সব সময়                      খ) মাঝে মাঝে                      গ) কখনোই না
১০. অন্য কোন রাজনৈতিক দলের সমালোচনা যদি মানুষের জন্য কল্যাণকর হয় তবে আপনি কি সেটা মেনে নিতে প্রস্তুত থাকেন ?  
ক) সব সময়                      খ) মাঝে মাঝে                      গ) কখনোই না

# **Association between Workplace Incivility and Psychological Distress: Mediating Role of Work-Family Conflict**

**Md. Miraj Hossen<sup>1</sup>**

## **Abstract**

Workplace incivility is one of the burning issues in the current business world which creates many more problems and impacts on employees' performance both in family and work lives. The present study aims to examine the affiliation of workplace incivility and psychological distress with considering the mediating role of work-family conflict (WFC). The study covered a total of 416 sample employees from different organizations in Bangladesh and data were collected using a well-structured questionnaire over three-month period. The linear structural equation modeling (SEM) technique was used to analyze the survey data and investigate the relationships between the above-mentioned variables. The research result evident that workplace incivility from supervisor and the coworkers has significant and negative impacts on work-family conflict; and psychological distress. In addition, the study also found that employees' psychological distress is positively associated with work-family conflict (WFC); and the effects is also significant. The study concludes the review with mentioning some directions for the future researchers with managerial implications.

*Keywords:* workplace incivility, work-family conflict, psychological distress

## **Introduction**

Generally speaking, workplace incivility, work-life conflict, and psychological distress are the most common and interrelated terms in the contemporary world. Many former researchers have found the association between these terms and argued that inadequate workplace support creates employees' work-family conflict (WFC) which leads them to psychological distress (Mian, Rodger, & David, 2012; Wang, Bi-Wen, & Shou-Tsung, 2017). Besides, Carlson, Grzywacz, and Zivnuska (2009) considered work-family conflicts is one of the most critical sources of mental strain and psychological distress. In addition, Abubakar (2018) argued that 'work-family conflict, workplace incivility, and psychological distress are positively associated which directly hits employee job satisfaction, organizational commitment, and turnover intention'. Some other researchers argued that when individuals are occupying various roles, surely they will face inter-role conflicts (Boyar, Maertz Jr, & Pearson, 2005); and this conflict rise up when employees give more emphasizes to achieve the target of works and neglecting the family affairs and vice-versa (Cole, 2004).

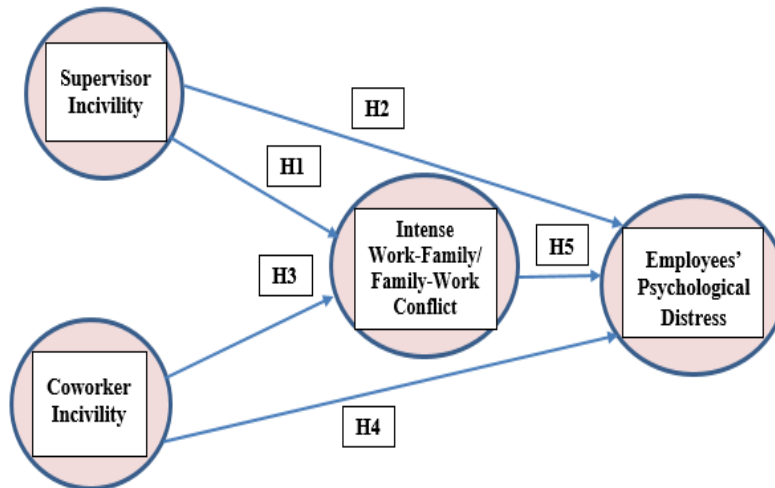
Greenhaus, Collins, and Shaw (2003) argued that the individuals who have balanced life; they are mentally and psychologically healthier; whereas poor organizational support leads to employees

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poor health and poor performance. So, it is important to ensure good workplace arrangement, courteous behavior from supervisor and coworkers which can lessen psychological distress and improve employees' productivity in both work and family domains. Though some research related with work-life balance (WLB) already have conducted in developed countries (Allen & Finkelstein, 2014); still it is one of the neglected issues in the least developed countries or even in developing countries in the field of work-life research and psychological distress (Pattusamy & Jacob, 2016). However, there is a research gap in the field of workplace incivility and its association with work-psychological distress which motivates the researcher to conduct the present study.

Considering the importance of organizational social support (workplace civility) and employee wellbeing; the present research's aim is to investigate the association among the workplace incivility, work-family conflict, and psychological distress. The study is based on two research questions: (a) how does workplace incivility create work-family conflict and employees' psychological distress; and (b) what is the impact of work-family conflict on employees' psychological distress. To investigate the relationships among the considered variables, the researcher have developed the following research model and hypotheses accordingly.



**Figure 1.** Posited model of workplace incivility and psychological distress

## Literature review and hypotheses development

### *Psychological distress*

Psychological distress is a state of emotional suffering associated with stressors and demands that are difficult to cope within the daily life because it creates some mental and physical disorder situation such as depressive disorder, anxiety disorder, schizophrenia, somatization disorder, or a variety of other clinical condition (onlinelibrary.wiley.com). Employees' experience psychological distress when the organization have intense workload and lower level of support

from colleagues (Burke & Fiksenbaum, 2016). Traditional workplace hierarchy as well as poor interactions among colleagues, lack of mutual respects, poor labor-management relations (Haines et al., 2006), workplace incivility (Geldart et al., 2018) may also create psychological distress and depression. Employees' psychological distress has direct impacts on employees job satisfaction (Chen, Chen, Tsai, & Lo, 2007), physical and mental health (Burke & Fiksenbaum, 2016), productivity and performance (Bakker & Demerouti, 2014) in both work and family domains. Many former studies evident that workplace incivility is one of the predecessor of employees' job stress, depression, anxiety, and burnout (Burke & Fiksenbaum, 2016).

### ***Workplace incivility***

Workplace incivility is defined as showing ill-mannered, rude or discourteous actions by the supervisor or coworkers in the job place (Abubakar, 2018). Incivility is very much common in each and every organizations and it is assumed that about 98 percent of the working people experienced it and among them 50 percent of them experiencing it at least weekly or even daily (Porath & Pearson, 2013). Here, the researcher have identified two main sources of workplace incivility (supervisor incivility and coworker incivility) and their effects on employees' lives.

Supervisor incivility have adverse effects in different aspects of employees' life such as making work-life imbalance or intense work-family conflict (Selvarajan, Cloninger, & Singh, 2013), decreasing performance and productivity (Pluut, Ilies, Curşeu, & Liu, 2018; Selvarajan et al., 2013), increasing emotional exhaustion and psychological distress (Pluut et al., 2018); job timidity and unhappiness (Lim, 1996). Oppositely, supervisor's courteous behavior can play the most substantial role in lessening WFC and FWC (Kim, Lee, Park, & Yun, 2015). Considering the above mentioned opinions it is hypothesized that-

*H<sub>1</sub>*. Supervisor incivility is related to employees' work-family conflict.

*H<sub>2</sub>*. Supervisor incivility is related to employees' psychological distress.

Again, it is argued that courteous coworker behavior/ coworker support lessen employees job stress and enhanced job satisfaction (McCalister, Dolbier, Webster, Mallon, & Steinhardt, 2006). Many other empirical findings also reveal that quality coworker relations enriched the job performance and dwindled the job stress (Hobfoll, 1988), minimize WFC/ FWC, role ambiguity and role overload (Ismail, Mohamed, Sulaiman, Ismail, & Mahmood, 2010). If the coworkers are cooperative, and extend the helping hands in job difficulties, then the workgroup interrelation is enriched (Bateman, 2009), which help to resist the job-related strain, and minimize work snooping with family domain (O'Driscoll, Brough, & Kalliath, 2004). So, it is clear that employees' psychological wellbeing is positively associated with the quality of workplace relationships with coworker. In reference with COR theory it is also recognized that incivility decreases the employees' wellbeing, because psychological health requires efforts and efforts requires resources (Hobfoll, 2001). Many previous studies evident that coworker incivility cause mental distress (Lim & Lee, 2011), make people unhappy and decreased mental, emotional, and social energy (Giumetti et al., 2013). Considering the above mentioned opinions it is hypothesized that-

*H<sub>3</sub>*. Coworker incivility is related to employees' work-family conflict.

*H<sub>4</sub>*. Coworker incivility is related to employees' psychological distress.

### ***Work-family conflict***

Work-family conflict is defined as “a type of inter-role conflict in which the role demands stemming from one domain (work or family) are incompatible with those from another domain (family or work)” (Greenhaus & Beutell, 1985). It occurs when demands from one role affects one's ability to meet the demands associated with another role in another domain. Netemeyer, Boles, and McMurrian (1996) have clarified work-family conflict into and named as: (i) work-family conflict- when individuals are unable to fulfill their family role due to their work demand; and (ii) family-work conflict- the inability of the individuals to fulfill the work role due to family demand. Though, work-family conflict (WFC) and family-work conflict (FWC) are two independent issues but these two are highly correlated paradigms (Ajiboye, 2008) which affect time, strain and behaviors of individuals.

Many researchers have found the association between WFC/FWC and work pressure, job stress, employees' wellbeing, and productivity (Bakker & Demerouti, 2014; Barnes & Collier, 2013; Turner, Hershcovis, Reich, & Totterdell, 2014). In addition some other studies evident that employees' role conflict such as WFC and FWC has been associated with job stress, mental health, and psychological distress (Amstad, Meier, Fasel, Elfering, & Semmer, 2011; Che, Zhou, Kessler, & Spector, 2017; Peeters, ten Brummelhuis, & van Steenbergen, 2013; Sharma, Dhar, & Tyagi, 2016). However, Grant-Vallone and Donaldson (2001) argued that ‘increased levels of stress, depression, physical ailments, somatic complaints, lower life satisfaction, lower quality of family life, lower energy levels’ are aftermaths of work family conflict’. Besides, poor employee performance, psychological and mental stress and burnout (Sari & Diane-Gabrielle, 2016), poor health and wellbeing (Yu, Lee, & Tsai, 2010) are the consequences of employee WFC/ FWC. Based on the above mentioned ground it is hypothesized that-

*H<sub>5</sub>*. WFC/ FWC is related to employees' psychological distress.

## **Methods**

### **Participants**

The study has covered 416 respondents who are working in the different government and private sector of Bangladesh. Among the samples about three-fourth (majority) respondents are male, above 90% are in the age of 18-40 years, more than two-third are married and holding private jobs. In addition, about 47% are working in banking and financial institutions and 97.1% of the respondents are highly educated (bachelor, master or other professional degree holders). The Table 1, shows the distributions of the demographic information related with respondents' age, gender, profession, marital status, nature/ type of organization and education level of the respondents.

**Table 1**  
*Respondents' Demographic Information*

Variable	Frequency (n= 404)	Percentage (%)	Cumulative Percentage (%)
<b>Gender</b>			
Male	312	75.0	75.0
Female	104	25.0	25.0
<b>Age</b>			
Below 30 (18-30)	179	43.0	43.0
30-40 years	199	47.8	90.9
40-50 years	30	7.3	98.1
Above 50 years	8	1.9	100.0
<b>Marital Status</b>			
Unmarried/ Single	126	30.3	30.3
Married	290	69.7	100.0
<b>Profession</b>			
Bank and Financial Institutions	195	46.9	46.9
Teaching and Education Management	51	12.3	59.2
Civil Servant and Government Administration	28	6.7	65.9
Telecom and ICT Engineering	89	21.4	87.3
Others (Business & Commercial Organization)	53	12.7	100.0
<b>Type of Organization</b>			
Private	278	66.8	66.8
Government	95	22.8	89.7
Autonomous	43	10.4	100.0
<b>Education Level</b>			
Below graduation	12	2.9	2.9
Graduate	82	19.7	22.6
Post-Graduate	314	75.5	98.1
Other professional degrees	8	2.0	100.0

Source: Compiled by author

### Design

Cross-sectional survey design was used to collect data (collected at a single point of time).

### Procedure

The participants were selected following the random sampling- especially using convenient sampling and judgmental sampling techniques. A well-structured questionnaire was used to collect the data. The collected data were organized and analyzed using MS-word, MS-excel, and SPSS-25 (Statistical Package for Social Science) software.

### Measures

To develop the questionnaire, the researcher has considered the multiple-item method to set the constructs. A total of 21-questions were used for four variables; among those four questions for work-family conflict adopted from Frone, Russell, and Cooper (1992), five questions for both supervisory incivility and coworker incivility adopted from Sliter, Sliter, Withrow, and Jex

(2012), and seven questions for psychological distress which were adopted from (Goldberg, 1978) and Lait and Wallace (2002). Question items were measured using a five-point Likert scale ranging from strongly agree (5) to strongly disagree (1). To ensure quality of data; the questionnaire was firstly rendered as a trail version over 40 people which is 10% of the targeted sample (400) respondents and refine accordingly.

### ***Data Reliability and Validity Testing***

Table 2 represents the calculated values for data reliability and validity testing. To test the reliability the researcher has used Cronbach's alpha and composite reliability following the suggestion of Hair (1995); and data validity were tested using convergent validity, and discriminant validity. The study considered average variance extracted (AVE) and item loading to measure convergent validity; whereas items factor loading and square root of AVE used to ensure discriminant validity following the suggestions of (Campbell & Fiske, 1959). The researcher have found that all calculated values are good enough (alpha and CR value must be more than 0.70; AVE must be more than 0.50) to ensure reliability and validity and go for further analysis.

**Table 2**

*Data Reliability and Validity Testing (Using  $\alpha$ , CR, AVE and Square Root of AVE)*

Constructs	Items	Loadings	AVE	Composite Reliability	Cronbach $\alpha$	Square Root of AVE
WFC/ FWC	WFC1	.774	0.570	0.839	0.731	0.572
	WFC2	.648				
	WFC3	.679				
	WFC4	.894				
SI	SI1	.676	0.552	0.859	0.858	0.743
	SI2	.787				
	SI3	.683				
	SI 4	.670				
	SI 5	.878				
CI	CI1	.757	0.615	0.888	0.853	0.784
	CI 2	.696				
	CI 3	.782				
	CI 4	.879				
	CI 5	.796				
PD	PD1	.774	0.550	0.879	0.764	0.742
	PD 2	.726				
	PD 3	.671				
	PD 4	.789				
	PD 5	.801				
	PD 6	.675				
	PD 7	.791				

*Note.* WFC= Work-Family Conflict, FWC= Family-Work Conflict, SI= Supervisor Incivility, CI= Coworker Incivility, PD= Psychological Distress.

## Results

### Descriptive statistics

The descriptive statistics are presented in Table 3. As per the calculated values, it is shown that all the variables are correlated among each other at 0.01 significance level. Besides, it is also evident that supervisor incivility and coworker incivility is negatively associated with work-family conflict and psychological distress; whereas supervisor incivility and coworker incivility; and work-family conflict and psychological distress are positively correlated to each other.

**Table 3**

*Descriptive Statistics and Correlation Matrix*

Variables	Range	Mean	SD	Variance	SI	CI	WFC	PD
SI	3.40	3.57	.769	.531	–			
CI	4.00	3.70	.786	.573	.566**	–		
WFC	4.00	3.35	.795	.615	-.176**	-.111**	–	
PD	3.86	3.08	.741	.480	-.290**	-.197**	.489**	–

Note. \*\* $p < .01$ .

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### Regression analysis

The following three tables (Table 4, 5, and 6) represent the regression analysis- model summary, ANOVA, and multiple-regression coefficient.

**Table 4.**

Model Summary<sup>b</sup>

Model	<i>R</i>	<i>R</i> <sup>2</sup> Square	Adjusted <i>R</i> <sup>2</sup> Square	Std. Error of the Estimate	Change Statistics				Durbin - Watson	
					<i>R</i> Square Change	<i>F</i> Change	<i>df</i> <sub>1</sub>	<i>df</i> <sub>2</sub>		Sig. <i>F</i> Change
1	.532 <sup>a</sup>	.283	.278	.58895	.283	54.162	3	412	.000	1.808

a. Predictors: (Constant), SI, WFC, CI

b. Dependent Variable: PD

Table 5.

## ANOVA for Model Fit

	Model	Sum of Squares	<i>Df</i>	Mean Square	<i>F</i>	<i>P</i>
1	Regression	56.360	3	18.787	54.162	.001 <sup>b</sup>
	Residual	142.905	412	.347		
	Total	199.265	415			

a. Dependent Variable: PD

b. Predictors: (Constant), SI, WFC, CI

Note. SI= Supervisor Incivility, CI= Coworker Incivility, WFC= Work-Family Conflict, PD= Psychological Distress.

Table 6 illustrated the linear regression which indicates the effects of independent variables on dependent variable (Psychological Distress). The calculated values indicate that except work-family conflict other two variables- coworker and supervisor incivility had direct negative effects on employees' psychological distress. In addition, the effects of supervisor incivility and work-family conflict were significant (as the significance value was  $p < .01$ ); whereas the effects of coworker incivility on employees' psychological distress were insignificant (as the significance level was  $p > .05$ ).

**Table 6***Analysis of Regression Coefficients*

Model Variables	Unstandardized Coefficients		Standardized Coefficients		<i>P</i>	95% Confidence Interval for $\beta$	
	<i>B</i>	Std. Error	<i>B</i>	<i>t</i>		Lower Bound	Upper Bound
(Constant)	2.509	.222		.11.295	.001	2.073	2.946
SI	-.178	.049	-.187***	-3.667	.001	-.274	-.083
CI	-.037	.046	-.041	-.801	.423	-.128	.054
WFC	.399	.037	.451***	10.647	.001	.325	.472

a. Dependent Variable: PD (Psychological Distress)

Note. \*  $p < .05$ ; \*\*\*  $p < .001$ ; SI= Supervisor Incivility, CI= Coworker Incivility, WFC= Work-Family Conflict.

Table 7, demonstrated multiple-regression analysis considered control variables and independent variables to scrutinize the formulated hypotheses. In model 1 and model 2, supervisor and

coworker incivility were considered as independent variables; whereas work-family conflict was treated as dependent variables, and thus, H1 and H3 were tested. The tested results found that supervisor incivility had a significant effects as SI  $\beta = -0.165$ ,  $p \leq .001$ ; but the effect of coworkers incivility on work-family conflict was not significant as CI  $\beta = -0.036$ ,  $p \geq 0.05$ . Therefore, H1 was supported and H3 was rejected here.

Again, model 4 and model 5 were constructed to test the hypotheses (H2, H4, H5) related with supervisor incivility (SI), coworkers' incivility (CI), and work-family conflict (WFC) on employees' psychological distress (PD). The calculated values showed that SI and WFC significantly influenced PD (as SI  $\beta = -0.250$ ,  $p \leq 0.001$ ; and WFC  $\beta = 0.384$ ,  $p \leq 0.001$ ). But the effect of CI is insignificant as CI  $\beta = -0.037$ ,  $p \geq 0.05$ . Therefore, the study supported H2, and H5 and rejected H4.

**Table 7**

*Multiple Regression Analysis on Employee Psychological Distress*

Variables	Employee Job Stress				
	Model 1	Model 2	Model 3	Model 4	Model 5
<b>Control variables</b>					
Constant	3.427	4.204	3.579	4.694	3.080
Gender	.133	.139	.034	.041	-.012
Age	-.146*	-.142*	-.108*	-.101*	-.047*
Profession	-.011	-.007	-.066**	-.062**	-.060**
Organization type	-.060	-.056	-.177***	-.172***	-.150***
Education (Edu)	.040	.011	.017	-.026	-.031
<b>Main effects</b>					
SI (Supervisor Incivility)		-.165**		-.250***	-.187***
CI (Coworker Incivility)		-.036		-.037	-.023
<b>Mediator</b>					
WFC (Work-family conflict)					.384***
Overall F	2.226*	3.503**	5.356***	9.719***	24.056***
R	0.163	0.238	0.248	0.378	0.567
R <sup>2</sup>	0.026	0.057	0.061	0.143	0.321
Adjusted R <sup>2</sup>	0.015	0.041	0.050	0.128	0.308
R <sup>2</sup> Change	0.026	0.030	0.061	0.082	0.260

Note.  $N = 416$ . Entries are standardized regression coefficients.

Dependent Variable: PD (Psychological Distress); \*\*\*  $p \leq .001$ ; \*\*  $p \leq .01$ ; \*  $p \leq .05$ .

The hypotheses tested results are presented in the following table:

**Table 8**

*The Structural Equation Model (SEM Path Analysis)*

SEM Paths	Hypotheses	Estimate/ Beta ( $\beta$ )	S.E.	$t$	P	Decision
SI ---> WFC	H1	-0.165**	.053	-4.692	000***	Accepted
CI ---> WFC	H3	-0.036	.052	-0.723	.470	<b>Rejected</b>
SI ---> PD	H2	-0.250***	.048	-3.899	000***	Accepted
CI ---> PD	H4	-0.037	.046	-0.510	0.611	<b>Rejected</b>
WFC ---> PD	H5	0.384***	.037	10.333	000***	Accepted

Note.  $N = 416$ . Entries are standardized regression coefficients.

Dependent Variable: Employee Engagement; \*\*\*  $p \leq .001$ ; \*\*  $p \leq .01$ ; \*  $p \leq .05$ .

After tested hypotheses the model could be like the following graphs:

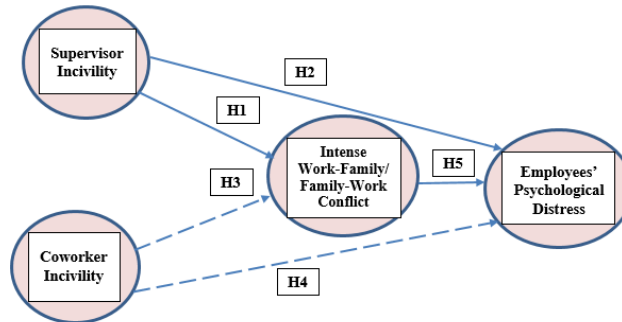


Figure 2: Tested model of workplace incivility and psychological distress.

## Discussion

The study has explored three main issues- (i) the influences of supervisor and coworker incivility on employees' work-family conflict; (ii) the influences of supervisor and coworker incivility on employees' psychological distress; and (iii) the effects of work-family conflict on employees' psychological distress. After analyzing data and tested hypotheses the study concluded that workplace supervisor incivility has significant effects on work-family conflict and psychological distress which were related with H1 and H3. On the other hand, workplace coworkers' incivility has significant effect on work-family conflict but its effect on employees' psychological distress is insignificant which tells about the H<sub>2</sub>, and H<sub>4</sub>. Again, work-family conflict significantly affect employees' psychological distress which was the H<sub>5</sub>. The study findings is consistent with COR theory (Hobfoll, 2001) which suggested that 'improper workplace support leads to psychological stress and intend to withdraw employees efforts to their work and family lives. The similar findings also evident from some former studies- workplace incivility are positively related with

WFC which leads to job stress (Amstad et al., 2011; Che et al., 2017; Peeters et al., 2013). In addition, many former studies have found the association between work-family conflict and psychological distress (Abubakar, 2018; Burke & Fiksenbaum, 2016; Geldart et al., 2018; Peeters et al., 2013). The study highlights that workplace support (civility) from supervisor and coworker plays an important role to remove WFC and psychological distress; if the worker get proper support from workplace they will be dedicated towards their job and vice-versa.

At the present world and in the domain of industrialization, work-family conflict or work-life balance is a buzzword and it has become a focal point to the researchers and HR practitioners. The employees who get better support from workplace (related with courteous behavior, supportive supervisor and colleagues, better WLB policies etc.) report less WFC/FWC and lower level of job stress. So, research in the field of workplace civility, WFC, and psychological distress is getting importance day by day. It is suggested for the future researchers, the same study can be done choosing a specific areas (single industrial sector or specific profession). Moreover, the study can be conducted to change the mediating variables WFC or adding any one or more moderating variables or even changing the dependent variable (psychological distress) which can open the new windows in this field. Furthermore, as this study mentioned there is an association between workplace incivility, WFC and psychological distress, future research can be done emphasizing how these sorts of support effects to resolve conflict in the work and family domain and remove work and psychological distress. As our present study was conducted in a single country (Bangladesh), future researchers may give emphasis on multiple nations to make a comparative study which will help them to make a general comments for the global nations.

### **Conclusion**

The study found that workplace incivility directly or indirectly increase the WFC and FWC, and the employees who received the greater level of WFC/FWC their lives become more complex and facing problem in mental and physical health due to job stress and family lives. Observing the prevailing situations, the researcher has realized that the organizations should give emphasis on workplace civility in case of behaving the employees. In this regards, a decent code of conduct should be placed in front of all the concerned parties so that organizations and all the working people can get proper message and able to show courteous behavior with their colleagues; which may help employees to minimizes WFC/FWC and their psychological distress. Considering the effects of workplace incivility and WFC/ FWC on psychological distress the government policymakers, HR professionals, owner of the organizations should take necessary steps and inspire supervisors to treat their juniors (subordinates) in a friendly manner as well as to find a way to eliminate these problems so that they can lessen the WFC/FWC and psychological distress with an amicable work environment. The organization can introduce some training programs for their managers and employees which might be beneficial to improve their behavior in positive way and decrease WFC/ FWC and psychological distress. The researcher believes that if the findings of the study is properly implemented and take further necessary steps to improve the condition; surely the organizations and employees will be benefited from each of their sides.

Though the present study is a good one but it has some limitations as well. Firstly, to collect data the researcher have faced challenges to reach to sample respondents due to COVID-19 pandemic situation. In addition, the respondents are not feeling comfort to disclose the true facts and

properly fill-up the questionnaire against their supervisor or colleagues which may create problems of getting quality data. Secondly, the respondents used in this study were chosen randomly from various organizations which may create the generalizability problem due to the broader areas of operations. Finally, the study is mainly based on a single country (Bangladesh) which also create the universality and applying the same finding over the world in the similar way. Despite its limitations, the researcher believe that this research may be the first research attempts which tried to examine the relationships between workplace incivility and psychological distress by considering the mediating role of work-family conflict.

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## Internet Addiction and Aggression among Undergraduate Students of Rajshahi University

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### Abstract

The prime aim of the study was to examine the link between internet addiction and aggression among undergraduate students of Rajshahi University. A total of 80 (Male = 40, Female = 40) respondents were selected purposively for this study. Adapted Bangla version of the Measure of Aggressive Questionnaire and Internet Addiction Scale was administered for data collection. Results indicated that internet addiction is significantly and positively related to aggressive behavior. Results also revealed that female students exposed more aggressive behavior than male students. In addition, results stated that female students were highly internet-addicted than their counterparts. Results also reported that verbal and physical aggression were the two most dominant types of aggressive behavior among the students.

*Keywords:* aggression, internet addiction, undergraduate students

### Introduction

*Internet addiction* refers to “excessive or poorly controlled obsessions, impulses, and behaviors associated with internet usage, which propel distress or impairment” (Shaw & Black, 2008). Internet addiction has some negative consequences. For instance, adolescents and young adult's more exposure to the internet is related to brain development, identity formation, social skills, emotion regulation, academic achievement as well as symptoms of anxiety, depression, and hostility (Stavropoulos et al., 2017). The conceptual perspective of internet addiction also indicated negative outcomes. For example, the cognitive-behavioral model of pathological internet use (Davis, 2001) addressed that accessibility, and awareness of the internet psychopathologies for instance social anxiety, depression, and substance abuse as well as situational cues providing support of internet usage behaviors, relate to yield maladaptive cognitions (Charlton & Danforth, 2007). Similarly, displacement theory also addressed that adolescent's internet addiction decreased their real-life social interaction and negatively influenced their well-being (Ostovar et al., 2016).

On the other hand, “*Aggression* refers to acts of physical, emotional, as well as sexual violence” (Bandura, 1973; Volavka, 2002). According to Anderson and Huesmann (2003) “aggression is a behavior intended to directly harm another individual”. Nowadays the internet is the most

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contributing factor that influences the behavior of adolescents, especially aggressive behavior. The social learning theory of aggression (Bandura, 1973) addressed that imitative learning is one of the most contributing factors that forces aggressive behavior. Furthermore, several studies documented a significant relationship between internet dependency and aggressive behavior (Ko et al., 2009; Koo & Kwon, 2014; Yen et al., 2008). Nevertheless, it is vague why aggressive behavior may be associated with and contributed by internet addiction. So, empirical evidence is needed to describe this association. Though, very few studies were conducted to explore why internet addiction is linked to aggression. For instance, Agbaria (2020) documented that personal characteristics namely positive or negative affect and self-control that may elucidate why internet addiction is related to aggression. In addition, the general aggression model addressed that both individual characteristics, as well as situational factors, influence aggressive behavior (Anderson & Bushman, 2002).

Several research findings indicated a positive and significant connection between aggressive behavior and internet addiction. For example, Dhaka and Naris (2019) concluded a significant and positive association between internet addiction and aggressive behavior. This study also reported that the majority of the students experienced moderate addiction problems because of their internet usage. Similarly, Ko et al. (2010) showed that although internet use may reduce distress by providing instant rewards and novel spaces to different activities, while, internet dependence coupled with unnecessary use of the internet is an essential contributor to aggression. Ko et al. (2009) also indicated that aggressive behavior was linked to online chatting, online gaming, adult sex web viewing, online gambling, as well as Bulletin Board systems. In addition, some studies also indicated that that aggressive behavior is positively related to internet addiction (Deshotels & Forsyth, 2007; Mehroof & Griffiths, 2010; Polman et al., 2007; Yen et al., 2008).

Empirical evidence also showed the gender difference in aggressive behavior. For instance, Garg et al. (2018) revealed that females reported more aggression than their male counterparts. This study also indicated that physical aggression is the most common type of aggression among the respondents. Similarly, Bjorkqvist et al. (1982) indicated that females showed more indirect aggressive behavior than their male counterparts. Several studies also point out that females tend to express more indirect aggression than male respondents (Crick et al., 2004; Ostrov & Keating, 2004; Tremblay et al., 1996). Conversely, males tend to express more physical aggression than females. The finding of the study also documented a similarity in indirect verbal aggression in both sexes. Similarly, Assegaf (2004) reported that male respondents exposed more physical and verbal aggression than females, while female participants showed more indirect aggression than male students.

Research findings regarding gender differences in internet addiction also documented a significant difference in internet addiction between male and female students. To demonstrate, Chiu et al. (2013) led a study and reported that females are more addicted to mobile phones than their counterparts. In addition, Chou and Hsiao (2000), Wu and Zhu (2004) found that female internet addiction rates increasing day by day. The research literature also showed that the probability to develop mobile phone dependency (Billieux et al., 2008), abuse (Beranuy et al., 2009), involvement (Walsh et al., 2011), and addiction (Hong et al., 2012) were found among females

students. Particularly, Jenaro et al. (2007) claimed that 28.6% of all males, as well as 56.3% of all female college students respectively, are categorized as heavy mobile phone users.

Research findings showed that there was a variation in the different types of aggressive behavior among the students. For instance, Dhaka and Naris (2019) reported that hostility and physical aggression were the most frequent aggression among Namibian University Students. Findings also indicated that hostility and anger were the most prevalent types of aggression among the adolescents of Mumbai in India (Sidhu et al., 2019).

Internet addiction is closely associated with different psychological impairments, for instance, depression (Yao et al., 2014), anxiety (Azher et al., 2014), decayed cognitive functioning (Jorgenson et al., 2016), and poorer life satisfaction and well-being (Van den Eijnden et al., 2008). Based on literature reviews, internet addiction and aggression are mostly correlated (Dhaka & Naris, 2019; Deshotels & Forsyth, 2007; Kim, 2013; Ko et al., 2009; Kumar & Singh, 2014; Liu et al., 2011; Polman et al., 2007). However, most of the studies were conducted on western as well as non-Bengali culture and no studies were found in Bangladeshi culture especially undergraduate students. So, researchers intended to investigate the connection between internet addiction and aggressive behavior among undergraduate students' especially undergraduate students of Rajshahi University.

#### **Hypotheses of the study**

**H<sub>1</sub>:** There would be a positive correlation between internet addiction and aggression.

**H<sub>2</sub>:** Female students would be more aggressive than male students.

**H<sub>3</sub>:** Female students would be highly addicted to the internet than male students.

**H<sub>4</sub>:** Verbal and physical aggression would be the most prevalent form of aggression among undergraduate students.

### **Methods**

#### **Participants**

The target population for the study was made up of undergraduate students of Rajshahi University. We collected data by using the purposive sampling technique from the target population. Firstly, we collected data from 215 respondents. Then we finalized 80 participants among 215 samples based on the score of the Internet Addiction Scale. A total of 80 (Male = 40, Female = 40) respondents were selected for this research work. The age ranges of the respondents were from 18 to 25 years.

#### **Measures**

In the current study, two key scales along with personal information form were used for collecting the data. These are given in the following section.

##### ***Personal Information Form***

Personal information form consisted of gender, age, socioeconomic status, etc.

##### ***Measure of Aggressive Questionnaire***

Buss and Perry (1992) developed a Measure of Aggressive Questionnaire. There were 29 items on this scale with 5 points Likert-type continuum from 1 = “*extremely uncharacteristic of me*” to 5 =

“*extremely characteristic of me.*” The aggressive questionnaire consists of four dimensions of aggression: physical aggression, verbal aggression, anger, and hostility. The internal consistency coefficients of these four dimensions were  $\alpha = 0.85$ ,  $\alpha = 0.72$ ,  $\alpha = 0.83$  and  $\alpha = 0.77$ , respectively with the internal consistency being  $\alpha = 0.89$  (Buss & Perry, 1992). Rahman (2003) was adapted the Bangla version of Buss and Perry’s scale. Rahman was taken 25 items from the original 29 items for the use of Bangladeshi culture. The adapted scale contained five dimensions. These are physical, verbal, hostile, anger, and indirect aggression. The correlation coefficient for split-half reliability was found to be 0.37. When the Spearman-Brown formula was used, the correlation coefficient was found to increase from 0.37 to 0.54. This indicated the good reliability of the test. The highest possible score of this scale is 125 and the possible lowest score is 25. A score of this scale is 75 or above considered aggressive behavior.

### **Internet Addiction Scale**

Internet Addiction Scale was proposed by Young (1996). It comprised 20 items that measured the presence as well as the severity of internet dependency among adults. The Internet addiction scale also measured behaviors and characteristics related to compulsive use of the internet that includes dependency, escapism, and compulsivity. Furthermore, it also assessed problems connected to addictive use in personal, social functioning, and occupational. Questions are randomized and each statement is weighted along a Likert- scale continuum that ranges from 0 = “*less extreme behavior*” to 5 = “*most extreme behavior*” for each item. It was adapted by Sultana and Uddin (2019) in the Bengali version for the Bangladeshi people.

### **Procedure**

The standard data collection process was maintained in this study. First, the researchers were taken consent from each respondent. Then the essential rapport was build up with the participants. The investigators simplified the purpose of the present study and ensured that their information will be kept confidential. Then two main scales along with a personal information form were provided and asked to fill up carefully. Finally, participants were thanked for their active involvement in the study.

### **Results**

The obtained data were analyzed by employing the correlation coefficient, *t*-test, and descriptive statistics through SPSS version 20. The results are given in the following section.

Table 1 showed that internet addiction and aggression were significantly and positively correlated ( $r = .98$ ,  $p < .01$ ). These findings stated that when internet addiction was increased aggression was also increased.

**Table 1**

*Summary of Descriptive Statistics and Correlation Coefficient of Aggression and Internet Addiction*

Variables	<i>N</i>	<i>M</i>	<i>SD</i>	1	2
1. Aggression	80	54.86	17.14	—	.98**
2. Internet Addiction	80	43.24	15.57	.98**	—

Note.  $N = 80$ ; \*\* $p < .01$ .

Table 2 showed that female students were significantly more aggressive than that of their male counterparts ( $p < .01$ ).

**Table 2**

*Mean Difference in Aggressive Behavior between the Respondent Groups*

Respondents	<i>M</i>	<i>SD</i>	<i>t</i>	Cohen's <i>d</i>
Male	48.03	15.43	-3.87**	-0.80
Female	61.70	16.15		

Note. \*\* $p < .01$ .

The above table also showed that females were significantly more internet-addicted than male students ( $p < .01$ ).

**Table 3**

*Mean Difference in Internet Addiction between the Respondent Groups*

Respondents	<i>M</i>	<i>SD</i>	<i>t</i>	Cohen's <i>d</i>
Male	36.90	13.37	-3.97**	-0.81
Female	49.58	15.16		

Note. \*\* $p < .01$ .

**Table 4**

*Descriptive Statistics among the Different Types of Aggressive Behavior*

Types of Aggression	<i>N</i>	<i>M</i>	<i>SD</i>
Physical Aggression	80	11.53	4.69
Verbal Aggression	80	21.15	9.50
Anger	80	6.40	2.68
Hostility	80	10.17	3.61
Indirect	80	5.59	2.84

The above table showed that respectively mean score of verbal aggression ( $M = 21.15$ ) and physical aggression ( $M = 11.53$ ) was greater than that of the other types of aggression. Results also indicated that the mean score of indirect aggression ( $M = 5.59$ ) was lower than that of the other aggression.

## Discussion

The main objective of this study was to explore the connection between internet addiction and aggression among undergraduate students of Rajshahi University. Four hypotheses were formulated in the current study. The *first hypothesis* was that "There would be a positive correlation between internet addiction and aggression". Results presented a significant and positive correlation between internet addiction and aggressive behavior (Table 1:  $r = .98, p < .01$ ). The result confirms the first hypothesis. This result indicated that when internet addiction is

increased aggressive behavior is also increased. This finding is in line with previous studies of Deshotels and Forsyth (2007), Dhaka and Naris (2019), Fisoun et al. (2012), Mehroof and Griffiths (2010), and Polman et al. (2007). Here the investigators reasoned that there is countless violent content on the internet. Furthermore, different contributed factors that play a significant role behind these relationships such as greater exposure to media violence, computer-mediated social interaction, and entering a de-individuated state during internet activities (Ko et al., 2009). Therefore, these may be the probable reason for the aforementioned relationship. This finding is also supported by the social learning theory. Social learning theory addressed that people can develop violent behaviors unconsciously and decrease the inhibition of violence on the internet for a long time, thus the aggression will be strengthened.

The *second hypothesis* stated that “Female students would be more aggressive than male students”. This finding showed that (Table 2:  $t = -3.871$ ;  $p < 0.01$ ) female students reported more aggressive behavior than male students. This finding is supported by the second hypothesis. This finding is also supported by the prior studies of Bjorkqvist et al. (1982), Crick et al. (2004), Ostrov and Keating (2004), Tremblay et al. (1996). The researchers claimed that differences in evolutionary traits, biological differences, and social learning factors may be the probable reason behind these findings. Also, the desire for the male child as well as gender discrimination could be a potential reason for aggression among female respondents. Furthermore, the female's voice being repressed for ages, and their fundamental desires being unsatisfied. Theoretical conceptualization is also related to support this finding. For instance, the general model of aggression indicated that an individual's characteristics and situational variables contributed to aggressive behavior (Anderson & Bushman, 2002).

The *third hypothesis* was that “Female students would be highly internet-addicted than male students”. The result shown that female students were significantly more internet-addicted than male students (Table 2:  $t = -3.967$ ;  $p < 0.01$ ). The result confirms the third hypothesis of the study. The findings revealed that females are significantly more internet-addicted than their male counterparts. This result concurs with earlier studies of Beranuy et al. (2009), Billieux et al. (2008), Chiu et al. (2013), Chou and Hsiao (2000), Hong et al. (2012), Jenaro et al. (2007), Walsh et al. (2011), and Wu and Zhu (2004). Here, the investigators argued that female students may have more scope to use the internet than male students. Because female students spend more time at home than their counterparts. So female students may be more internet-addicted than that of the male respondents. In addition, the cognitive-behavioral model of pathological internet use is related in this regard. This theory differentiated between specific as well as generalized pathological internet uses. Specific pathological internet use indicated the condition in which people pathologically uses the internet for specific intention, like online gambling, online sex and so on. In contrast, generalized pathological internet use illustrated a more global set of behaviors (Davis, 2001).

Finally, the *fourth hypothesis* stated that “Verbal and physical aggression would be the most prevalent form of aggression among undergraduate students”. The results reported that verbal, as well as physical aggression, is the most dominant form of aggression among undergraduate

students. The result confirms this hypothesis and findings are partially supported by the previous studies of Dhaka and Naris (2019), and Sidhu et al. (2019). At this point, researchers contended that respondents' age, emotional immaturity, and lack of anger management may be the probable reason behind this finding.

The present study has some limitations. Firstly, this study was conducted on a small sample as well as participants were selected from only Rajshahi University. Initially, we collected data from 215 participants then we finalized 80 samples in accordance with the score of the Internet Addiction Scale. But we did not use the rest of the sample for the comparison group in the current study. Secondly, data were collected by using purposive sampling procedure. Finally, except gender, other demographic factors as well as self-control, positive affect, life events, and social support are not considered in this study. Future research will be benefitted by overcoming these issues.

### Conclusion

The researchers suggest a significant and positive relationship between the two main study variables namely internet addiction and aggression. The investigators also suggest that females are significantly more aggressive and internet-addicted than their male counterparts. Finally, verbal and physical aggression is the most dominant form of aggression among undergraduate students. In light of the above findings, it is therefore concluded that many researchers, stakeholders, teachers, policymakers as well as students are trying to find out the most important determinants related to aggression and internet addiction and this study will help them to understand these issues and the significance of internet addiction and aggressive behavior.

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# Effect of Maternal Attachment on Mental Health and Life Adjustment of Young Adults

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## Abstract

A few numbers of studies have been conducted previously on the relationship between maternal attachment and children's mental health outside of our country. But no significant studies have been found regarding maternal attachment, mental health and life adjustment of young adults' in Bangladesh. Thus, the purpose of the present study was to investigate the relationships of maternal attachment with mental health and life adjustment of young adults. The study was conducted on 120 young adults selected from two public universities in Dhaka city of Bangladesh. The data were collected by using Parental Bonding Instrument (PBI), General Health Questionnaire (GHQ-12) and Bell Adjustment Inventory (BAI). The results indicated that there was a significant positive correlation in mental health and life adjustment ( $r = .535$ ). But significant negative correlations were found between maternal attachment and life adjustment ( $r = -.325$ ) and maternal attachment and mental health ( $r = -.453$ ) of young adults. It was also found that the gender difference was also significant in maternal attachment ( $t = 2.85$ ,  $df = 118$ ,  $p < .05$ ), mental health ( $t = 3.21$ ,  $df = 118$ ,  $p < .05$ ), and life adjustment ( $t = 2.11$ ,  $df = 118$ ,  $p < .05$ ). Results also indicated that there was no significant difference in maternal attachment according to socio economic status. But the young adults' mental health ( $F(2, 117) = 4.71$ ,  $p < .01$ ) and life adjustment ( $F(2, 117) = 4.24$ ,  $p < .01$ ) had significant difference.

*Keywords:* maternal attachment, mental health, life adjustment

## Introduction

Parent-child relationships play vital role on the development of young adult's life adjustment and mental health. A maternal attachment is a relationship between a mother and her child where some physical and emotional factors influence on the process of mother child attachment. It also can be defined as a relationship where a child finds a trustworthy place and full of affection. The mother-child relationship is one kind of unique relationship on which a child's others developing stage might be based. Young adults express more certainty in using mothers as childrearing model. Their closer connections with mothers are probably due to positive relationships with their mothers.

Generally people who pass their life between 18 to 45 years of age then they are defined as young adults (Erikson & Erikson, 1998) when different young adults might involve in different professions. It is the stage when adults might face different types of adjustment problems in their

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life. Children, who grew up in custodial environment, might have negative impacts on mental health and life adjustment stages of life. Parental inconsistency and deficiencies in maternal and paternal bonding can lead to long-term social, physical, emotional and mental health problems such as anxiety, depression, eating disorders (Tetley et al., 2014).

Mental health means our emotional, psychological and social well-being which affects how we think, feel and act. Everyone's stress handling process and decision making strategies are different and mental health measure how people tackle with them all. When people experience mental health problems, their thinking, behavior could be affected. Some people might have biological factors or family history or life experiences that contribute to mental health problems.

In psychology, adjustment refers to the behavioral process of balancing conflicting needs, or needs against obstacles in the environment. People regularly adjust to their environment. Adjustment disorder occurs when people cannot manage normal adjustment in the environment. The life adjustment can vary in the term of mother-child relationships.

When a child receives positive quality of parenting, it may have long lasting effects on mental health and life adjustment. So parent-child relationships are vital part to ensure the proper psychological well-being. Infants who experience caring and responsive relationships with their parents are more securely attached to the later relationships, and are at lower risk of psychological disorder (Bowlby, 1988). It is needed to know whether parent-child relationships influence positive well-being indicators, such as happiness, good mental health, life satisfaction, good life adjustment and positive psychological functioning in young adults.

There is a study that explored the gender differences in the degree to which parent-child dyads and family system variables are associated with relationship quality in later life has found that the parent-child dyads of young adults were similar for males and females (Robinson, 2000). Parental acceptance naturally leads effective and positive effect on children. Halonen and Santrock (1997) define adjustment as the psychological process of adapting in coping with, managing their problem, challenging tasks and requirements of daily life. Positive adjustment can assist student to face challenges, pressures and overcome it to accomplish their goal (Wolfok, 2001), in contrast to negative adjustment in which it will lead to frustration (AL-Kfaween, 2010), feel and understand how others are feeling. For describing psychological adjustment many researchers expressed their terms and concepts. When psychological health is good that is considered as positive part to cope with life challenges.

Young adult's mental health and life adjustment mainly depend on family where he/she grew up. Especially a mother and a child's relation plays vital role for developing a young adults' mental health and adjustment processes. When adults want to know themselves, they might face crisis to cope with any situation on that period. Moreover mental patients are increasing day by day in our country but a few people concerns about adults preset confusion, uncertainty anxiousness which can make them in more difficult situation. People are also less aware from taking treatment. As there is a little research on the effect of mother child relationships on young adult's mental health and adjustment. So this study might be helpful for the future researchers, counselors or who are interested to know them all and this study will help to clear the concept that how maternal attachment plays role on young adults mental health and adjustment. This finding will also help to add new knowledge to existing literature relevant to young adults' mental health and life adjustment.

### **Objectives of the study**

The main objective of the present study was to explore the effect of mother child attachment on young adult's mental health and life adjustment. The specific objectives of the study were to investigate whether-

1. there was any relationship between maternal attachment and mental health of young adults.
2. there was any relationship between life adjustment and maternal attachment of young adults.
3. there was any relationship between mental health and life adjustment of young adults.
4. gender and socio-economic status could influence the maternal attachment, mental health and life adjustment of young adults.

### **Methods**

#### **Participants**

A total of 120 university students were selected on the basis of purposive sampling technique from two public universities of Dhaka city. Age ranges of the respondents were from 19 to 25 years. Among them, 60 were males and 60 were females. They were drawn from low, middle and high socio-economic status. They were selected following purposive sampling method.

#### **Measures**

The following instruments were used to collect the data of the present study.

##### ***Personal Information Form (PIF)***

A specially designed questionnaire was used to collect personal and demographic information such as age, gender, educational qualification, socio-economic status, family structure, occupation and educational qualifications.

##### ***General Health Questionnaire (GHQ-12)***

General Health Questionnaire was originally developed by Goldberg (1978). It was translated into Bangla by Iliyas and Ayesha (2001) for measuring the mental health of the respondents. It is a self administered screening test for finding out the minor psychotic disorder in general population. Then English and Bangla version of the questionnaire were administered to 30 participants with a gap of 7 days. Bangla version of the scale was administered on half of the respondents. Significant correlation ( $r = .625, p < .001$ ) between scores of English and Bangla versions indicated translation reliability of the scale. Test-retest reliability co-efficient of Bangla version was found .57 with a gap of two weeks. The Cronbach's Alpha coefficient for internal consistency of Bangla version was .82. This 12-items scale contains 6 positive and 6 negative items. Among the 12 questions the positive items are 2, 5, 6, 9, 10, 11 and reverse items are 1, 3, 4, 7, 8, 12. The items were answered on a four point response format ("not at all", "somewhat", "to a considerable extent" and "to a great extent"). Positive items were scored in 4 points, from 3, 2, 1, 0 and the negative items in reverse order from 0, 1, 2, 3. The sum of total points indicates the level of mental state of the respondents. Higher score in the scale indicate the poor mental health and lower score indicate good mental health.

### ***The Parental Bonding Instrument (PBI)***

The Parental Bonding Instrument (PBI) was developed by Parker et al. (1979), and adapted in Bangla by Roy and Ferdous (2019). The PBI is a 25-item self-report measure of two parenting styles, Care and Overprotection, designed for both mother and father. Here, the mother version of the PBI was used for data collection. The 'Care' subscale contains 12 items (items 1, 2, 4, 5, 6, 11, 12, 14, 16, 17, 18, 24) which represent a continuum of parental style from coldness and neglect to affection and emotional warmth. The 'Overprotection' subscale comprises 13 items (items 3, 7, 8, 9, 10, 13, 15, 19, 20, 21, 22, 23, 25) representing a continuum ranging from independence to control and encroachment. Each of the items is rated on a 4-point scale, ranging from 'very unlikely' to 'very likely'. For a positive item (1, 5, 6, 8, 9, 10, 11, 12, 13, 17, 19, 20, 23) participant's responses are scored as 0 = *very unlikely*, and 3 = *very likely*; for a negative item (2, 3, 4, 7, 14, 15, 16, 18, 21, 22, 24, 25), responses are scored in a reverse order. The total 'Care' score ranges between 0 and 36, and the total 'Overprotection' score ranges between 0 and 39. A higher score on the 'Care' subscale indicates higher parental care and a higher score on the 'Overprotection' subscale indicates higher control of parenting.

The combined 'Care' and 'Overprotection' assessments allow parents to be allocated into one of the four categories, such as 'Affectionless control', 'Affectionate constraint', 'Optimal parenting', and 'Neglectful parenting'. Affectionless control equates to low care and high overprotection; Affectionate constraint has high care and high overprotection; Neglectful parenting equates to low care and low overprotection; whereas optimal parenting has high care and low overprotection (Craissati et al., 2002). The cutoff scores of the mother version 'Care' and 'Overprotection' subscales are 27.0 and 13.5 respectively. The original PBI demonstrated high construct validity in correlation with other measures of parental behavior which ranged from .69 to .85, with a test-retest reliability of .63–.76 (Parker, 1983).

The Cronbach's Alpha coefficient for internal consistency of Bengali version was .92 for mother form (.88 and .86 for care and overprotection subscale respectively) which was significant. Test-retest reliability coefficients within the PBI for mother form were .934 respectively with 15 days interval, which indicates the reliability of the maternal form of the parental bonding instrument. Validation of the instrument was assured by content and convergent validity. Significant correlations between the two sub-scales (care and overprotection) of mother ( $r = .717, p < .01$ ) forms provided the evidence for convergent validity. In parental bonding scale high score indicates positive parental bonding and low score indicates negative parental bonding.

### ***Bell Adjustment Inventory (BAI)***

The Bell Adjustment Inventory (BAI) is a self report of the individual's life adjustment inventory (BAI) as experienced by him or her. It was first translated into Bangla by Faruk (1986). The 1952 revised edition of BAI provides six measures of personal and social adjustments: Home adjustment, Health adjustment, Submissiveness, Emotionality, Hostility, and Masculinity-femininity. The 1962 revised BAI is adapted in Bangla because this has been proven to be extensively useful with persons of high school and college or university levels. It is suitable for using upon both sexes.

The coefficients of reliability (original inventory) for each of the sections of the inventory are: home adjustment (.89), health adjustment (.80), submissiveness (.89), emotionality (.85), hostility

(.83), masculinity-femininity (.84). The English and Bangla versions of Bell Adjustment Inventory are significantly correlated at .05 levels. To verify the reliability of the adapted BAI, the reliability coefficients of the six adjustments were obtained. These coefficients are shown in the following table:

**Table 1**

*Reliability Coefficients of the Six Adjustments of Bell Adjustment Inventory*

Sex	N	df	Co-efficient of reliability					
			Home	Health	Submissive	Emotional	Hostility	Mas-Fem
Male	10	8	.94	.97	.96	.82	.86	.97
Female	10	8	.92	.64	.85	.77	.85	.91

The content validity of BAI (translated) depends on the consensus judgment given by the majority of the subject oriented experts. The inventory contains 200 items. In answering question of the Adjustment Inventory, the student may indicate one of three answers: “Yes”, “No”, “Or”? The questionnaire was administrated to each adolescent separately. They used cross in “Yes”, “No”, “Or”? Total number of “Yes” response to each category will be formed adjustment scores. In this method the maximum possible score can be 200 and minimum 0 points. In other words, the range of scoring will be (0–200) on total adjustment and higher scores indicate poorer adjustment.

### Procedure

At first after having the permission from the Institute Authority, questionnaires were distributed among the students who were interested to fill up. The questionnaires were administrated to 120 students where 60 were females and 60 were males. The questionnaires were administrated to each adult separately. They were then requested to co-operate to fill up the questionnaire. They were fully assured of confidentiality. The questionnaires were provided with proper instructions. Verbal instructions were also given when needed. Then they were asked to express their feelings by putting tick marks (√) on the statement which they think appropriate. After completing the questionnaires they were thanked for their co-operation. There was no time limit.

### Results

The purpose of the present study was to investigate the effect of mother child attachment on young adults’ mental health and life adjustment. A General Health Questionnaire (GHQ 12) was used to measure the mental health of the respondents and Adapted mothers form of Bangla Version of Parental Bonding Instrument (PBI) was used to measure the relationship between mother and children, Bell Adjustment Inventory (BAI) was used to measure the life adjustment of the young adults. Obtained data were analyzed using Pearson product moment correlation, *t*-test and one way ANOVA. The findings are presented in the following table.

Table 2 shows a positive correlation between life adjustment and mental health of young adults ( $r = .535$ ) which was significant at the .01 level, and negative correlation between life adjustment and maternal attachment ( $r = -.325$ ) and mental health and maternal attachment ( $r = -.453$ ) both of which were significant at .01 level.

**Table 2**

*Inter-correlations among Maternal Attachment, Life Adjustment, and Mental Health of Young Adults*

Variable	Life adjustment	MH	Maternal bonding
Life adjustment	–		
Mental Health	.535**	–	
Maternal bonding	-.325**	-.453**	–

Note. \*\* $p < .01$ .

Table 3 indicates that mean difference in maternal attachment of male and female young adults was significant ( $t = 2.85$ ) at .05 level. Moreover, it was also evident from Table 3 that mean scores obtained by the female adults ( $M = 44.10$ ) was higher than the mean score obtained by male adults ( $M = 42.12$ ).

**Table 3**

*Mean Differences of Young Adults Maternal Attachment According to Gender*

Gender Type	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>
Female	60	44.10	5.20	118	2.85*
Male	60	41.12	6.21		

Note. \* $p < .05$ .

Table 4 indicates that mean difference in mental health of young adults according to their gender was significant ( $t = 3.21$ ) at .05 level. Moreover, it was also evident from Table 4 that mean scores obtained by the female adults ( $M = 12.20$ ) was lower than the mean score obtained by male adults ( $M = 14.96$ ).

**Table 4**

*Mean Difference of Young Adults' Mental Health According to Female and Male*

Gender Type	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>
Female	60	12.20	4.83	118	3.21*
Male	60	14.96	4.59		

Note. \* $p < .05$ .

Table 5 indicates that mean difference in life adjustment of young adults according to their gender was significant ( $t = 2.11$ ) at .05 level. Moreover, it was also evident from Table 5 that mean scores obtained by the female adults ( $M = 51.45$ ) was lower than the mean score obtained by male adults ( $M = 60.75$ ).

**Table 5***Mean Difference of Young Adults' Life Adjustment According to Female and Male*

Gender Type	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>
Female	60	51.45	24.92	118	2.11*
Male	60	60.75	23.47		

Note. \* $p < .05$ .

Table 6 shows that the mean of maternal attachment of young adults of lower groups were 40.16, middle groups were 42.96 and upper groups were 39.75.

**Table 6***Mean and SD of Maternal Attachment of Young Adults According to Socio Economic Status*

Socio Economic Status	<i>N</i>	<i>Mean</i>	<i>SD</i>
Lower	25	40.16	7.67
Middle	70	42.96	5.86
Upper	25	39.75	4.13

Table 7 shows that the difference in socio economic status of young adults according to maternal attachment was not significant ( $F(2, 117) = 1.66, p < .01$ ). Every mother loves her child. There was no variation in socio economic status for mother's love.

**Table 7***Analysis of Young Adults' Maternal Attachment According to Socio Economic Status*

Sources of variance	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>
Between Groups	114.40	2	57.20	1.66
Within Groups	4030.18	117	34.44	
Total	4144.59	119		

Table 8 shows that the mean of mental health of young adults of lower groups were 17.83, middle groups were 13.10 and upper groups were 16.75.

**Table 8***Mean and SD of Young Adults' Mental Health According to Socio Economic Status*

Socio Economic Status	<i>N</i>	<i>Mean</i>	<i>SD</i>
Lower	25	17.83	3.06
Middle	70	13.10	4.35
Upper	25	16.75	4.20

Table 9 shows that the difference in socio economic status of young adults according to mental health is significant ( $F(2, 117) = 4.71, p < .01$ ).

**Table 9**

*Analysis of Young Adults' Mental Health According to Socio Economic Status*

Sources of Variance	SS	df	MS	F
Between Groups	212.97	2	106.48	4.71
Within Groups	2642.19	117	22.58	
Total	2855.16	119		

Table 10 shows that the mean of life adjustment of young adults of lower groups were 74.66, middle groups were 53.79 and upper groups were 72.75.

**Table 10**

*Mean and SD of Young Adults' Life Adjustment According to Socio Economic Status*

Socio Economic Status	N	Mean	SD
Lower	25	74.66	19.71
Middle	70	53.79	24.47
Upper	25	56.10	24.55

**Table 11**

*Analysis of Young Adults' Life Adjustment According to Socio Economic Status*

Sources of Variance	SS	df	MS	F
Between Groups	4850.53	2	2425.26	4.24
Within Groups	6687.26	117	571.57	
Total	71724.80	119		

Table 11 shows that the difference in socio economic status of young adults according to life adjustment was significant ( $F(2, 117) = 4.24, p < .01$ ).

### Discussion

The present study was undertaken to find out the effect of mother child attachment on young adults mental health and life adjustment. A total of 120 university students, age ranging from 19 to 25 years, were selected on the basis of purposive sampling technique from two public universities of Dhaka city. Among them, 60 were males and 60 were females. For the sake of conveniences discussion of the findings are presented in below.

Results indicated significant negative correlation between mental health and maternal attachment ( $r = -.453, p < .01$ ). The result was consistent with the other researchers (Bowlby, 1988) who found negative relation between mental health and maternal attachment. The young adults' mental

health and maternal attachment are negatively correlated, where high scores of mental health indicates poor psychological well-being and high scores of maternal attachment indicates good maternal bonding. So, if the young adults achieve high maternal attachment scores in childhood then they had few mental health problems in adult life. In contrast if the young adults achieve low scores of maternal attachment score in childhood then they had higher mental health problem in adulthood.

The findings of the present study (Table 2) also reveal a negative correlation between life adjustment and maternal attachment ( $r = -.325, p < .01$ ). The result indicates that young adults with a low maternal attachment in childhood tend to have greater adjustment problem in adulthood. In contrast if young adults with a strongest maternal attachment in childhood tend to have fewer adjustment problem in adulthood. The result is consistent with earlier research (Ronald et al., 2002). Also the positive correlation ( $r = .535, p < .01$ ) was found between mental health and life adjustment of young adults, where high scores of mental health indicates poor mental health and high scores of life adjustment indicate poor life adjustment. The young adults who have good mental health, they have good life adjustment skill. In contrast poor mental health indicates poor life adjustment. Husain and Husain (2017) presented a study on the extent of mental health and adjustment of adolescents of public and govt. school and also to see relationship between the two variables. Results further showed direct relationship between mental health and adjustment of the adolescents belonging to the two different groups.

The present study also suggested that there was gender difference in maternal attachment (table 3). Girls show more maternal attachment than boys. This finding was consistent with the other researchers (Rohner, 2004) who found that maternal attachments also differentiate in gender. Gender difference was also found in mental health problem (Table 4). Boys show more mental health problem than girls.

Significant mean difference in the adjustment was found between boys and girls life adjustment, whose adjustment level is higher in boys than girls (table 5). This finding is consistent with the findings of other researchers (Hawkins & Weis, 1985), who found significant difference between boys and girls where boys adjustment level is high than girls. Boys can easily cope up the life adjustment problems than girls.

The findings of the present study (Table 7) reveal that the young adults' maternal attachment is not significant because mother's love for her children is being equal for every socio economic status. Results also reveal that the young adults' mental health is significant ( $F(2, 117) = 4.71, p < .01$ ) according to socio economic status (table 9). The findings of the present study (table 10) also reveal that socio economic status has significant effect in life adjustment of young adults' ( $F(2, 117) = 4.24, p < .01$ ). People from lower socio-economic class show more life adjustment problem than middle and upper class people. Middle class people show less life adjustment problem than upper and lower class people.

The present study had some limitations, which should be addressed by the future researchers or this field. These were the sample size was relatively small, sample was not selected randomly, moreover there was no empirical study available to prove the present study. After analyzing the above- mentioned limitations we can say that if the researcher take more samples through

randomization procedure the results may be more dependable.

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# **Classroom Climate, Age, Coping Skill and Catchment Area as Predictors of Academic Achievement of Pre-primary Students in Bangladesh**

**Munira Azhar Urmee<sup>1</sup>, Mithila Khan Shamapti<sup>2</sup> and Md. Kamrul Islam Raslan<sup>2</sup>**

## **Abstract**

Thus the purpose of the present study is to find out whether academic achievement of pre-primary students is related with their classroom climate, age, coping skill and catchment area and to what extent these variables create variance in their academic achievement. A one-hundred play group students are conveniently selected from the pre-primary section of ten government primary schools those are purposively selected from the Dhaka city. The personal, biological and demographic information form, Non-Standardized Classroom Climate Instrument of pre-primary students (NSCCP), Non-Standardized Coping Skill Instrument of pre-primary students (NSCSP) and Self-developed Instrument for Pre-Primary school going Children on their Academic Achievement (*SDIPA*), are used to collect the data. From the Pearson product moment correlation coefficient and multiple regression analysis it is revealed that all considered variables have significant relationships as well as classroom climate is the strongest predictor (alone creates 19.9% variance) of academic achievement of pre-primary students.

*Keywords:* classroom climate, age, coping skill, catchment area, academic achievement, pre-primary students

## **Introduction**

The pre-primary students are the youngest learners in educational institutions of Bangladesh. To enhance physical, psychological, emotional, social, aesthetic, and intellectual and language as well as holistic development of 5+ children Bangladesh National Education Policy-2010 recommended the pre-primary education for a one year. The purpose of the present study is to find out whether academic achievement of pre-primary students is related with their classroom climate, age, coping skill and catchment area and to what extent these personal, biological, demographic and psychosocial variables create variance in their academic achievement. In terms of learning of little children of this country, how much psychosocial environment, learner's age, her or his own coping skill and the placement of educational institutions are important will be realized through this study. In which type of psychosocial environment the soft hearted children are belonging in their class, whether such environment makes their educational journey smoother

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towards academic achievement – such types of information will be revealed by this study which are helpful to identify the problems faced by the pre-primary students in classroom and also will provide the directions about the probable strategies to solve those problems. Whether age is responsible for learning? Whether age appropriate academic content essential?-such information will be disclosed through this study will be helpful to introduce age appropriate curriculum and syllabus. How much own coping skill influences the learning of a pre-primary child and what type of coping skill a child should have such directions will also be flourished by this work as well as on the basis of individual treatment plan proper counseling and psychotherapy program will be developed for the children. Finally, how much distance should have between child's home and school a clear cut decision will be established through this research work.

Academic achievement represents performance outcomes commonly measured through examinations or continuous assessments that indicate the extent to which a person has accomplished specific goals that are the focus of activities in instructional environments, specifically in school, college, and university. Classroom climate means the atmosphere of the class as a social group that potentially influences what students learn (Walberg, 1971). Age represents a period of human life, measured by years from birth, and usually marked by a certain stage or degree of mental or physical development and involving legal responsibility and capacity. Coping skill is an automatic action or set of actions or a thought process taken in dealing with stressful or unpleasant situations or threatening situations or in modifying one's reaction to such situations. And the distance of 1 to 1.5 kilometers from the home of any of the students and school is called catchment area.

### **Literature Review**

Teachers must be aware of climate change and must be flexible in dealing with that change for creating a positive climate in classroom (Dietrich & Bailey, 1996). Students who receive constructive guidance and praise rather than just criticism from teacher, is likely to show more engagement in learning and academically achieve higher levels (Jagadambal & Perumal, 2015). Positive correlation is found between classroom climate and academic achievement of students (Bennett, 2001). The classroom learning environment explains 15% variance in academic achievement is found on 518 10<sup>th</sup> grade students (Malik & Rizvi, 2018). By the same way the classroom environment explains 27% variance in academic achievement is found on 1,012 students of 10<sup>th</sup> and 11<sup>th</sup> grades (Baek & Choi, 2002). A study done on 1,399 students of fifth and sixth grade found positive relationship between classroom emotional climate and students' grades which is mediated by their engagement (Reyes et al., 2012). An investigation is done on four elementary schools of Michigan and found school social climate is highly related to mean school achievement (Brookover et al., 1978).

Older children in school classrooms performed better academically than their younger peers (Stipek & Byler, 2001). A study done on students' age and academic success and found that the children who enter earliest have more problems and achieve less than those of equal IQ but entered later (Hedges, 1978). The age of students has a significant impact on academic achievement in their first and third grade years on mathematics (Voyles, 2011). Likewise it is also found that age as a contributing factor to school success of students (Green & Simmons, 1963). A study done on 5,234 children reveals a significant relation and influence of relative age effect on academic performance (Navarro et al., 2015).

A study conducted on 218 junior school freshmen and found positive coping style is significantly correlated with academic achievement (Xie et al., 2015). Four groups of children are examined who are trying to cope with a failure experience in school and it is found that children who employ positive/action-oriented coping strategies are more likely to have higher academic achievement rather than children employ defensive, self-blame, or mixed strategies (Mantzicopoulos, 1990). Another study involved 864 students from a university in Canada demonstrated that among several psychological components like-self-esteem, perceived academic control, and coping strategies- coping strategies are found to have the largest effect on students' grade point averages (Clifton et al., 2004).

A positive relationship exists between school location (closer distance to homesteads) and academic performance of students as they attend school regularly (Raychaudhuri et al., 2010). In another study it is also found that community secondary schools which are located closer to the residential areas, performed well compared to their distant counterparts (Mhiliwa, 2015).

#### **Research questions of the present study were-**

- Is academic achievement correlated with classroom climate, age, coping skill, and catchment area?
- How much academic achievement varies due to classroom climate, age, coping skill, and catchment area?

### **Methods**

#### **Participants**

As the pre-primary section is attached with government primary schools, ten government primary schools of the Dhaka city are purposively selected. A one-hundred play group students are conveniently selected from the pre-primary section of these government primary schools. Among of them, 47 are males and 53 are females. Their age ranges from 4 years (34 pre-primary students' mean age is 4 years) to 5 years (66 pre-primary students' mean age is 5 years). The mean and standard deviation of distance between of their home and school are 1.56 (k.m) and 0.49 (k.m) respectively.

#### **Measures**

The following instruments are used in this present study:

##### ***Personal, Biological and Demographic Information Form***

The personal, biological and demographic information form is used which consists of information of pre-primary students about their age, sex, class, name of school and distance between of their home and school.

##### ***Non-Standardized Classroom Climate Instrument of pre-primary students (NSCCP) and Non-Standardized Coping Skill Instrument of Pre-Primary Students (NSCSP)***

The pre-primary students are directly observed on the basis of teacher-student relationship, student-student relationship, type of awareness they possess and coping mechanisms they apply to face difficulties in classroom. Through these observations and perceived cognitive development of pre-primary students, lots of items are generated. Experts' opinions are taken, item language

and contents are again changed through their learned comments to make the instruments more consistent with a young child's psychosocial and emotional context. On the basis of experts' opinion, direct interviews and observations on pre-primary students and teachers as well as overall classroom observations the non-standardized instruments are being finalized by the researchers themselves (Urmee et al., 2020). The non-standardized Classroom Climate Instrument and Coping Skill instruments consist of 11 (each item is rated on three points response format) and 28 (each item is rated on three points response format) total items respectively. The range of lowest and highest scores of non-standardized classroom climate instrument is from 11 to 33. Likewise, the range of lowest and highest scores of non-standardized coping skill instrument is from 28 to 84.

#### ***Self-Developed Instrument for Pre-Primary school going Children on their Academic Achievement (SDIPA)***

To establish a Self-developed Instrument for Pre-Primary school going Children on their Academic Achievement (*SDIPA*), 1<sup>st</sup> piloting is done by the researchers themselves (Urmee et al., 2015) on conveniently selected 27 pre-primary students from five pre-primary sections of primary schools those are again purposively selected in Dhaka city. On the basis of keen observation about students' amount of learning in Bengali, English and Mathematics subject materials, 45 questions are prepared in unstructured way rated on five points response format (0, 0.25, 0.50, 0.75, and 1). Through 2<sup>nd</sup> piloting done by the researchers themselves (Urmee et al., 2020), the highly respond 42 items are finally selected from previous unstructured questionnaire consists of 45 items again rated on five points response format (0, 0.25, 0.50, 0.75, and 1). Here 0 is the lowest mark and 1 is the highest mark. Higher scores on *SDIPA* indicate better academic achievement and lower scores express poor academic achievement. This instrument consists of 12 Bengali, 12 English, 10 Mathematics, 06 General knowledge and 02 Drawing questions. The range of lowest and highest scores of *SDIPA* is from 0.25 to 42.

#### **Procedure**

As the pre-primary students are very young and could be unable to answer the questions of questionnaire independently, they are cordially instructed about what to do. Moreover, to increase their motivation the children also given chocolate and chips. Through this way the questionnaires are filled and the data are collected within two months.

#### **Data Analysis**

To analysis the data the descriptive statistics - mean and standard deviation are used. Besides, Pearson product moment correlation co-efficient and multiple regression analysis are used as the inferential statistics. To conduct data analysis SPSS 16 version is being used in the present study.

#### **Ethical consideration of the present study**

After taking permission from the schools' authority, the data are collected from the pre-primary students also with confirming their consent.

#### **Results**

The results of the present study are shown through the following Tables:

**Table 1***Relevant Descriptive Statistics of Pre-Primary Students According to the Predictors Considered*

Predictors	Mean ( <i>M</i> )	Standard Deviation ( <i>SD</i> )	Range of instruments (lowest to highest) Pre-primary	Range of achieved scores (lowest to highest)	Total students
Classroom Climate	25.46	4.45	13-33	11-33	100
Coping Skill	61.58	4.99	28-84	51-77	100
Academic Achievement	25.95	7.21	0.25-42	11-88	100
Catchment Area	1.56 (k.m).	0.49 (k.m)			100
Age 4 years (34 pre-primary students)	(34 + 66) = 100				
5 years (66 pre-primary students)					

The above table is likely to acknowledge or perceive positive classroom climate, better coping skill and higher academic achievement of pre-primary students of the present study. Moreover this table confirms that the residence of all children is within or near of catchment area and everyone is within 4 to 7 years.

**Table 2***Pearson Product Moment Correlation Co-Efficient of Academic Achievement of Pre-Primary Students with their Classroom Climate, Age, Coping Skill and Catchment Area*

Correlation ( <i>r</i> )	Classroom Climate	Age	Coping Skill	Catchment Area
Academic Achievement	.455**	.362**	.329**	-.303**
	.001	.001	.001	.002

Note. \*\* $p < 0.01$  (2-tailed)

From the above table, it is confirmed that the academic achievement of pre-primary students is significantly correlated with their classroom climate, age, coping skill and catchment area. However, a significant negative correlation belongs between academic achievement and catchment area.

**Table 3***Selected Statistics from Multiple Regression Analysis of Classroom Climate, Age, Coping Skill and Catchment Area on Academic Achievement of Pre-Primary Students*

Predictors	Standardized coefficient ( $\beta$ )	<i>t</i>	P
Classroom Climate	.330	3.510	.001
Age	.208	2.174	.032
Coping Skill	.137	1.461	.147
Catchment Area	-.121	-1.269	.208

Note. \*\* $p < .01$  (2-tailed); \* $p < .05$  (2-tailed).

The multiple regression analysis through enter method reveals *F* value as 10.547 at .01 level of significance and .278 as adjusted  $R^2$ . Such adjusted  $R^2$  means classroom climate, age, coping skill

and catchment area are jointly explained 27.8% of variance in academic achievement of pre-primary students. From Table 3 it is disclosed that standardized co-efficient of classroom climate ( $\beta = .330, p < .01$ ) and age ( $\beta = .208, p < .05$ ) are stronger predictors of academic achievement.

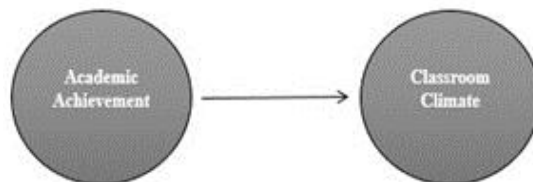
On the other hand, coping skill ( $\beta = .137, p > .05$ ) and catchment area ( $\beta = -.121, p > .05$ ) have no significant influence on academic achievement. Moreover, from multiple regressions of classroom climate and age jointly explain 26.2% and classroom climate alone explain 19.9% of variance in academic achievement respectively. By this regard, classroom climate is the strongest predictor of academic achievement among pre-primary students of Bangladesh in terms of this study context.

### Discussion

From the Pearson product moment correlation coefficient it is revealed that all considered variables -classroom climate, age, coping skill and catchment area have significant relationships with the academic achievement (like  $r$  values are .455, .362, .329 and -.303 respectively at .01 level of significance) of pre-primary students of the present study. Moreover, from the multiple regression analysis it is vividly confirmed that classroom climate and age make significant variance (both jointly explain 26.2%, while all variables combinely explain 27.8% variance) in academic achievement where as coping skill and catchment area are being unable to do it in terms of this work. And at last but not the least, through the multiple regression analysis the most fascinating result of this study is emerged that classroom climate alone create 19.9% of variance in academic achievement of pre-primary students! So obviously from this regard, classroom climate is the strongest predictor (than other predictors considered in this study) of academic achievement of pre-primary students in terms of this research work. Here it is relevant to mention that in present study, the achieved score range of 100 pre-primary students in classroom climate instrument from lowest to highest is 13 to 33 where as the instrumental range is 11 to 33, mean ( $M$ ) 25.46 and standard deviation ( $SD$ ) 4.45. Likewise, in academic achievement instrument their achieved score range from lowest to highest is 11 to 38 where as the instrumental range is 0.25 to 42, mean ( $M$ ) 25.95 and standard deviation ( $SD$ ) 7.21. But age (supported by the research works done by Voyles, 2011, Green & Simmons, 1963 as age is related with academic achievement) like classroom climate is being unable to make effect independently on academic achievement of pre-primary students of this study, represents again the powerful impact of classroom climate on academic achievement. Researches done by Jagadambal and Perumal, K. (2015); Malik and Rizvi (2018); Baek and Choi (2002); Reyes, Brackett, Rivers, White and Salovey (2012); Brookover, Schweitzer and Schneider (1978) and Bennett (2001) also obtained such type of results. The following figure clearly expresses this major investigation:

**Figure 1**

*The relationship and influence of classroom climate on academic achievement*



Classroom climate is the best predictor as it is related and influential on academic achievement of pre-primary students of Bangladesh according to this study context.

It is essential to mention that the achieved score range of 100 pre-primary students in coping skill instrument from lowest to highest is 51 to 77 where as the instrumental range is 28 to 84, mean ( $M$ ) 61.58 and standard deviation ( $SD$ ) 4.99 in this study. May be the pre-primary students of this study used positive/action oriented coping style to overcome difficulties (such types of researches done by Xie et al., 2015; Mantzicopoulos, 1990; Clifton et al., 2004) which helped them to do better score in academic achievement instrument.

Furthermore, this study reveals if students stay close to school their academic achievement becomes better as they don't need to experience longer walking, fatigue, drowsiness, hunger and thirst and can concentrate on classroom reading. On the other hand, if students stay at distant from school they need to face such negative experience and unable to concentrate on class reading. The mean ( $M$ ) 1.56 (k.m) and standard deviation ( $SD$ ) 0.49 (k.m) of distance between school and home of children of this study. Studies done by Raychaudhuri et al. (2010) and Mhiliwa (2015) support this outcome of present study.

But from the multiple regression analysis the unexpected result portion is clearly revealed that coping skill and catchment area both are being unable to explain significant difference in academic achievement. However, may be the age of children of present study is appropriate to learn their academic content and as the pre-primary students of this study have got welcoming or positive classroom climate, may be for these reasons no matters whether they can cope or not in classroom as well as whether they come from long or short distant residence.

#### **Limitations of the present study and further research**

The sample size of this study is small and data are collected only from the Dhaka city. Further research is required on a large sample on pre-primary students of all over the Bangladesh with other variables like- children's sex, parental academic qualification, and parental socio-economic status and so on by establishing standardized scale.

#### **Conclusion**

In Bangladesh, the research work on pre-primary children is very limited. So such type of research must be increased to acknowledge pre-primary learners' aptitude, their learning process as well as their learning environment. Through these kinds of studies the inner qualities and skills of little children will be invented which will be helpful to guide these children effectively for their future prosperous life.

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## Attitude towards Cigarette Smoking among University Students

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### Abstract

Controlling the consumption of smoking in university area requires understanding the attitude of smoking among students. Therefore, the present study aimed to investigate the attitude towards smoking and to examine whether the type of sex and socioeconomic status influences smoking-related attitudes between smoker and non-smoker students of Jagannath University. A total of 141 smoker and 159 non-smoker students have participated voluntarily. Results showed that smokers had a moderate level of positive attitude towards smoking in contrast to non-smoker, who had a high level of negative attitude. Both smoker and non-smoker groups had high positive attitude on the intervention and prevention related attitude towards smoking behavior. Moreover, the *t*-test analysis found significant differences in attitude towards smoking behavior ( $t = 4.63, p < .01$ ), attitude towards smokers ( $t = -5.87, p < .01$ ), and in attitude towards the perceived extent of smoking problems ( $t = 4.15, p < .01$ ) between smoker and non-smoker participants. But the findings did not show any significant differences in attitude towards smoking intervention and prevention related attitude between smokers and non-smokers. In addition, the multivariate analysis shows sex influences on smoking related attitude but not socioeconomic status. This study will help to plan for the intensive awareness program for university students, especially at Jagannath University.

*Keywords:* cigarette, smoking, attitude, students, university

### Introduction

Smoking consumption in early stages in life will develop a regular pattern of smoking and it would be difficult to stop (Hassan et al., 2019). It is well known that smoking leads to harms nearly every organ of the body and it emerges some kind of disease and disability. About 25% of all deaths of Bangladeshi men aged between 25 to 69 years occur (Alam et al., 2013) due to smoking. Most serious negative health outcomes as cancer, heart disease, stroke, lung diseases, diabetes, and chronic obstructive pulmonary disease (COPD), which include emphysema and chronic bronchitis disease will occur from smoking (Musmar, 2012). Researcher found that smokers, compared to non-smokers, had greater amounts of age-related brain volume loss in several areas of the brain (Durazzo et al., 2017). Moreover, nicotine addiction (Taioli & Wynder, 1991) is vulnerable for developing anxiety disorders and depression (Goodman & Capitman, 2000; Johnson et al., 2000). Though the hazardous effects of consuming cigarette, the number of tobacco smokers is escalating in our country for the ease use of tobacco products, weak tobacco control system, and lack of enforcement of existing regulations (Hossain et al., 2017). WHO

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(2009) reported that Bangladesh is one of the high smoking consuming country in the world with a prevalence of 22 million people (23.0%) were surveyed by the Global Adult Tobacco Survey. A study revealed that approximately 12.0% and 26.0% of the whole population aged 15–24 and 25–44 years are consuming some form of tobacco, respectively. Initiation of smoking in an early age may be the age of onset of some disease processes earlier and higher incidence (Xu et al., 2016). The Global Youth Tobacco Survey (GYTS) (2012), surveyed 750,000 college-going students in 131 countries found about 9% of students were smoke cigarettes as 11% of students used tobacco products aside from cigarettes. This study also demonstrated that consumption of cigarette smoking starts at the early age of 13–15 years (Wangeri et al., 2012). A recent study found the prevalence of smoking in our country 37% and among them, 50% of students are male smokers (Hassan et al., 2019) and after entering the university one-third of non-smokers become regular smokers by the end of their studies (Senol et al., 2006). Earlier study revealed prevalence of smoking is higher among last year of students compared with first-year students (Masjedi et al., 2003).

Attitude towards smoking refers to positive or negative beliefs associated with tobacco use or smoking consumption and cessation which are expressed in a cognitive, affective, and behavioral manner (Eagly & Chaiken, 1993). Positive attitude are those beliefs that support the consumption of smoking by indicating the perceived benefits of use. Negative attitude, on the other hand, refer to the beliefs that discourage the consumption of smoking. A study conducted on students' attitude towards the ban and the enforcement of a non-smoking policy in public places found non-smokers shows very positive attitude to prevent smoking in public places compared with smokers (Chaaya et al., 2013). Another study demonstrated that students who have negative attitude toward smoking, display stumpy tendency to start smoking at a young age found in China (Xu et al., 2016). In Bangladesh perception about smoking was considerably related with tobacco using (Hossain et al., 2017). Studies shows on respective of smoking status both women and men who smoke have the similar beliefs about smoking like smoker have more friends (Clarke et al., 1993; Pop, Brinzaniuc et al., 2013). In addition, people with a low socio-economic status may therefore be more prone to indulge in persistent smoking because they are more present-oriented and less inclined to worry about the adverse future effects (Peretti-Watel et al., 2013). In America about 40 percent people who live below the poverty line are more likely to smoke (Hiscock et al., 2012). So it is evident that attitude and demographic factors like sex differences, educational level, and socioeconomic status will be influence on student's attitude to instigate and maintain the smoking behavior. Understanding attitude towards the smoking issues is significant to prevent smoking because without understanding public belief the prevention-related policies will not succeed.

The university years are an important life phase for every student. In this major transition period many young adults migrate from the family home to more self-regulating lifestyles and liberal environments and students may be exposed for the first time or experience peer pressure to start new social experiences such as smoking (Al Omari et al., 2020). After entering the university settings due to the social, emotional, and educational challenges they are at high risk for initiating and continuing smoking and illicit substance use (Chaaya et al., 2013; Farajat et al., 2011; Poscia et al., 2015; Wangeri et al., 2012). Social setting has been found to be “an important factor” in cigarette smoking reported by 70 percent of college smokers (Waters et al., 2006). Among university students smoking habits is increase due to alleviate the stress, life problems, peer

pressure, social acceptance, family history of smoking, lower parents' educational level, and the desire to attain high personality profile (Amin et al., 2016). Reducing the cigarette consumption in open areas of the university territory smoke-free policies, anti-tobacco messages, and cigarette pricing intervention policy influences positively on student behavior (Murphy-Hoefer et al., 2005). They also illustrate that these institutional interventions increase the acceptability of smoking policies and campus restrictions among both tobacco users and nonusers. Researchers (Butler et al., 2012) demonstrated that the policy for smoke-free campuses can prevent non-regular smokers from becoming regular smokers in university. When our concern is reducing the number of smokers then targeting university students is important because smoking is initiated in young adulthood (aged between 18 and 21). Smoking initiation may perhaps decrease among students by changing the attitude regarding smoking through policies and decreasing exposure of non-smoker to tobacco use. So, reducing the rates of smoking among university students in Bangladesh it is essential to know more about how attitude and demographic factors sex and socioeconomic status were contributing in smoking.

### **Objectives of the study**

The objectives of this study were to see whether

- i. there were any differences in attitude towards smoking behavior
- ii. there were any differences in attitude towards the smokers
- iii. there were any differences in attitude towards the perceived extent of smoking problems
- iv. there were any differences in attitude towards intervention policy
- v. there were any differences in attitude towards smoking prevention
- vi. sex, socioeconomic status and smoker types influences the main effect of attitude towards smoking behavior

### **Methods**

#### **Participants**

To conduct this study a cross-sectional survey research design was used. Purposive sampling technique has followed to collected data from smoker and non-smoker students. Both group were selected to explore the differences of attitude towards smoking behavior. 300 student participants, smoker (141) and non-smoker (159) were participated voluntarily from Jagannath University in this study. The survey was done from July-August, 2019. Among the participants 229 (76.3%) were male and 71 (23.7%) were female. The age range of the participants was 18 years to 32 years and the mean age of the participants was 22.58 years. Among them 2.3% participants were lower class, 15.3% were lower middle class, 81.3% were middle class and 1% was upper class.

#### **Measures**

##### ***Personal Information From***

Personal information in this study was included as a participant's sex, age, educational level, socio-economic status.

##### ***Attitude towards Cigarette Smoking Behavior Questionnaire***

Adapted Bangla version of attitude towards cigarette smoking behavior *Questionnaire* (Akter et al., 2019) was used to assess smoking behavior related attitude between smoker and non-smoker

participants. The questionnaire was modified from Attitude toward Drug taking Behavior questionnaire (Bryan et al., 2000). The original questionnaire has 32 statements in five relevant aspects of the drug issue namely perceptions of the extent of the drug problem and of drug use, perceived Drug Use among Young People, Perceived Harm and Dangers Associated with Illegal Drug Use, attitude towards Drug-Addicted Individuals, and attitude towards drug policy. The adapted Bangla version of attitude towards cigarette smoking behavior Questionnaire contains 24 items in five subscales: attitude towards smoking: 5 items (1, 2, 3R, 4, 5); attitude towards smoker 8 items (6, 7, 8, 9, 10R, 11, 12, 13), attitude towards the perceived extent of the smoking problems 4 items (14, 15, 16, 17R), attitude towards intervention policy for smoker 3 items (18, 19, 20R) and attitude towards support for smoking prevention 4 items (21, 22, 23, 24). Here, (“R” denotes Reverse –scored items). Seven points Likert type response format was used ranging from 7 (*strongly agree*), 6 (*moderately agree*), 5 (*slightly agree*), 4 (*Undecided*), 3 (*slightly disagree*), 2 (*moderately disagree*), and 1 (*strongly disagree*). In this questionnaire, a higher score indicates a highly negative attitude toward smokers in the smoker subscale and a highly positive attitude toward the smoking behavior, perceived extent of the smoking problems, intervention policy, and support for smoking prevention subscales. All five subscales of attitude towards smoking, attitude towards the smoker, attitude towards the perceived extent of the smoking problems, attitude towards intervention policy and attitude towards support for smoking prevention questionnaire show high internal consistency with Cronbach’s  $\alpha$  coefficient values of .683, .721, .673, .712 and .684.

### Procedures

For data collection, written consent was taken from the participants after sharing the research purpose and data confidentiality. When the participants were agreed, they were requested to fill up the personal information and the attitude toward smoking behavior questionnaire carefully. Before responding items they were asked to read the instructions printed on the questionnaires. They have answered all the questionnaires based on how they felt about the items in questions. After completion of their task the questionnaire was collected from them and the researcher gave thanks to the participants. In this way, data were collected from the university students.

### Results

The *t*-test analysis was performed to see the differences on attitude towards smoking between smoker and non-smoker students. Table 1 shows smokers ( $M=18.84$ ) have a high level of positive attitude towards smoking behavior than non-smoker participants ( $M=15.87$ ). On the other hand, non-smoker has a high level of negative attitude towards smokers ( $M=40.65$ ) and the amount of smoking problems ( $M=14.68$ ) than smoker participants. The mean score also represents both groups had high positive attitude towards an intervention for smoking behavior and smoking prevention attitude. The *t*-test analysis also showed significant differences between smoker and non-smoker in their attitude towards smoking behavior ( $t=4.63, p < .01$ ), attitude towards smokers ( $t=-5.87, p < .01$ ), and attitude towards the perceived extent of smoking problems ( $t=4.15, p < .01$ ). But there was no significant difference in attitude towards smoking intervention and prevention between smoker and non-smoker.

**Table 1***Mean, SD, and t-test of Attitude between Smoker and Non-Smoker Students (N = 300)*

Attitude towards	Smoking type	N	Mean	SD	t
Smoking behavior	Smoker	141	18.84	5.43	4.63**
	Non-smoker	159	15.87	5.63	
Smoker	Smoker	141	35.89	7.57	5.87**
	Non-smoker	159	40.65	6.47	
Perceived extent of smoking problems	Smoker	141	16.53	4.21	4.15**
	Non-smoker	159	14.68	3.53	
Smoking intervention	Smoker	141	15.71	2.96	1.38
	Non-smoker	159	16.26	3.79	
Smoking prevention	Smoker	141	23.09	3.68	0.83
	Non-smoker	159	23.49	4.42	

Note. \*\*  $p < .001$ .

According to Table 2, both smoker and non-smoker respondents agreed that smokers had more friends. Further, it was found that smokers (31.2%) and non-smokers (52.8%) totally disagreed that people who smoke were more attractive. About 75.5% of non-smokers totally agreed that a total ban on smoking was necessary to protect students. About 52.2% non-smoker totally disagreed that smoking was a good relaxation than 19.1% of smokers. This response pattern suggests that non-smoker has a less positive attitude towards smoking behavior compared to a smoker.

**Table 2***Attitude towards Smoking Behavior between Smoker and Non-smoker Students (N = 300)*

Questionnaire item no	Statement	smoker/ non-smoker	totally disagree	moderately disagree	slightly disagree	do not know	slightly agree	moderately agree	totally agree
1.	Smokers have more friends	S	17.0%	8.5%	11.3%	4.3%	20.6%	21.3%	17.0%
		NS	17.0%	10.7%	8.2%	8.2%	15.7%	20.1%	20.1%
2.	Smoking makes people more attractive	S	31.2%	13.5%	18.4%	11.3%	7.8%	6.4%	11.3%
		NS	52.8%	5.7%	10.7%	11.9%	5.7%	5.0%	8.2%
3.	smoking in open space should ban	S	6.4%	6.4%	3.5%	2.1%	16.3%	27.0%	38.3%
		NS	4.4%	0%	1.3%	.6%	3.1%	15.1%	75.5%
4.	students were smoke without knowing about the harmful consequences of smoking,	S	14.9%	16.3%	9.2%	5.0%	16.3%	16.3%	22.0%
		NS	16.4%	6.9%	7.5%	3.1%	17.0%	22.0%	27.0%
5.	Smoking is a good way for mental relaxation	S	19.1%	2.8%	5.0%	3.5%	34.8%	16.3%	18.4%
		NS	52.2%	10.7%	6.3%	8.2%	6.3%	5.7%	10.7%

Table 3 displays the level of agreement with statements relating to personal beliefs about and societal attitude towards smokers. The data showed non-smoker tended to avoid smokers (41.5%) and considered smokers as criminals (35.8%). The smokers are not given a fair chance to get along in society, which was agreed by 28.3% of non-smoker. About 70.4% of non-smoker opined that smoking makes them uneasy and 61.6% of them felt troubled to live near a smoker. Furthermore, almost half of the non-smoker respondents (48.4%) gave opinion that people who come to an end with smoking problem blame themselves and 29.6% non-smoker think smoker exaggerated their troubles to get sympathy, suggesting a lack of sympathy for the smoker. On the other hand, high percent of non-smoker (61.6%) and smoker (35.5%) both group agreed that all smokers were harmful. So, this response pattern suggests that a large proportion of non-smoker students had mostly negative societal attitude to smokers.

**Table 3**

*Attitude towards Smokers between Smoker and Non-smoker Students (N=300)*

Questionnaire item no	Statement	smoker/ non-smoker	totally disagree	moderately disagree	slightly disagree	don't know	slightly agree	moderately agree	totally agree
6.	I would see smoker as criminal	S	15.6%	7.8%	15.6%	9.2%	16.3%	17.0%	18.4%
		NS	6.3%	4.4%	10.1%	5.7%	17.6%	20.1%	35.8%
7.	I would tend to avoid smoker	S	23.4%	15.6%	21.3%	11.3%	13.5%	6.4%	8.5%
		NS	6.3%	3.1%	6.9%	1.9%	14.5%	25.8%	41.5%
8.	Smokers are not given a fair chance to get along in society.	S	24.8%	13.5%	16.3%	8.5%	10.6%	16.3%	9.9%
		NS	9.4%	7.5%	11.3%	10.1%	15.1%	18.2%	28.3%
9	People who end up with a smoking problem have only themselves to blame.	S	9.9%	4.3%	9.2%	9.9%	11.3%	21.3%	34.0%
		NS	3.1%	5.7%	8.2%	3.1%	12.6%	18.9%	48.4%
10	Smoking makes me uneasy	S	14.9%	14.9%	22.0%	12.8%	14.2%	11.3%	9.9%
		NS	2.5%	14.5%	4.4%	1.9%	3.1%	3.1%	70.4%
11	Smoker exaggerates their troubles to get sympathy.	S	5.7%	5.0%	8.5%	19.9%	17.0%	26.2%	17.7%
		NS	6.3%	2.5%	6.9%	24.0%	11.9%	18.2%	29.6%
12	All smokers are harmful to a non-smoker	S	2.8%	3.5%	5.7%	5.0%	17.0%	19.9%	46.1%
		NS	2.5%	1.9%	3.1%	1.3%	9.4%	21.4%	60.4%
13	It would bother me to live near a smoker person	S	7.1%	4.3%	7.1%	2.1%	19.9%	24.1%	35.5%
		NS	1.3%	0%	1.9%	1.9%	12.6%	20.8%	61.6%

As summarized in Table 4, both groups of smoker (9.9%) and non-smoker (31.4%) were perceived people were not concerned about the smoking problem in Bangladesh, while over half of the non-smoker (59.7%) were perceived smoking was a problem. Further, the highest percentage of smoker (42.6%) and non-smoker (62.3%) agreed that the availability of tobacco products was a cause for concern, as very few percentage 7.8 smoker and 7.5 non-smoker assumed that the current smoking situation in Bangladesh was out of control.

**Table 4**

*Attitude towards the Perceived Extent of the Smoking Problems between Smoker and Non-smoker Students (N=300)*

Questionnaire item no	Statement	smoker/ non-smoker	totally disagree	moderately disagree	slightly disagree	don't know	slightly agree	moderately agree	totally agree
14	Most people are concerned about the smoking problem in Bangladesh	S	9.9%	7.1%	12.1%	2.8%	20.6%	27.0%	20.6%
		NS	31.4%	9.4%	11.9%	4.4%	11.9%	18.2%	12.6%
15	The availability of tobacco products poses a great threat to young people nowadays.	S	8.5%	.7%	3.5%	2.1%	23.4%	19.1%	42.6%
		NS	3.1%	1.9%	3.8%	1.3%	9.4%	18.2%	62.3%
16	smoking is not really a problem for us	S	36.2%	12.8%	19.1%	10.6%	4.3%	8.5%	8.5%
		NS	59.7%	20.1%	2.5%	4.4%	1.3%	6.9%	5.0%
17	The smoking problem in Bangladesh is out of control.	S	28.4%	16.3%	19.1%	6.4%	9.9%	12.1%	7.8%
		NS	38.4%	21.4%	6.3%	8.2%	11.9%	6.3%	7.5%

As summarized in Table 5, there was a very high level of agreement on providing counseling services (smoker 44.0% and non-smoker 65.4%). About 17.0% of smokers suggested that tobacco products should not be against the law and policymakers should not receive too much pressure to change existing laws in relation to smoking cessation.

**Table 5***Attitude towards Smoking Intervention Policy between Smoker and Non-smoker Students (N=300)*

Questionnaire item no	Statement	smoker/ non-smoker	totally disagree	moderately disagree	slightly disagree	don't know	slightly agree	moderately agree	totally agree
18	Treatment should be available to reduce the physical problems of smoker	S	5.7%	.7%	2.1%	5.7%	16.3%	36.2%	33.3%
		NS	1.9%	6.3%	5.7%	6.9%	11.9%	30.8%	36.5%
19	counseling service should be provided for the smoker	S	1.4%	1.4%	0%	5.0%	12.1%	36.2%	44.0%
		NS	4.4%	1.3%	1.9%	6.9%	5.0%	15.1%	65.4%
20	The use of tobacco products should not be against the law.	S	22.7%	11.3%	11.3%	7.8%	14.9%	14.9%	17.0%
		NS	37.7%	12.6%	7.5%	6.3%	3.1%	8.2%	24.5%

Table 6 showed that smoking prevention attitudes was very high between smokers and non-smoker students. There was very strong agreement among the students in terms of the following issues: 'starting education on the harmful consequences of smoking at the primary level' (smoker 54.6% and non-smoker 62.9%) and 'money spent on prevention strategies is well spent' (non-smoker 45.3% and smoker 31.9%), 'a smoker should be charged to smoke in open space' (smoker 39.7% non-smoker 67.9%) and 'cigarette should sale in packets will deter smoking among students' (smoker 43.1% and non-smoker (42.1%).

**Table 6***Attitude towards Support for Smoking Prevention Smoking between Smoker and Non-smoker Students (N=300)*

Questionnaire item no	Statement	smoker/ non-smoker	totally disagree	moderately disagree	slightly disagree	don't know	slightly agree	moderately agree	totally agree
21	Educate students about the harmful consequences of smoking should start at primary levels in school	S	2.8%	2.8%	2.1%	.7%	15.6%	21.3%	54.6%
		NS	1.3%	.6%	2.5%	1.3%	8.2%	23.3%	62.9%

22	Money spent on the prevention of smoking is well spent	S	5.7%	.7%	1.4%	3.5%	19.9%	36.9%	31.9%
		NS	9.4%	3.1%	1.9%	8.8%	7.5%	23.9%	45.3%
23	A smoker should be charged to smoke in open space	S	4.3%	3.5%	4.3%	5.7%	21.3%	21.3%	39.7%
		NS	3.1%	1.3%	.6%	1.9%	3.1%	22.0%	67.9%
24	cigarette should Sale in packets it will deter smoking among students	S	4.3%	1.4%	3.5%	3.5%	24.1%	19.9%	43.3%
		NS	11.3%	6.9%	4.4%	7.5%	10.7%	17.0%	42.1%

In Table 7, there was no significant main effect in terms of sex ( $F(5, 282) = 429.97, p > .05$ ), socioeconomic status ( $F(15, 852) = .824, p > .05$ ) in relation to the attitude towards smoking behavior. However, the main effect of the smoking type ( $F(5, 282) = 5.63, p > .05$ ), and the interaction effect sex  $\times$  smoker type ( $F(5, 282) = 2.81, p > .05$ ) were found significant.

**Table 7**

*Analysis of Variance in Sex, Socio-economic Status, Smoking type, and Attitude towards Smoking Behavior*

Effect	Value	<i>F</i>	Hypothesis <i>df</i>	Error <i>df</i>	<i>P</i>
Intercept	.884	429.97	5	282	.000
Sex	.020	1.15	5	282	.334
Socioeconomic status	.043	.824	15	852	.651
Smoking type	.091	5.63	5	282	.000
sex $\times$ Smoking type	.048	2.81	5	282	.017
Socioeconomic status $\times$ smoking type	.077	1.50	15	852	.098
Sex $\times$ Socioeconomic status	.025	.48	15	852	.950
Sex $\times$ Socioeconomic status $\times$ Smoking type	.021	1.18	5	282	.317

### Discussion

This study was intended to see whether there are any differences on attitude towards smoking and whether the type of sex and socioeconomic status influences the main effect on smoking related attitude between smoker and non-smoker students of Jagannath University. According Table 1, the mean differences of attitude towards smoking describe both negative attitude that discourage

smoking as well as positive attitude that encourage smoking among the students of Jagannath University.

To explaining the result, the first objective result presented in Table 1 shows the significant differences exist between smoker and non-smoker on attitude towards smoking behavior ( $t=4.63$ ,  $p < .01$ ). The percentage analysis showing in table 2 of each statements in attitude towards smoking behavior subscales illustrate high percentage of non-smoker students oppose that smoker were looking attractive when they smoke and smoking is a good way of mental relaxation. To elucidation this non-smokers were not seen smoking as a recreation activity (Muendo, 2015; Musmar, 2012). But both smoker and non-smoker students were having the same opinion to ban on smoking is necessary to protect students. This response pattern suggests non-smoker students have more negative attitude towards smoking than smokers' students. May be this attitude discourages smoking among non-smoker students. This findings is consistent with the study pointing out smoking was greatly influenced by their attitude (Muendo 2015) found in the focus group discussions.

For second objective, the table 1 presented that significant differences exist between smoker and non-smoker students on attitude towards smoker ( $t = -5.87$ ,  $p < .01$ ) subscale. From table 3 the percentage analysis in each statement in attitude towards smoker subscales describes large proportions of non-smoker students have mostly negative societal attitude to a smoker was consistent with the findings (Chaaya et al., 2013; Hossain et al., 2017). These attitudes to smokers were characterized by social avoidance and lack of sympathy on the view that all smokers are harmful to non-smoker. The social distance expressed was consistent with the findings from (MacGréil, 1996) study of 'prejudice and tolerance' in Ireland. It suppose that such beliefs about the smoker may be influential in preventing non-smokers from becoming involved in smoking (Hossain et al., 2017; Keene, 1997).

For the third objective of this study observe significant differences exist between smoker and non-smoker students on attitude towards the extent of smoking problems ( $t = 4.15$ ,  $p < .01$ ) in our country from Table 1. The percentage analysis shown in Table 4 each statement in attitude towards extent of smoking problems subscales describe over half of the non-smoker were seen smoking is a problem and feel the availability of tobacco products was a cause for concern (Bryan et al., 2000) and it is a great threat to young people nowadays. The both group of smoker and non-smoker considering that the existing smoking condition in Bangladesh was not 'out of control'. It implies that if we take necessary steps can control smoking consumption in university area.

Regarding the fourth and fifth objective of this study the result observed no differences on attitude towards the smoking intervention and prevention between smoker and non-smoker students from Table 1. From Table 5 the percentage analysis of each statements in attitude towards smoking prevention subscales represent clear support for the forms of treatment, and counseling service currently being provided, and it was generally accepted that those in need of such services should have access to them for intervening the smoker person. In attitude towards smoking prevention subscales the percentage analysis of each statement presented in Table 6 describe large proportions of smoker and non-smoker students were accord that to prevent smoking among students should spent money to sensitize students about the harmful consequences of smoking

starting from primary level. Besides students should charge for smoking in open space and cigarette should sale in packets consistent with the findings for smoking preventive beliefs among students (Hossain et al., 2017; Keene, 1997). The current findings suggest that a comprehensive Jagannath University-based tobacco control campaign is urgently required.

For the sixth objective the results shows the type of sex influences the main effect on smoking related attitude but socioeconomic status did not influences the main effect on smoking related attitude. So, the present findings of this result are not consistent with the previous findings(Clarke et al., 1993; Hiscock et al., 2012; Peretti-Watel et al., 2013; Pop et al., 2013). It can be explained, by the attitude related above finding to instigate and maintaining smoking cigarette, smoking related attitude influences more rather than other demographic factors.

There are some limitations of this study. The study had collect data only from Jagannath University area; the results of our study may not be fully representative of other university students of other parts of the country.Finally, this study cannot be confirmed causal association.So, replicating this study, research should focus on the findings to students in other countries, given the socio-cultural differences between Bangladesh and elsewhere.

### Conclusion

Based on the present study's findings, students are an important group to consider for implementing a tobacco-control policy in a university campus. Controlling tobacco use and execution of smoking ban in university widely students should be considered as stakeholders in the analysis of the policy process. It is necessary to sensitize students regarding the dangers of smoking and increase the knowledge about the harmful effects of tobacco products continuously carried out by parents, teachers as well as through the mass media. Schools should enhance regular guidance and counseling talks that will encourage students to keep away from experimenting with tobacco products and also to encourage students who smoke to cease the behavior. The challenges of the implementation of a tobacco-cessation policy at a university could be overcome by having a comprehensive national tobacco-control policy.The government should take necessary steps to ensure that tobacco products are not easily affordable to students

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## **Childhood Adversity and Mindfulness among the Young Adults in Bangladesh**

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### **Abstract**

Childhood adversity is a sensitive matter. Millions of Bangladeshi kids expose to hostile childhood in recent years. The present study was intended to estimate the prevalence of different forms of childhood adversity and how they are related to mindfulness among the Bangladeshi young adults. Data were collected from 289 young adults following purposive sampling technique. Results revealed that 34.3% and 13.9% participants experienced screaming and humiliation repeatedly by their mother and prevalence rates were 22.9% and 11.8% for father correspondingly. 24.9% and 17.7% respondents experienced frequent corporeal punishment by their mother and father respectively and 3.5% of them required medicinal care because of being harshly hurt by their mothers. 16.3 and 11.4 percent reported about witnessing recurrent psychological and physical maltreatment directed toward other family members. Basic needs of the respondents were not satisfied by mother for 1.7 percent. 6.6% reported that their mothers did not speak to them for a long time. 15.8, 34.3, 10.4, and 5.5 percent adults reported that other individual showed them erect penis, touched victims' penis/vagina/breasts, put mouth or tongue on victim's penis/vagina, and put penis in victim's vagina/anus respectively. Also, this study exposed that childhood physical, psychological and sexual abuse, neglect and witnessing family violence were negatively correlated to mindfulness in later life. The findings are likely to be a supportive resource to take essential actions regarding the psychological wellbeing of the victims.

*Keywords:* childhood adversity, mindfulness, young adult

### **Introduction**

Childhood adversity is a widespread phenomenon that may include but is not limited to psychological, physical, and/or sexual abuse; mental and/or physical negligence; household viciousness etc. (Cohen et al., 2013; Burghy et al., 2012). Each year millions of children become the victims of multiple abusive acts (McLaughlin et al., 2012). Gilbert et al. (2009) reported that in high-income countries, yearly, around 4–16 percent of children are mistreated physically, one in ten is neglected, 5–10 percent of girls and up to 5 percent of boys are sexually abused; and 80 percent of all abusive acts are committed by caregivers. In a meta-analytical study, Barth et al. (2013) reported that the frequency of child sexual exploitation ranged from 8 to 31 percent for girls and 3 to 23 percent for boys. Stoltenborgh et al. (2013) unveiled that the prevalence rates of psychological and sexual abuse were 36 and 13 percent respectively and in 2015, they assessed that the prevalence of child physical and emotional negligence were 16 and 18 percent

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correspondingly. Researches carried out in the South Asian countries displayed a varied rate multiple forms of abuse also. For example, prevalence rate for psychological abuse was 84 percent in Pakistan (Wasif, 2018), 84.5 percent in India (Kumar et al., 2017), and 75 percent in Nepal (Neupane et al., 2018). Occurrence rates for negligence varied from 35–60 percent in different studies of India (Daral et al., 2016; Charak & Koot, 2014) and the rate was 45% in Nepal (Neupane et al., 2018).

In Bangladesh, Hadi (2000) carried out a study with 1995 children of 150 villages, aged 10–15 years, and found that 2.3 percent of all children were physically abused. Another study assessed the incidence of child physical abuse committed by adults in Bangladeshi rural area and found beating, kneeling and cuffing as the most usual form of physical abuse (Haque et al., 2019). According to a report of a rights-based organization in Bangladesh, among the recorded 588 rape cases from January to September, 2017, there were 100 child victims (European Asylum Support Office, 2017). Fattah and Kabir (2013) revealed that 9 percent of all rape victims were children and 83 percent of them were abused by outsiders. Psychological viciousness was experienced by 72 percent children of 1–14 years (Bangladesh Bureau of Statistics and Unicef Bangladesh, 2016). Manusher Jonno Foundation (2018) evaluated reports of six daily newspapers of Bangladesh and found that at least 271 children lost their lives after being raped in 2018. Minimum 129 children were abused by their instructors and among them, around 70 and 33 children were physically and sexually abused respectively.

Regardless of the rate, nature and intensity, childhood adversity poses serious hazard to children's overall well-being as it is robustly related to a variety of lifelong physical and mental health problems (Centers for Disease Control and Prevention, 2020; Pearce et al., 2019). As childhood adversities increase, the possibility of future psychopathology (McLaughlin et al., 2012), suicidal ideation (Xiang et al., 2018), depression etc. increases. Experiences of adversity in early life can disrupt the structure and function of brain, which in turn interrupt the healthy expansion of an individual and lead to behavioral, psychological, and physical health problems during childhood and continue to adolescence as well as adulthood (Basar et al., 2018). Researchers found significant negative association between adverse experiences and mindfulness (Perona- Garcelán et al., 2014; Michel et al., 2007). Mindfulness can be defined as one's capability to firmly direct and sustain moment-by-moment awareness in recognizing and accepting own thoughts, feelings, physique sensations and immediate environment (Teasdale et al., 1995).

In recent years, millions of Bangladeshi kids expose to hostile childhood at home, educational institutes, or other public places regardless of age, gender and class (Islam & Akhter, 2016). The availability of reliable evidence regarding the prevalence of various maltreatments in childhood is not much remarkable in Bangladesh. Most of the accessible statistics on abusive acts has been covered in news articles and maximum surveys were carried out directly with child sample. In the issue of young adults' mindfulness in relation to childhood adverse experiences, all over the world, researchers are more focused on reducing the impact of childhood adversities through mindfulness-based approaches (Ortiz & Sibinga, 2017; Bethell et al., 2016). Only few studies had focused on the relationship between childhood adversity and mindfulness as adult (Perona-Garcelán et al., 2014; Michel et al., 2007), and in Bangladesh, such study is not carried before. To

fill this slit, the current study aims to estimate the prevalence of different forms of childhood adversity and examine how adverse experiences of childhood are linked to mindfulness among young adults. The outcomes will add value to the existing literature and these are likely to be a supportive resource for the mental health practitioners to yield required movements concerning psychological wellbeing of individuals who are suffering with the frightening experiences of childhood.

### **Objectives of the study**

The study was primarily intended to estimate the prevalence rate of several forms of maltreatments in childhood and examine how early years adversity was related to mindfulness among the Bangladeshi young adults. Specific objectives were to estimate-

- i. The prevalence of psychological maltreatment, physical abuse, neglect and sexual abuse by mother, father and any other known or unknown people in childhood.
- ii. The prevalence of witnessing psychological maltreatment and physical abuse directed towards other in the family during childhood.
- iii. Whether childhood psychological, physical and sexual abuse, witnessing family violence, and negligence has any significant relation to mindfulness in adulthood.

## **Methods**

### **Participants**

Two public and three private universities, located in the Dhaka city, were selected conveniently. A total of 300 undergraduate students, age ranging from 19 to 24 years, were taken on the basis of purposive sampling technique, but information of 11 participants were excluded as they did not answer all the items. Among 289 participants, 157 (54.32%) were male and 132 (45.67%) were female students. The study was carried out following a cross-sectional survey design.

### **Measures**

Adapted Bangla version of the “Comprehensive Child Maltreatment Scale (CCMS) for Adults” and “Mindful Attention Awareness Scale” (MAAS) were used to measure childhood adversity and mindfulness among Bangladeshi young adults. These are as follows:

#### ***Comprehensive Child Maltreatment Scale (CCMS) for Adults***

The Bangla CCMS for Adults (Ferdous et al., 2020) was developed by Higgins and McCabe (2001). It is a 22-item self-report measure of adults’ perception of their childhood experiences in terms of five sub-dimensions- psychological maltreatment, physical abuse, witnessing family violence, neglect, and sexual abuse. Participants respond to each item three times for all the sub-dimensions, except witnessing family violence, in relation to their mother, father, and other adult/adolescent who was at least 5 years older than the respondent. Psychological maltreatment, physical abuse, and neglect sub-dimensions each contains 3 items and *witnessing family violence* dimension contains two items, rated on a 5-point scale (0 = never or almost never to 4 = very frequently). The 11 items of *sexual abuse* dimension are rated on a 6-point scale (0 = never to 5 = more than 20 times). Reliability coefficients for each subscale for the adapted version were: .797, .795, .892, .847 and .837 for psychological maltreatment, physical abuse, witnessing family

violence, neglect, and sexual abuse respectively. Test-retest reliability correlation for each of the sub-scales were: psychological maltreatment .938, physical abuse .962, witnessing family violence .844, neglect .873, and sexual abuse .927. Validation of the instrument was assured by content and convergent validity.

#### ***Mindful Attention Awareness Scale (MAAS)***

The Bangla MAAS (Islam & Siddique, 2016) was developed by Brown and Ryan (2003). It is a 15-item scale which is designed to assess individual differences in mindful states over time. It is a 6-point Likert scale ranging from 1 (*almost always*) to 6 (*almost never*), where high scores reflect high level of mindfulness. Cronbach's alpha for the adapted version is 0.85 with sound discriminant validity.

#### **Procedure**

Each respondent was clarified about the overall aim of the study at the beginning for taking their consent assuring that all information given by them would be kept confidential and be used only for research purpose. Participants had the right to withdraw from the research at any time. Both written and verbal instructions were provided to them for clarifying their tasks. Participants were informed about the sources from which they could receive psychological services if needed. After completion, all the respondents were thanked for their cooperation.

#### **Results**

In order to determine the prevalence of adversity in childhood and its relation with mindfulness as adult, descriptive statistics and Pearson product moment correlation were applied respectively on the obtained scores. The findings are presented in the following tables.

Table 1 shows that 34.3% respondents experienced screaming frequently by their mother, 22.9% by father, and 10% by any other known or unknown person; 13.9%, 11.8%, and 9% respondents become humiliated recurrently through the sarcasm made by their mother, father and other correspondingly; and 6.9%, 3.1%, and 4.1% participants reported repeated unkindness by their mother, father and other respectively.

**Table 1**

*Frequencies of Experiencing Psychological Maltreatment by Mother, Father, and Other*

Items	Response Point	Mother		Father		Other	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Yelling at you	0	63	21.8	100	34.6	179	61.9
	1	66	22.8	74	25.6	56	19.4
	2	61	21.1	49	17.0	25	8.7
	3	58	20.1	30	10.4	15	5.2
	4	41	14.2	36	12.5	14	4.8

Ridiculing, embarrassing, using sarcasm (making you feel guilty, silly or ashamed)	0	159	55.0	183	63.3	155	53.6
	1	55	19.0	49	17.0	73	25.3
	2	35	12.1	23	8.0	35	12.1
	3	30	10.4	26	9.0	13	4.5
	4	10	3.5	8	2.8	13	4.5
Provoking, making you afraid, using cruelty	0	206	71.3	222	76.8	205	70.9
	1	36	12.5	35	12.1	57	19.7
	2	27	9.3	23	8.0	15	5.2
	3	16	5.5	9	3.1	9	3.1
	4	4	1.4	0	0	3	1.0

*Note.* Response point 0 = never/almost never, 1 = occasionally, 2 = sometimes, 3 = frequently, 4 = very frequently.

Table 2 reveals that 24.9%, 17.7%, and 7.2% respondents reported experiencing frequent physical punishment for wrongdoings by their mother, father and by any other respectively; 3.8%, 3.4%, and 2.8% respondents were abused through hitting, punching, or kicking frequently by their mother, father and other correspondingly; and 3.5% respondents needed medical attention sometimes because of being severely hurt by their mothers, .3% by father and the percentage was .3 for any other known or unknown person.

**Table 2**

*Frequency and Percentage of being Physically Abused by Mother, Father, and Other*

Item	Response Point	Mother		Father		Other	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Physical punishment for wrongdoing (e.g., smacking, grabbing, shaking)	0	91	31.5	134	46.4	185	64.0
	1	74	25.6	66	22.8	67	23.2
	2	52	18.0	38	13.1	16	5.5
	3	37	12.8	21	7.3	7	2.4
	4	35	12.1	30	10.4	14	4.8
Other use of violence (e.g., hitting, punching, kicking)	0	215	74.4	220	76.1	229	79.2
	1	39	13.5	36	12.5	38	13.1
	2	24	8.3	23	8.0	14	4.8
	3	9	3.1	9	3.1	8	2.8
	4	2	.7	1	.3	0	0

Severely hurting you (requiring medical attention)	0	251	86.9	249	86.2	257	88.9
	1	28	9.7	33	11.4	22	7.6
	2	10	3.5	6	2.1	9	3.1
	3	0	0	1	.3	1	.3
	4	0	0	0	0	0	0

*Note.* Response point 0 = never or almost never, 1 = occasionally, 2 = sometimes, 3 = frequently, 4 = very frequently.

Table 3 exposes that 16.3% young adults reported about witnessing frequent psychological maltreatment in their childhood, whereas 11.4% reported that sometimes they witnessed physical abuse directed toward others in the family.

**Table 3**

*Frequency and Percentage of Witnessing Psychological Maltreatment and Physically Abused Directed Towards Other in the Family*

Items	Response Point	Frequency	Percent
Before the age of 18, how frequently did you witness any of these behaviors listed in the previous question (psychological maltreatment) directed toward others in the family?	0 never/almost never	85	29.4
	1 occasionally	92	31.8
	2 sometimes	55	19.0
	3 frequently	47	16.3
	4 very frequently	10	3.5
Before the age of 18, how frequently did you witness any of these behaviors listed in the previous question (physical abuse) directed toward others in the family?	0 never/almost never	144	49.8
	1 occasionally	106	36.7
	2 sometimes	33	11.4
	3 frequently	6	2.1
	4 very frequently	0	0

Table 4 indicates that 1.7% participants reported that their parents did not provide regular meals or baths, clean clothes, or needed medical attention during their childhood. 1.4% adults pointed that their mother frequently shut down them in a room alone for an extended period of time when they were children and it was 1% for their father. 6.6% reported that their mothers recurrently ignore their requests for attention and did not speak to them for an extended period of time. These happened by their father for 2.4% and by other for 1.7%.

**Table 4***Frequency and Percentage of Experiencing Negligence by Mother, Father, and Other*

Items	Response Point	Mother		Father		Other	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Not giving you regular meals or baths, clean clothes, or needed medical attention	0	238	82.4	247	85.5	263	91.0
	1	35	12.1	29	10	12	4.2
	2	11	3.8	8	2.8	9	3.1
	3	4	1.4	5	1.7	3	1
	4	1	.3	0	0	2	.7
Shutting you in a room alone for an extended period of time	0	239	82.7	244	84.4	268	92.7
	1	38	13.1	28	9.7	11	3.8
	2	8	2.8	14	4.8	4	1.4
	3	4	1.4	3	1.0	4	1.4
	4	0	0	0	0	2	.7
Ignoring your requests for attention; not speaking to you for an extended period of time	0	196	67.8	214	74	239	82.7
	1	55	19.0	43	14.9	25	8.7
	2	18	6.2	22	7.6	16	5.5
	3	19	6.6	7	2.4	5	1.7
	4	1	.3	3	1.0	4	1.4

*Note.* Response point 0 = never or almost never, 1 = occasionally, 2 = sometimes, 3 = frequently, 4 = very frequently.

Table 5 reveals that many respondents were sexually abused by their parents or any other known or unknown person in their childhood. 2, 1, and 36.7 percent victims were requested for at least once to do something sexual in their childhood by their mother, father and any other known or unknown adults respectively. 28.7% respondents reported that they were forced to watch others having sex and 30.3% reported that any other known or unfamiliar adults showed their erect penis during their childhood. 2.1% and .6% participants reported that their penis, vagina, or breasts was touched by their mother and father correspondingly more than 1 time and the percentage was 34.2% for other. 1.6% and 23.2% participants reported that their mother and other known or unknown individuals made them touch their penis or vagina or breasts. 10.4% participants mentioned that known or unknown individual put his/her mouth/tongue on their penis or vagina; 7.5% reported that those other individuals made respondents put victims' mouth or tongue on their penis/ vagina; and 5.5% reported that other known or unknown individual put his penis in respondents' vagina or anus. 8% and 4.9% exposed that other adults put their finger and other object respectively in respondents' vagina or anus. 5.2 % respondents reported that they were forced to put their penis inside a vagina or anus by other known or unknown adults.

**Table 5***Frequency and Percentage of Being Sexually Abused by Mother, Father and Other*

Items	Response Point (RP)	Mother		Father		Other	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Requested you to do something sexual	0	283	97.9	286	99	183	63.3
	1	3	1.0	2	.7	57	19.7
	2	1	.3	1	.3	25	8.7
	3	2	.7	0	0	18	6.2
	4	0	0	0	0	4	1.4
	5	0	0	0	0	2	.7
Forced you to watch others having sex	0	286	99	287	99.3	206	71.3
	1	1	.3	0	0	39	13.5
	2	1	.3	2	.7	20	6.9
	3	1	.3	0	0	20	6.9
	4	0	0	0	0	2	.7
	5	0	0	0	0	2	.7
Showed you his erect penis	0			287	99.3	201	69.6
	1			0	0	42	14.5
	2	N/A		2	.7	24	8.3
	3			0	0	20	6.9
	4			0	0	1	.3
	5			0	0	1	.3
Touched your penis, vagina, or breasts	0	283	97.9	287	99.3	190	65.7
	1	2	.7	1	.3	54	18.7
	2	4	1.4	1	.3	23	8
	3	0	0	0	0	14	4.8
	4	0	0	0	0	3	1
	5	0	0	0	0	5	1.7
Made you touch his penis or her vagina or breasts	0	284	98.3	289	100	222	76.8
	1	1	.3	0	0	36	12.5
	2	3	1.0	0	0	20	6.9
	3	0	0	0	0	4	1.4
	4	1	.3	0	0	2	.7
	5	0	0	0	0	5	1.7

Put his/her mouth/tongue on your penis or vagina	0	286	99	289	100	259	89.6
	1	2	.7	0	0	19	6.6
	2	1	.3	0	0	2	.7
	3	0	0	0	0	4	1.4
	4	0	0	0	0	3	1.0
	5	0	0	0	0	2	.7
Made you put your mouth or tongue on his penis/ her vagina	0	286	99	289	100	267	92.4
	1	1	.3	0	0	15	5.2
	2	1	.3	0	0	5	1.7
	3	1	.3	0	0	1	.3
	4	0	0	0	0	1	.3
	5	0	0	0	0	0	0
Put his penis in your vagina or anus	0			288	99.7	273	94.5
	1			1	.3	9	3.1
	2	N/A		0	0	5	1.7
	3			0	0	2	.7
	4			0	0	0	0
	5			0	0	0	0
Put a finger in your vagina or anus	0	287	99.3	289	100	266	92
	1	1	.3	0	0	15	5.2
	2	0	0	0	0	4	1.4
	3	1	.3	0	0	4	1.4
	4	0	0	0	0	0	0
	5	0	0	0	0	0	0
Put other object in your vagina or anus	0	287	99.3	289	100	275	95.2
	1	1	.3	0	0	10	3.5
	2	0	0	0	0	4	1.4
	3	1	.3	0	0	0	0
	4	0	0	0	0	0	0
	5	0	0	0	0	0	0
Made you put your penis inside a vagina or anus	0	287	99.3	287	99.3	274	94.8
	1	1	.3	1	.3	10	3.5
	2	0	0	1	.3	3	1.0
	3	1	.3	0	0	0	0
	4	0	0	0	0	2	.7
	5	0	0	0	0	0	0

*Note.* RP 0 = never, 1 = once, 2 = twice, 3 = 3-6 times, 4 = 7-20 times, 5 = more than 20 times.

Table 6 indicates that psychological maltreatment ( $r = -.178, p < .01$ ), physical abuse ( $r = -.195, p < .01$ ), witnessing family violence ( $r = -.151, p < .05$ ), neglect ( $r = -.216, p < .01$ ), and sexual abuse ( $r = -.169, p < .01$ ) had significant negative correlation with mindfulness. It means that participants having the experiences of any kind of maltreatment in childhood, reported poor mindfulness as an adult.

**Table 6**

*Correlation among Psychological Maltreatment (PM), Physical Abuse (PA), Witnessing Family Violence (WFV), Neglect, Sexual Abuse (SA) and Mindfulness*

	PM	PA	WFV	Neglect	SA	Mindfulness
PM	–					
PA	.749**	–				
WFV	.683**	.685**	–			
Neglect	.562**	.595**	.399**	–		
SA	.337**	.458**	.292**	.507**	–	
Mindfulness	-.178**	-.195**	-.151*	-.216**	-.169**	–

Note. \*\* $p < .01$ ; \* $p < .05$ .

### Discussion

The current study was intended to estimate the degree of occurrence of different forms of childhood adversity like psychological, physical and sexual abuse, neglect, and family violence, and how they are related to mindfulness among the Bangladeshi young adults. 289 university students of 19 to 24 years participated in this study and data were collected from them following purposive sampling technique through the adapted Bangla version of “Comprehensive Child Maltreatment Scale for Adults” and “Mindful Attention Awareness Scale”. Results reveal that in Bangladesh, many young adults are the victims of different abusive acts like psychological maltreatment, physical and sexual abuse, negligence by their mother, father or other known or unknown adolescents or adults. Experiencing any form of maltreatment and witnessing abusive acts directed toward others in the family make victims emotionally feeble.

Young adults experienced psychological maltreatment in the form of yelling, sarcasm, using cruelty etc. 34.3, 22.9 and 10 percent respondents experienced screaming frequently by their mother, father, and by any other known or unknown person respectively. 13.9, 11.8, and 9 percent respondents become humiliated recurrently through the sarcasm made by their parents and other correspondingly; and 6.9, 3.1, and 4.1 percent reported repeated unkindness by their mother, father and other respectively. Young adults are physically abused in the form of smacking, grabbing, shaking, hitting, punching etc.

Table 2 indicates that 3.5 percent respondents needed medical attention sometimes because of being severely hurt by their mothers and the percentage was .3 for both father and other person. It

means that in many cases, both mother and father are liable for the poor psychological wellbeing of their children. Often parents do these to their child unconsciously or consider these things as a normal way to discipline their child. But many of them are unaware that it affects the child heart and mind, and transmits negativity in future also. For negligence, findings (Table 4) indicate that participants reported that often their parents did not provide them regular meals/baths, clean clothes, or needed medical attention, frequently shut down them in a room alone for prolonged time, and recurrently ignore their requests for attention and/or did not speak to them for an extended period of time during their childhood. In addition, unconnectedly, or in the amalgamation of negligence, physical, psychological and/or sexual abuse- 16.3% young adults reported about witnessing frequent psychological maltreatment in their childhood, whereas 11.4% reported that sometimes they witnessed physical abuse directed toward others in the family (Table 3).

Table 5 reveals that many respondents were sexually abused by their parents or any other known or unknown person in their childhood. It is a common myth that child sexual abuse is committed by outsiders, but the fact is that many children are abused by family members, relatives, friends or any other known person. And it is alarming that many children are sexually abused by their father and/or mother also which gives the indication that children may not be safe to their parents also. Results of the present study shows that 2, 1, and 36.7 percent victims were requested for at least once to do something sexual in their childhood by their mother, father and other respectively. 28.7% respondents reported that they were forced to watch others having sex and 30.3% reported that other known or unfamiliar adults showed their erect penis during their childhood. 2.1% and .6% reported that their penis, vagina, or breasts was touched by their mother and father correspondingly more than once and the percentage was 34.2% for other. 1.6 and 23.2 percent participants reported that their mother and other known or unknown individuals made them touch their penis or vagina or breasts.

A total of 10.4% participants mentioned that known or unknown individual put his/her mouth/tongue on their penis or vagina; 7.5% reported that those other individuals made respondents put victims' mouth or tongue on their penis/ vagina; and 5.5% reported that other known or unknown individual put his penis in respondents' vagina or anus. 8% and 4.9% exposed that other adults put their finger and other object respectively in respondents' vagina or anus. 5.2 % respondents reported that they were forced to put their penis inside a vagina or anus by other known or unknown adults. But the actual prevalence of child sexual abuse as well as other form of maltreatments cannot be identified as many victims do not unveil their negative experiences. In addition, Table 6 indicates that all forms of childhood adversity had significant negative correlation with mindfulness indicating that young adults having the experiences of any kind of maltreatment in childhood may remain unmindful, cannot stay in here-and-now condition.

## **Conclusion**

Disclosing the adverse experiences of life is a sensitive issue and many respondents of the study were in the urge of ventilating their sufferings. Some of the respondents were in the needs of mental health support. But due to the lack of resources, research team only provided the information about where they can get psychological services. Moreover, study sample was from

Dhaka city only. New study can be planned with large sample from all over Bangladesh and data is needed to be collected from lesbian, gay, bisexual and transgender people too. The current study opens the door to carry out further research in the area of childhood adversity as well as focus on the implication of mindfulness-based approaches in enhancing victims' psychological wellbeing.

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## **Interaction of Glass Ceiling and Workplace Commitment: Evidence from Banking Industry in Bangladesh**

**Md. Shawfiqul Islam<sup>1</sup>**

### **Abstract**

With the noteworthy increase of female employees in the workforce, why do women in top management positions are underrepresented? Does such underrepresentation hamper their commitment toward the organization? As the glass ceiling (GC) is used to label barriers that stop women invisibly from mounting into higher positions, this study concentrates on whether the glass ceiling affects their commitment. This study investigates the relationship between female executives' commitment and the glass ceiling sustained in the organizational structure. A total of 176 female participants were randomly selected from different private banks who completed a structured questionnaire. Results of Cronbach's alpha, KMO, and Bartlett's Test were found acceptable for factor analysis. Management perception and prejudice, corporate policies and practices, general attitudinal problems and stereotyping, and work-life conflict are labeled as GC factors. Results of Pearson Correlation Statistics revealed that the connection between the GC factors and the commitment of female employees is associated negatively, indicating that the presence of glass ceiling hampers their commitment.

*Keywords:* glass ceiling (gc), corporate policies and practices, attitudinal problems and stereotyping, work-life conflict, commitment, correlation

### **Introduction**

Women account for roughly half of the world's population, making them valuable human capital for countries' socioeconomic growth. Several studies demonstrate that the number of females participating in numerous workplaces has increased across the world throughout the last few decades. According to the ILOSTAT database 2018, the women's participation in the workforce in the USA, EU, South Asia, Australia, and China is almost 66%, 68%, 30%, 72%, and 69%, respectively. However, there remain substantial gender differences in executive leadership positions, and the chances for women to progress in higher corporate spots remain scanty. Women in senior roles hold only 24% globally, where nearly half of the workforce are women, and 25% of world businesses have no women in senior management (Catalyst, 2018). Likewise, a thorough study by McKinsey and Company (2018) revealed that women are underrepresented at every level in senior leadership.

What impedes women from career progression into higher ranks has become a significant interest for academics. Scholars found that gender difference in promotion is familiar to many regions and cultures (Al-Manasra, 2013). Furthermore, the workplace has been assumed a career primarily for

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males (Powell & Graves, 2003), and females are dealing with discrimination, bolted mobility, and biases. Evidently, the glass ceiling affects workforce commitment toward the organization negatively (Dost et al., 2012).

Bangladesh is one of the prominent nations in Southeast Asia, with a GDP growth rate of 7.11% in 2016 and achieving the SDGs 2030 related to poverty, inequality, environmental degradation, prosperity, peace, and justice. Although noticeable achievements in education, health, and empowerment, the female participation ratio is only 35% (ILOSTAT, 2018). According to the Bangladesh Labor Force Survey-2018, women's participation in industry and service is only 16.9% and 23.5%, respectively. The Labor Statistics in Bangladesh-2018, BBS, found women heavily participate in skilled agricultural, forestry, fisheries, which seldom ensure women's career progression into senior management positions.

Universally, gender differences in various professions have become a common concern of the research. In Bangladesh, gender inequality issues have been received attention over the last decade. However, most of the study has mainly focused on socioeconomic matters like poverty, illiteracy, and violence. Some studies, directly or indirectly related to the glass ceiling, are conducted by Zafarullah (2000), Afza and Newaz (2008), Kamal and Sabrin (2014), Shirage et al. (2018), and Mollah and Uddin (2018). However, the effect of the glass ceiling on commitment has not been substantially researched yet. This study continues with this notion and contributes to the study of the glass ceiling effects on commitment.

### **Objectives of the study**

Based on the above background, the objectives of this study are

- a) to find out the GC factors impeding women career progression into higher management positions in the banking sector; and
- b) to analyze the association of the glass ceiling on women's commitment towards organizations.

### **Review of literature**

#### ***Glass ceiling***

The term glass ceiling is a metaphorical expression consisting of two separate words, *Glass* and *Ceiling*. As said by Hymowitz and Schell Hardt (1986), these two words stand for a set of unseen, real, or perceived obstacles that hinder women's advancement opportunities. They published an article in the extensively read Wall Street Journal where they used, for the first time, the glass ceiling metaphor as an impenetrable obstacle between females and executive suits. According to Oakley (2000), what causes the glass ceiling can be separated into two types: work-family conflict and communicative system, and social and cultural issues like stereotypes and leadership patterns.

A study conducted by Afza and Newaz (2008) identifies the features deciding the glass ceiling's existence and affecting women's career progression in Bangladesh. The study found that management perception and work environment play the most significant role in creating a glass ceiling phenomenon. Again, Women career progression is positively impacted by the factors like concern about children at home, level of appreciation from the co-workers in the workplace, the extreme length of the working hours in the job, the intention of the male employees to grip the

higher and influential positions, negative conception regarding the competitiveness of the women at work (Shirage et al., 2018).

### ***Organizational commitment***

The commitment was termed as an eagerness in continuing the progression of activity and reluctance to change plans, often due to a sense of responsibility to stay the course (Vance, 2006). Organizational commitment pertains to an employee's identity, emotional attachment, and a strong desire to sustain the organization (Khuong & Chi, 2017). A highly committed employee is deemed to be spontaneously eager to run the extra mile for the firm, keep a connection with it and its goals and philosophy (Meyer & Allen, 1991). Thus, organizational commitment can be considered a significant factor in differentiating tremendously functional organizations from less effective ones.

Several cross-cultural types of research have been conducted revolving around gender influence in organizational commitment (Voloshin, 2016). The insight of the glass ceiling may influence employee performance, such as commitment. The study of Downes et al. (2014) showed that the perceived glass ceiling positively influenced commitment. According to Foley (1998), there is a negative relationship between the perceived glass ceiling and significant work results, such as growth expectations, commitment, satisfaction, and intention to quit the organization. Saleem et al. (2017) reported that the glass ceiling harmed women's output and could halt their organizational success role.

### ***Glass ceiling and commitment***

Discrimination may result in amplified work strain and decreased job fulfillment and commitment (Sanchez & Brock, 1996). Employees' commitment towards the organization tends to suffer a lot when alteration appears in wages, promotion, and recognition. Gutek et al. (1996) said that when female employees experience perceived discrimination in their workplaces, they feel the reduced controls and absence of respect and exhibit lower commitment.

Like discriminatory issues, the glass ceiling also has a salient impact on commitment. A modest level of association between the glass ceiling and commitment has been found by Dost et al. (2012). According to their suggestion, corporate policies should be designed and developed to minimize glass ceiling practices. When a work environment is hugely reigned by gender biases, female employees working in that environment tend to decrease organizational commitment (Rosin & Korabik, 1991). Also, gender biases hurt female employees' commitment toward their organization (Imam & Shah, 2013). Thus, to assure employee commitment, the organizations should delete or reduce the glass ceiling.

## **Methods**

### **Participants**

The study population was the entry and mid-level female executives working in private banks in Bangladesh. As the exact figure of the population is unknown, Cochran's (1977) method was used to fix the sample size,  $n=176$ , assuming the confidence level of 95% for  $z$  value of 1.96,  $p=.05$ , and margin of error, .075. And a random sampling method was used to choose the participants.

### Measures

A structured questionnaire developed by Afza and Newaz (2008) was used to measure GC factors. An 18-item commitment scale developed by Allen and Meyer (1996) was used to measure the commitment. Before finalizing the questionnaire, the subject matter expert's opinion was received, and a pilot survey was conducted. Questions were constructed employing a five-point Likert scale ranging from 5 (*strongly agree*) to 1 (*strongly disagree*). A total of 260 questionnaires were distributed. Finally, after avoiding incomplete data, 176 valid questionnaires were used for the study. The survey response rate was about 74%, where the paper-based survey questionnaire method, including enumerators' scheduling and the online survey, accounts for 77.62% and 38%, respectively.

### Test of Internal-Consistency and Data Adequacy

Cronbach's  $\alpha$ , for GC and commitment scales were found .701 and .729, respectively, which are acceptable and adequate, according to Nunnally & Bernstein, 1994. The KMO (Kaiser Meyer Olkin) score was 0.638 and .732 for glass ceiling and commitment scales (Table 1), respectively, indicating the sample was adequate and acceptable for factor analysis, according to George & Mallery (2011). Bartlett's test of Sphericity for all scales found a statistically significant value,  $p < .001$ , i.e., the correlation matrix is not an identity matrix.

**Table 1**

*KMO and Bartlett's Test*

	GC Scale	Commitment Scale
KMO Measure of Sampling Adequacy	.631	.732
Bartlett's Test of Sphericity		
Approx. Chi-Square	483.728	1.233E3
df	105	189
P	.001	.001

## Results and Discussion

### Respondents' sociodemographic profile

The study results revealed demographic and socioeconomic information for female employees working in different private banks in the table below.

**Table 2**

*Respondents' Sociodemographic Profile*

Variables	<i>n</i> =176	%	Variables	<i>n</i> =176	%
Respondents' Age			Education		
Below 25 Years	21	11.9	Bachelor	67	38.1
25 to 35 Years	83	47.1	Master's	100	56.8
36 to 45 Years	65	36.9	Ph.D. and Others	9	5.1
46 and above	7	3.9			

Marital Status			Job Position		
Unmarried	54	30.6	Executive level	90	40.1
Married	119	67.7	Mid-level Management	86	50.1
Widowed	3	1.7			
No. of Children			No. of Dependents		
No Children	24	12.5	No dependent	112	63.6
Have Children	98	71.6	Have dependent	64	36.4
Experience			No. of Promotions in Career		
Below 5 years	105	58.6	None	71	40.5
5 to 10 years	60	34.1	One	62	35.2
11 to 15 years	9	6.2	Two	23	13.0
Above 15 years	2	1.1	More than Two	9	5.1

*Note.* Compiled by author

### Exploratory Statistics of Survey Variables

Through Principal Component Analysis (PCA), four components explained more than 10% variance individually (Table 3). These components have eigenvalues well above one and explained 55.709% of the total variances, acceptable for factor analysis, suggesting fair values (Peterson, 1994).

**Table 3**

*Total Variance Explained (GC Scale)*

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	2.629	18.781	18.781
2	2.016	14.401	33.182
3	1.734	12.384	45.566
4	1.420	10.143	55.709

*Note.* Extraction Method: Principal Component Analysis.

The pattern matrix table (Table 4) shows the weighing of items in each factor, the correlation between the variables and the factors, and finally shows the labeling of the extracted factors. Here, variables having communalities < .40 and correlation coefficients < .50 were dropped.

**Table 4***Pattern Matrix<sup>a</sup>, Factor Labeling, and Communalities (GC Scale)*

PCA Item	Factor loading				Communalities
	1	2	3	4	
Factor I: Management Perception and Prejudice					
Q8	.833				.690
Q7	.830				.544
Q6	.641				.663
Factor II: Corporate Policies and Practices					
Q12		.777			.620
Q10		.738			.577
Q14		.564			.576
Q13		.538			.428
Factor III: General Attitudinal Problems and Stereotyping					
Q1			.777		.482
Q3			.738		.581
Q4			.564		.518
Q2			.538		.418
Factor IV: Work-Life Conflict					
Q11				.834	.515
Q9				.686	.520
Q5				.409	.665

*Note.* Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.

<sup>a</sup> Rotation converged in 5 iterations.

*Factor I: Management Prejudice and Perception*

The above analysis advocates that management prejudice and perception is enormously liable for women's career progression. This factor accounts for 18.781% of the total variance and explained three variables, Q8, Q7, and Q6. These findings correspond with the conclusions of Crampton and Mishra (1999), Afza and Newaz (2008), Jogulu and Wood (2011), and Lucifora and Vignani (2016).

*Factor II: Corporate Policy and Practices*

Corporate Policy and Practices accounts for 14.401% of the total variance and comprises four variables, Q12, Q13, Q14, and Q10. Studies of Sinclair (2000), Tharenou (1999), Afza and Newaz (2008), and Rezina and Mahmood (2016) and analysis results indicate that organizational policies and practices create barriers for women in career progression.

*Factor III: General Attitudinal Problems and Stereotyping*

This factor explained four variables, Q1, Q2, Q3, and Q4, accounted for 12.38% of the total variance. Some psychological attributes often stop them from prospering in career. The findings of Pillai et al. (2011), and Mollah and Uddin (2018), Bombuwela and Alwis (2013), Kamal and Sabrin (2014), Rezina and Mahmood (2016), and Lucifora and Vigani (2016) also depicted similar results.

*Factor IV: Work-Life Conflict*

The analysis also found that women's concern for family ranks first in most cases, which often impedes career progression. This factor comprises three variables, Q5, Q 11, and Q9, and accounts for 10.143% of the total variance. The study of Lyness and Heilman (2006), Afza and Newaz (2008), Appelbaum et al. (2012), Pillai et al. (2011), Bombuwela and Alwis (2013), and Kamal and Sabrin (2014) explored similar findings.

**Table 5**

*Descriptive Statistics and Reliability Test of GC Factors*

Factors	I	II	III	IV
Mean	4.7159	6.8182	6.0227	5.2670
Std. Deviation (SD)	1.80060	.94307	1.18943	1.69756
Items	3	4	4	3
Cronbach's $\alpha$	.804	.796	.764	.737

After labeling the factors, descriptive statistics and reliability test was conducted (Table 5). It can be inferred that management perception and prejudice is the most significant GC factors. The PCA extraction method was also used to original variables of Allen and Meyer's 18-item commitment scale (1990). Table 6 presents only the significant factor loadings for the three factors, which explained almost 56.581% of the total variances. The 1<sup>st</sup> factor explained 28.259% of the total variance, whereas the 2<sup>nd</sup> and 3<sup>rd</sup> factors account for 16.436% and 11.885% of the total variance explained, respectively.

**Table 6**

*Total Variance Explained (Commitment Scale)*

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
C1	4.239	28.259	28.259
C2	2.465	16.436	44.696
C3	1.783	11.885	56.581

*Note.* Extraction Method: Principal Component Analysis.

It can be seen that the six items for affective commitment converged strictly in factor 1 (Table 7). For continuance commitment, all items, except the 7<sup>th</sup> item, merged under factor 2. Likewise, for normative commitment, items, except items 13 and 14, converged under factor 3. Hence, items

7,13, and 14 were dropped since they did not load onto relevant factors. Again, none of the items of any scale did converge onto other factors.

**Table 7**

*Rotated Component Matrix<sup>a</sup> (Commitment Scale)*

PCA Items	Factor Loading			Communalities
	1	2	3	
<b>Affective Commitment</b>				
C6	.800			.663
C2	.770			.612
C4	.766			.604
C1	.756			.591
C3	.685			.480
C5	.625			.407
<b>Continuance Commitment</b>				
C9		.826		.691
C10		.744		.637
C8		.690		.481
C11		.646		.455
C12		.632		.439
<b>Normative Commitment</b>				
C18			.787	.680
C17			.783	.631
C15			.766	.625
C16			.673	.490

*Note.* Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

<sup>a</sup>. Rotation converged in 5 iterations.

After dropping those items,  $\alpha$  for the new scale was found .814. Again, every three scales' reliability in the following table (Table 8) shows that any items might not be considered for deletion as Cronbach's Alpha values of items deleted are smaller in all scales. Hence, the items for affective, continuance, and normative commitment are stable, except for some items for continuance and normative scale, and are unique, i.e., the Allen and Meyer's organizational commitment scale was appropriate.

**Table 8***Reliability Statistics (New Scales)*

Commitment Scale	No. of Items	Cronbach's Alpha	Cronbach's Alpha if Item Deleted					
			1	2	3	4	5	6
Affective	6	.814	.761	.773	.799	.798	.806	.759
Continuance	5	.766	*	.751	.700	.681	.725	.755
Normative	4	.768	*	*	.691	.751	.732	.673

Note: \* Dropped Items 7, 13, and 14.

It is apparent from the results, GC factors like management perception and prejudice, corporate policies and practices, general attitudinal problems and stereotyping, and work-life conflict influence women's career progression, affecting their organizational commitment (Table 9).

**Table 9***Correlation between GC factors and Organizational Commitment*

	<i>n</i>	1	2	3	4	5	6	7
1. AC	176	-						
2. CC	176	.214**	-					
3. NC	176	.235**	.296**	-				
4. MPP	176	-.179*	-.004	-.035	-			
5. WLC	176	-.112	.060	-.091	.046	-		
6. GAPS	176	-.112	-.040	-.068	.182*	.034	-	
7. CPP	176	.035	-.058	-.098	-.041	.108	.047	-

Note. \*  $p < .05$ ; \*\*  $p < .01$ ; AC= Affective Commitment, CC= Continuance Commitment, NC= Normative Commitment, MPP= Management Perception and Prejudice, WLC= Work-Life Conflict, GAPS= General Attitudinal Problems and Stereotyping, CPP= Corporate Policies and Practices.

The above results also reveal that management perception is negatively related to all kinds of commitment. Therefore, the perceived glass ceiling in management perception lowers organizational commitment (Khuong & Chi, 2017). Work-life conflict is also negatively correlated to the affective and normative commitment and has a low correlation with continuance commitment. And this finding is consistent with Oreyzi Samani et al. (2009) and Pirhayat et al. (2012). Then general attitudinal problems and stereotyping is also negatively related to all kinds of commitment. The findings of Ragins and Winkel (2011) are similar to the results. Finally, corporate policies and practices is negatively related to continuance commitment, normative commitment, and a low degree of correlation with affective commitment (ILO, 2002, & Rosener,

1990). Dost et al. (2012) found that the glass ceiling negatively affects employees' commitment. Heilman & Okimoto (2007) concluded that the more female employees experienced gender discrimination, the less affective commitment they had, and the stronger was their intention to quit their jobs.

Therefore, organizations ought to understand the advantages of breaking the glass ceiling and innovating a biased and discrimination-free atmosphere by improving their corporate culture. Also, women should be more conscious of their strengths to develop and weaknesses to repair to unlock their ability and achieve their objectives.

As the glass ceiling is still unfamiliar with business management in Bangladesh, future researchers may explore the same subject, with a larger sample size and more complete questionnaires focusing on other sectors. Furthermore, researchers should get more appropriate respondents to engage in their study because many declined to participate during this investigation when approached.

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## Causes and Consequences of Frustration among the Undergraduate Students

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### Abstract

Frustration is a psychological state which results from the blocking of goal-directed activity (Kisker, 1964). Everyone meets with frustration less or more throughout his/her life. University students are particularly vulnerable to the problems associated with different internal and external sources of frustration. What are the reasons for and how does it impact their lives? This paper is an attempt to address the above-mentioned issues. In doing so a non-experimental research design was prepared. Accordingly, the social survey method was followed and data were collected from 210 participants with an equal number of male and female students of six academic institutions of Dhaka city of Bangladesh. The main method of data collection was the face-to-face interview with a semi-structured interview schedule where both close and open-ended questions were included. The findings show that personal stress, relationship breakup, inadequate financial ability, academic workload, poor academic performance, the uncertainty of getting a job, parental conflict, lack of family support are the main sources of frustration. On the other hand, problems in communication, decreasing attention in study or work, hypertension, monotony, depression, insomnia, drug addiction and suicide tendency are the outcome of frustration. The study also finds that family, friends and university teachers are the most powerful helping hands that can assist the students to overcome their frustration.

*Keywords:* frustration, causes and consequences, undergraduate students

### Introduction

Frustration is a kind of negative emotion stimulated upon encountering a barrier to satisfying one's wants, goals or expectations, which disrupts the ongoing action (Mandler, 1975). It is a usual and common component of life. Frustrating situations come about every day, everywhere throughout life, in education, employment, and even in relationships with others. Frustration is imperative to tolerate and cope efficiently with aggravation and if anyone wishes to have a thriving and gratifying life. Nowadays, frustration has increased a lot in our social life. Burden and more mechanical life have increased stress and frustration among human being (Gulzar et al., 2012).

Frustration, anxiety, aggression are an integral part of today's social and education system. There are multiple reasons associated with the issues of frustration. In the present scenario, family background, parents, socio-economic system, value system and many similar factors adversely affect the students like other segments of people, therefore, they seem to be affected by frustration and related psychological issues (Jahan, 2017). Frustration is very significant for every university student to recognize correctly and cope with it. It has been verified that the degree of frustration

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tolerance among university students is commonly low. So it creates different types of problems for them. According to the statistics published by the National Crime Records Bureau of India, one student in every hour commits suicide due to stress and frustration (Saha, 2017). It, therefore, becomes a significant cause of concern as it is symptomatic of rising mental health concerns in India (Nandamuri & Gowthami, 2011). Depression, anxiety, behavioural problems, irritability, etc. are a few of the many problems reported in students with high academic stress (Deb et al., 2015).

Dhaka is the capital of Bangladesh and the largest city in the country. It is called the centre of education. It has a large number of schools, colleges and universities compared to that of any other city in Bangladesh. There are 65 universities in Dhaka city, 7 of them are public and 58 are private (UGC, 2020). The maximum numbers of public university students come from the rural area and financially disadvantaged family that may be the source of frustration among university students. But there is a dearth of data on frustration in Bangladesh. So far the researchers' knowledge goes, few studies have been done on frustration but hardly some studies on the frustration of undergraduate students of the university. Therefore, it is of utmost necessity to find out the causes of frustration and consequences of it to overcome the situation for making their way smoother to attain their expected goals.

### ***Understanding frustration***

Frustration is a key negative emotion that roots in disappointment (Latin *frustrā* or “in vain”) and can be defined as irritable distress after a wish collided with an unyielding reality (Jeronimus & Laceulle, 2017). It is the feeling of being upset or annoyed as a result of being unable to change or achieve something. Evidently, frustration is the outcome of an obstacle on the part of an individual's goal or objective (Biruntha & Muthaiyan, 2015). Sources of frustration possibly can be internal or external. Internal sources of frustration include lack of confidence, conflict, disagreement etc. External sources of frustration consist of conditions outside the individual such as an uncomfortable environment, lack of wealth, conflicting relations and many more things present outside the world (Gulzar et al., 2012). In this study, frustration has been considered as a negative emotion or unwanted state of feeling that discomfords a student and set up a barrier to satisfying his/her goals or expectations, which disrupts the current action or function.

### **Objectives of the study**

The main objective of the study is to explore the causes and consequences of frustration among undergraduate students of universities in Dhaka city. The specific objectives are as follows:

1. To understand the socio-demographic status of the respondents,
2. To identify the causes of frustration among undergraduate students of the university,
3. To explore the consequences of frustration, and
4. To find out the way to protect university students from frustration.

### **Methods**

The present paper is based on empirical data collected from six academic institutions of Dhaka city. The main reason for choosing Dhaka city as a study area was that many government and private tertiary level academic institutions are situated here. Other reasons, such as easy access to the respondents and good communication are mentionable. All the undergraduate students of Dhaka city were considered as the population of the study and each of the students was considered as the unit of analysis in the present study. Firstly, six academic institutions: two

public universities (Dhaka University and Jagannath University), two private universities (Sonargaon University and the University of Asia Pacific) as well as two colleges under National University (Kabi Nazrul Government College and Tajgaon College) of Dhaka city were selected purposively to ensure the participation of students of all categories of academic institutions of tertiary level. Secondly, 210 respondents (35 from each university) were selected through an accidental sampling procedure.

Both primary and secondary data were used in this paper. Secondary data were collected from different journals, books, research reports and other documents. Primary data were collected directly from the field through face to face interviews. A pre-tested interview schedule was administered for collecting primary data where both open and closed-ended questions were included. Before collecting data the participants were informed of the purpose of the study and the importance of their participation in this project. Moreover, the non-participant observation method was used to grasp the meaning of non-verbal language. The collected data were processed after essential checking, re-checking, and editing. However, data were analyzed using MS Office Excel 2010 and descriptive statistics were used to interpret the data.

## Results

### Socio-demographic characteristics of the respondents

In this study, most of the respondents (41%) were between the age ranges of 19–21 and 22–24 years. They all were experiencing frustrations for different reasons. 10% of the total respondents were between 25–27 years of age and 8% of respondents were between 16–18 years of age. The lowest ranges of respondents were between 16–18 years of age. To represent the proper situation we selected 50% of the male and 50% of the female respondents. We found male respondents were very friendly and willing to share information but the female respondents were comparatively less communicative. They were very concerned about their privacy.

**Table 1**

*Socio-demographic Characteristics of the Respondents*

Age		Sex		Educational Status		Monthly Income (BDT)	
Criteria	Percent	Criteria	Percent	Criteria	Percent	Criteria	Percent
16–18	8	Male	50	1st year	23.5	Below 2000	9.5
19–21	41	Female	50	2nd year	15.5	3000-4000	23.5
22–24	41	Others	0	3rd year	37	5000-6000	41.5
25–27	10			4th year	24	Above 6000	25.5
Total	100	Total	100	Total	100	Total	100

Source: Field study, 2018

Previously we mentioned that our study was on undergraduate university students. The analysis revealed that 37% of the respondents were 3rd-year students. Then the other 24% and 23.50% were from 4th and 1st year respectively. We found the highest (41.50%) respondents had income between 5–6 thousand, tuition and the part-time job was the main source of income. The matter of concern is that a large number of students (9.50%) had no income or less than 2000 taka per month.

### Causes of frustration

There were different reasons behind the frustration of a university student. Total 38.50% of our respondents mentioned personal and emotional causes were the main reasons.

**Table 2**

*Main Causes of Frustration*

Main causes of frustration	
Criteria	Percent
Personal and emotional	38.5
Financial factors	17.5
Educational and Future career	29.5
Family factors	12.5
Residential factors	2
Total	100

Source: Field study, 2018

Another 29.50% of respondents agreed that the problem in the educational environment and future career thought were the causes of frustration. We also found that financial reasons (17.50%) and family problems (12.50%) were also responsible for their frustration.

In this part of this study, we wanted to know the detailed reasons behind the frustration. Table 2.1 shows that a large number (38.50%) of respondents had a problem in stress management; stress was the result of frustration. The relationship between boys and girls is a common scenario among university students, 22% of our respondents said that relationship breakup was the reason for their frustration. Fear to take new responsibility is another personal source of frustration told by 21% of respondents. 16% of the total respondents felt inferiority complex as responsible for their frustration. 16% of the total respondents felt inferiority complex as responsible for their frustration.

**Table 2.1**

*Causes of Frustration*

Personal factors		Educational factors		Financial factors		Family factors	
Criteria	Percent	Criteria	Percent	Criteria	Percent	Criteria	Percent
Stress	38.5	Class workload	17.5	High expenditure	28.5	Miss understanding	51.5
Inferiority complex	16	Lower grade	30	No job or tuition	41.5	Family breakup	7
Relationship breakup	22	Adjustment problems	13.5	Insufficient food intake	5	Lack of support	15
Fear to take liability	21	Language difficulties	11.5	Poor residence	15	Parental conflict	26.5
Others	2.5	Unclear class lecture	8.5	No financial support	10	Others	0
		Fear to future career	19				
Total	100	Total	100	Total	100	Total	100

Source: Field study, 2018

The academic environment and future career thinking is another source of frustration. A total of 30% of the respondents said that a lower grade in the exam was much frustrating. Increased class workload (17.50%), language difficulties (11.50%), misunderstanding class lectures (8.50%) were very common reasons for frustration. Overthinking about the career is a common matter for Bangladeshi university students. In this study, 19% of students answered fear of their future career made them frustrated.

The financial crisis is also common among university students. Hard to maintain academic expenditure was chosen by 28.50% of respondents. No job or tuition is another source of financial factors to create frustration was expressed by 41.50% of respondents. 15% of respondents blamed the low quality of residential facilities made them frustrated. On the other hand, 10% of the respondents did not get any financial support from the family. They all agreed with one point that financial factors were played a vital role to produce their frustration. The findings of the study depicted that 51.50% of respondents provide an opinion that lack of mutual understanding among family members was one of the main reasons for their frustration. The conflict between parents was another source of frustration told by 26.50% of respondents.

### Consequences of frustration

The effect of frustration influences the respondent's personal and emotional life in various ways. The study found that 21% of respondents felt the unwillingness to talk to anyone, 30% of respondents felt lonely, 28% of respondents decreased attention in work, 13.50% of respondents had a negative attitude towards people. The most alarming news is that 3% of the students used to take drugs due to frustration. It affects the respondent's social life too. Total 35.50% of respondents could not communicate properly with friends and family, 20% were not willing to maintain a relationship, 25% of respondents disliked social gatherings when they feel frustrated. The rest of 19.50% of respondents felt shame for frustration.

**Table 3**

#### *Consequences of Frustration*

Personal and emotional life		Social life		Academic life		Physical and psychological (n=169)	
Criteria	Percent	Criteria	Percent	Criteria	Percent	Criteria	Percent
Unwillingness to talk	21	Problem in communication	35.5	Wastage of time	6	Hypertension	17.76
Feel lonely	30	Problem in relationship	20	Loss attention in study	44.5	Monotony	9.46
Decrease attention	28	Dislike social gathering	25	Irregular in class	16.5	Depression	52.67
Feel fear	4.5	Feel shame	19.5	Low grade in exam	18.5	Insomnia	17.16
Grow negative attitude	13.5	Others	0	Fear about future career	14.5	Suicide tendency	2.95
Drug addiction	3						
Total	100	Total	100	Total	100	Total	100

Source: Field study, 2018

Frustration is harmful to the student's academic life that was identified by the analyzing data. 44.50% of respondents thought that due to frustration they could not give attention to their study. 16.50% of respondents became irregular in class and 18.50% of respondents could not gain good results in the exam for the influence of their frustration. In this section, 169 students out of 210 were given responses in feeling physical or psychological problems, the rest of the students did not answer or avoid the question. Of the above respondents 17.76% had hypertension, 9.46% respondents experienced monotony, the majority of the respondents (52.67%) were in a depression, 17.16% respondents had insomnia disorder and the rest of the students (2.95%) tended to commit suicide due to frustration.

### Way to manage frustration

In this section, the respondents gave their opinion to manage frustration. Table 4 indicates that most of the respondents recommended support from family members, which formed 24.29%. Total 20% of the respondents expected monitoring, good behaviour and counselling from the university teachers.

**Table 4**

*Way to Manage Frustration*

Criteria	Frequency	Percent
Support by family members	51	24.29
Support by peer group	18	8.57
Teacher's monitoring and counselling	42	20
Financial solvency	28	13.33
Improving communication	8	3.81
Raising awareness	16	7.62
Ensuring future career	37	17.62
Healthy relationship	9	4.29
Others	1	0.47
Total	210	100

Source: Field study, (2018)

A great number of respondents (17.62%) wanted to ensure about future career from the authority. Some of the respondents (13.33%) gave opinions for ensuring financial support from the family and the university authority. 7.62% of respondents believed that awareness building among the students will reduce stress and frustration. 8.57% and 4.29% of respondents gave importance to the support of peer groups and healthy relationship respectively. From the table, it can be said that proper coordination among family members, teachers, university authority and students will reduce the frustration rate and increase the quality of the academic environment.

### Discussion

Frustrated behaviour lacks goal-orientation, feeling of intensive need deprivation and has a different set of behaviour mechanisms that appears more or less senseless due to compulsive nature (Chauhan & Tiwari, 1973). Nowadays frustration among the students is one of the most challenging problems faced by educational institutions. This problem has aroused the attention of many educationists, psychologists, psychiatrists, planners and administrators and is assuming greater importance day by day as our society is advancing industrially and technologically and also like the pattern of education is growing more and more complex (Singh & Singh, 2016). The number of students in Bangladesh is about 3 crores 70 lakhs (Khan, 2018). A huge number of students are frustrated. But there was no comprehensive study has been done in this field. That's why this study was conducted to explore the real situation.

The frustration of the young generation is something different. They are worried about their future, they are worried about their institute, and they are worried about themselves. Academic factors were the predominant cause of stress in most students, followed by physical, social, and emotional. The majority of students with stress reported high scores of poor self-esteem, and about half scored high on depression scales (Baste & Gadkari, 2014). In this study, we found 29.50% of respondents were frustrated due to academic factors. Getting lower grades (30%), class workload (17.50%), language difficulties (11.50%), misunderstanding class lectures (8.50%), worried about their future career (19%) were very common reasons for frustration for the Bangladeshi undergraduate students.

Jahan (2017) stated that low socio-economic status is a major causal factor associated with frustration. A tendency of students with higher socio-economic status to have less anxiety than those with lower socio-economic status was also found. In this study, we also found the same scenario, 28.50% of respondents did not maintain academic expenditure due to low socioeconomic status. 41.50% of students were frustrated because they had no job or tuition and did not get any financial support from the family. Personal factors and environment are also responsible for creating frustration among university students. The frustration level experienced by an individual clearly can differ, depending on the circumstances surrounding the frustrating experience, and on the individual involved. (Campion & Lord, 1982). The study shows that a large number (38.50%) of respondents had a problem with stress management. 22% suffered from relationship problems, and 15% had a problem due to a poor residential environment.

The impact of frustration on the university student long run, it influences the student's personal, physical, emotional and psychological life in various ways. Due to frustration, they can't concentrate on their study, they have panic attacks and they suffer from insomnia, depression and so on. Recently, a news report published in a national daily said that 90 percent of students studying in the major cities of Asia are suffering from myopia. There are 2.8% of students who are addicted to drugs (Khan, 2018). The tendency of committing suicide has been increasing at an alarming rate among students due to frustration. So far this 2018, a total of eight Dhaka University students are known to have committed suicide. Three students killed selves in November 2018 alone ("Suicide", 2018). In this study, we also found the various impact of frustration among undergraduate university students. 28% of respondents who decreased attention

in work, 44.50% of respondents could not give attention to their study, 16.50% of respondents became irregular in class, and 18.50% of respondents could not achieve a good result in the exam and 3% of the students used to take drugs due to frustration. We also found 17.76% were in hypertension, 9.46% of respondents experienced monotony, the majority of the respondents (52.67%) were in a depression, 17.16% of respondents had insomnia disorder and the rest of the students (2.95%) tended to commit suicide due to frustration.

Students are the future of a country; if the generation continues with frustration then it will be harmful to the subsequent generations. So, we all should take a step to protect the students from being frustrated. In this study, the respondents made some suggestions such as; receiving support from family members (24.29%), monitoring and counselling from the university teachers (20%), to ensure the future career (17.62%), ensuring financial support (13.33%), awareness building among the students (7.62%), support of peer groups (8.57%) etc.

### **Recommendations**

Frustration among students has become a pervasive problem across the world. The present study brought into light that frustration has a devastating impact on student's mental, emotional and physical health; it hampers their social and educational life too. Based on the findings of the study the following recommendations must take into consideration to reduce frustration among undergraduate university students: 1) to avoid the negative impact of frustration students must develop their confidence, self-control and will power, 2) students should engage themselves in study and different creative activities, 3) techniques like exercises, yoga, mindfulness meditation, life-skills training, counselling, psychotherapy are effective in reducing frustration, 4) family members, friends and peer groups can help students to get relieved of frustration, 5) university authority and teachers can monitor their students and provide them necessary counselling and motivation, 6) to provide financial support from family and educational institutions can reduce many student's stress and frustration, 7) to create a healthy academic and social environment for reducing frustration of the students, 8) awareness building through arranging the seminar, symposium, roundtable discussion etc., 9) to improve communication with others, it helps to remove loneliness and reduce frustration, and 10) career counselling and creating job facilities may play a very vital role to reduce frustration of the students.

### **Conclusion**

Nowadays, frustration has become a devastating problem affecting a student's mental health and well-being. Evidently, frustration is the main obstacle to achieve a student's goal or objective. Overall results of this study identified that most of the undergraduate students face frustration for their personal, emotional, social and educational reasons. It is also evident that family, friends and university teachers are the most effective helping hands that really can support the students in overcoming their frustration. Students should focus on developing their inner power in order to cope with any crisis, maintain a good attitude on life, and deal with any situation in a normal manner. Parents, teachers and friends should listen to their reasons for frustration and help them to conquer the situation.

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## Guide for Authors

Manuscripts submitted to *JnUJP* should neither be published previously nor be under consideration for publication in another journal. The main article types are as follows:

- Full theoretical and experimental manuscripts that will provide a substantial amount of new information.
- Short Communications that present significant findings will also be considered.

### Manuscript Preparation

Prior to submission, please carefully read and follow the “**Guide for Authors**” that is given below. Manuscripts that do not conform to the submission guidelines may be returned without review.

The manuscript must be written in English typed in MS Word with double space, 12-pt Times New Roman, in A4, sheets (**not exciding 16 pages all together**) leaving appropriate margin (left and top 3-cm, right and bottom 2-cm) and should be numbered beginning with the Title page. The Short Communication must include text, figures and tables that must be within double-space 4 pages. The list of references should be as small as possible in this cose.

Two hard copies of manuscript along with a CD, and/or soft copy (through e-mail) (MS word versionas attached file) should be sent to the Editor-in-Chief (Prof. Dr. Noor Muhammad, Chairman, Department of Psychology, Jagannath University, Dhaka-1100, Bangladesh. E-mail: noormuhammad@psy.jnu.ac.bd).

### General Considerations

#### Front Page Sections

The following sections should appear in all manuscript:

- **Title:** The title of your manuscript should be concise, specific and relevant.
- **Author List and Affiliations:** Authors' full first and last names must be provided. The initials of any middle names can be added. The standard format is used for affiliations: complete address information including city, zip code, and country. At least one author should be designated as corresponding author, and his or her email address and other details should be included at the end of the affiliation section.
- **Abstract:** The abstract should be a total of about 200 words maximum. The abstract should be a single paragraph and should follow the style of a structured abstract, but without headings: 1) Background: Place the question addressed in a broad context and highlight the purpose of the study; 2) Methods: Describe briefly the main methods or treatments applied. 3) Results: Summarize the article's main findings; and 4) Conclusion: Indicate the main conclusions or interpretations.
- **Keywords:** Three to six pertinent keywords need to be added after the abstract. We recommend that the keywords are specific to the article.

#### Research Manuscript Sections

- **Introduction:** The introduction should briefly place the study in a broad context and highlight why it is important. It should define the purpose of the work and its significance, including specific hypotheses being tested. The current state of the research

field should be reviewed carefully and key publications cited. Finally, briefly mention the main aim of the work. Keep the introductions comprehensible and reader friendly.

- **Methods:** It should be described with sufficient detail.
- **Results:** Provide a concise and precise description of the results, and their interpretation.
- **Discussion:** Authors should discuss the results and how they can be interpreted in perspective of previous studies and of the working hypotheses. The findings and their implications should be discussed in the broadest context possible and limitations of the work highlighted. Future research directions may also be mentioned. This section may be combined with Results.
- **Conclusions:** This section is not mandatory, but can be added to the manuscript if the discussion is unusually long or complex.

### Back page Sections

- **Supplementary Materials:** Describe any supplementary material alongside the manuscript (figure, tables etc.). Please indicate the name and title of each element as follows Figure A1: title, Table A1: title, etc.
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### Citation in text

Citing two authors: Wegener & Petty, 1994

Citing three or more authors: Kernis et al., 1993

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#### Journal articles:

Soto, C. J., & John, O. P. (2017). The next big five inventory (BFI-2): Developing and assessing a hierarchical model with 15 facets to enhance bandwidth, fidelity, and predictive power. *Journal of Personality and Social Psychology*, 113(1), 117-143. <http://dx.doi.org/10.1037/pspp0000096>

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Author, A. A. (Year of publication). *Title of work: Capital letter also for subtitle*. Publisher Name. DOI (if available)

### Preparing Tables and Figures

Tables can be placed next to the relevant text in the article. Use Word's Insert Table function when you create tables. Number tables and figures consecutively in accordance with their appearance in the text and place any table/figure notes below the table/figure body.