A STUDY OF DETERMINING THE RELATIONSHIP BETWEEN ACADEMIC ACHIEVEMENT AND PROBLEM BEHAVIOR OF URBAN SECONDARY SCHOOL STUDENTS IN BANGLADESH

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ABSTRACT

The present study attempts to examine the relationship between academic achievement and problem behavior of students of secondary schools. It also contributes facts and insights about the prevalence of problem behavior among students. A total 1208 respondents including students (grade IX), teachers and experts were engaged in collecting data through questionnaire, interviews and focus group discussion (FGDs). Students’ academic achievement was assessed using their cumulative grade point average (CGPA). Problem behavior was assessed from self report Bengali version of strengths and difficulties questionnaire (SDQ). An explanatory sequential mixed method research design was applied where initial quantitative data collection and analysis was followed by a qualitative data collection and analysis. The findings show that as per the SDQ scale 22% of the total students either lie in the borderline or in the abnormal band. The prevalence of hyperactivity-inattention is the most and peer problem is the least among students. There remain gender differences in terms of problem behavior of students. Emotional problems are more prevalent among girls on the other hand the prevalence of hyperactivity-inattention is more among boys. The correlation analysis indicates that academic achievement of students has considerable negative and significant relationship with all the attributes of problem behavior (Emotional symptoms, Conduct problems, Hyperactivity-inattention and Peer problems). Hyperactivity-Inattention has the most and conduct problem has the least association with academic achievement.

Keywords: Academic achievement, Problem behavior.

1. INTRODUCTION:

In the current age of educational reform, problem behaviors of students have become an emerging issue for educators, policy makers and school administrators all over the world. Here the term ‘Problem Behavior’ implies to emotional and behavioral adjustment problems of students. Such problems not only impede educational, personal and social development of students but also may results in lifelong impairment functioning in social and personal life (Rutter, 1996). According to Bird, 10% to 20% children in developed world are suffering from serious emotional and behavioral distress at any one time and the prevalence is almost the same or
higher for the children of developing country (Nikapota, 1991). In a study Rabbani and Hossain (1999) showed that 13.4% of urban primary school children in Dhaka city have been suffering from emotional, conduct and undifferentiated disorders. In a study on secondary level students of rural Bangladesh Morshed and Ahsan found that 21% students are either suffering from any one type of problem behavior (Emotional symptoms, Conduct problems, Hyperactivity-Inattention and Peer problems) or at risk of having such problems.

Secondary education of Bangladesh has been greatly suffered from high drop-out rate (Ahmed, S. Ahmed, Khan, R. Ahmed, 2007). Low achievement in schools and emotional-behavioral problems might be an important risk factor for drop out (Patel & De Souza, 2000). Moreover, problem behaviors of students have been well documented as a significant barrier to optimal education (Barriga, Doran, Newell, Morrison, Barbetti & Robbins, 2002). Unfortunately in formal education system of the country there is hardly any opportunity to understand students’ problematic behavior and its relation to academic achievement. Nevertheless, very few studies concerning the association between academic achievement and problem behavior of students have been conducted in the context of Bangladesh. Thus it is timely to inquire the relationship between the two variables (problem behavior and academic achievement). The present study focuses on the prevalence of problem behavior of urban secondary school students in Bangladesh and its relationship with academic achievement.

It is to be mentioned that, “the behaviors of an individual which can make it difficult for him to learn in the classroom, cause harm to him or others and isolate him from his or her peers are often termed as problem behaviors” (Problem Behaviors in the Classroom: What They Mean and How to Help, 2002). The present study considers the four attributes of problem behavior. These are: Emotional Symptom (e.g. headache, stomach distress without any medical cause; depression or general pervasive unhappy mood etc.), Hyperactivity-Inattention (e.g. lack of concentration, impulsivity etc.), Conduct problem (e.g. Bullying, Truancy, lying, stealing, Arguing, etc.) and Peer relationship problem (e.g. peer rejection, peer envy etc).

However, the study was guided by the following research questions:

1. What is the prevalence of problem behavior in students at secondary level?
2. What sort of relationship exists between academic achievement and problem behavior of students?

2. METHODOLOGY:

The study was conducted by following an explanatory sequential mixed method research design where initial quantitative data collection and analysis was followed by a qualitative data collection and analysis. Ten Secondary schools from Dhaka city (capital of Bangladesh) were purposively selected for this study. Schools were selected without considering their administrative categories (for example, Govt. or non Govt. schools). Students of grade IX, ranging from 14 – 15 years of age, were selected purposively as they are in a developmental stage when, the prevalence of problematic behavior are on its peak (Moffitt, Caspi, Rutter, & Silva, cited in Li & Armstrong, 2009) and academic competition is strong (Li & Armstrong, 2009). In the initial phase Quantitative data was collected from the students (N=1200; Boy= 607, Girl = 593) through a Self-reported Bengali version of Strengths and Difficulties questionnaire [SDQ]. Student’s Academic Achievement was assessed using their CGPA in the last Junior School Certificate Exam (JSCE). The national education policy (2010) of Bangladesh introduced this new public examination named Junior School Certificate...
Examination for students of grade eight. Students must pass it to get enrolled into grade nine. Same question paper and assessment pattern is maintained by all the eight education boards all over the country for JSC exams. In order to collect factual information about academic achievements of the students, grade reports of JSCE has been collected from school record. Qualitative data was collected through FGDs of students and interviews of teachers (N=5, class teachers of grade IX) and experts (N=3; 1= Educational Psychologist, 2= Behavioral Psychologists).

This section describes the data gathering procedure of the study. As the researcher generates data from a range of sources different steps were taken to collect data from different sources. At first request letter was prepared for assisting the researcher in this respect. Then the researcher met the principals of the sample schools and asked for their kind permission. After getting permission the researcher fixed two dates for each school. On the first dates quantitative data were collected for the study. With collection and analysis of the quantitative data the first phase was completed. Then the second phase was started with the FGDs of students and interviews of teachers. On the prior fixed second dates both FGDs and interviews were conducted in each school. After the FGDs and teachers’ interviews the researcher contacted to the experts. A request letter was also prepared to ask experts’ permission for the interview. Finally according to the convenience of the experts appointments were fixed for the required interviews. This ends to the collection of qualitative data in the second phase of the study.

3. STRENGTHS AND DIFFICULTIES QUESTIONNAIRE [SDQ]:

SDQ is a brief behavioral screening standardized questionnaire for measuring emotional and behavioral disorders in children and adolescents ranging from 4 to 16 years of age (Goodman, 1997; Mullick & Goodman, 2001). It exists in parent version, teacher version and a self report version for children aged 11 years or above (Goodman, 1997) and available in over 40 languages. SDQ consists of five subscales, four of which assess problem behaviors relating to emotional symptoms, conduct problems, hyperactivity-inattention symptoms, and peer relationship problems, with the fifth assessing pro-social behaviors. The questionnaire incorporates 25 items, with 5 items for each subscale. It asks respondent to rate the 25 items using a 3-point Likert scale (Not true, somewhat true and certainly true) based upon the individual’s behavior over the last six months. For each response an individual can get a score ranging from 0-2 thus, for each subscale the score can range from (0-10). To rate the level of the problem behavior all scores on the first four subscales are summed up to generate a Total Difficulties Score [TDS] (ranges from 0-40). The score of the pro-social subscale should not be added to the TDS.

Definition of Key Concept of SDQ

The five scales of SDQ cover 5 different attributes of behavior (first four relate to problem behaviors). The section below describes the basic theme of the respected terms used in SDQ: (cited in Sultana, 2010, p.19):
1. Emotional symptoms: ‘Mood or emotional responses dissonant with or inappropriate to the behavior and/or stimulus’.
2. Conduct problems: ‘Identifiable behaviors in the individual that fail to conform to societal norms and encroach on the rights of others’.
3. Hyperactivity-inattention: Level of attention deficit or hyperactivity disorder, which is characterized by persistent and impairing symptoms of inattention, hyperactivity and impulsivity
4. Peer problems: ‘Evidence that children who experience difficulty making friends and getting along with their peers are at increased risk of a wide range of psychosocial outcomes.'
5. **Pro-social behavior**: ‘voluntary behavior that benefits others or promotes harmonious relations with others’.

### 4. FINDINGS AND DISCUSSION:

#### 4.1 Prevalence of Problem Behavior of Students

On the basis of the students’ response towards the items of SDQ, a Total Difficulty Score (TDS) is calculated. As per their TDS students are placed into one of three different bands—‘Normal’ (TDS: 0-15), ‘Borderline’ (TDS: 16-19) or ‘Abnormal’ (TDS: 20-40). The figure 1 shows the percentage of students with respect to each band.

![Figure 1 Prevalence of Problem Behavior of Students by Bands of SDQ](image)

Figure 1 shows the prevalence of problem behavior of students with respect to the bands of SDQ. It depicts that 22% of the total students lie either in the borderline (16%) or in the abnormal (6%) band. The result is quite consistent to the findings of Morshed and Ahsan, (2010), as according to their study the prevalence is 21% for lower secondary students in rural Bangladesh. During the interviews experts also revealed the same fact. According to experts, day by day adolescent problem behaviors are increasing in an immense and diverse manner. One child psychiatric mentioned, ‘no body is immune in terms of mental health problem and almost 20%-25% community adolescent samples are suffering from problem behavior. In fact more than 15% students of age (14-16 years) have emotional behavior disorder.’ Another expert who is an educational psychologist added that increasing academic pressure, difficulties in adjusting with parents, teachers and peers (both same and opposite sex) as well as adjusting themselves in the rapid transition of life might be the plausible reason behind such increasing prevalence of problem behavior among secondary school children. The figure also reveals that the prevalence of problem behavior among girls is higher than that of boys. In fact the percentage of girls is almost double (Borderline: Boy=11%, Girl=21%; Abnormal: Boy=3%, Girl=8%) than the percentage of boys in both the borderline and abnormal band. In their study Morshed and Ahsan (2010) also found girls having more problem behavior. However this result is not persistent to the findings of western world where girls have lower prevalence of problem behavior at all ages (Morshed & Ahsan, 2010). The difference between the two cultures may influence the result. Moreover gender stereotype social structure, lack of family support, lack of social security may cause higher prevalence of problem behavior of girls in Bangladesh.
Table 1: Prevalence of Problem Behavior with Respect to Specific Attributes

<table>
<thead>
<tr>
<th>Problem Behavior</th>
<th>Gender</th>
<th>Mean (out of 10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Symptom</td>
<td>Boy</td>
<td>2.25</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>3.87</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.93</td>
</tr>
<tr>
<td>Conduct Problem</td>
<td>Boy</td>
<td>2.50</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>2.71</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.59</td>
</tr>
<tr>
<td>Hyperactivity-Inattention</td>
<td>Boy</td>
<td>3.56</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>2.66</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.29</td>
</tr>
<tr>
<td>Peer Problem</td>
<td>Boy</td>
<td>2.61</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>2.49</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.44</td>
</tr>
<tr>
<td>TDS</td>
<td>Boy</td>
<td>10.94</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>11.75</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>11.27</td>
</tr>
</tbody>
</table>

*TDS= Total Difficulty Score

The table shows that the mean TDS of students is 11.27 which is also harmonized to the mean TDS 11.48, found in the study of Morshed and Ahsan (2010). However in Bangladesh there is still no standard norm of such score to compare with. But in developed countries there remains, such as, in United Kingdom the mean is ‘10.3’ (Meltzer, Gatward, Goodman & Ford, 2000); in the United States it is ‘7.1’ (see, National Health Interview Survey, 2001) and ‘8.6’ in Australia (Mellor, 2005). It is quite evident that the present mean of TDS is higher than that of other developed countries. This result is quite similar to the interpretation of Nikapota (1991), as he suggests that the prevalence in developing countries is higher than or at least as high as the developed countries. “This is perhaps unsurprising since so many children in the developing world are exposed to extreme poverty, malnutrition, infectious disease, violence and social disintegration” (Mullick & Goodman, 2001). As Bangladesh is not free from the aforementioned disputes, thus it is quite expecting of having higher rate of problem behavior among students. However caution should be taken in order to generalize this result as the sample of the study is not representative enough to picture the whole situation. All the respondent students come from a minimal level of socioeconomic background. This means at least they all have access to the basic needs of life and opportunities to go to regular schools in the city. They are not subject to extreme poverty, illiteracy, marginalization experienced by many severely disadvantaged families in Bangladesh. The prevalence of problem behavior may increase if consideration is given to the children at the greatest social and economic disadvantage.

From the table it is also found that Hyperactivity-Inattention is the highest prevalent problem behavior. However the result is not consistent with a similar and contemporary study that depicts emotional problem as the most prevalent problem behavior (Morshed & Ahsan, 2010). In fact the ONS (Office for National Statistics) survey (2004) carried out in Great Britain also found that 4% of (11-16 old) adolescents have higher prevalence of emotional disorder than hyperactivity Student FGDs and experts responses of the present study also found that emotional problem is the most prevalent problem of students. During FGDs Students mentioned that they are usually suffering from persistent worry about test, results and future life. One student mentioned, “I hardly can remain happy; always feels ‘dead inside’”. However in the qualitative part only teachers consider hyperactivity-inattention as the most prevalent problem. The reason behind teachers’ over responses towards this specific attribute (inattention a component of hyperactivity) might be its evident visibility in the classroom setting. Moreover emotional problems are very much internalized; it is difficult to understand and detect by the regular school teachers. Thus
teachers’ primary focus is on the more visible and disturbing externalizing behaviors (e.g. off task activity, inattention, side talk). The lecture based conventional and less stimulating classroom environment of schools may be the underlying cause of such high prevalence of inattention among students in Bangladesh; as classroom environment have influences on student’s behavior (DiLalla & Mullineaux, 2007).

From the table 1 it is also found that there exist gender differences in specific attributes of problem behavior. Apart from hyperactivity-inattention scale the prevalence of problem behavior among girls is higher in all other scales. During interviews teachers did not mentioned about gender differences in terms of problem behavior. However experts mentioned that girls tend to suffer more from emotional symptoms (e.g. depression, head-ache, withdrawal, shyness, and different types of anxiety) on the other hand boys tend to show hyperactivity-inattention and conduct problem. One of the experts (educational psychologist) said that in terms of conduct problem there is an evident difference between boys and girls in developing countries like Bangladesh. She also explained from Hurlock (1955) “in the gender stereotyped family structure from very early age girls are subject to follow a conventional code of conduct e.g. ‘behave politely’, ‘talk less and walk slowly’, ‘stay quite’ whereas boys get more flexibility in terms of their conduct. They are free to jump, play, scream, move and express their emotions. Thus when they reach to adolescents the boys are more expressive in their behavior usually what we called conduct problem; is the expression of their internal anger or feelings which they release through abusive languages, rebellion gestures, different facial and physical expression, breaking of rules, showing temper, aggression, school truancy and vindictive attitude towards properties and others and so on But usually the girls can’t express their feelings through such ways and tend to suffer from emotional problems” (see Hurlock, 1955). Previous studies also found that girls tend to have higher level of internalizing problem behaviors (emotional symptoms e.g. anxiety, depression, fearfulness, somatic complaints) and boys tend to show higher level of externalizing problem behaviors (inattention, hyperactivity, Conduct Problem) (Bonnie, J. L., Sidney, J. B., & Donald, M. Q., 1995)
4.2 Relationship between Academic Achievement and Problem Behaviors

The table 2 presented below, describes the correlation between academic achievement and problem behavior of students. It is seen that there exists a negative correlation between academic achievement and all the attributes of problem behavior.

Table 2 Correlation Matrix between Academic Achievement and Problem Behavior

<table>
<thead>
<tr>
<th></th>
<th>Emotion Symptom</th>
<th>Conduct Problem</th>
<th>Hyperactivity</th>
<th>Peer Problem</th>
<th>TDS</th>
<th>CGPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotion Symptom</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduct Problem</td>
<td>0.135</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>0.138</td>
<td>0.398(***)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Problem</td>
<td>0.200(***)</td>
<td>0.019</td>
<td>0.105</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDS</td>
<td>0.610(***)</td>
<td>0.636(***)</td>
<td>0.700(***)</td>
<td>0.498(*)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CGPA</td>
<td>-0.212(***)</td>
<td>-0.182(***)</td>
<td>-0.407(***)</td>
<td></td>
<td>-0.414(*)</td>
<td>1</td>
</tr>
</tbody>
</table>

** Correlation is significant at 0.01 Level (2-tailed)
(TDS = Total Difficulties Score, CGPA = Cumulative Grade Point Average)

A considerable negative and significant correlation (-0.414) is found between academic achievement and problem behavior of students. The result of the present study is quite compatible to the findings of other previous research (Hinshaw, 1992; Rapport, Denny, Chung & Hustace, 2001; Morshed & Ahsan, 2010). Hyperactivity-Inattention has the highest (-0.407) and association with low academic achievement among all other problem behaviors. In FGDs students also mentioned about the problem as barrier to their academic achievement. One student said, 'I hardly could sit on my chair or concentrate on one subject more than ten minutes. Teachers also identified inattention as the main type of problem behavior that may cause low grades as inattentive students are over stimulated by what they see out of the window and hear in the nearby class, could hardly concentrate on lessons.
In fact all problem behaviors (emotional symptom, conduct problem) do not directly related to low academic achievement; rather they are connected to attention problem; hence it is attention problem which play the role of mediator and have negative impact on academic achievement Bargia et al. (2002). Moreover inattentive children could hardly receive the most important stimuli from the class which may results in low grades (Spira & Fischel, 2005).

The study also shows a least or negligible correlation (-0.182) between academic achievement and conduct problem. During interviews teachers mentioned that in terms of conduct problem high achievers also show problem behavior in the class even more than the low achievers. On some occasion they blunts out answers without raising their hand, make fun of other low achievers. As they are bright students and popular in class sometimes they take advantage of their position and deliberately show conduct problem.

In a study of Li and Armstrong the correlation analysis indicated that some problematic behaviors (e.g., truancy, stealing, receiving, and vandalism) were not related to CGPA. It may be noted that the aforementioned problem behaviors are all exist under an umbrella of conduct problem; and this result is quite similar to the conduct problem-academic achievement association of the present study.

However in FGDs and interviews both the students and experts revealed negative influence of emotional problems on optimal academic achievement. Most of the students mentioned that they find themselves stressful before exams as parents and teachers impose their high expectations on them. On being constant under pressure of achieving high grades they felt stomach distress, dizziness, head-ache, and become anxious about the thought of results before appearing in the exam. Then they try to escape from the situation i.e. from exam, lessons, as well as preparation for exams which sometimes results in low grades. The experts also mentioned that when children of this age cannot channelize their emotions and are subject to unwanted pressure persistently this might results to different physical symptoms with no identifiable physical origin which is called somatization disorder (see Hurlock, 1955). In reply to a response of giving some examples one expert (Psychiatrist) said that before exams, schools, test results; head ache, stomach distress problem is very frequent in our adolescence which might leads to low achievement in school years. This finding is also consistent to some previous findings where such problems are found to impede attention, learning ability and problem solving skills (Safree, Yasin & Dzulkifli, 2009; Rapport, Denney, Chung, & Hustace, 2001).

5. CONCLUSION:

However problem behaviors may be a possible explanation of low academic achievement to some extent. But the negative correlation does not depict any causal relationship that problem behavior cause low academic achievement. Sometimes it may persistent low academic achievement that can be a risk factor of problem behavior of students (Bargia, et al., 2002). Further research is needed to explore any prediction relating to academic achievement and problem behavior. Nevertheless problem behavior cause low academic achievement or persistent low achievement cause problem behavior; ultimate sufferers are the individual student and his grades. Thus to help the students in better adjustment in their social, emotional and academic life behavioral issues need to be targeted in educational efforts. Before doing so, a survey research is must to know the exact situation regarding prevalence of problem behavior among of school going children in Bangladesh. This will help concerned personal to understand the whole picture of behavioral problem and to plan necessary venture in order to improve the condition of mental health of
students. Educators and school administrators may consider this issue to reduce high dropout rate at secondary level in schools. Awareness towards emotional and behavioral adjustment needs of students and its association with academic achievement should be created among teachers, parents, educators, administrators and community. The findings explore the pressing need of incorporation of mental health issues of students in education policy, curriculum and teacher training programs. Training on early identifying and dealing with problem behavior may help teachers to provide positive behavior support and appropriate scaffolding to facilitate learning in classroom. This would also provide an opportunity for effective inclusion of students with emotional and behavioral difficulties in regular classroom and to promote the practice of inclusive education in schools of Bangladesh.

6. REFERENCE


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