Original Article

Gender Disparities in Dropping out of High School Students and their Level of Depression

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Abstract

Background: *A drop-out can be defined as a child who enrols in school but fails to complete the relevant level of the educational cycle. It is usually associated with non-enrolment and a lower percentage of girls than boys in the school system. High school dropouts are more likely to be on welfare, have poorer health, have reduced intergenerational mobility, become teenage parents, unemployed, depressed, have substance abuse problems, engage in violent behaviours, and end up incarcerated. Adolescent depression is a mental and emotional disorder affecting adolescents and teens. According to WHO, globally depression is the number one cause of illness and disability in adolescent age group. Depression increases a teen's risk for attempting suicide by 12 times and 30% of teens with depression also develop a substance abuse problem.* **Objective:** *To find out the gender disparities in dropping out of high school students and their level of depression.* **Methodology:** *This cross-sectional study was done in Adarsha Sadar, Cumilla, Bangladesh in between January 2014 to December 2014. Study sample was 339 adolescents of 13-19 years of that area. By purposive sampling technique data were collected through a pretested, semi-structed, interview questionnaire. Back Depression Inventory scale was used to assess the level of depression.* **Results:** *Proportion of male drop out adolescent was 54% and female drop out adolescents 46%. 44.5% adolescents had depression and a positive association was found between adolescent depression and dropping out from high school.* **Conclusions:** *There is an apparent gender gap among the high school dropouts, with more male adolescents dropping out than females. A positive association was found between the high school dropouts and the development of adolescent depression.*

Key words: Depression, drop out, gender disparities.

Introduction

A drop-out can be defined as a child who enrols in school but fails to complete the relevant level of the educational cycle[1]. The consequences of dropping out are dramatic and costly for both individuals and the society[2]. The negative outcomes associated with dropping out include a higher likelihood of unemployment, a greater chance of living below the poverty line and relying on public assistance, more frequent and severe health problems, and increased criminal activity[2]. High school dropouts are a prevalent problem in schools across the world. Students who do not complete high school do not only affect themselves, he/she also has a large negative impact on society as well[3]. High school dropouts are more likely to be on welfare, have poorer health, have reduced intergenerational mobility, become teenage parents, unemployed, depressed, have substance abuse problems, engage in violent behaviours, and end up incarcerated. Communities that have many dropouts need to spend more funds on social costs than anything else[4-6]. Drop-out is a problem in many of the school systems in the Region. Its intensity varies from country to country, but where it is most prevalent, it is usually associated also with non-enrolment and a lower percentage of girls than boys in the school system. It is closely associated also with socio-economic conditions. Where poverty is greatest, drop-out will be highest[7].

Among the major psychiatric disorders, depression is one of the most common to occur and frequently begins during adolescence. Depression has been shown to greatly impair adolescents in numerous ways, such as by increasing suicide attempts and increasing the likelihood of substance use. Adolescent depression may continue to negatively affect their mental and physical health well into adulthood[8]. Adolescent depressions are not always manifested by sadness but by irritability, boredom, or an inability to feel pleasure. Depression is a chronic, recurrent, and mostly an inherited illness. Frequently, the first appearance of depression occurs during childhood or adolescence[9].

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Depressive disorders, causing a very high rate of diseases' burden, are expected to show a rising trend during the coming 20 years. It is a significant public health problem with relative common, high prevalence and its recurrent nature profoundly disrupts patients' lives. General population surveys conducted in many parts of the world, including some South-East Asian Region countries, constituting 18 to 25% of the population in member countries region, in which 15 to 20% children and adolescents suffered from it that, are almost like that of adult populations. Inability to cope with intense emotions in healthy ways may lead adolescents to express their pain and frustration through violence or self-injury, or to attempt to numb themselves of emotions through isolation, reckless behaviours, and alcohol or illicit drug use[10]. Furthermore, other behaviours and attitudes are also linked to adolescents' mental health; aggressiveness and disregard for laws or rights of others; isolation from peers, family and other emotional relationships or the inability to keep one's disappointments in perspective and academic stress[10].

Adolescent depression is a mental and emotional disorder affecting adolescents and teens[11]. More commonly referred to as teenage depression, adolescent depression is not medically different from adult depression[11]. However, symptoms in teens may manifest in different ways than they do in adults. This is due to the different social and developmental challenges facing teens. Peer pressure, sports, changing hormone levels, developing bodies, awkward tendencies, and a host of other factors can carry many ups and downs for teenagers[12]. However, these ups and downs can be signs of depression[12]. Depression is associated with higher levels of stress, anxiety, and in the worst possible scenarios, suicide[13]. It can also affect a teen's personal, school, work, social, and family life, which can lead to social isolation and other problems[11-13].

Materials and Methods
Study type: This study was conducted following descriptive cross sectional survey design among the rural high school students and the high school dropouts. *Study place:* The study was conducted in Adarsha Sadar, Cumilla, Bangladesh. *Study period:* The total study period was 1 year from the commencement of the study from 1st January 2014 to 31st December 2014. *Study sample:* Study sample was 339 adolescents of 13-19 years of age. *Sampling technique:* Sample was collected purposively from the rural community. *Research instrument:* A pretested, semi-structured, interview questionnaire was used for data collection. Beck's Depression Inventory Scale was used to assess the level of depression. *Data collection:* Data was collected by face-to-face interview using the questionnaire. *Data analysis:* For analysing data some descriptive statistics like frequency table, percentage, mean, median, mode, range and standard deviation were used. Chi-square test was applied to see the relationship and statistical significance the dependent and independent variables. This analysis was done by using SPSS and Microsoft Excel. *Data presentation:* Data was presented by appropriate tables, graphs, and standard writing style.

Ethical issues: permission from NIPSOM authority was taken, adolescents were briefed properly about the nature and purpose of the study, informed written consent was taken, by providing proper privacy, sensitive questions were asked, adolescents had freedom to take part or to refuse to answer any questions.

Selection criteria: A. Inclusion criteria - adolescents of that area from 13 to 19 years, who were willing to participate in the study, resident of that area. *B. Exclusion criteria* - high school dropouts below 13 years and more than 19 years old, adolescents suffering from serious physical and mental illness.

Results
This study was done among 339 adolescents of 13 to 19 years old. The result was given according to the objectives of the study.

Table-I: Socio demographic characteristics of the respondents (n=339)

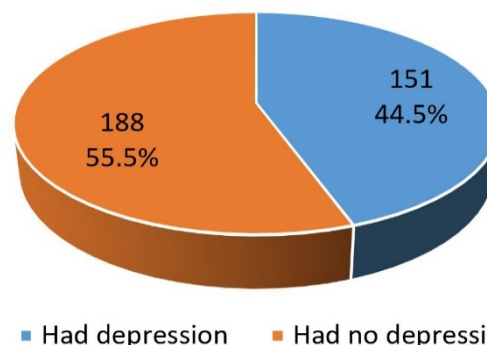| Variables	Sub-variables	Number	Percent (%)
Gender	Male	136	40.1
	Female	203	59.9
Age group	13-15	210	61.9
	16-19	129	38.1
Marital status	Unmarried	301	88.8
	Married	38	11.2
Religion	Islam	305	90
	Hindu	34	10

Figure-1: Pie chart illustrating the presence of depression in adolescents.

Table-II: Proportion of gender disparity of school going adolescents.

School going	Frequency	Proportion (%)
Male	52	28
Female	132	72
Total	184	100

Table-III: Proportion of gender disparity of dropping out of high school adolescents.

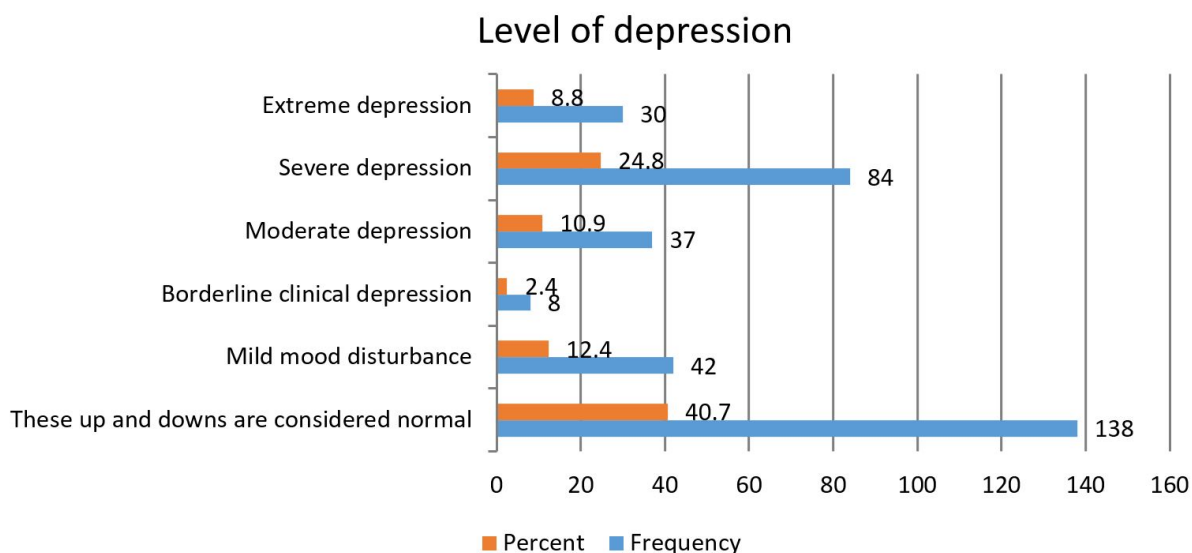| Dropout	Frequency	Proportion (%)
Male	84	54
Female	71	46
Total	155	100

Figure-2: Bar diagram illustrating the level of depression in adolescents.

Table-IV: Relationship between gender and level of depression

Gender	Level of depression				Total (%)	χ2 value	p-value
	Had depression		Had no depression				
	No.	%	No.	%			
Male	77	56.6	59	43.4	136 (100)	13.41	<0.001
Female	74	36.5	129	63.5	203 (100)		
Total	151	44.5	188	55.5	339 (100)		

Table-V: Relationship between dropping out from high school and level of depression

Categories of respondents	Level of depression				Total (%)	χ2 value	p-value
	Had depression		Had no depression				
	No.	%	No.	%			
School going	6	3.3	178	96.7	184 (100)	277.632	<0.001
Drop out	145	93.5	10	6.5	155 (100)		
Total	151	44.5	188	55.5	339 (100)		

Discussion

In the present study among the 339 adolescents 40.1% were male while 59.9% were female. Most of the adolescents (61.9%) were from the age group 13-15 years, while the rest of them (38.1%) were from the age group 16-19 years. Regarding marital status 88.8% were unmarried while 11.2% were married. Among the adolescents 90% were Muslims while the rest of them were Hindu (10%). In this study proportion of female school going adolescent was 0.72 and proportion of male school going adolescents was 0.28. Besides proportion of male dropout adolescent was 0.54 and proportion of female dropout adolescents was 0.46. The Child Trends databank of indicators revealed that male adolescents are more likely to drop out of high school than their female counterparts, which is like the result of our study[6].

It was found in this current study that majority of the adolescents had no depression which was 55.5% while 44.5% adolescents had depression. This is much higher than the prevalence (14%) reported in a study conducted in 2012 among 2,440 Bangladeshi adolescents aged 13-19 years[14] and 25% prevalence rate was reported in another study conducted in 2013 among 898 adolescents in Dhaka, Bangladesh. However, the prevalence of depression found in the present study is lower than that reported in a study conducted in 2012 on 165 urban older adolescents aged 15-19 years which was 49%[15]. The prevalence of depression is less common (44.5%) in the present study than in another study (59%) among Indian adolescents aged 15-18 years[16,17].

The most common type of depression in our study was normal level of depression (40.7%), followed by severe depression (24.8%), mild mood disturbance (12.4%), moderate depression (10.9%), extreme depression (8.8%) and border line clinical depression (2.4%). A similar study was done in Mangalore city by Naushad S, et al using the same scale among the preuniversity students of 16-19 years, where 26.6% were found to suffer from mild, 41.2% from moderate and 11.4% from severe depression[17,18].

The prevalence of depression in our study was found to be slightly higher among males than females. This similar finding was also found by Naushad S, et al[17,18]. The result contrasted with the observations made in several studies, where depression was found to be significantly more among females than males[19-22]. The reason for female preponderance to depression in the adolescent age group has been attributed to differences in coping styles or hormonal changes during puberty[23]. Our study revealed that there was a positive association between adolescent depression and dropping out from high school. This finding is like the result of several previous studies[24-28].

Conclusion
High school dropout is a very complex phenomenon, a very dangerous one. The study reveals that there is an apparent gender gap among the high school dropouts, with more male adolescents dropping out than females. The study also explores a positive association between the high school dropouts and development of adolescent depression. Despite many adolescents' health programs taken by the government depression is still ignored. Many factors are responsible for the development of adolescent depression. Dropping out of high school is one of them. Furthermore, to achieve the goals and targets of the SDGs and upper middle-income country (UMIC) status, there is no alternative but to reduce dropout to ensure quality education for all.

Recommendation
The study advises the authorities for quick response to reduce drop out and adolescent depression, which will help Bangladesh achieve SDG targets and become an upper middle-income country by 2030.

Conflict of interest
The authors declared that they have no conflict of interest.

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