



Research article

## Evaluation of the Government Stipend Program for Students with Disability: Evidence from Khulna District of Bangladesh

Md. Mahedi Al Masud<sup>1</sup>, Abdullah Al Marin<sup>2</sup>, Md. Karimul Islam<sup>3</sup> and Sajib Chowdhury<sup>4\*</sup><sup>1</sup>*Divisional Social Services Office, Department of Social Services, Ministry of Social Welfare, Khulna-9100, Bangladesh.*<sup>2</sup>*Economics Discipline, Khulna University, Khulna-9100, Bangladesh.*<sup>3</sup>*BRAC Institute of Governance and Development (BIGD), BRAC University, Bangladesh.*<sup>4</sup>*Directorate of Programme, Bangladesh Water Development Board, Dhaka, Bangladesh.*

### ABSTRACT

Persons with disabilities, though guaranteed equal access and rights under the constitution of Bangladesh, face challenges in various areas including schools. To address this disparity, the government provides stipends to empower these students and support their growth alongside their peers. Thus, this study aims to evaluate the government stipend program for students with disabilities, considering its exposure on education, household expenses, and the mindset of the students and their guardians towards academic achievement. Data was collected from 125 students with disabilities across different educational levels using stratified random sampling techniques. In addition, the study involved eight focus group discussions (FGDs) with guardians of these students and five key informant interviews (KIIs) with educational institution heads and social service officers. Findings highlighted that households benefiting from the stipend program allocated more funds annually towards food (an additional 8,500 BDT) and education (an extra 4,000 BDT) compared to non-recipient households. Moreover, students who received the stipend demonstrated 25 percent higher grades than those who did not. A Tobit regression analysis revealed a positive relationship between the stipend program and the academic performance of students with disabilities. At the primary and secondary levels, stipend recipients were able to afford resources like books, coaching, private tuition, and meals more effectively than non-recipients. Scaling such stipend program with customized and monitored tracking could help enhance quality education and support the sustainable development goals (SDGs).

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### Introduction

Approximately 1.3 billion individuals, accounting for nearly 16 percent of the global population, are estimated to experience some form of disability (WHO, 2023). Alarmingly, over 80 percent of this demographic resides in lower middle-income countries (Nuri et al., 2020). According to Banks et al. (2017), the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) recognizes the increased vulnerability of individuals with disabilities in society, especially in low- and middle-income nations, to promote equality for them. People with disabilities are more vulnerable to poverty due to higher healthcare costs, limited educational and employment opportunities, and poorer health outcomes (Mitra et al., 2013). In order to address the intricate relationship between poverty and disability, more funding

must be allocated to education in many low- and middle-income countries, which lack sufficient public and private support networks (Chowdhury & Haider, 2021; Miles et al., 2014). A critical component of global development efforts involves achieving the Sustainable Development Goals (SDGs) while simultaneously enhancing the socio-economic well-being of people with disabilities.

According to a report by the Learning Generation, approximately 93 to 150 million children worldwide live with disabilities. Approximately 33 million children with disabilities do not attend school in low- and middle-income countries (Lewis, 2019). Compared to people without disabilities, people with disabilities frequently experience worse health outcomes, lower educational attainment, fewer employment options, and higher levels of poverty (WHO, 2011). The numerous challenges they

\*Corresponding author: <[sajibchowdhury264@gmail.com](mailto:sajibchowdhury264@gmail.com)>

face on a daily basis and the dearth of proper support services are the main causes of these disparities (Mamun et al., 2022). Physical, social, and cultural barriers prevent people with disabilities from fully and equally participating in social, political, economic, and cultural activities. A significant number of individuals with disabilities face educational deprivation owing to resource shortages (BBS, 2015).

The government of Bangladesh emphasizes the social safety net programs to alleviate poverty and ensure education of the children with disabilities (Chowdhury & Haider, 2023). The Bangladeshi constitution's Articles 15, 17, 20, and 29 ensure people with disabilities the same rights and access as other citizens (MSW, 2013). In this circumstance, the Department of Social Services (DSS) of Bangladesh under the Ministry of Social Welfare (MSW) has taken different initiatives to reduce the incidence of poverty and develop their standard of living by supporting health, education, training, and microcredit-oriented programs. The educational stipend for students with disability is one of the important programs of the DSS.

The stipend program was initiated in the 2007-08 fiscal year. School-going children having disabilities from every village all over the country are enjoying the benefits of this program. Upazila Social Services Officer (USSO) at the Upazila (sub-district) level implements this program at the field level. This program contains 15 targets such as to ensure the constitutional rights of disabled people, to involve them in the mainstream of society, to empower them, to improve the admission rate of children with disabilities, to reduce drop-out rate, to complete educational cycle successfully. Side by side, such programs not only inspire students with disability towards receiving higher education by dint of spending more money on education but also facilitate them via rehabilitating in society as they contribute to their society and nation (MSW, 2008). With this government support, they can continue their education up to honors and masters' levels.

Empirical studies have consistently demonstrated the positive impact of government stipend programs on the education of students with disabilities. For instance, stipend recipients demonstrated improved academic performance and increased incentive to attend class regularly, according to research by Gupta et al. (2021). In a similar vein, Smith and Johnson (2015) showed that financial assistance programs significantly increased the number of kids with impairments attending school in a remote area. Government stipend programs for students with disabilities often include specific eligibility criteria to ensure that the financial assistance reaches those who need it the most. Clain and Ratner (2015) argue that clear,

## Methodology

### Research Design

The study investigates the role of stipends on the education of students with disability; their social behavior, and the socio-economic changes regarding the household expenditure of families of students with a disability in the government and non-government educational institutions. We selected the study area in the Khulna district of Bangladesh. We applied a mixed-method approach consisting of both qualitative and quantitative research

inclusive, and well-communicated eligibility criteria are vital for program success.

Across the globe, governments have been striving to integrate students with disabilities into mainstream education systems. The provision of stipends has emerged as a significant strategy in this pursuit, enabling financial access to education for marginalized groups (Smith & Johnson, 2015). Moreover, the psychosocial benefits of government stipend programs for students with disabilities is prominent (Smith et al., 2020). They found that financial support reduced stress and increased self-esteem and overall well-being among participants. Research by Andersson and Törnblom (2019) indicates that financial support for students with disabilities positively affects academic performance. Their study found that students who received stipends were more likely to complete their programs and achieve higher grades. Importantly, the amount of financial support provided is crucial for students' well-being and educational success. Buzhardt and McDonnell (2016) emphasize the significance of stipend amounts that cover tuition and additional costs such as assistive technology, transportation, and personal assistance.

Thus, the present study identifies the impact of stipends on the education of students with disability comparing two groups i.e., before and after stipends of students with disability as well as with and without stipends of students with disability for primary and secondary level students. It considers the expenditure on education and academic results in the examination to measure the role of the stipend on education. This research also estimates the role of stipends on the social behavior of students with disability. For measuring these roles, it considers the social attitude of different groups toward students with disability. It includes students with disability from primary level, secondary levels of Khulna district to evaluate the efficacy of the stipend program in Bangladesh. Based on these targets of the program, this research sets the objective is to find out the role of stipends on the educational performance of students with disability. The study, keeping congruence with the research objective, tries to find out the answers to the following research questions-

- (1) What is the role of the stipend on the educational performance of students with a disability?
- (2) Does the stipend inspire the students with disability and their guardians to enhance educational expenses and continue their studies?
- (3) What is the relationship between stipend and household expenditure of families of students with a disability?

methods. The fundamental rationale behind this method is to combine the strengths of qualitative research with the strengths of quantitative research (Islam and Hossain, 2014). In addition, the present study is based on both primary and secondary data. Primary data was collected through conducting Focus Group Discussion (FGD), Key Informant Interview (KII), and interview schedules. For quantitative data collection, a semi-structured interview schedule was prepared with numerical value. A set of guidelines and checklists were prepared for FGDs and KIIs.

**Study Area and Sampling**

The study was conducted in two upazilas i.e., Batiaghata and Dumuria under the Khulna district of Bangladesh. We considered two groups of students with disability i.e., Batiaghata comprised three (3) unions named Jalma, Batiaghata and Amirpur. It included 32 primary level (WS-10 and WOS-22) and 19 secondary and above levels (WS-

13 and WOS-06) students from Batiaghata upazila. In addition, Dumuria upazila comprised four (4) unions named Dumuria, Rudaghara, Raghunatpur, and Dhamalia. It included 45 primary levels (WS-08 and WOS-37) and 19 secondary and above levels (WS-07 and WOS-22) students from Dumuria Upazila (see Table 1). Figure 1 highlights the map of study area.

Table 1: Sample size distribution

Location of the institutions	Upazila	District	No. of the students with disability			
			Primary level		Secondary and above levels	
			WS	WOS	WS	WOS
Jalma, Batiaghata and Amirpur Union	Batiaghata	Khulna	10	22	13	06
Dumuria, Rudaghara, Raghunatpur and Dhamalia Union	Dumuria	Khulna	08	37	07	22
Total			125			

We considered 125 students with disabilities and interviewed their guardians from Batiaghata and Dumuria upazila of Khulna district by using stratified random sampling. First, we collect the disabled student’s information from the aforementioned institutions. We find 205 disable student’s information from the authority. Thus, this is the population of this study. Then, we categorize the students into two strata based on their education level e.g., primary and secondary. After that, we randomly select the students from two strata. Since we are focusing exclusively on students with disabilities, it is challenging to expand the sample size within just one or two upazilas. Therefore, we survey 125 students. We also included five dropped-out students with disability in the study area for interview. Therefore, the study selected 130 respondents following a stratified sampling technique where 125 regular students with disability (and their guardians) from Batiaghata and Dumuria upazila participated in the interview.

In addition, we conducted eight focus group discussions (FGD) where two FGDs were conducted at the primary education level and the rest were from the secondary and above level. In addition, we conducted five key informant interviews (KIIs) with the head of the educational institution and USSO at the upazila level (see Table 2). The study captured 18 primary institutions, 10 secondary schools, 3 higher secondary schools and tertiary institutions, and 1 Madrasa at Batiaghata upazila as well as 17 primary levels, 10 secondary levels, 3 higher secondary and above levels institutions, 3 Madrasa at Dumuria upazila. In addition, it includes 2 special schools at Batiaghata upazila and 1 special school at Dumuria upazila which provide special education to students with disability in the study area.

**Analytical Approach for Quantitative Data**

The study gathers data regarding the educational status of students with disabilities by utilizing interview schedules (IS) with the students and their guardians. It specifically focuses on the yearly education-related expenses for students with disabilities. These expenditures encompass six categories, including book costs, meal expenses, coaching fees, clothing, private tuition fees, and other

miscellaneous educational costs incurred over a year, both before and after the implementation of the stipend program for students with disabilities.

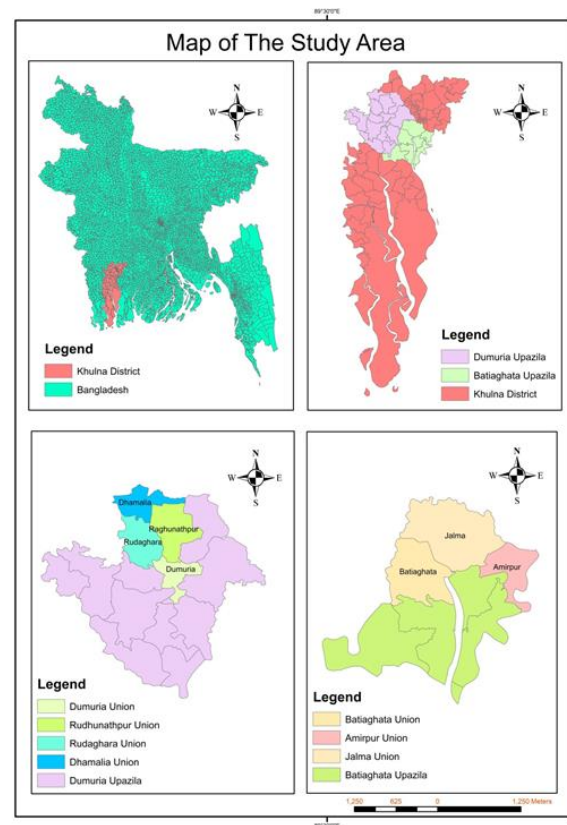


Figure 1. Study area (Source: Authors’ Creation)

Data is collected from two distinct groups: those with stipend benefits and those without. A comparison is then drawn between these groups to analyze the impact of the stipend on education outcomes for students with disabilities by comparing the mean value of the corresponding variables. Furthermore, the research examines the students’ academic performance by evaluating their final examination scores (GPA) (Sikdar et al., 2023). The grades are segmented into five categories based on marks (refer to Table 3), ranging from grade A+

(80 and above) to grade C (40 to 49). By comparing groups of students with disabilities before and after stipend implementation, as well as those with and without stipend

benefits, the study aims to assess the influence of the stipend on the academic achievements of students with disabilities.

Table 2: Sampling of the study

Sample Unit	Sample Size	Selection Criteria of the sample	Data collection method	Sampling Technique
Students with disability/ guardian	125	Diversified students with a disability or their guardian	Interview Schedule	Stratified random sampling
Group	8	Guardian	Focus Group Discussion (FGD)	Purposive
Individual	5	Head of the institution and USSO	Key Informant Interview (KII)	

The first objective of the study is to estimate the role of stipend programs in students with disability’ academic performance. A Tobit regression model has been applied to test the relationship. The study first anticipated to use of Ordinary Least Squares (OLS) to estimate the impact. However, the value of a dependent variable (percentage of marks) is within a range and it needs respective censoring. Here, the assumption of OLS which is the normal distribution of the dependent variable is violated. The Tobit model can address this issue and censor the data as required. Equation 1 gives the details of the regression.

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \mu^i \dots \dots \dots (1)$$

Here,  $Y_i$  is the dependent variable denoting the obtained GPA percentage and  $X_i$  refers to the explanatory variables. Among the explanatory variables,  $X_1$  is the scholarship (1=Yes, 0=otherwise),  $X_2$  is the class one belongs to (category),  $X_3$  is the family income per month (BDT),  $X_4$  is the educational expenses per month (BDT),  $X_5$  is the family size (numeric), and  $\mu$  is an error term.

This study also identifies the role of stipends on the socio-economic condition of families of students with disability. It requires information on the status of the socio-economic condition of the families of the students with disability to assess the role of the stipend on the participants’ family welfare. To do this, the study collects data on yearly household expenditure for a student with disability’s family using face-to-face a questionnaire survey. Household expenditure includes six (6) items of expenditure i.e., food, clothing, education, house repair, treatment, and others for a year, as of before the stipend and after the stipend situation. It also collects the same data from with stipend and without stipend groups of students with disability. After that, the study compares the groups (with and without stipend as well as before and after stipend conditions) of students with disability. It helps us differentiate the family condition of the recipient family from that of the non-recipient family.

**Analytical Approach for Qualitative Data**

This study also assesses the services of educational institutions to provide stipends for students with disability. We collect information regarding the services of the institution, the amount of stipend and its disbursing

system, and job quota for the disabled from FGD of the guardians of the students with disability. It collects opinions from the guardian for SWOT analysis by following Al Masud et al., (2023). It includes five (5) groups i.e., family members, relatives, neighbors, friends and classmates, and teachers for measuring social behavior (see Table 5).

To understand the study environment for students with disability in the educational institution, the study collects information regarding the strengths, weaknesses, opportunities, and threats (SWOT) of the educational institution for students with disability from 5 KIIs. The respondents of the interview were the Head of the educational institution (primary level (1), secondary level (1), higher secondary and above levels (1) and from USSO (2) at the upazila level office.

**Results**

**Role of Stipend on Educational Expenditure for Primary Level Students**

This research identified 125 students with disability continuing their studies and 5 dropped-out students from seven selected unions under Batiaghata and Dumuria upazilas of Khulna district. The rate of stipend recipient students with disability was 23 percent and 42 percent for primary level and secondary and above levels respectively in the study area.

Figure 2 shows the before and after comparison of the educational stipends on primary-level students with disability at Batiaghata, Khulna. It involves six (6) items of educational expenditure i.e., book, tiffin, coaching, clothes, private tuition, and others for a year in different situations, before stipend and after the stipend of a student with a disability. The allocation of money for educational expenditure was increased after the stipend. The maximum expenditure was for tiffin and it was followed by books and clothes. Figure 2 also provides with and without stipend comparison of educational stipend on primary-level students with disability at Batiaghata, Khulna. We separately analyze the data to see the regional variation. It includes two groups of students with a disability based on stipend i.e., with a stipend and without a stipend. Students with disability with stipends spent more money on education than students with disability without stipends. It was more than 1,500 BDT for tiffin and book individually.

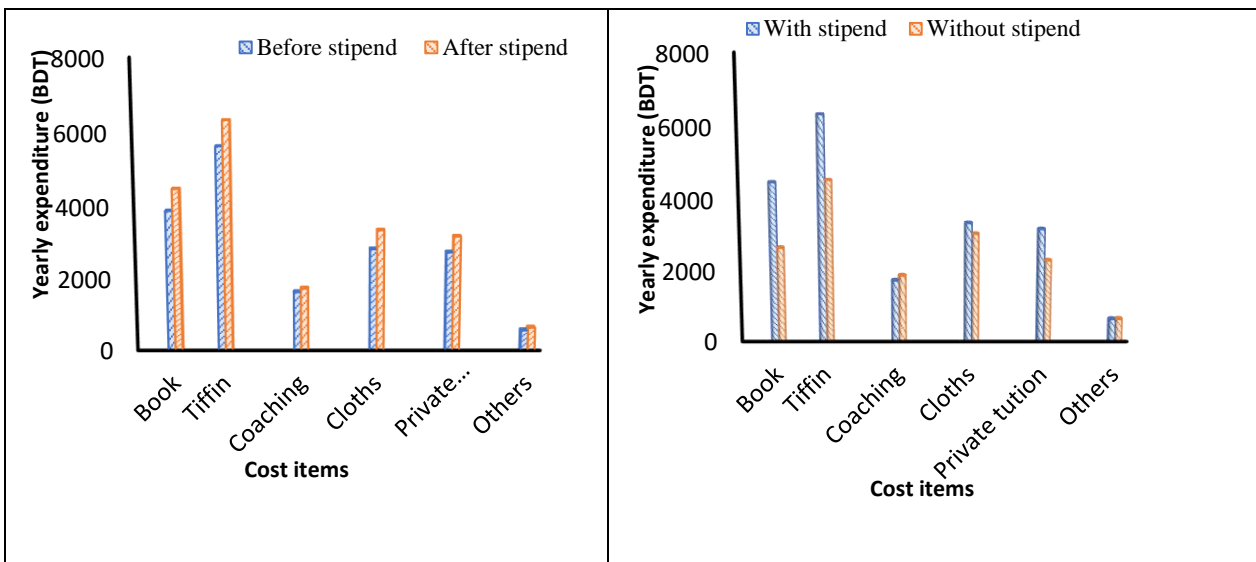


Figure 2. Before and after stipend of primary students (Batiaghata) with and without stipend of primary students

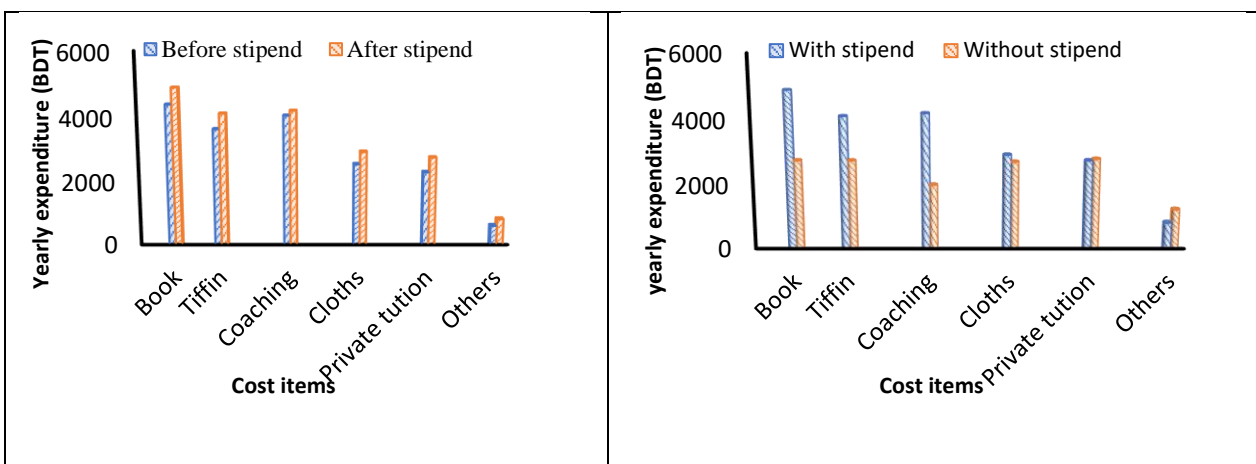


Figure 3. Before and after stipend of primary students (Dumuria) with and without stipend of primary students

Figure 3 also shows the before and after comparison of educational stipend on primary-level students with disability at Dumuria, Khulna. It involves six (6) items of educational expenditure i.e., book, tiffin, coaching, clothes, private tuition, and others for a year in different situations, before stipend and after stipend of a student with a disability. The allocation of money for educational expenditure was increased after the stipend. The maximum expenditure was for books and it was followed by coaching and tiffin items respectively. Figure 3 also provides the before and after comparison of educational stipend on primary-level students with disability at Dumuria, Khulna. It includes two groups of students with a disability based on stipend i.e., with a stipend and without a stipend. Students with disability with stipends spent more money on education than students with disability without stipends. It was more than 2,000 BDT for the book, 1,500 BDT for coaching, and 1,000 BDT for tiffin individually regarding with stipend compared to without stipend students with disability. The total expenditure between with and without stipend group are statistically significant

at 5 percent significance level for Batiaghata and Dumuria Upazila for primary level students.

Table 3 shows the educational expenditure for secondary and above levels students with disability at Batiaghata, Khulna. It involves five (5) categories of educational expenditure i.e., book, tiffin, private tuition and coaching (jointly), examination, and others. It provides that the educational expenditure increased in all categories after the stipend of students with a disability regarding before the stipend. Therefore, a stipend improved their ability to spend more money on education. Spending money on private tuition and coaching was the maximum and it was followed by buying books, tiffin, clothes, and others category respectively. Students with disability with a stipend spent more money than those without a stipend group for private tuition and coaching and buying book categories whereas those without a stipend group spent more money than those with a stipend group for the tiffin category.

Table 3: The educational expenditure on secondary and above-level students

Expenditure Items	Educational expenditure (BDT) (Batiaghata)			
	Before stipend	After stipend	With stipend	Without stipend
Book	4476	5323	5323	5583
Tiffin	4853	5530	5530	6166
Coaching and Private tuition	12922	14691	14691	9750
Cloths	3846	4492	4492	4166
Others	1096	1312	1312	800
Educational expenditure (BDT) (Dumuria)				
Book	5857	7143	7143	6568
Tiffin	2357	2943	2943	3222
Coaching and Private tuition	6000	8885	8885	8163
Cloths	2357	3214	3214	2454
Others	714	871	871	1036

Table 3 also shows the educational expenditure for secondary and above levels students with disability at Dumuria, Khulna. It involves five (5) categories of educational expenditure i.e., book, tiffin, private tuition, coaching (jointly), examination, and others. It shows that the educational expenditure rose in all categories after the stipend of students with a disability regarding before the stipend. So, a stipend improved their ability to spend more money on education. Spending money on private tuition and coaching was the maximum and it was followed by buying books, clothes, tiffin, and other categories respectively. Students with disability with a stipend spent more money than those without a stipend group for private tuition and coaching and buying book categories whereas those without a stipend group spent more money than those with a stipend group for the tiffin category. The total expenditure between with and without stipend group are statistically significant at 5 percent significance level for Batiaghata and Dumuria Upazila for primary level students. Noted that the total expenditure between before and after stipend group are not statistically significant.

**Association between Stipend and Academic Performance of students with disability**

Table 4 provides the analysis of the Empirical model based on Equation 1. The estimated result shows that the stipend program is significantly and positively associated with the students with disability' academic performance (significant at a five percent level). It exhibits that academic performance was upgraded by grade point average more for those who received a stipend from the social services department than those who did not receive it. The result is also verified through descriptive statistics in the present study, which also indicates a higher capacity level of education expenditure made by the stipend recipient students. However other socioeconomic variables, for example, family income, educational expenditure, and family size did not appear as significant variables for the study. We check the variance inflation factor test to check the multicollinearity of the variables mentioned in Table 4. The VIF test result is 3.53 which is less than 10 that indicates there is no multicollinearity problem in the model.

Table 4: Association between Stipend and Academic Performance of students with disability

Variable	GPA	
	Coef.	Std. Err.
Stipend (1=Yes, 0=Otherwise)	5.041**	2.459
Secondary education (ref. primary)	-4.130	2.505
Higher secondary education (ref. primary)	-4.030	4.040
Monthly income (BDT)	-0.000013	0.00010
Monthly educational expenditure (BDT)	-0.00055	0.00089
Family size 4	3.487	3.211
Family size 5	-2.858	3.541
Family size 6	-0.151	4.363
Family size 7	3.716	4.831
Family size 11	-10.151	14.363
Constant	63.293	3.100
Sigma	11.779	0.749
Number of Observations	124	

Significance level: \*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.010$

**The role of stipend on the families of students with disability**

The study captures the socioeconomic condition of families of students with disability. Most of the guardians of students with disability are engaged in agricultural farming and day laborer occupations and others are involved as business owners, service-holders, shopkeepers, van pullers, and easy bike drivers. There are 3 types of houses in the study area i.e., brick-built, semi-

brick-built, and mud-made. The study identifies that 8 percent, 25 percent, and 67 percent at Batiaghata and 16 percent, 43 percent, and 41 percent at Dumuria were brick-built, semi-brick-built, and mud-made houses respectively. Table 5 compares between before stipend and after stipend of students with disability; and the stipend and without stipend of students with disability to identify the role of stipends on the socio-economic condition of families of the students with disability.

Table 5: The comparison of stipend on socio-economic condition for the household of the primary level students with disability at Batiaghata, Khulna

Status	Food	Cloth	Education	House Repairing	Treatment	Others
<b>Before after scenario</b>						
<b>Before stipend</b>	91,900	14,000	22,500	6,290	22,700	7,400
<b>After stipend</b>	99,600	14,950	25,500	6,890	24,600	8,170
<b>With and without a scenario</b>						
<b>With stipend</b>	99,600	14,950	25,500	6,890	24,600	8,170
<b>Without stipend</b>	90,954	8,818	20,895	3,614	18,500	4,264

Table 5 illustrates the comparison of stipends on the socioeconomic condition of the households of the primary level students with disability at Batiaghata, Khulna. It involves six (6) categories of household expenditure i.e., food, clothing, education, house repair, treatment, and

others. Household expenditure was improved in all categories after the stipend for students with disability. Besides, households with stipends spent more money than those without stipends group for all types of household expenditures.

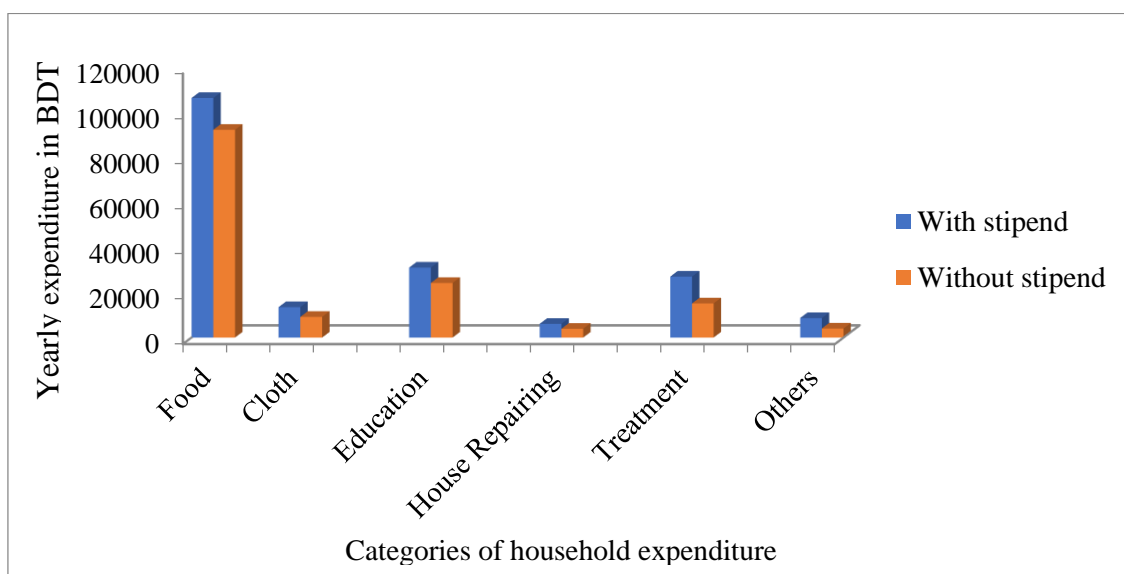


Figure 4. A comparison on socio-economic condition for the household of primary level students at Khulna

Spending money on food per year was the maximum and it was 99,600 BDT for those with a stipend group and 90,954 BDT for those without a stipend group. The minimum expenditure was for the house repairing category (6,890 BDT with a stipend). Still, education was the second top category (25,500 BDT) and it was followed by treatment (24,600 BDT), cloth (14,950 BDT), and other categories (8,170 BDT) respectively. The total expenditure between with and without stipend group are statistically significant at 10 percent significance level for Batiaghata and Dumuria Upazila for secondary level students.

Figure 4 illustrates the before and after comparison of stipends on the socioeconomic condition of a primary-level student with disability household. This figure

compares between with stipends to those without stipends household. It involves six (6) categories of household expenditure i.e., food, clothing, education, house repair, treatment, and others. Households with stipends spent more money than those without stipends group for all types of household expenditures. Spending of money for food per year was the maximum and it was more than 100,000 BDT for those with the stipend group and close to 90,000 BDT for those without the stipend group. The minimum expenditure was for the house repairing category (close to 5,000 BDT with a stipend). Still, education was the second top category (more than 30,000 BDT) and it was followed by treatment, clothing, and other categories respectively.

Table 6: A comparison on socio-economic condition for secondary and above levels at Batiaghata, Khulna

Different status	Food	Cloth	Education	House Repairing	Treatment	Others
<b>Before after scenario</b>						
<b>Before stipend</b>	100,538	12,308	35,015	6,900	16,808	13,084
<b>After stipend</b>	107,000	13,962	37,846	8,108	18,538	15,115
<b>With and without a scenario</b>						
<b>With stipend</b>	107,000	13,962	37,846	8,108	18538	15,115
<b>Without stipend</b>	104,000	12,500	34,833	7,666	19,166	10500

Table 6 and 7 illustrates the before and after comparison of stipend on the socio-economic conditions of a secondary and above levels student with disability household at Batiaghata, Khulna. Household expenditure was improved in all categories after the stipend for students with disability. Besides, households with stipends spent more money than those without stipends group for all types of household expenditures except the treatment

category. Spending money on food per year was the maximum and it was 107,000 BDT for those with a stipend group and 104,000 BDT for those without a stipend group. The minimum expenditure was for the house repairing category (8,108 BDT with a stipend). Still, education was the second top category (37,846 BDT) and it was followed by treatment (18,538 BDT), others (15,115 BDT), and the cloth category (13,962 BDT) respectively.

Table 7: A comparison on socio-economic condition for secondary and above levels at Dumuria, Khulna

Dumuria	Food	Cloth	Education	House Repairing	Treatment	Others
<b>Before after scenario</b>						
<b>Before stipend</b>	101,142	9,286	24,229	2,928	17,714	6,142
<b>After stipend</b>	110,571	10,571	28,286	3,385	20,642	6,785
<b>With and without a scenario</b>						
<b>With stipend</b>	110,571	10,571	28,286	3,385	20,642	6,785
<b>Without stipend</b>	91,454	11,204	26,927	3,681	13,772	4,895

**SWOT analysis of the educational institution for the study environment of students with disability**

The study collects information regarding the strengths, weaknesses, opportunities and threats (SWOT) of the educational institution for disabled students from 5 KIIs and eight FGDs. The respondents of the interview were the Head of the educational institution (primary level (1),

secondary level (1), higher secondary and above levels (1) and from USSO (2) at upazila level office. The study analyzes information regarding the strengths, weaknesses, opportunities, and threats (SWOT) of the educational institution for the study environment of students with disability.

Table 8: SWOT analysis of the educational institution

Strengths	Weaknesses
<ol style="list-style-type: none"> <li>1. Accessibility of students with disability to all the educational institutions,</li> <li>2. Integrated education system for all,</li> <li>3. Teachers are very caring to them and</li> <li>4. Facilities to join in sports and cultural programs as non-students with disability.</li> </ol>	<ol style="list-style-type: none"> <li>1. The physical structure of the institution is not students' disability,</li> <li>2. Teachers are not well trained regarding special care to them,</li> <li>3. There is no authorized disabled-friendly teacher and</li> <li>4. Providing no special facilities for their recreation.</li> </ol>
Opportunities	Threats
<ol style="list-style-type: none"> <li>1. Continue the study in an integrated education system</li> <li>2. Increasing the social interaction and</li> <li>3. Improving the adaptation capacity of students with disability to the environment.</li> </ol>	<ol style="list-style-type: none"> <li>1. Their friends and classmates tease them and</li> <li>2. Creating fatigue and disinterestedness in studies due to lack of special care.</li> </ol>

**Discussion**

The government of Bangladesh facilitates people with disabilities with equal accessibilities and rights as other citizens with its constitution (MSW, 2008). Bangladesh has already signed and ratified the UNCRPD in 2007 (NGDO, 2015). To achieve the rights of CRPD, the Persons with Disabilities Rights and Protection Act 2013 came into force, repealing and replacing the Disability Welfare Act of 2001. It marks a transition to a more rights-focused approach than the earlier welfare-based approach of the 2001 Act. Based on this Act 2013, the line Ministry of Social Welfare of the government and its line Department of Social Services is implementing several programs for disabled people to achieve not only their fundamental rights but also their cultural, social,

economic, and political rights. These programs play an important role in their physical, intellectual, and mental development to rehabilitate and empower them in society (Ministry of Social Welfare, 2013).

Providing educational stipends for students with disability all over the country is one of the major programs of the DSS was initiated in the 2007-08 fiscal year. (Department of Social Services, 2007). This research conducted an evaluation survey of this program in the Khulna district of Bangladesh. In addition, the study finds that students with disability and their guardians were very much inspired by receiving a stipend from DSS to continue their studies and complete graduation, after that, they would like to contribute to their families for poverty reduction and serve society and nation. It is a good sign for

our nation that 100 percent of respondents of students with disability with stipends and their guardians agreed to complete graduation and serve the country. The yearly stipend money was 9,000 BDT, 9,600 BDT, 10,800 BDT, and 15,600 BDT for primary, secondary level, higher secondary level, and higher level respectively- not a big amount but it changed the mindset of their guardian to spend more money for food and education. This report exhibits that the stipend recipient household spent yearly 8,500 BDT and 4,000 BDT more than non-recipient households respectively for food and education. Therefore, the stipend program improved the capacity of students with disability household to spend more money on buying food and providing quality education as it directly contributes to achieving sustainable development goals: SDG-1 (no poverty), SDG-2 (zero hunger) and SDG-3 (good health and wellbeing).

The study identifies that the allocation of money was increased for all types of education expenditure of students with a disability after receiving a stipend from DSS. It explores that the stipend recipient group spent yearly 2,000 BDT more for buying books, 1,500 BDT more for coaching and private tuition, and 1,200 BDT more for tiffin than non-recipients for a primary level student at Khulna. Besides, it was more than 200 BDT for buying books, 2,800 BDT for coaching, and private tuition for a secondary-level student. For this reason, Students with disability with stipends scored collectively A<sup>+</sup>, A, and A<sup>-</sup> grades in the examination by 25 percent more than those without stipends group both for primary level and secondary and above levels. By analyzing the Empirical model, this report exhibits that the stipend program had a significant positive impact on students with disability' academic performance, and was upgraded by 5 points more for the stipend recipient group than the non-recipient. Therefore, the stipend program fulfills most of the targets i.e., support to ensure the constitutional rights of disabled people, facilitating students with disability to be involved in the mainstream of society, reducing drop them, inspiring the students with disability to complete graduation and empowering them in the society as they contribute for the society and nation (MSW, 2008). By gaining these targets, the stipend program is contributing indirectly to achieving sustainable development goals i.e., SDG-8 (decent work and economic growth) and SDG-10 (reduced inequalities).

KII findings indicate that Friends and Classmates group teased them on campus and teachers did not make solutions for every teasing case. They are not well trained to solve all issues properly. Respondents also argued that a teacher at least needs to be designated for disabled children in every school. Some incidents did not come to light. Therefore, students with disability are frightened to go to school. It is one of the major causes of not continuing education. In these circumstances, the guardian opined that it needs to include disabled-related stories in the textbook or course curriculum and a motivation program for classmates or groups to good behave students with disability. This research identifies that infrastructure was not student-friendly due to a lack of ramps and slopes, wide doorways, and more space in the classrooms at many schools. In addition, the toilets were not user-friendly for physically handicapped students to go to the toilet with wheelchairs and other big equipment they use (Kawser *et*

*al.*, 2016). Therefore, family members or classmates usually accompany students with disability at school. It was another important cause for leaving the study of disabled children because family members did not support them continuously in the long run for the whole year.

### Conclusion

Bangladesh is concerned with improving the quality of life of disabled people by offering several programs based on the Persons with Disabilities Rights and Protection Act 2013. The educational stipend program of DSS to students with disability supports fulfilling the constitutional rights of persons with disabilities and achieving the rights of CRPD. From the evaluation survey of this stipend program, the study finds that it improved the quality of education for disabled children and inspired them to continue studying and complete their graduation as they contribute to their families as well as serve the society and nation. It also advanced the capacity of families of students with disability to spend yearly 8,500 BDT and 4,000 BDT more for stipend recipient households than non-recipient households respectively for food and education. In addition, this research identifies that student with disability in the stipend group made good results in the examination and it was collectively 25 percent more than without stipend group for A<sup>+</sup>, A, and A<sup>-</sup> grades. Besides, the analysis of the Empirical model shows that the stipend program had a significant positive impact on students with disability' academic performance. Furthermore, the study detects the main obstacles to receiving education for students with disability were teasing by their friends and classmates, poverty of their family, illness, early marriage of female students, physical barriers of the institution, and lack of designated teachers with well-trained up and special school at union level.

Moreover, this evaluation survey of the stipend program proves that most of the targets (out of 15 targets) of DSS are fulfilled at the field level. Therefore, the government should take the necessary steps to improve the stipend program by increasing the rate and amount of stipend money as it can contribute to achieving sustainable development goals i.e., directly for SDG- 1, 2 and 3 and indirectly for SDG-8 and 10.

Although there are some limitations with time, money, and capturing a big data set of a large area, the study portrays a vibrant report on the stipend program for students with disability. In addition, it includes key findings from the results of this research leading to recommendations that help government decide perfectly to improve the stipend program. The study encourages researchers, development workers, and policymakers to further research disabled children to improve their status.

### Policy and Recommendation

- We strongly recommend that government should increase the coverage of the student stipend programs and disseminate relevant information related to such programs for the better welfare of this prospective marginal community. Side by side it is seen that the stipend amount is provided for a specific period. The stipend can be provided regularly on a monthly basis so that the beneficiaries can benefit on need.

- Adopt a systematic approach to design and provide books including disabled-related stories in the textbook or course curriculum and a motivation program for classmates and other associated groups to behave properly towards students with disability. In this regard, teachers of educational institutions could play a vital role by providing information for students with disability and Change their attitudes towards teaching children with disabilities in mainstream classrooms through systemic capacity building.
- The government can form or enforce laws and policies that support the inclusion of children with disabilities in mainstream settings. Revisit the mandate of the Ministry of Social Welfare and Ministry of Education to education for students with disabilities.

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### Limitations and Future Research Options

This study is a before-and-after analysis based on recall data. One limitation is the potential for recall bias, which is particularly problematic in case-control studies, as individuals are more likely to remember their exposure to risk factors. Using longitudinal data could yield more accurate results. However, a key strength of the study is its mixed-methods approach, incorporating not only students but also guardians and school administrators, along with a comprehensive SWOT analysis. Besides, as we divide data into several segments, making it challenging to conduct robust statistical analyses, such as t-tests.

If the sample size and study area were expanded, the findings could be even more robust. Future researchers could enhance the rigor by increasing the sample size, broadening the geographic scope, and applying advanced econometric techniques like the difference-in-difference estimator to produce more precise results.

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### Conflict of Interest

The authors confirm that there is no conflict of interest with the publication of this article.

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