

Determinants of Remittance Inflows and Their Effects on Children's School Choice and Health: Cross-Sectional Evidence from Sylhet

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ABSTRACT

Remittances can affect child well-being in the country of origin by relaxing the household financial constraints. In Bangladesh, a significant share of international remittances originates from Sylhet, a district in the eastern region where foreign remittances constitute a major source of household income. This study aims to examine the socio-economic determinants of remittance inflows and the implications for children's education and healthcare in Sylhet. It draws on household-level primary data collected through structured interviews from eight upazilas of Sylhet. The survey was conducted between April and June 2025. Data were collected from 340 households using a multi-stage random sampling method. We used ordinal logistic regression to identify factors influencing the inflow of remittances to families in the home country, while multinomial and ordered logit models were used to examine the effects of remittances on children's school choice, education expenditure, and healthcare expenditure. The findings indicate that the age and education level of remitters significantly influence remittance inflows. Remitters aged 30-40 years are more likely to send higher amounts than those aged 50 years or older, whereas lower educational attainment is associated with lower remittance levels. Additionally, higher remittance inflows significantly increase the likelihood of private school attendance and higher expenditure on children's healthcare. Madrasa (Islamic religious school) enrolment is associated with smaller household size, lower remitter education, and shorter migration duration. The findings provide policy-relevant insights into how remittance income influences human capital investment in migrant-sending regions of Bangladesh and similar contexts.

JEL Classifications: C31, F22, F24, J13

Keywords: Remittance, migration, children, education, healthcare expenditure.

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INTRODUCTION

Currently, Bangladesh is one of the major labour-sending countries in the world, with a large number of workers migrating overseas in search of improved livelihood opportunities. According to IMO (2021), it is estimated that about 7.4 million Bangladeshi people are currently living overseas (IOM, 2021). According to Bangladesh Bank (2023), remittances are the second-largest source of foreign currency income in Bangladesh (Bangladesh Bank, 2023). A significant portion of this migration originates from the Sylhet district, a north-eastern area of this country. Remittances have been a major source of household income in this region for a long time. According to Bangladesh Bank (2022), the Sylhet division has contributed about 10% of the country's total remittance inflow between 2019 and 2021.

The primary drivers of migration from low-income countries like Bangladesh to other countries are job opportunities and improved livelihoods. Remittances sent by migrant workers often serve as a financial lifeline for their households during periods of economic stress, frequently providing a cushion in consumption following adverse income shocks or economic slowdowns (Beuermann et al., 2016; Combes and Ebeke, 2011; Le De et al., 2013). Remittances also enable families the opportunity to invest in education, health and small businesses, creating financial security and protecting against the risk of poverty. Remittances have been recognised as important at the household and national levels (Cai, 2003; Sutradhar, 2020; Farid et al., 2009). In 2008, remittances accounted for 10% of the Gross Domestic Product (GDP), sent by 5.8 million migrant workers residing abroad. During the last five fiscal years (2019-2020 to 2023-2024), remittance inflows in Bangladesh have increased significantly, with the figures increasing from approximately US\$16.42 billion in 2018-2019 to US\$23.91 billion in 2023-2024, sent by overseas migrants living in different countries around the world. On the household level, the microeconomic effects of remittances depend on the migrants' and recipients' characteristics (Rapoport and Docquier, 2005). In the short term, remittances play a significant role in reducing financial constraints of recipients in the origin country, increasing their spending on household necessities and protecting against unexpected income shocks (Bruyn, 2005). Wage disparities between countries often encourage labour migration from low-wage countries to relatively high-wage destinations (Lucia, 2009). Several studies in Bangladesh have examined the positive effects of international remittances on foreign exchange reserves (Hassan and Shakur, 2017; Naima, Mony and Lalon, 2024; Siddique, Selvanathan and Selvanathan, 2012), consumption, poverty (Raihan *et al.*, 2009), and economic growth (Sutradhar, 2020). It is evident that remittances increase the income of migrant families, reduce financial risks (Cai, 2003), enhance consumption (Calero *et al.*, 2009), and reduce poverty (Sutradhar, 2020), which in turn can impact children's health and education outcomes (Nguyen and Nguyen, 2015). However, prior studies provide mixed outcomes regarding the impact of remittances on child welfare, particularly in developing countries (Djeunankan and Tekam, 2022; Nguyen and Nguyen, 2015; Pant, 2017). In addition to this, the distinct socioeconomic and migration characteristics of Bangladesh may shape the household decisions regarding children's education and health.

Access to education and healthcare are basic human rights and are essential for developing skills for human capital. According to Grossman's health production function

(1972), remittances can enhance child health outcomes by investing in childcare and nutrition. The relationship between remittances and child health and education is linked to human capital theory (Becker, 1993) as it focuses on investments in education and health, which are like investments in physical capital, increasing an individual's productivity and overall economic value. The relationship between remittances and child health and education can also be explained by the household utility maximisation frameworks (Becker, 1981) and the new economics of labour migration (Stark and Bloom, 1985), which explain that remittance inflows reduce budget and liquidity constraints, enabling greater investment in children as human capital. Following household utility maximisation theory (Becker, 1981), households allocate resources to maximise welfare, with children's health and education treated as merit goods.

Previous research conducted in developing countries, including Pakistan (Khan and Khan, 2016), Jordan and Syria (Chaaban and Mansour, 2012), Vietnam (Nguyen and Nguyen, 2015), and Sub-Saharan Africa (Amega and Tajani, 2018), has documented a positive relationship between remittance inflows and improvements in health and educational outcomes. Bouoiyour and Miftah (2015) observed that remittances increased school attendance among rural children, particularly boys, while Zhunio et al. (2012) studied 69 low- and middle-income countries and found that remittances improved school attendance and life expectancy and reduced infant mortality. Similarly, Kumar (2019) found the positive influence of remittances on children's health and school participation. Existing studies (Dey and Basak, 2024; Golder et al., 2023; Raihan, Uddin and Ahmmed, 2021; Sutradhar, 2020) on remittances in Bangladesh have largely focused on poverty reduction, consumption, and macroeconomic growth. Comparatively limited attention has been given to how remittance inflows influence children's educational and healthcare outcomes at the household level.

This study focuses on Sylhet, a division well known for its high rate of international migration. The migrant families in this division are mainly dependent on remittances. Examining the status and well-being of children, especially their health and educational outcomes, in migrant families provides valuable insights into the social implications of migration, given the growing importance of migration and remittance inflows. Furthermore, limited research has jointly examined the determinants of remittance inflows alongside their implications for children's educational and healthcare outcomes within a unified analytical framework using household-level evidence from Sylhet district. Again, the available evidence from developed and developing countries concerning the association between remittance inflows and child welfare remains mixed, suggesting that such findings cannot be readily generalised to the Bangladeshi context. Hence, this study aims to examine the impact of remittance inflows on the education and healthcare of children from remittance-dependent households through a micro-level analysis. The findings provide policy-relevant insights into how remittance income influences human capital investment in migrant-sending regions of Bangladesh and similar regions.

DATA AND METHODS

Study Design

This study collected data from family members of migrant workers and former migrant workers, or from the migrant who came from different countries of the world. We used a quantitative survey approach to collect data. Data were collected from eight upazilas of Sylhet district in Bangladesh. Using a multi-stage random sampling technique, the target sample size for the study was determined to be 384 households.

Sample Size Determination

Sample size was determined using the following formula (Cochran 1977):

$$n = \frac{p(1-p) \times Z^2_{\alpha/2}}{d^2}$$

Where,

n = sample size

$Z_{\alpha/2}$ = two-sided normal variate value at 95% confidence level (1.96)

P = indicator percentage

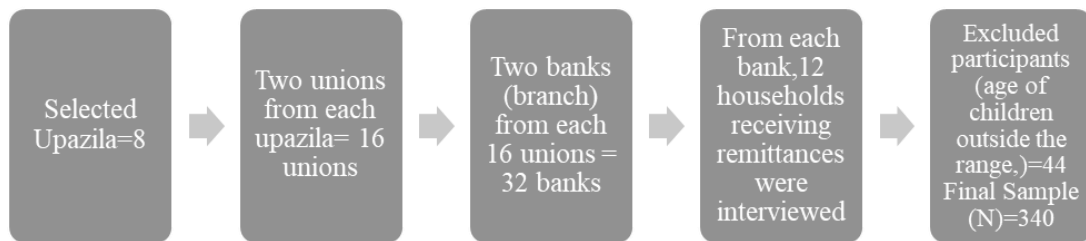
d = precision

The sample size was determined to be 384.

Data Collection

This study aimed to collect data from family members of migrants and former migrants, as well as from migrants who returned from different countries. A multi-stage random sampling method was used for data collection. Eight upazilas, namely Sylhet Sadar, Bianibazar, Gowainghat, Companigonj, Balagonj, Bishnath, Golapgonj and Fenchugonj, were randomly chosen from the total eleven police stations in the Sylhet district. In the second stage, two unions were randomly selected from each of these police stations. Then, two banks were randomly chosen from each selected union. Finally, from each bank, twelve households receiving remittances were randomly selected and interviewed, following the methodology outlined by Abbas *et al.* (2014). As a result, a total of 384 households were scheduled for interviews. Nevertheless, after data cleaning, 44 responses were excluded because the children in those households were outside the required age range and some information was incomplete. Finally, we have considered data from 340 respondents (response rate of 88.80%). Data were collected through an interview with a structured questionnaire. Before the full-scale survey, the questionnaire was pretested with ten households in the Sylhet Sadar and amended accordingly.

Households were eligible for inclusion if (i) at least one family member was currently living abroad and sending remittances, or (ii) a family member had previously lived abroad and sent remittances during their stay.

FIGURE 1: PARTICIPANT SELECTION FLOWCHART

Source: Authors' own work

Statistical Analysis

A descriptive analysis was conducted to present the frequency and percentage distributions of remitter characteristics. Since remittance received and children's healthcare variables are ordinal in nature, ordinal logistic regression was used to examine the socio-economic factors associated with remittance received and the impact of remittance on children's healthcare. On the other hand, type of school enrolment consists of multiple nominal categories with no ordering, for which multinomial logistic regression was considered. Furthermore, pseudo R^2 and goodness of fit were calculated for model diagnostics. All the analyses were conducted using IBM SPSS Statistics 25. For ordinal logistic regression, the following model was used,

$$\log \left(\frac{P(Y_i \leq j)}{P(Y_i > j)} \right) = \alpha_j - \sum_{k=1}^p \beta_k X_{ik}, \quad j = 1, \dots, j-1$$

Where Y_i is the ordered response variable, α_j represents the threshold parameter, X_{ik} denotes the explanatory variables, and β_k represents the corresponding regression coefficients.

And for the multinomial logistic regression, the following model is employed,

$$\log \left(\frac{P(Y_i = j)}{P(Y_i = 0)} \right) = \beta_{0j} + \sum_{k=1}^p \beta_{kj} X_{ik}$$

Where $P(Y_i = 0)$ denotes the probability of the reference category and $P(Y_i = j)$ denotes the probability of belonging to category j . The estimated coefficients were interpreted using odds ratios.

RESULTS

Characteristics of Remitter

Table I presents the percentage distribution of remitters. Approximately 60% of households received more than BDT 30,000 per month in remittances. Approximately 38% of remitters are between 31 and 40 years of age, and the majority are male (91.9%). Only 18% of remitters had graduate or higher-level education, while 6.6% had no formal education. Among the respondents, the majority (82.6%) depend on remittances as their main source of household income.

TABLE 1. CHARACTERISTICS OF REMITTERS

Characteristics		N	Percentage
Amount of remittance sent (in BDT) per month.	Less than 10000	9	2.7%
	10000-20000	48	14.3%
	20001-30000	75	22.4%
	More than 30000	203	60.6%
Age of the remitter.	Less than 20	3	0.9%
	20-30	77	23.0%
	31-40	128	38.2%
	41-50	77	23.0%
	More than 50	50	14.9%
Gender of the remitter.	Female	27	8.1%
	Male	308	91.9%
Main source of family income	Remittance	281	82.6
	Business	24	7.1
	Others (agriculture, job)	35	10.3
Education level of the remitter.	No formal education	22	6.6%
	Primary education	78	23.3%
	Secondary education	118	35.2%
	Higher secondary education	61	18.2%
	Graduate or Higher	56	16.7%
Marital status of the remitter.	Unmarried	53	15.8%
	Married	279	83.3%
	Divorced	3	0.9%
Valid		335	100.0%
Missing		5	
Total		340	

Remittance Received

This study used the ordinal logistic regression model to examine the socio-economic determinants of remittance. The amount of remittance received (in BDT) per month served as the dependent variable in this model. The amount of remittance received is ordinal in nature, with four categories: less than 10,000 BDT, 10,000-20,000 BDT, 20,001-30,000 BDT, and more than 30,000 BDT. On the other hand, we consider the remitter's age, gender, education level, and marital status as the independent variables in this model.

The results show (Table II) that the amount of remittance received by households has been significantly affected by the age and education level of remitters. The result also shows that remitters aged 31-40 years are more likely to send higher remittances compared to those 50 years or older ($B = 1.126$, $p = 0.001$), reflecting the stronger earning capacity of youngsters during peak working age. The education level of remitters is a significant predictor of the amount of remittance sent to families. Results show that remitters with no formal education are less likely to send larger amounts of remittances ($B = -1.044$, $p = 0.039$) than

those who have completed a graduation or higher level of education, indicating the positive influence of education on income and remittance potential.

Remittance amount does not show any significant relationships with other factors such as gender ($B = -0.592$, $p = 0.147$) and marital status ($B = -0.558$ for married, $p = 0.662$; $B = -1.185$ for unmarried, $p = 0.372$). suggesting that factors like employment type, destination country, or duration of stay abroad may have greater influence.

TABLE 2: ORDINAL LOGISTIC REGRESSION ESTIMATES FOR DETERMINANTS OF REMITTANCE AMOUNT

Variable	Coefficient (B)	Odds Ratio	Std. Error	Wald Statistic	p-value
Age 20–30	0.621	1.861	0.384	2.615	0.106
Age 31–40	1.126	3.082	0.334	11.373	0.001***
Age 41–50	0.634	1.885	0.353	3.226	0.072
No formal education	-1.044	0.352	0.505	4.279	0.039 **
Primary	-0.618	0.539	0.363	2.904	0.088
Secondary	-0.255	0.775	0.343	0.551	0.458
Higher Secondary	-0.389	0.678	0.385	1.020	0.313

Notes: Reference categories are omitted for brevity.

*Significance levels: *** $p < 0.01$, ** $p < 0.05$.*

Pseudo R-Square values indicate that 7 to 8 per cent of the variance in the amount of remittance received is explained by the predictors, which is acceptable for socio-economic data.

TABLE 3. PSEUDO R-SQUARE

Cox and Snell	0.071
Nagelkerke	0.082
McFadden	0.036

The insignificant p-value of the test of parallel lines confirms that the proportional odds assumption (the parallel lines assumption) holds, suggesting the ordinal logistic regression model is suitable for analysing this dataset.

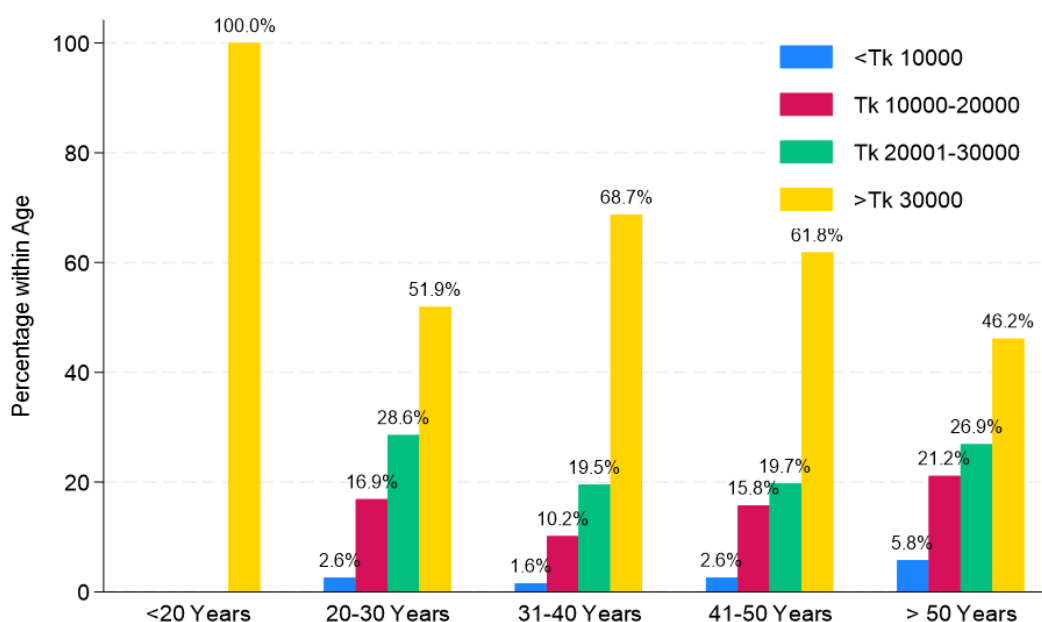
TABLE 4. TEST OF PARALLEL LINES

Model	-2 Log Likelihood	Chi-Square	Sig.
Current model	237.234	24.667	0.313
General model	212.567		

TABLE 5. INDICATORS OF GOODNESS OF ESTIMATES

Statistic	Chi-Square	Sig.
Pearson	124.582	0.687
Deviance	116.884	0.839

Finally, the Pearson and Deviance test confirms that the observed data are consistent with the model's predicted values.

FIGURE 2. REMITTERS' AGE AND AMOUNT OF REMITTANCE (IN BDT)

Source: Authors' own work

Type of School Attendance

The multinomial logistic regression analysis identified several significant predictors of school type attendance. The remittance amount had a positive and statistically significant effect on the likelihood of attending a private school. Compared with households receiving more than 30 thousand BDT in remittances, those receiving 10 to 20 thousand BDT and 20 to 30 thousand BDT were 68% (OR = 0.32, $p = 0.01$) and 62% less likely, respectively, to send children to private schools. Compared with households having more than 4 children, households with only one child are twice (OR=2.04, $P=0.08$) as likely to send the child to a private school relative to a government school. For madrasa attendance, the number of children under 18 and the remitter's education level were significant predictors. Households

with one child under 18 were about nine times more likely (OR = 9.29, $p = 0.002$) to send their children to madrasa compared to government schools, while those with two children were about 7 times more likely (OR = 7.23, $p = 0.005$). Additionally, households where the remitter had the lowest education level were 7 times more likely (OR = 7.15, $p = 0.01$) to send their children to a madrasa. Migrants with short migration duration are about 6 times more likely to choose Madrasa compared to government schooling. These findings suggest that a higher level of remittance inflow enhances private schooling, whereas a smaller family size and a lower level of the remitter's education are key determinants of madrasa enrolment.

TABLE 6. MULTINOMIAL LOGISTIC REGRESSION ESTIMATES FOR DETERMINANTS OF SCHOOL ENROLMENT TYPE

Panel A. Private School Enrolment

Variable	Category	Odds Ratio	Coefficient (B)	SE	Wald	p-value
Amount of remittance sent per month (BDT)	<10,000	0.707	-0.347	0.777	0.200	0.655
	10,000–20,000	0.321	-1.136	0.446	6.478	0.011***
	20,001–30,000	0.379	-0.969	0.363	7.143	0.008***
	> 30,000 (ref.)	-	-	-	-	-
Did remittance help cover educational expenses?	Agree	0.713	-0.339	0.615	0.303	0.582
	Totally agree	0.530	-0.635	0.618	1.054	0.304
	Neutral	0.543	-0.611	0.761	0.645	0.422
	Not agree (ref.)	-	-	-	-	-
Number of children under 18	1	2.035	0.711	0.415	2.933	0.087*
	2	1.192	0.175	0.397	0.195	0.659
	3	0.649	-0.432	0.446	0.938	0.333
	>3 (ref.)	-	-	-	-	-
Remitter education level	No formal education	0.955	-0.046	0.670	0.005	0.945
	Primary	0.777	-0.252	0.451	0.312	0.577
	Secondary	0.759	-0.276	0.393	0.495	0.482
	Higher secondary	1.069	0.067	0.449	0.022	0.881
	Graduate or higher (ref.)	-	-	-	-	-
Number of migrants	1	0.950	-0.051	0.361	0.020	0.887
	2	1.196	0.179	0.413	0.188	0.664
	3 or more (ref.)	-	-	-	-	-
Years of migration	1	3.732	1.317	0.996	1.748	0.186
	2	0.803	-0.220	0.337	0.424	0.515
	3	0.963	-0.038	0.378	0.010	0.920
	> 3 (ref.)	-	-	-	-	-

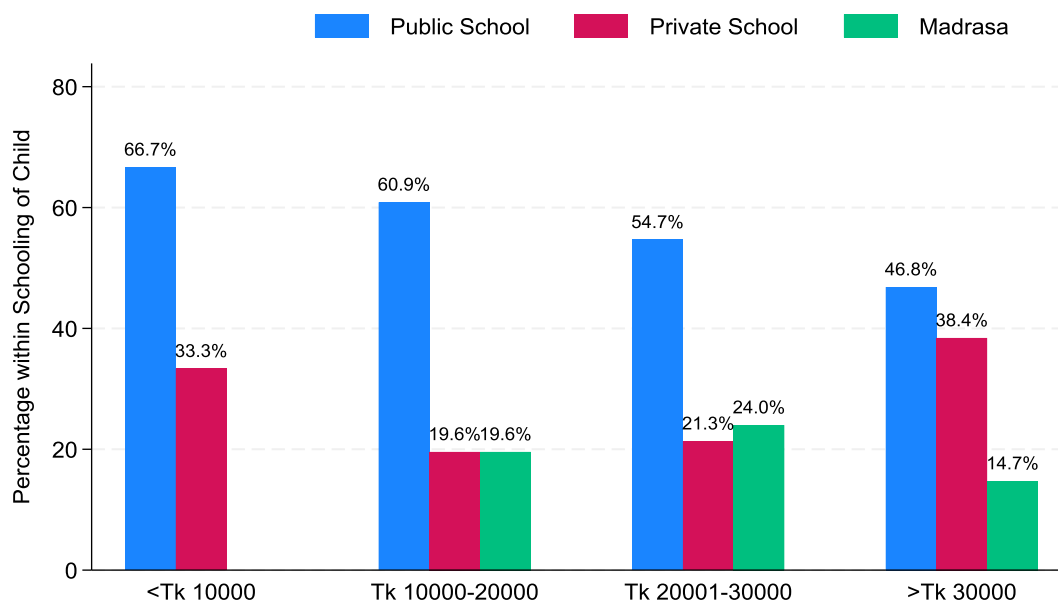
Source: Authors' own work

Panel B: Madrasa School Enrolment

Variable	Category	Odds Ratio	Coefficient (B)	SE	Wald	p-value
Amount of remittance sent per month (BDT)	< 10,000	1.295E-9	-20.465	0.000	-	-
	10,000–20,000	0.748	-0.290	0.491	0.348	0.555
	20,001–30,000	1.061	0.059	0.393	0.023	0.881
	> 30,000 (ref.)	-	-	-	-	-
Did remittance help cover educational expenses?	Agree	3.680	1.303	1.152	1.279	0.258
	Totally agree	3.057	1.117	1.161	0.926	0.336
	Neutral	3.423	1.231	1.262	0.950	0.330
	Not agree (ref.)	-	-	-	-	-
Number of children under 18	1	9.288	2.229	0.715	9.728	0.002***
	2	7.226	1.978	0.700	7.979	0.005***
	3	1.933	0.659	0.791	0.694	0.405
	> 3 (ref.)	-	-	-	-	-
Remitter education level	No formal education	7.152	1.967	0.803	5.999	0.014**
	Primary	2.360	0.859	0.608	1.992	0.158
	Secondary	1.334	0.288	0.561	0.264	0.607
	Higher secondary	2.558	0.939	0.606	2.399	0.121
	Graduate or higher (ref.)	-	-	-	-	-
Number of migrants	1	0.926	-0.077	0.497	0.024	0.877
	2	1.653	0.502	0.536	0.877	0.349
	3 or more (ref.)	-	-	-	-	-
Years of migration	1	6.045	1.799	1.051	2.929	0.087*
	2	0.996	-0.004	0.410	0.000	0.991
	3	1.112	0.106	0.472	0.050	0.822
	> 3 (ref.)	-	-	-	-	-

Reference categories are indicated by “ref.”

Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

FIGURE 3. TYPE OF SCHOOL ATTENDANCE AND AMOUNT OF REMITTANCE (IN BDT)

Source: Authors' own work

Impact of Remittance Inflows on Household Expenditure for Children's Education

The ordered logit model explores how remittance inflows influence household education expenditure in Sylhet district. This study examines how the amount of remittance affects household spending on education.

TABLE 7. PARAMETER ESTIMATES FOR THE IMPACT OF REMITTANCE ON CHILDREN'S EDUCATION

Variable		Odds ratio	Coefficient (B)	SE	Wald statistic	P-value
Private Tutor	No	0.327	-1.119	0.298	14.083	0.000*
	Yes (base)					
School Type	Government	2.030	0.708	0.334	4.501	0.034**
	Private	2.480	0.908	0.357	6.466	0.011**
	NGO	-	-	-	-	-
	Madrasa (base)					
Amount of remittance sent (in BDT) per month.	< 10000	0.175	-1.741	0.711	5.995	0.014**
	10000-20000	0.770	-0.261	0.337	0.601	0.438
	20001-30000	0.651	-0.429	0.287	2.228	0.136
	> 30000 (base)					

Variable		Odds ratio	Coefficient (B)	SE	Wald statistic	P-value
Number of Children	1	0.340	-1.079	0.373	8.376	0.004**
	2	0.472	-0.750	0.291	6.664	0.010**
	3	0.865	-0.145	0.314	0.214	0.644
	> 3 (base)					

Reference categories are indicated by "ref."

Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

The results show that remittance has a strong positive impact on education expenditure. Families receiving less than BDT 10,000 per month are about 82% less likely to spend more on education compared to those receiving above BDT 30,000. This finding suggests that higher remittance inflows increase a family's ability to invest in their children's education. Other factors also influence the household's spending behaviour. Households that do not employ private tutors tend to spend less on education, while students from certain school types tend to have higher education expenses. In addition to this, families having one or two children are less likely to be in higher spending categories than those with four children.

Impact of Remittance Inflows on Household Expenditure for Children's Healthcare

This study investigates the extent to which remittance inflows influence household expenditure on children's healthcare. We found (Table 8) that the amount of remittances received by families significantly affects children's healthcare expenditure. Families receiving remittances of less than BDT 10,000 per month are about 92% less likely to spend more on child healthcare compared to those receiving over BDT 30,000. This finding implies that families receiving higher remittance income can access better medical facilities and healthcare services for their children. Findings suggest that the frequency of children's illness also plays an important role in healthcare expenditure. Healthcare expenses are lower for families whose children fall sick less frequently, whereas families whose children experience more frequent illnesses face higher healthcare expenses. The practice of drinking clean water is the only hygiene-related factor that shows a significant positive effect. It is found that families are about 2.4 times more likely to spend on healthcare to ensure their children drink clean water, reflecting greater health awareness. Considering all these factors, we can conclude that a higher inflow of remittances boosts families' capacity to increase the cost of children's healthcare, while maintaining good hygiene also increases health-related expenditure.

TABLE 8. PARAMETER ESTIMATES FOR THE IMPACT OF REMITTANCE ON CHILDREN'S HEALTHCARE

Variable		Odds ratio	Coefficient (B)	SE	Wald statistic	P-value
Amount of remittance sent (in BDT) per	< 10000	0.077	-2.566	0.904	8.057	0.005**
	10000-20000	0.745	-0.295	0.319	0.852	0.356
	20001-30000	0.863	-0.148	0.282	0.275	0.600

Variable		Odds ratio	Coefficient (B)	SE	Wald statistic	P-value
month.	> 30000 (base)					
Child Illness	Never	0.042	-3.180	0.678	22.024	0.000*
Count (last one year)	1 to 2 times	0.088	-2.430	0.414	34.454	0.000*
	3 to 5 times	0.378	-0.974	0.377	6.666	0.010***
	6 to 10 times	1.056	0.055	0.425	0.017	0.898
	> 10 times (base)					
Remittance Receiving Problem	No	0.187	-1.676	1.150	2.123	0.145
	Delay	0.172	-1.757	1.289	1.859	0.173
	Higher transaction cost	-	-	-	-	-
	Financial exclusion	0.030	-3.505	1.681	4.348	0.037**
	Exchange rate volatility	0.000	-22.511	0.000	-	-
	Others (base)					
Child habit (washing hands before and after eating)	No	0.625	-0.469	0.931	0.255	0.614
	Yes (base)					
Child habit (washing hands after using the toilet)	No	1.376	0.319	0.868	0.136	0.713
	Yes (base)					
Child habit (healthy food)	No	1.105	0.100	0.287	0.122	0.727
	Yes (base)					
Child habit (clean water)	No	2.442	0.893	0.383	5.442	0.020**
	Yes (base)					
Child habit (worm medicine)	No	0.733	-0.311	0.285	1.187	0.276
	Yes (base)					

Reference categories are indicated by "ref."

Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

DISCUSSION

The findings of this study suggest that remittance inflows are significantly associated with age and level of education of migrants. Individuals aged 31-40 years are generally considered to be in their peak earning period and have greater job stability.

Consequently, they are more likely to remit larger amounts of money to the families in the home country. Conversely, migrants with a lower level of education were less likely to remit larger amounts, reflecting the fact of limited access to higher-paying employment. Gender and marital status did not appear as significant factors, indicating that work opportunities and migration experiences play a more important role than simple demographic characteristics. Findings further indicate that remittance inflows have a clear and substantive effect on household well-being, especially through increased investments in children's education and health. Prior studies have shown that remittances received from migrants positively affect children's education (Delpierre et al., 2017; Douarin and Uberti, 2023), which supports the finding of this study. Families receiving higher remittances were more likely to enrol their children and to spend more on education, although some studies did not identify a significant effect (Ayad and El-Aziz, 2018).

Concerning the school type, households receiving higher remittances were more likely to enrol their children in private schools. This suggests that additional income alleviates the financial constraints and enables parents to prioritise private schooling as a better-quality educational option, as private schools are often perceived to provide superior educational services (Gill et al., 2024; Goldring and Phillips, 2008). In Bangladesh, madrasa education is more common in rural areas among households with lower income and more children (Asadullah and Chaudhury, 2016). The findings also suggest that migrants' lower level of education and shorter migration duration are associated with financial constraints and limited access to information when choosing schooling options. As a result, such households decide to enroll their children in a Madrasa, because this option is less expensive or because of some religious belief. Similar patterns found in children's healthcare outcomes. Families receiving higher remittances can afford greater spending on children's healthcare; it's easier for families to obtain better treatment facilities and services when needed. Considering these together, these findings underscore the important role of remittances in supporting families in the home country, while also showing that household structure and migrant characteristics strongly influence the inflow of remittances and how these resources are used.

STRENGTHS AND LIMITATIONS

Sylhet division is well known for its high rate of international migration. As many families in this area are dependent on remittance income, understanding the status and well-being of children in migrant households adds important strength and relevance to the study. However, there are some limitations of this study. Firstly, in some cases, this study relied on proxy-reported primary data because remittance recipient families did not respond willingly to provide complete information. In addition, we were unable to incorporate several socioeconomic characteristics because many respondents did not provide the relevant information. Finally, the cross-sectional nature of the study may limit the ability to interpret causality.

CONCLUSION AND POLICY SUGGESTIONS

Health and education outcomes depend on multiple factors that can change over time. Therefore, regular and systematic studies are required to understand these determinants

more comprehensively. The findings of this study highlight how factors such as household, number of children, and other socioeconomic characteristics influence children's health and education in the Sylhet region. The findings of this study indicate that remittance inflows have a significant positive effect on household investment in both children's education and healthcare in this area. Households receiving larger amounts of remittance are more likely to allocate a greater amount of money toward their children's education and healthcare, reflecting the pivotal role of remittances in enhancing overall family welfare. Remittance income enhances families' financial capacity to invest in human capital development. In addition to remittance inflows, other socioeconomic and behavioural factors were also found to influence expenditure patterns. Educational expenditure was significantly associated with the presence of private tutors, school type, and the number of children in the household, whereas health care expenditure was significantly determined by illness frequency and hygiene-related practices such as access to clean drinking water. Families that maintain stronger hygiene practices and show greater health awareness also tend to spend more on healthcare.

Since remittances have varying effects across regional context, these findings may help identify the barriers that prevent children's access to schooling and healthcare services, while also focusing on more strategic utilisation of remittance income to improve children's educational and health outcomes. As remittance inflows significantly enhance households' ability to invest in these areas, policy interventions targeting low-remittance households—such as education subsidies and awareness programs—remain essential to promote more equitable human capital outcomes. Additionally, policies should focus on strengthening the formal remittance channels and financial literacy among remittance-receiving families to maximise the developmental impact of remittances on child well-being. Collectively, these measures may contribute to the development of a skilled, healthy, and productive population capable of supporting long-term sustainable development in Bangladesh.

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