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Socioeconomic Determinants of Academic Achievement: The Case of University Students in Khulna City

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ABSTRACT

This study aimed to identify the socioeconomic determinants of academic achievement of university students in Khulna City. For the study, responses were collected randomly from 600 university students by administering a semi-structured self-reported questionnaire (SRQ), and the data were analyzed using IBM SPSS Statistics version 25 in three mutually exclusive steps, i.e., descriptive statistics, stepwise multiple regression, and hierarchical regression. The findings reveal that personal attributes, i.e., age ($p < 0.01$), health problems ($p < 0.05$), and religion ($p < 0.05$), significantly determined the academic achievement of university students. Among the parental and household status, fathers' occupation ($p < 0.05$), as well as family size ($p < 0.001$), number of household dependents ($p < 0.001$), income-based types of the family ($p < 0.05$), and parental reading habits ($p < 0.01$) substantially influenced the academic achievement. Moreover, academic pressure and mental stress ($p < 0.01$) and teachers' academic support ($p < 0.05$) also affected university students' academic achievement. It is recommended that the government take steps to minimize educational disparity among and between socioeconomic strata and initiate programs that would help students, especially marginalized students, secure scholarships and other facilities to enable them to continue pursuing higher education.

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Introduction

Education is considered an opening to building an enlightened country (BANBEIS., 2022b). The education system is important for a country in order to ensure sustainable development (Salequzzaman & Gorana, 2016). Besides, education is well known to all as the backbone of a nation, and Bangladesh has made remarkable progress in the education sector by expanding educational opportunities at all levels (BBS, 2015), including primary, secondary, and tertiary education. For higher education, however, there are two separate systems exist, e.g., universities (public and private) and degree colleges (under national university) (BANBEIS., 2022a). Although government institutions are dominant at the tertiary levels, in recent times, the influence of private institutions at tertiary levels is on the rise.

However, the challenge of inequalities at all levels of education remains visible in Bangladesh. Many students are still out of education, particularly those from poor households and under-served areas, including urban areas (BANBEIS., 2013). However, girls' education has steadily improved due to various social pressures and difficulties in completing college. Besides, students' academic achievement varies depending on various factors, including personal, socioeconomic, and other issues. Globally studies found that personal attributes, i.e., age, sex, religion, and place of residence, had a great relationship with students' academic achievement (Adeyemi &

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Adeyemi, 2014; Chertkova, Egorova, Zyrianova, Parshikova, & Fominykh, 2014; Korir & Kipkemboi, 2014; Mohanty, 2016). In the context of Bangladesh, some studies found a strong association between academic achievement and the socioeconomic status of students (Oyshi, Suhi, Sultana, Jahan, & Hossain, 2021; Suhi, Heme, Oyshi, Jahan, & Hossain, 2020; Sumi, Jahan, Rahman, Seddeque, & Hossain, 2021; Sumi, Mondal, Jahan, Seddeque, & Hossain, 2022). However, these studies focused on secondary students, while the situation of university students remained unexplored. Thus, this study was intended to explore the socioeconomic determinants of academic performance of university students in the context of Bangladesh, particularly Khulna – a southwestern divisional city hub of Bangladesh.

Theoretical framework

Various theories account for the reciprocal relationship between personal attributes, socioeconomic status, and academic achievement. Bourdieu's 'cultural and social reproduction' is one of the most prominent.

Bourdieu (1997) outlined three capitals: social, economic, and cultural, each with distinct but constitutive functions. Financial capital provides resources and time to invest in developing children's future cultural capital – academic and professional success- among these capitals. Social capital contributes to the enhancement of one's social network as well as future opportunities for success. These three capitals transmit the culture of society by reproducing the culture of the dominant by imposing meanings as well as legitimacy through three more integral elements, i.e., habitus, field, and practice. Habitus, the internalized interpretative framework conditioned by the family atmosphere to understand the social world, is the set of learned preferences that calibrate one's aspirations and actions. The field is learned norms from formal and informal agencies (family, religion, education, economy) characterized by the rules of the game – the powerful control of the capital and the rule of the social world. Practice is the individual's attitude and competence to use capital to survive and dominate the real world (Bourdieu & Passeron, 1977). Bourdieu (1997) suggests that people in different social classes interpret and act distinctively to their social values and resources.

However, the concepts proposed by Bourdieu, i.e., social, economic, and cultural behaviors, help an individual acquire social status, which further impacts student's academic achievement. Economic development allows individuals to spend more on their education, impacting students' educational success (Eknath, Mundhe, & Head, 2021; Machebe, Ezegbe, & Onuoha, 2017). Moreover, a person's social influence increases the social position, further influencing academic performance (Keller, 2016; Ojanen, Smith-Schrandt, & Gesten, 2013). Also, cultural development changes the student's behavior, habits, and thoughts and further affects their result (Qu, Shao, Bai, & Liu, 2023; Yu, Liu, & Guo, 2022).

Review of the relevant literature

Li et al. (2016) found that older students scored better than their younger counterparts in literacy, numeracy, and social skills. McConney and Perry (2010) found that students who are 15 years old perform better than 13-year-old students. On the other side, Pourfeiz and Behjoo (2013) found no relationship between age and academic performance of Turkish students.

Li et al. (2016) also found that Chinese male students outperformed their female classmates in literacy, numeracy, and other social skills. In Japan, Yamamoto and Brinton (2010) found gender differentiation in academic performance at university levels. Some studies, however, indicated that females performed way better than males in biology (Chertkova et al., 2014); whereas Adigun, John, Aghiomesi, Yusuf, and Olubunmi (2015) reported a dissociation between gender and academic achievement. Horwitz, Domingue, and Harris (2020) and Mohanty (2016), assessing the association between religion and academic performance, found that religious students performed better in high schools and positively associated with better academic attainment in adulthood. In fact, religious affiliation sometimes ensures that a graduate degree is earned, especially among low-income youths (Lee & Pearce, 2019), as they perform better academically (Mooney, 2010). Zhang (2012), on the contrary, found an inverse association between religious attendance and academic attainment.

In their study on university students in Ethiopia, Mersha, Tamiru, and Amogne (2012) noticed that previous academic experience was one of the crucial elements for low performance. On the other hand, entry qualification, i.e., last academic results, did not affect the academic achievement of students (Mlambo, 2011). Regarding the association between living arrangements and academic achievement, Owolabi (2015) found that students who resided on campus performed relatively better than students who lived off campus. Khurshid and Tanveer (2012) also reported a similar result, who observed that hostel-living students showed better study habits and performance. In contrast, Nelson, Misra, Sype, and Mackie (2016) found a negative relationship between distance to campus and academic performance. However, in their respective studies, Matipa and Leonard (2019) and Snyder, Kras, Bressel, Reeve, and Dilworth (2011) showed no significant relationship between students' accommodation and academic performance. Regarding residence, Tayyaba (2012) found that compared to rural students, urban students performed better in social studies and language-related tests in Punjab and Sindh of Pakistan. Similarly, Faisal, Shinwari, and Mateen (2016) found a relationship between academic performance and students' residence. Rural school students' demonstration skills are also lower than urban students (Alokan & Arijesuyo, 2013; Amini and Nivorozhkin, 2015).

Idris, Hussain, and Ahmad (2020) found a strong association between paternal education and students' academic performance. Other studies also reported similar results, showing that parental education strongly boosted their children's academic performance, irrespective of cultural differences (Azhar, Nadeem, Naz, Perveen, & Sameen, 2013; Terfassa, 2018). In

addition to parental education, it is also evident that parental employment and income were critical for their children's academic achievement. For example, Pourfeiz and Behjoo (2013) found a positive relationship between father's employment and student's academic achievement. On the contrary, Al-Khoury, Zein, and Saade (2018) and DeJong (2010), in their respective studies, observed that children of working mothers showed cognitive and behavioral deficiencies, including poor academic performance, compared to mothers who stayed at home. Regarding income, Azhar et al. (2013) indicated that students from more well-off families performed better than those struggling financially, and a similar result was observed by Ogunshola (2019) among secondary students. Parents from affluent families often emphasize the quality of education offered by the schools and their academic reputation in the past few years before enrolling their children in a school (Hossain, Shohel, & Jahan, 2017). In contrast, Wiborg and Grätz, (2022) found that parental income and wealth negatively influenced students' academic performance.

Regarding the type of family, Chertkova et al. (2014) and Pourfeiz and Behjoo (2013) explained that family structure was positively associated with academic achievement. Bartolome (2021) extended further that students having both parents generally exhibited higher academic attainment than students from single-parent families. However, large family size could have an inverse impact on academic performance. For example, Suleman, Hussain, Akhtar, and Khan (2012) noted that students with large families with intensive domestic responsibilities and tensions with low or no parental guidance and support showed poor educational attainment.

Powell and Stellman (2010) suggested that student's academic success greatly depends on monetary investment from their parents. Cunningham, Cunningham, Halim, and Yount (2018) conducted a study and found that financial investment from parents helped children to make progress in mathematical and writing skills. In another study, Barrow and Rouse (2018) suggested that financial incentives caused students to devote more time and effort to educational events and allot less time to other activities. Wollscheid (2014) indicated that parental reading behavior strongly influences daughter's reading behavior. Likewise, Mullan (2010) found that a father's reading habits are strongly associated with his son's academic performance. Yusof (2010) also observed that parents' reading habits, the presence of books or magazines, and parental interest in academic issues greatly impacted students' academic performance.

McNally and Yuen (2015) found a statistically significant relationship between birth order and GPA. On the contrary, it was found that first-born and middle-born children were less successful academically and socially (Nissenbaum, 2012). On the other hand, Khan et al. (2018) found that birth order had no connection with academic performance. About parental support, Shahzad, Abdullah, Fatima, Riaz, and Mehmood (2020) found a strong association between parental support and students' academic progress. In fact, students whose parents were more caring and involved in academic events showed higher academic success than students with less caring parents (Akter & Biswas, 2018; Lara and Saracostti, 2019). Likewise, Chen and Weseley (2011) found that teachers' support directly and indirectly influenced students' academic achievement. Sarder and Haider (2023) observed that pedagogical practices, including communication, subject knowledge, and teaching strategy, positively influenced the academic performance of students in Bangladesh. Peng, Sun, and He (2022) observed that emotional support from parents and teachers and strong support for independence positively affected academic performance. A similar result was reported by Tao, Meng, Gao, and Yang (2022), and they observed that support from teachers substantially increased course grades compared to performance in standardized tests among secondary students.

Triantoro (2013) indicated that students with strong self-efficacy showed greater mathematical problem-solving capacity and greater efficiency in studying complex subjects. Because strong self-efficacy among students enhances their learning capacity (Yusuf, 2011). On the contrary, academic stress could lead to a rise in academic performance. For example, Khan, Altaf, and Kausar (2013) found that academic stress motivated students, particularly the younger ones, to perform better on academic tests. A similar result was reported in Kumari and Gartia (2012), where they found that students with moderate to high stress performed relatively well compared to those with low stress. On the contrary, Nadeem, Ali, Maqbool, and Zaidi (2012) reported that academic stress decreased students' academic performance, irrespective of sex.

Materials and methods

Study area

The study was conducted in Khulna city, one of Bangladesh's most populous and urbanized southwestern cities (BBS, 2022). In Khulna city, there are four public and three private universities (UGC, 2024), of which three universities, namely Khulna University (KU), Northwestern University (NWU), and Khulna University of Engineering and Technology (KUET), were selected using a lottery method. From these universities, the students were selected based on specifications: (i) the participants must be undergraduate students; (ii) these participants must have completed a Term or a Semester; and (iii) they should be selected with gender parity. Considering the criteria above, 600 university students (KU 270, KUET 279 & NWU 51) were interviewed using a systematic random sampling approach from early August to the end of September 2016, administering a self-reported questionnaire (SRQ).

Ethical consideration

In this cross-sectional study, the participants responded voluntarily by replying to a written informed consent form in the first section of the SRQ, which contained information regarding the purpose of this research and assuring the confidentiality and anonymity of the participants. The participants were also informed about their rights to revoke participation without justification.

Data processing

Independent variable

The age of the participants was measured by years, ranging between 19 to 25 years. The participants were divided into female and male categories, considering their sex identity. Religious groups were divided into Islam and Sanatan. Besides, the participants were grouped into two types based on their enrolled institutions, i.e., KU and outside KU. In contrast, their education was measured by year of schooling, and the highest value was 16, whereas the lowest value was 14. Since the study excluded first-year students, the participants were categorized based on their year of schooling. In addition, their past academic records in Secondary School Certificate (SSC) and Higher Secondary Certificate (HSC) examinations were measured by the grade point average (GPA), ranging between 3.50 to 5.00. The place of origin was categorized into rural and urban areas, and the place of residence was characterized by hall and outside hall. Additionally, the participants' occupations were divided into students and tuition.

Besides, parental education was measured in years of schooling, with the father's education ranging from 0 to 18 years, and for mothers, it was from 0 to 17 years. Father's occupation was categorized into professional, business, and worker. Similarly, the father's income was measured by BDT per month, whereas the father's average income was around twenty-four thousand per month.

Moreover, the family was split into two forms, based on income and nature, each with two further types, while family size, ranging from 3 to 7 members, was measured by a person in each household. In addition, sufficient educational resources, parental reading habits, and parents' exposure to mass media were divided into necessary categories. In addition, in the case of household dependents, the highest number of dependents was 4.

Indices

To understand the role of different issues, such as the role of parents, teachers, academic pressure, and mental stress, as well as self-efficacy and motivation in determining academic achievement, 24 five-point Likert-scale items were used (Sumi et al. 2021; Sumi et al. 2022), where each module contained six items. The five-point responses ranged from '1 = strongly disagree' to '5 = strongly agree,' and the overall internal consistency of these modules were Cronbach's α = .693 (parent's academic support), α = .712 (teacher's academic support), α =.541 (self-efficiency and motivation), and α =.475 (academic pressure and mental pressure), respectively.

Dependent Variable

In this study, academic achievement was measured by the Term GPA (TGPA) of university students, which ranged from 3.99 to 2.50.

Data analysis

This study used IBM SPSS Statistics version 25 to analyze the data. Data were analyzed in three consecutive phases. At first, descriptive statistics, including frequency, percentage, mean, and standard deviation, were used to outline the basic characteristics of the participants; in the second phase, second stepwise regression was used where each model considered all independent variables initially in a single block, and later started to remove variable sequentially if not contributed substantially in the equation (Tabachnik & Fidell, 2013). Finally, hierarchical regression was executed, where independent variables were added as a block weighing their value while controlling other variables at their entry points (Pallant, 2011; Tabachnik & Fidell, 2013).

Findings

Socioeconomic status of the participants

Among the 600 tertiary-level students, the average age was 21.99. Around 55% of the participants were male, and 70% were Muslim students. Among the participants, 45% were students of KU, while the average years of schooling and TGPA of the participants were 14.9 years and 3.36, respectively. Besides, their average GPA in SSC was 4.88 and 4.84 in HSC. Half of the participants were originally from rural areas, while 70% resided in the residential halls, and 27.2% were engaged in providing private tuition.

Among the family members, it is apparent that the average year of schooling of the father and mother were 12.77 years and 10.18 years, respectively, and more than half of the fathers were professionals with an average monthly income of around BDT 24658.33. Regarding household information, it is evident that more than half of the participants (53.5%) had nuclear families, and 80% of the total households were single-earned families with an average household member of 4.38 persons with an overall dependency of 2.04 persons. It was also found that 56.8% of the participants received adequate educational support from their families, 54.8% of the parents reportedly had regular reading habits, and 62% of them watched TV daily.

Table 1: Background information

Variables	*f* (%)	Statistics (Mean & Std. Deviation)
Age (in Years)		21.99 & 1.59
Sex		
Female	275 (45.8)	-
Male	325 (54.2)	
Religion		
Islam	419 (69.8)	-
Sanatan	181 (30.2)	
Name of university		
KU	270 (45.0)	-
Outside KU	330 (55.0)	
Education (in Year)		14.98 & 0.70
TGPA		3.36 & 0.30
SSC GPA		4.88 & 0.29
HSC GPA		4.84 & 0.31
Place of origin		
Rural	300 (50.0)	-
Urban	300 (50.0)	
Place of residence		
Hall	420 (70.0)	-
Outside Hall	180(30.0)	
Occupation		
Student	437 (72.8)	-
Tuition	163 (27.2)	
Education of father (in Year)		12.77 & 4.14
Education of mother (in Year)		10.18 & 3.87
Occupation of father		
Professional	309 (51.5)	-
Business and Worker	291 (48.5)	
Monthly income of father (in BDT)		24658.33 & 13190.55
Type of family (Nature)		
Nuclear	501 (83.5)	-
Extended	99 (16.5)	
Type of family (Income)		
Single Earned	482 (80.3)	-
Dual Income	118 (19.7)	
Size of family (in Person)		4.38 & 1.10
Sufficient educational resources		
Yes	341 (56.8)	-
No	259 (43.2)	
Parents reading habits		
Newspaper	329 (54.8)	-
Other	271 (45.2)	
Number of household dependents		2.04 & 0.82
Parents exposer to mass media		
TV	372 (62.0)	
Other	228 (38.0)	

Stepwise multiple regression predicting academic achievement

Table 2 presents the four distinct models of stepwise regression, each a specific block of independent variables, in order to retain only the statistically significant variables to explain the academic achievement of university students. **Model 1** shows that personal attributes depend on academic achievement. Among the eleven variables considered, findings suggest that place of origin, age of the participants, health problem, and religion significantly influenced the academic achievement of tertiary students. The table also shows that the place of origin and students' age positively affect their academic achievement. Similarly, students' health problems and religion are positively associated with their academic achievement. Collectively, the four variables explained 4% of the total variations.

In **Model 2**, the association of parental attributes and academic achievement was assessed, and out of four variables, the model took only two factors, i.e., father's occupation and income, and this model explained over a 2% variation in the academic achievement of university students. Among the variables mentioned above, father's income was positively related to academic success, while occupation had a negative impact.

In **Model 3**, eight variables were considered in this block, of which five were significant. The number of household dependents, type of family by nature, and income were positively associated with students' academic achievement. In contrast, family size and parents' reading habits were negatively associated, and the model explained just over 16% of the variation.

In **Model 4**, it is apparent that three of the four

indices were significant. Findings show that parents' academic support, academic pressure and mental stress, and teachers' academic support had a positive relationship with students' performance, and this model explained about 6% variations.

Table 2: Stepwise multiple regression predicting academic achievement

	Variables	β (SE)	P value
Model 1:	**Personal Attributes**		
	Place of origin		
	Rural [ref]		
	Urban	0.144 (0.026)	< 0.001
	Age	0.116 (0.007)	0.004
	Health problem		
	Yes [ref]		
	No	0.099 (0.030)	0.013
	Religion		
	Islam [ref]		
	Sanatan	0.097 (0.026)	0.016
	R^2	0.048	
	F	8.494***	
Model 2:	**Parental Attributes**		
	Father monthly income	0.111 (0.000)	0.011
	Father occupation		
	Professional [ref]		
	Business and Worker	-0.091 (0.026)	0.038
	R^2	0.025	
	F	8.634***	
Model 3:	**Household SES**		
	Size of the family	-0.532 (0.014)	< 0.001
	Number of household dependents	0.262 (0.017)	< 0.001
	Type family (Nature)		
	Nuclear [ref]		
	Extended	0.155 (0.035)	< 0.001
	Parents reading habits		
	Newspaper [ref]		
	Other	-0.131 (0.022)	< 0.001
	Type family (Income)		
	Single Earned [ref]		
	Dual Income	0.090 (0.028)	0.017
	R^2	0.165	
	F	24.642***	
Model 4:	**Indices**		
	Parents' academic support	0.106 (0.003)	0.024
	Academic pressure and mental stress	0.125 (0.003)	0.003
	Teachers' academic support	0.117 (0.003)	0.010
	R^2	0.060	
	F	13.766***	

Note. β. Standardized coefficient; SE. Standard error
***. Significant at 0.001

Hierarchical multiple regression Predicting academic achievement

Table 3 shows the findings of hierarchical multiple regression. In this regression, four models with four distinct blocks of variables were incorporated to predict the academic success of university students. In Step 1, personal attributes were included first, and it was significant ($F = 5.388$, $p < 0.001$, $R^2 = 0.028$), indicating that this model explained a 2% of the variance of academic achievement. In Step 2, parental attributes were added, and the total variance increased by 2.6%, an increase from 0.028 in Step 1. At the same time, the second model remained statistically significant ($F = 6.714$, $p < 0.001$, $R^2 = 0.054$), suggesting that parental attributes played a decisive role in explaining academic performance. By adding the attributes of household SES in Step 3, the explanatory capacity of variance by this model increased by 13.9%, a leap from 0.054 in Step 2, while the model remained statistically significant ($F = 14.057$, $p < 0.001$, $R^2 = 0.193$) (an increase from) depicting that household SES yielded a key role in elucidating the academic success of tertiary students. In the final and last Step – Step 4, the addition of three indices yielded another 3.6% variance, an increase from 0.193 in Step 3, and the final model also remained statistically significant ($F = 13.681$, $p < 0.001$, $R^2 = 0.229$), signifying that the indices significantly influenced the academic performance of the university students.

Table 3: Hierarchical multiple regression predicting academic achievement

	Variables	Model 1	Model 2	Model 3	Model 4
		B (SE)	**B (SE)**	**B (SE)**	**B (SE)**
	R^2 (ΔR^2)	0.028	0.054 (0.026)	0.193 (0.139)	0.229 (0.036)
	F	5.388***	6.714***	14.057***	13.681***
Step 1	**Personal attributes**				
	Place of origin				
	Rural [ref]				
	Urban	0.042(0.024)	-0.030(0.026)	-0.020(.024)	-0.023 (0.024)
	Age	0.118** (0.008)	0.112** (0.007)	0.094*(.007)	0.106** (0.007)
	Health problem				
	Yes [ref]				
	No	0.100* (0.031)	0.104** (0.030)	0.063(.028)	0.077* (0.028)
	Religion				
	Islam [ref]				
	Sanatan	0.113** (0.027)	0.111** (0.026)	0.102** (.025)	0.101** (0.024)
Step 2	**Parental attributes**				
	Father monthly income		0.128** (0.000)	0.080* (0.000)	0.043 (0.000)
	Father occupation				
	Professional [ref]				
	Business and Worker		-0.093* (0.026)	-0.081* (0.024)	-0.092* (0.024)
Step 3	**Household SES**				
	Size of the family			-0.503*** (0.014)	-0.472*** (0.014)
	Number of household dependents			0.255*** (0.017)	0.236*** (0.016)
	Type family (Nature)				
	Nuclear [ref]				
	Extended			0.149** (0.035)	0.130** (0.034)
	Parents reading habits				
	Newspaper [ref]				
	Other			-0.114** (0.023)	-0.094* (0.022)
	Type family (Income)				
	Single Earned [ref]				
	Dual Income			0.066 (0.028)	0.053 (0.028)
Step 4	**Indices**				
	Parents academic support				0.078 (0.003)
	Academic pressure and mental stress				0.118** (0.003)
	Teachers academic support				0.083*(0.003)

Note. β. Standardized coefficient; SE. Standard error
***. $p < 0.001$; **. $p < 0.01$; *. $p < 0.05$

Discussion

Among the personal attributes, age is recognized as a key influential factor. A study in Bangladesh reported that students at higher ages exhibit greater academic achievement and skills (Akareem & Hossain, 2016) as they gather more experience than younger ones. Nath (2012), in his study, observed that students' age had an inverse relation with their academic achievement, indicating that an increase in age decreases academic achievement. The present study, however, found positive relations between age and academic achievement.

Regarding place of origin, Tayyaba (2012) observed that urban students performed relatively better in language and social studies than rural students. Similar results are reported by Faisal et al. (2016) and Alokan and Arijesuyo (2013) in their studies, as they noted that students attending urban students performed better than students from rural schools. In this study, it was found that students from urban areas performed relatively better academically.

Matingwina (2018), in his study, found that health status is strongly associated with academic achievement. In fact, healthy children performed better in schools than unhealthy students Similarly, Xiang et al. (2017) found that healthy adolescents show positive mental attitudes; thus, they performed better in academia. This study, however, found that students, despite health problems, performed better in academia.

In addition to age, place of origin, health issues, and religion, they also influence academic performance, as evidenced by Nath's work (2012). This study, likewise, found that religion was positively associated with academic achievement (B = 0.101, SE = 0.024). The study concluded that Hindu students achieved higher GPAs compared to Muslim students.

Regarding socioeconomic issues, studies found SES to be one of the most powerful predictors of students' academic performance (Berkowitz, Moore, Astor, & Benbenishty, 2016; Uddin, 2017). Sirin (2005), for example, stated that the father's monthly income had a positive relationship with students' academic performance for assuring access to resources needed to flourish academically. This study, however, found no relationship between the father's monthly income and the academic achievement of university students. In addition to income, father's employment reportedly had a positive relationship with the student's academic achievement (Pourfeiz & Behjoo, 2013). This study observed that father's occupation was negatively related to students' academic performance, suggesting that students whose fathers were engaged in business or other works

performed relatively better than students whose fathers were professionals.

In the current study, it is evident that students from small families did not perform well academically. Chertkova et al. (2014) observed that family structure was positively associated with academic achievement, and a similar result was reported by Pourfeiz and Behjoo (2013). On the contrary, Ushie, Emeka, Ononga, and Owolabi (2012) and Saeed, Gondal, and Bushra (2005) found no association between family structure and academic achievement.

Regarding household dependents and academic achievement, some studies found that students from families with high dependency rates negatively performed in academia, while others did not find any significant relationship. For example, Haase and Ritter (2019) found a negative relation between household dependents and students' academic performance, as measured by standardized test scores. The authors suggested that this may be due to increased responsibilities and stressors placed on students who must balance their academic work with family obligations. Another study by Dufur, Parcel, and Troutman (2013) found that having more household dependents was associated with lower academic achievement, particularly for students from low-income families. The authors suggested that this may be due to the increased financial and time demands placed on these families, making it difficult for parents to provide the requirements for students' academic success. In contrast, Dupéré, Leventhal, and Vitaro (2012) found no significant relationship between household dependents and academic achievement. This study's findings indicate that having more household dependents positively affected academic achievement.

Boachie-Mensah and Osei-Afoakwa (2018) examined the relationship between family structure and academic achievement. They found that students from nuclear families tend to perform better academically than students from joint families in Ethiopia. Likewise, López Bóo and Podesta (2012) observed that students from nuclear families performed exceedingly well than students from joint families, and such findings were attributed to parental education and income. The current study found that students from nuclear families showed higher academic achievement than those from joint families.

Wollscheid (2014) indicated that parental reading behavior had a stronger impact on the reading behavior of daughters. Similarly, Mullan (2010) found that the father's reading habits were strongly associated with the boy's academic performance. Furthermore, Yusof (2010) observed that home life factors, including the parent's reading habits, the presence of books or magazines, and parental interest, had a great relationship with student's academic performance. In the current study, however, findings indicate that parental reading habits were negatively related to the academic performance of university students.

In addition to personal and parental attributes and household SES, this study also investigated the role of parental and teacher's support, self-efficacy, motivation, academic pressure, and mental pressure in academic achievement. Findings show that academic stress had a significant relationship with students' academic performance. Khan et al. (2013) found that younger students are more stressed than their older counterparts, and students suffering from stress performed relatively well compared to students with no or low stress (Kumari & Gartia, 2012). For future jobs, financial security, and family responsibility, students are often motivated to work harder to achieve outstanding academic results (Suhi et al., 2021; Suhi, Jabbar, Farjana, Nasrin, & Hossain, 2022). Some students work conversely. Nadeem et al. (2012) concluded that students with stress often experience a dip in academic performance, irrespective of sex. This study also found that the students their teachers supported did better in academia. Chen and Weseley (2011) found that teacher support, directly and indirectly, influenced students' academic achievement.

Conclusion and recommendations

In conclusion, the study found that student age, health problems, religion, father's occupation, family size, household dependent, family type, parent's reading habits, academic pressure and mental stress, and teachers' academic support plays an important role in student's academic success. Thus, the study suggested the following recommendations: (i) parents should take care of students' physical and mental health; (ii) the government should take necessary steps to reduce discrimination between rural-urban facilities; (iii) parents, as well as governments, should take necessary steps to reduce family size; (iv) the government should devise strategies to make a change and uplift the socioeconomic conditions of general people, particularly the marginalized poor people, and to assist students from low-income families by providing scholarships and other necessary facilities, including books and stationeries; (v) parents should help students with their academic issues; (vi) teachers must continually update their knowledge as well as they must keep information about new methods and material that will make their teaching more effective. The authors further recommended more studies on teachers' academic support and students' academic performance.

Conflict of Interest

None of the authors present any conflicts of interest.

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