Factor's Related to Academic Performance AmongUndergraduate Nursing Students in Bangladesh

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Abstract
Introduction:*Academic performance of nursing student influenced to be a good nurse in future for patient care. It refers to the academic grade achieved by nursing students that may affect by socio-demographic, students and school related factors. **Aims and objectives:** To identify the factors related to academic performance among undergraduate nursing students. **Methods**: A descriptive correlational study was conducted. A total of 169 undergraduate nursing students were recruited from two selected nursing colleges conveniently. Data were collected by face to face interview using 2 instruments. These were socio-demographic including academic performance related questionnaire and academic performance factor related questionnaire. Participants demographic characteristics were analyzed by using descriptive statistics and inferential statistics were used to examine the relationship between independent and Dependent Variables. **Results:** Findings revealed that the mean age of the student was 21.57 years. Most of the participants were female (97.6%). The mean of academic performance measured by academic score was 964.28. Bivariate analysis showed that, age (r=-.276, p=.000), Gender (t=-.223, p=.23) fathers education level (F=4.893, p=.003), mothers education level (F =4.810, p=.003), monthly family income (r =.266, p=.000), study hour per day (r=.549, p=.000) Sleeping hour per day (r=.239, p=.002), and HSC GPA (r=.404, p=.000) student related characteristic and academic performance (r=-.393, p=.000) were significantly related with nursing students . **Conclusion** Based on the findings it is recommended that, policy maker should be changed students entry criteria such as student will be selected based on high GPA on SSC and HSC and encourage the students to increase their study hour and maintain proper sleep habits.*
Key words*Academic Performance, Nursing Students, and Factors.*

I. Introduction

Academic performance is a main aspect of education especially in nursing students. It refers to their attained academic grades achieving through various educational instructions in school environment. Good grade is related to how students deal with their studies and how they cope with different given tasks by their teachers in a fixed duration of program course[1]. Academic achievement plays an important role in producing the best quality graduates who will become great leader and manpower thus responsible for the country's health, economic and social developmental sectors[2].

Nurses are the back bone of the health care systems universally and occupies an extremely important position which play a vital role in providing health care services globally[3]. Nursing is a service-oriented comprehensive applied discipline that includes scientific techniques, teaching fundamental concepts and basic knowledge and skills in the process of nursing education[4].

Nursing Education is dramatic increases last decades in Bangladesh, but education quality is highly affected for multiple reasons, a major challenge to advancing the profession of nursing in Bangladesh is the lack of well-prepared nursing faculty[4] and also the advanced educational facilities in nursing institution and colleges.

Factors related to academic performance of students have received considerable research attention in recent years. These are broadly categorized under family, student and school/university characteristics[6,7]and also the internal and external classroom factors strongly affect the students' performance[8] Internal classroom factors are mostly school related characteristics it includes school program, class schedules, class room size, internet

facilities, library facilities, educational materials, simulation lab, environment of the classroom, student accommodation or hostels facilities .

Teachers related factors such as technology used in the classroom and exams systems, curriculum, student teacher relationship, nonqualified or unskilled teacher, teacher absenteeism, assignments and so one. External classroom factors include socio demographic characteristics like age, gender, parental education, family income, family accommodation and distance from school. Student related characteristics such as health status or personal condition, study habit, sleep habit, previous school result, language or communications skill and absenteeism[4, 9,10,11,12]

Poor academic performances can lead to inadequate knowledge that hampered to produce qualified nurse in future. A qualified nurse have advancing knowledge and clinical skill for providing best quality patient care. Whereas poorly trained nurse becomes a threat to the lives of the patients, as well as nation[13]. It is very important to identify the factors related to academic performance of nursing students and take initiative for advancing the nursing education in developing countries as well as Bangladesh.

A lot of previous research has conducted on factors related to academic performance of students in different discipline all over the world. But limited study was conducted in nursing discipline. Literature revealed that most of the studies conducted in develop and Middle East countries that finding may not be consistent in Bangladesh. Therefore, it is encouraged the researcher to design the presents study.

Understanding the factor related to academic performance of nursing students will bring attention to the needs of students who are at risk of low academic achievement. This research will be helpful for students, parents, and educators. Also, college administrators could benefit from this study when designing and implementing policies that they will feel to improve student's academic performance and the quality of education. Parents can use the results of the study to assist their children with academic difficulties. Students can also be benefited from knowing more information, such as their rights and responsibilities in receiving high quality of education. Finding will show the factors affecting the achievement of academic grades that would be focus to resolute.

Objectives
General objective
The aim of this study is to identify the factors related to academic performance among undergraduate nursing students in Bangladesh.

Specific objectives
1)   To describe the socio-demographic characteristics, student related characteristics, school related characteristics and academic performance among undergraduate nursing students.
2)   To identify the academic performance among undergraduate nursing student.
3)   To examine the relationship among socio-demographic characteristics, student related characteristics, school related characteristics and academic performance among undergraduate nursing student.

II. Materials and Methods
This descriptive exploratory study was conducted to examine the relationship between student and school related characteristics and academic performance among undergraduate nursing students in Dhaka NursingCollege, Dhaka and Rajshahi Nursing College, Rajshahi, Bangladesh.
Study Design: Descriptive exploratory study.
Study location: This are Divisional level Nursing Colleges- Dhaka NursingCollege, Dhaka and Rajshahi Nursing College, Rajshahi, Bangladesh.
Study Duration: December 2018 to January 2019.
Sample size: 172 Nursing Students.
Sample size Calculation: The estimated sample size of the study was calculated by using G-power. Based on accepted minimum level of significance (α) .05, with a power (1-β) .80 and the effect size .30 (γ), estimated minimum sample size was 143.Due to potential risk of dropout, the attrition rate 20% (29) has added. Therefore, 172 students were selected for data **Subject & selection methods**: convenient sampling technique was used to recruit the sample .The target population for the study was all 2nd to 4th year undergraduate nursing students who studied the Dhaka Nursing College, Dhaka and Rajshahi Nursing College, Rajshahi in Bangladesh from December, 2018 to January, 2019 who met the inclusion criteria.
Inclusion Criteria: All2nd to 4th year undergraduate nursing students who studied the Dhaka Nursing College, Dhaka and Rajshahi Nursing College, Rajshahi in Bangladesh.

Exclusion Criteria:
1. Student who are irregular in college.
2. Mentally and chronic physically ill students.

Procedure methodology:

The Institutional Review Board (IRB No. Exp. NIA – S – 2018-36) approval was obtained from the IRB committee of NIANER and BSMMU. Permission for data collection obtained from the principals of Dhaka NursingCollege, Dhaka and Rajshahi Nursing College, Rajshahi .After taken the permission researcher was made an appointment from the class teacher with the meet to the students with a structured Questionnaires. The investigator informs them about the study and obtained a consent form from the subjects who was willing to participate in the study. The investigator were explained the students their rights to widow from the study at any time .Privacy confidentiality and anonymity of the participants were ensured during data collection. Then distributed the self-report questionnaire and explained subjects and request them to complete the questionnaire. The investigators was collected data in the after their classes and the investigator was always present to avoid the potential bias from the participants talking to each other about the questionnaire. The technique continuing until the desire sample complete.

Questionnaire: The questionnaires were consisted of 3 parts 1) Socio- Demographic Questionnaire.2) Student related and School related characteristics and 3) Academic Performance

Socio- Demographic Characteristics: The socio-demographic characteristics were developed by the researcher based on literature review for collecting the student's personal information. The demographic characteristics There were 12 items in the demographic part that included participant's age, gender, father's education, mother's education, monthly family income, study hour, sleeping hour, meals per day, academic years, previous GPA, living status and program satisfaction. Academic performance I item was included in this part.

Student Related and School Related Characteristics: Investigator used this instruments adopted from Alos (2015) 'factors affecting   questionnaire' Scale among 1) personal condition 2) Home Related aspects 3) study Habits 4) school related aspects and 5) teacher related aspects. Authors allowed the researchers to use the instruments. To suit the content of the questionnaire to the Bangladeshi context researcher some modified this instruments, like divided the domain in two parts and change the name of sub – domains which is Student related characteristics under two sub- domain which have total 12 items a) Health status and Study habits .School related characteristics under two sub- domain which have total 16 items School facilities and Teacher related aspects. Each question was used five point Likert scale, (5) always (4) often (3) sometimes (2) rarely, (1) never. This instruments is already considered valid and reliable since it was already used by[14,9]questionnaire has been validated in several earlier studies (internal consistency reliability coefficient of alpha (r=0.90)[15]. However the researcher were used existing instruments. The present study Cronbach's Alpha coefficient of reliability was 0.80.

Academic Performance: Academic performance the dependent variable which was measured by aggregated academic score of last annual examination obtained by the students[16, 17, 18.] In the context of Bangladesh nursing educational system for undergraduate nursing students, provision of annual result was total marks of summative evaluation rather Cumulative Grade Point Average (CGPA). The total marks distribution from 1st Year to 4th year are same is out of 1300 in each year (B.Sc.in nursing curriculum, 2006) and considered 60% is passed mark. But recently the curriculum was revised and have some change in mark distribution (B.sc in nursing curriculum, 2018). Academic performance in this study was measured by academic performance questionnaire 1 item included in demographic characteristic.

Statistical Analysis

Data was cleaned and to SPSS version 23 and analyzed. Among 172 participants, a total 169 data were analyzed due to exclude 3 incomplete data. Both descriptive and inferential statistics was used for the analysis of data. Descriptive statistics was used to describe the subject's demographic characteristics and student and school related characteristics presented by frequency, percentage, mean median and standard deviation, and in inferential statistics such as two-sample t-test/ correlation/ANOVA was used. A Significance level of $p < 0.05$ was considered as statistically significant.

III. Results

This chapter is described of the findings focusing on the related research objectives. This study was conducted to describe the Socio-demographic characteristics, student's related characteristics and school related characteristics and academic performance of the participants and also examine the relationship between socio-demographic characteristics, student's related characteristics and school related characteristics and academic performance of the participants.

Socio-Demographic Characteristics and Academic Performance of the Participants.

A total of one hundred sixty nine (169) undergraduate nursing students completed questionnaires from the selected two nursing colleges. Their age ranged from 20 to 24 years. With the mean age of 21.57 years (SD=1.022).The most (97.6%) of the participants were female. One third (30.2%) participants father education level were Lower than PSC and more than one third (36.1%) participants mother education level lower than PSC. More than one third (34.3%) were 3rd year students and most (81.7%) students had program satisfaction. The mean family income was 19810.65BD taka. Mean study hour per day were 3.61 and mean sleeping hour per day were 7.16. The mean meal per day were 3.38. The participants mean HSC GPA were 4.68. 100% students are lives in hostel and the Academic performance mean score of the students were 964.28. (Table 1.1)

Table: 1.1 Distribution of Socio-Demographic Characteristics and Academic Performance of the participants (N=169)

Characteristics	Categories	Frequency	percentage	Mean± SD
Age				21.57±1.022
Gender	Male	4	2.4	
	Female	165	97.6	
Father's Education	Lower than PSC	51	30.2	
	High school	34	20.1	
	College	51	30.2	
	Post-Graduate	33	19.5	
Mother's Education	Lower than PSC	61	36.1	
	High school	51	30.2	
	College	54	32.0	
	Post-Graduate	3	1.8	
Study Year	2nd year	55	32.6	
	3rd Year	58	34.3	
	4th Year	56	33.1	
Program Satisfaction	Yes	138	81.7	
	No	31	18.3	
Monthly family income				19810.65±8549.55
Study hour per day				3.61±1.504
Sleeping hour per day				7.16±1.302
Meals per day				3.38±.886
HSC GPA				4.68±.35039
Where are you live in	Home	0	0	
	Hostel	100	100	
Academic Performance (Annual Examination) score				964.28±44.610

Student Related Characteristics of the Participants

Overall mean of studentrelated characteristics were (M=2.52, SD=.422) while the overall Health Status is not very poor (M=2.05, SD=.512) most of the students stated that, 'Feeling hungry in class.'(M=2.70, SD=.898) and 'Feeling sleepy in class' (M=2.37, SD=.974.) The overall study habits is very poor (M=2.48, SD=.606) Most of the participants demonstrate that 'I study only when l like.' (M=3.49, SD=1.41) and I prefer listening to radio, watching TV, etc. (M=3.15, SD=1.30) (Table-1.2).

Table 1.2. Distribution of Student Related Characteristics of the participants (N=169)

Item	Always	Often	Some time	Rarely	Never	M ± SD
	n (%)	n (%)	n (%)	n (%)	n (%)	
Student Related Characteristics						2.52 ±.422
Health Status						2.05 ±.512
Feeling sleepy in class.	1 (.6)	23 (13.6)	47 (27.8)	64 (37.9)	34 (20.1)	2.37 ±.974
Feeling hungry in class.	3 (1.8)	25 (14.8)	75 (44.4)	50 (29.6)	16 (9.5)	2.70 ±.898
Difficulty in seeing	-	-	34 (20.1)	47 (27.8)	88 (52.1)	1.68 ±.790
Difficulty in hearing	-	1 (.6)	30 (17.8)	59 (34.9)	79 (46.7)	1.72 ±.771

Difficulty in breathing	-	-	10 (5.9)	20 (11.8)	139 (82.2)	1.24 ±.548
Study habits						2.76 ± .422
I study only when there is a quiz	32 (18.9)	20 (11.8)	21 (12.4)	17 (10.1)	79 (46.7)	2.46 ±1.604
I feel tired, bored & sleepy.	15 (8.9)	15 (8.9)	77 (45.6)	41 (24.3)	21 (12.4)	2.78 ±1.068
I prefer listening to radio, watching TV, etc.	34 (20.1)	34 (20.1)	46 (27.2)	33 (19.5)	22 (13.0)	3.15 ±1.308
I am lazy to study	22 (13.0)	34 (20.1)	44 (26.0)	42 (24.9)	27 (16.0)	2.89 ±1.268
I am disturbed when studying	15 (8.9)	16 (9.5)	62 (36.7)	36 (21.3)	40 (23.7)	2.59 ±1.203
I study only when I like.	55 (32.2)	40 (23.7)	32 (18.9)	17 (10.1)	25 (14.8)	3.49 ±1.415
I don't have a comfortable place to study.	33 (19.5)	22 (13.0)	18 (10.7)	23 (13.6)	73 (43.2)	2.52 ±1.600

School Related Characteristics of the participants

Overall mean of school related characteristics were (M=3.19, SD=.411) while overall School facilities is good enough (M=3.45, SD=.779), Most of the student stated that 'The time schedule is followed' (M=3.91, SD=1.25) and 'There are school programs' (M=3.76, SD =1.00). However the overall 'Teacher-related aspect' is not so good (M=2.99, SD = .274) most of the students demonstrate that 'Teacher gives too much memory work' (M=4.17, SD=.829) and 'Teacher has mastery of the subject matter'(M=3.86, SD=1.085)(Table-1.3).

Table 1.3. Distribution of School Related Characteristics of the participants   (N=169)

Item	Always n (%	Often n (%)	Some times n (%)	Rarely n (%)	Never n (%)	M±SD
School Related Characteristics						3.19±.411
School facilities						3.45±.779
The time Schedule is followed.	78 (46.2)	35 (20.7)	29 (17.2)	17 (10.1)	10 (5.90)	3.91±1.253
There are school programs.	54 (32.0)	34 (20.1)	70 (41.4)	9 (5.3)	2 (1.2)	3.76±1.002
There are available library references.	0	2 (1.2)	98 (58.0)	51 (30.2)	18 (10.7)	2.50±.700
Classroom is comfortable enough.	44 (26.6)	31 (18.3)	26 (15.4)	49 (29.0)	19 (11.2)	3.19±1.393
There is fast internet access in the library	0	0	18 (10.7)	49 (29.0)	102 (60.4)	1.50±.682
There is enough space in the library	58 (34.3)	22 (13.0)	20 (11.8)	44 (26.0)	25 (14.8)	3.26±1.517
Location of classrooms	63 (37.3)	32 (18.9)	39 (23.1)	15 (8.9)	20 (11.8)	3.61±1.372
Teacher-related aspect						2.99±.274
Teacher has master of the subject matter	63 (37.3)	41 (24.3)	49 (29.0)	11 (6.5)	5 (3.0)	3.86±1.085
Teachers discuss many topics in a short period of time.	37 (21.9)	53 (31.4)	44 (26.0)	23 (13.6)	12 (7.1)	3.47±1.181
Teacher uses audio/visual aids.	22 (13.0)	49 (29.0)	72 (42.6)	25 (14.8)	1 (1.6)	3.39±.014
Teacher gives too much memory work	74 (43.8)	49 (29.0)	46 (27.8)	-	-	4.17±.829
Teacher provides varied activities	37 (21.9)	59 (34.9)	52 (30.8)	19 (11.2)	2 (1.2)	3.65 ±.983
Teacher uses lecture method only.	8 (4.7)	43 (25.4)	51 (30.2)	29 (17.2)	38 (22.5)	2.73 ±1.204
Teacher always scolds students	2 (1.2)	7 (4.1)	25 (14.8)	50 (29.6)	85 (50.3)	1.76 ±.934
Teacher is frequently out/absent from class.	2 (1.2)	20 (11.8)	39 (23.1)	70 (41.4)	38 (22.5)	2.28 ±.982
Teacher is always late.	7 (4.1)	27 (16.0)	37 (21.9)	68 (40.2)	30 (17.8)	2.49 ±1.086

Relationship between Socio-Demographic Characteristics, Students Related Characteristics, School Related Characteristics and Academic Performance of the Participants.

This table Showed younger participants has significantly better performance than the older participants (r=-.276, p=.000) and female students academic performance is significantly high than the male (t=-.223, p=.023) participants. Inadition the participants fathers with high education level the academic performance have shown significantly high (F=4.893, p=.003) and also participants mothers with high education level academic performance also have shown significantly high (F=4.810, p=.003) compared to who have father and mothers low education level. The academic performance have shown significantly high (F=15.738, p=.013) in 2nd year compared to others years. Whereas the participants with high family income significantly higher academic performance (r=.266, p=.000). Participants has positive correlation between study hour per day (r=.549, p=.000), sleep hour per day. (r=.239, p=.002) and academic performance. Whereas, HSC CGPA and academic performance has a strong positive correlation of the participants (r=.404, p=.000).

Student related characteristics and academic performance has a strong significant correlation of the participants (r=-.393, p=.000). Health status (r=-.225, p =.003), study habits ((r =-.367, p=.000) because poor health status and poor study habits results in poor academic performance. However School related characteristics and academic performance has no significant relationship in academic performance of the participants (Table-2).

Table 2. The Relationship between Socio-Demographic Characteristics, Student Related Characteristics, School Related Characteristics and Academic Performance of participants

(N=169)

Variables				Academic performance		
		n	%	M ± (SD)	t/F/r	p-value
Age (Years)					-.276	000
Gender					.223	.023
	Male	4	(2.4)	963.50 ± 1.291		
	Female	165	(97.6)	964.30 ± 45.150		
Father's education level					4.893	.003
	Lower than PSC[a]	51	(30.1)	949.76 ± 48.799		d>,c,b,a
	High school[b]	34	(20.1)	955.21 ± 49.624		
	College[c]	51	(30.2)	974.47 ± 37.400		
	Post-graduate [d]	*33*	*(19.5)*	*980.30 ± 33.886*		
Mother's education level					4.810	.003
	Lower than PSC [a]	61	(36.6)	955.74 ± 48.880		d>c, b, a
	High school[b]	51	(30.2)	956.35 ± 41.213		
	College[c]	54	(32.0)	978.48 ± 38.552		
	Post-graduate[d]	3	(1.8)	1017.00 ± 13.892		
Study Year					15.738	.013
	2nd Year[a]	55	(32.5)	977.60 ± 29.683		a>b, c
	3rd Year[b]	58	(34.3)	975.98 ± 42.495		
	4th Year[c]	56	(33.1)	939.07 ± 48.715		
Monthly family income					.266	.000
Study hour per day					.549	.000
Sleeping hour per day					.239	.002
HSC GPA					.404	.000
Student Related Characteristics					-.393	.000
Health status					-.225	.003
Study habit					-.367	.000
School Related Characteristics					-.112	.149
School facilities					-.136	.077
Teacher related aspects					.004	.961

IV. Discussion

The findings are discussed based on the objectives of the study .The current study aimed to examine the relationship between socio- demographic characteristics, student and school related characteristics and academic performance of undergraduate nursing students in Bangladesh.

Socio-Demographic Characteristics

Current study revealed that most (97.6%) of the participants were female. This findings is supported by[9, 19, 20.] Globally, men remain a minority in schools of nursing and within the nursing workforce[21]. In developed countries such as Australia, New Zealand, UK and USA, male registered nurses represent less than 10% of the nursing workforce[22]and in China, male nurse's account for less than1% of the total workforce[62] and 10% male nursing students in Bangladesh of every academic year [23].

Relationship between Socio-Demographic Characteristics, Students Related Characteristics and School Related Characteristics and Academic Performance of the participants.

Study found that younger students has significantly better performance than that of older students which has also reported in Kuwait[24], Nigeria[25]and Kenya[26]. A study in UKfound that age is significantly positive correlated in his study[27], older student's academic result significantly outperformed their younger counterparts in UK and also similar findings found in same country[28,29]andanother studyfound similar results in Malaysia[30], New Zealand[31,32]and in the NCLEX-RN in the US[33,34]. Current study found opposite findings that younger students has significantly better performance than that of older students. This may be due to entrance of new younger students are usually talented and advancing in nursing education day by day and overcoming the stigmatization of nursing in Bangladesh[35]. On the other hand a study of UK stated that mature students are sometimes said to be deficient in the basic skills needed for effective studying in higher education[36] so that

academic performance of mature students contains no good evidence that mature students perform any less well than younger students.

In the context of gender, findings revealed that female students were achieved significantly higher academic performance than the male. This findings also supported by the study of kuwait[24], Jordan[37], Africa[38], Pakisthan[39]and in UK[40, 29]. This may due to females have better study skills than the male that was supported by previous study[41], stated that female students work harder and attend more frequently in academic activities than males. In contrast Male nursing student had a significantly higher academic performance than female in Saudi Arabia[15]. It may be causes of gender segregation. Moreover, since women in Saudi Arabia are still restricted from certain jobs, they perform better in higher education to increase their chances of achieving professional careers[42].

On the other hand study revealed that father and mother with higher education level those student academic performance is significantly high. Similar result was found in the study of Malaysia[43]and Nigeria[44], [45].This Findings might be causes of parents with high educational qualification are more involved in their children education and always curious about their children education. They always collect information which educational field is better for their children in future. On the other hand illiterate and semi-illiterate parent with feeling of inadequacy may not be able to their children out of different academic problems. Thus the academic performance of such children is greatly or significantly hindered.

In addition, Researcher found that monthly family income of the participants has positive correlation with academic performance of the participants which also supported by the study of Ghana[46], Nigeria[47]andin pakisthan [48.] All studies found a strong significant relationship between family income and academic performance of the students. The possible causes may be parents with high family income is always try to provide learning materials to their children that in turn facilitate their learning. A study of USA examined the effects of poverty on academic achievement in the USA[49]. They concluded their study that poverty directly affects academic achievement due to the lack of resources available for students' success; thus low academic achievement is closely correlated with lack of resources, with emphasis on financial resources.

The current study found that Sleep hour per day and academic performance has positive correlation of students' academic performance. Similar findings found in Saudi Arabia[50, 53], Nigeria[51], Malaysia[52], and Atlanta[54]. Previous finding concluded that Sleep has an integral role in learning and memory consolidation. Sleep is necessary to form synapses between dendritic branches that allow for memory formation of learned information, thus enabling students to recall information more rapidly and for more prolonged time period. Moreover, neurophysiologic and imaging studies show that sleep works to ensure adequate function of the prefrontal cortex, which executes higher brain functions including language, working memory, logical reasoning, and creativity[55]. Inconsistence findings found in Malaysia[56]. This findings may be due to this study was conducted in a short term scale, which is within a few weeks of time duration.

Additionally, the current study also revealed that Study hour per day and academic performance of the participants has positive correlation with students' academic performance. This result is supported in the study of Pakistan[11], Iran[57], and Nigeria[58]. A student who wants to graduate with good grade has to read books and understanding with pleasure, and that will take more time to accomplish[59].students who are very successful in their desired career have longer study time. Inconsistence findings in Manila[60] stated that relationship between hours per week of study outside class and general weighted average (GWA) is not significant. Another study agree this findings they stated that the amount of time spent studying had no direct influence on academic performance[61]. These findings however, contradict the result of the survey that students who spend more than 5 hours per week doing schoolwork have a higher GPA than those who spend 5 hours or less per week[62]. Waterworth, (2003) stated that studying continuously for an average of 8 - 9 hours per day may create fatigue and overall exertion among students, which may lead to lower performance on examinations[63].

Current study found previous academic performance was identified as predictive of academic success of nursing students. Students who scored higher in previous academic programmes also performed better in the undergraduate nursing programme. Consistent with several previous study also found an equalresults in South Africa[64]pakisthan[39], Italy[65].

Students related characteristics Health status and study habit had significantly correlated with academic performance which has also reported in Iran[57]and Malaysia[66].

This study was conducted at only two nursing colleges with small sample size with convenient sampling technique that unable to represent the whole nursing students. This may limit the generalization of the results in other setting. In this study the researcher was used the Factor Affecting Questionnaire which instruments was not completely represents the total affecting factors of identifying the academic performance. This may limit the identifying actual factors of academic performance.

V. Conclusion and recommendations

1. Conclusion

The study showed academic performance is significantly associated with socio-demographic variable such as age, gender, father and mother education, family income, HSC GPA, study hour, sleep hour and student related characteristics sub-domain health status and study habits of the participants.

Policy maker need to be given attention in entry qualification to recruit the students with the previously demonstrated superior scholastic aptitudes that appear to be associated with a greater likelihood of academic success.

Counselling should be provided to the nursing student's improving the study time, maintain proper lifestyle, sleep pattern avoid less and over sleep to achieve good academic performance and increase the availability of qualified nursing teacher.

2. Recommendation

Based on the limitations of the study, the following recommendations are presented for further research. This study was conducted in two selected nursing colleges and both colleges are situated in divisional level where the institute or college facilities and teachers are also qualified relatively others district level nursing college of Bangladesh.

In order to resolve this weakness of this study, it is suggested the same study be conducted using random sampling in all nursing colleges are included.

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