Original Article

Factors That Affect the Performance of Undergraduate Nursing Students of Khyber Pukhtankhwa Pakistan

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ABSTRACT

Nursing education is the combination of clinical skills and theoretical knowledge. The nursing institutes prepare students for the future as part of the workforce or leaders where they will represent their college or university in clinical practice or in teaching. **Objective:** To identify the factors that affect the performance of nursing students of KPK. **Methods:** The study was conducted in the public and private nursing institutes of KPK Pakistan from June 2022 to July 2022 having a sample size of 120 using a cross-sectional descriptive design and a non-probability sampling technique through adopted questionnaire. **Results:** The male participants of the study were higher (72%) than female (28%) participants. The mean and standard deviation score among all the categories the score of teacher related issues were high (3.26 ± 0.70), followed by the mean and standard deviation score of institute related issues (3.00 ± 0.82), study related issues (2.97 ± 0.76), while home related issues were (2.94 ± 0.67), and personal related issues (2.86 ± 0.96). **Conclusions:** The study concluded based on the finding that out of the basic 5 factors, teachers-related factors including the teacher's subject-matter expertise, the use of audiovisuals inappropriately and the number of topics covered in a single class have the greatest impact on students' performance.

INTRODUCTION

Globally, nursing is considered the backbone of the health care industry, but in Pakistan it doesn't get proper respect and recognition [1]. In 2019, the president of Pakistan, Dr. Arif alvi declared that "2019 is the year of nurses" to highlight their role and importance in the health sector. The nursing profession boomed all over the country, but especially in Khyber Pukhtankhwa, where nursing became the fastest growing profession with the help of regulatory bodies and academic authorities. Currently in Khyber Pukhtankhwa, there are 92 registered nursing colleges, most of which opened in the last 5 years. Nursing education is the combination of clinical skills and theoretical knowledge [2]. Furthermore, it is the foundation of research, practice and theory [3]. The nursing institutes prepare students for the future as part of the workforce or leaders where they will represent their college or university in clinical practice or in teaching. Questions arose that nursing institutes are increasing in quantity, as their quality will be compromised? Nursing students are the strength of any university or educational system where they receive their academic sessions. Academic performance refers to a student's competency in managing their studies as well as how they carry out the numerous activities that have been allocated to them by their teachers [4]. Nursing institutes prepare the best nursing graduates, who are assessed for their academic performance by any organization during

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hiring. Students must make an effort in their educational career in order to get good grades and prepare themselves for future professional opportunities while also meeting the demands of the employer [5]. The future of the nursing profession strongly relies on whether colleges offer education programmes that prepare students with adequate levels of intellectual and clinical capability [6]. The academic performance of nursing students has a direct impact on the background from where the students have received their education and their entrance examination [4]. Many studies show that nursing students face a lot of problems during their training, which affect their academic performance. Stomberg and Nilsson (2010), revealed in their study that the teacher's role is very important in the academic performance of nursing students. If a teacher fails to gain the attention of students, the students get lazy [7]. Furthermore, Cerna and Pavliushchenko (2015) stated that teachers are an important factor that contributes to academic achievement performance [8]. Alos et al., highlights that a student's achievement in nursing school is influenced by a variety of elements, including their personal circumstances, study habits, environment at home, and teachers [5]. Hayden et al., (2011) pointed out that good study practices are the key to successful students [9]. While the study of Bratti (2002) showed that the student's future achievement depends on the previous educational outcome of the student [10]. The study conducted by Goodall et al., (2010) found that the guidance and supervision of parents play a vital role in the performance of students, which helps the students to engage in the academic activities further [11]. In his study, Zarei (2008) mentioned that continuous assessment tests among students have a positive association with the academic performance of students [12]. The study conducted by Mushtaq and Khan (2012) shows that internal factors (class, timetable, class size, and facilities) and external factors (homework, family, economic conditions, and social factors) are associated with the performance of students [13]. The aim of the study was to explore the factors that are associated with the academic performance of nursing students.

METHODS

The study was conducted in the public and private nursing institutes of Khyber Pukhtankhwa Pakistan from June 2022 to July 2022 using a cross-sectional descriptive design and a non-probability sampling technique. The population of the study was nursing students who were enrolled in any registered nursing institute in Khyber Pukhtankhwa. The inclusion criteria for the study were nursing students who are currently attending academic

sessions and are willing to be participants in the study. Nursing students on clinical duty or on leave were excluded from the study. Data from a sample of 120 students was collected. Before the data collection, the proposal and instrument of the study were submitted for ethical review. As the ethical certificate from the institutional review committee was received, permission was then taken from the faculty of nursing colleges to approach the study population for data collection. An informed consent form was created for the participants, who stated that their data would be kept confidential, the students would not profit directly from the project, the student have the right to leave the study anytime, and the data would only be used for data analysis. The tool used for the study was an adopted questionnaire, which contains two parts. Part A contains gender, age, living status, and year of program. Part B contains five categories (36 items), each having a 5-point Likert scale. 1-no impact, 2-very low impact, 3-low impact, 4-high impact, and 5-very high impact). A set of cutoff values are established, which include:

. No impact (mean score of 1.0–1.7)
. Very low impact (mean score of 1.8–2.5)
. Low impact (mean score of 2.6–3.3)
. High impact (mean score of 3.4 to 4.1)
. Very high impact (mean score of 4.2 to 5)

The validity of the questionnaire was checked by 2 nursing experts, and reliability was checked through a pilot study on 12 students, which showed a chronbach alpha of 0.81. A questionnaire with a consent form was distributed among nursing students in the presence of faculty members of the concerned nursing institute. The questionnaire was explained to students, and those students who had any queries were explained at the movement.

RESULTS

The total participants of the project were 120, among the participants majority of the participants were male n=87 (72%), and females were n=33 (28%). The students having age (23 – 27 years) were in majority (65%), followed by the age group (18 – 22 years) (32%), and the age group (28 – 31 years) were only (3%). Students of 4th year (semester 7 and 8) were the major group (72%), then 3rd year students (17%) and 2nd year students were (10%). The students living in rural area were (59%) more than the students living in urban areas (41%) (Table 1).

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Characteristics		Frequency
Gender	Male	87
	Female	33
Age	18 –22 years	38
	23 – 27 years	78
	28 – 31 years	4
Year of BSN	1st year (1st and 2nd semester)	1
	2nd year (3rd and 4th semester)3	12
	rd year (5th and 6th semester)	21
	4th year (7th and 8th semester)	86
Living	Urban	49
	Rural	71

Table 1: Demographic Data

The questionnaire was divided into 5 major categories, personal issues, study habits, home related issues, institute related issues and teacher related issues. The responses of the students were labeled in major categories based on the mean score of cutoff values (Table 2). The responses of the students showed that study related issues and teacher related issues has high impact and the major contributor that affect the performance of nursing students.

	Personal related issues	Major category	Mean score
1	Feeling sleepy in class	Low impact	2.88
2	Feeling hungry in class	Low impact	2.9
3	Difficulty in seeing	Low impact	2.79
4	Difficulty in hearing	Low impact	3.1
5	Difficulty in breathing	Low impact	2.68
	Study related issues		
1	I study only when there is a quiz	Low impact	3.05
2	I feel tired, bored and sleepy	Low impact	2.88
3	I prefer listening to radio, watching TV, etc.	Low impact	2.9
4	I am lazy to study.	Low impact	3.5
5	I am disturbed when studying.	Low impact	2.8
6	I have no time to study at home.	Low impact	2.8
7	I study only when I like.	Low impact	3
8	I don't have a comfortable place to study	Low impact	3
9	I copy the assignments of friends	Low impact	2.8
	Homes related issues		
1	I live far from school.	Low impact	3.3
2	I live near the school.	Very Low impact	2.58
3	I don't live with my parents.	Low impact	2.87
4	Both my parents are working.	Low impact	3
5	I do too much households.	Low impact	2.93
6	I have many brothers and sisters	Low impact	3
	Institute related factors		
1	The time schedule is followed.	Low impact	3.2
2	There are school programs.	Low impact	2.97
3	There are available library references.	Low impact	3.2
4	Classroom is comfortable enough.	Low impact	3.13
5	There is fast internet access in the library.	Low impact	2.8
6	There is enough space in the library.	Low impact	2.9
7	Location of classrooms.	Low impact	3

	Teacher related factors		
1	Teacher has mastery of the subject matter.	Low impact	3.28
2	Teachers discuss many topics in a short period of time.	High impact	3.5
3	Teacher uses audio/visual aids.	High impact	3.4
4	Teacher gives too much memory work.	High impact	3.4
5	Teacher provides varied activities.	Low impact	3
6	Teacher uses lecture method only.	Low impact	3.3
7	Teacher always warns students.	Low impact	3.3
8	Teacher is frequently out/absent from class.	Low impact	3.1
9	Teacher is always late	Low impact	3.2

Table 2: Factors affect the performance of nursing students

The factors are further distributed to identify the minimum score, maximum score, standard deviation and mean score of each category (see table 3). The mean and standard deviation score among all the categories the score of teacher related issues were high (3.26 ± 0.70), followed by the mean and standard deviation score of institute related issues (3.00 ± 0.82), study related issues (2.97 ± 0.76), while home related issues were (2.94 ± 0.67), and personal related issues (2.86 ± 0.96). Among all the categories they were significant except personal related factors and home related factors with gender (Table 3).

Sr no.	Factors	Mean ± SD	Minimum	Maximum	Sig.
1	Personal related factors	2.86 ± 0.96	1.0	5.0	0.076
2	Study related factors	2.97 ± 0.76	1.33	4.78	0.000
3	Home related factors	2.94 ± 0.67	1.33	4.33	0.060
4	Institute related factors	3.00 ± 0.82	1.29	5.00	0.016
5	Teachers related factors	3.26 ± 0.70	1.78	4.78	0.002

Table 3: Descriptive analysis of the contributing factors

The mean score in personal related issues, study habits, home related issues, institute related issues and teacher related issues is higher among male than female participants (see table 4)

Sr no.	Gender	P-Mean	S-Mean	H-Mean	I-mean	T-mean
1	Male	3.02	3.01	2.99	3.09	3.28
2	Female	2.44	2.89	2.80	2.77	3.21

Table 4: Means score of factors on the bases of gender

DISCUSSION

The purpose of the study was to identify the factors that contribute to the performance of nursing students in Khyber Pukhtankhwa Pakistan. In our study we identified that teachers related issues (mean 3.26) are the major contributor that affect the performance of nursing students. Similarly in a study conducted in Saudi Arabia by Alshammari et al., that teacher related issues with mean score (4.16) were the major factors that affect the performance of students [14]. Teachers are considered as a respected profession all over the world. The issues which rose are in the form of teaching styles, communication gap between students and teacher, many topics it one time,

inappropriate used of audio visuals, are not command of teacher on the concern subject or topic. The finding of the study is also similar with the results of a study conducted by Alos et al., [5]. The study of Mbugua et al., showed that those teachers who are not well aware about the subject can cause irritation among the students which can compromise their academic performance [15]. Likewise in our study, the major elements that affect the performance of nursing students were teachers. The study finding has different finding with the study conducted by Elsabagh et al., where teachers related issues were of mean score (2.92), 3rd number among the factors that affect students' performance [4], but the study conducted by Bangbade et al., showed that teacher related issues has a high significance on performance of students [16]. Sunshine et al., also pointed that teacher are the most important category which influenced the performance of students [17]. Teacher who are experienced make bond with the students, therefore students openly discuss question and issues with the teachers which enhance the base of students and promote a well trusted relationship. Institute related issues also has a great impact on the performance of students, but in this study the students mean score (3.00) showed that it is the 2nd big problem after teacher related issues. Usaini et al., identified that the learning facility provided inside the institute should be satisfactory and the technology of the facilities should be up to date for the students without any deficiency that they feel like home [18]. Ali et al., stressed that all the required facilities of the institute put positive impression on the students which increase the potential of the students and that are assessed through their performance [19]. This study identified that the overall mean score of personal issues is low compared to other factors, but the indicator of difficulty in seeing and hunger within the class and becoming sleepy has a mean score of 3.1, 2.9, and 2.88, which means that large number of students within the class face difficulty in seeing the white board and multimedia. In the study of Elsabagh et al., the highest mean score among the personal factors were of the students feeling sleepy [4], while the result of study conducted by Fredriksen et al., shows that low grades and low self-esteem become more common in students that feel sleepy in class due to lack of sleep in home which leads the students towards depression [20]. In this study the lowest mean score among the factors were the score of personal issues (2.86) then the 2nd lowest score was the score of home related issues (2.94). Similarly, a study conducted in Saudi Arabia, the lowest mean score among the factors were house related factors that were (3.54)[15]. In current study, the mean score of students within the category of study habits is 3rd that affect students, but the indicator within the study habits showed that the mean score of students studies only for quiz. The finding of our study is similar with the finding of study conducted by Elsabagh et al., which has the highest mean score (3.35) of students who study at the time of quiz only [4]. The finding is also similar with other studies that were conducted by Cerna and Pavliushchenko who showed that high performing students study only alone [8]. Kornell and Bjork's study also showed that students only attend maximum grades who attend one quiz before exam[21].

CONCLUSIONS

According to the study's findings, out of the fundamental 5 elements, teachers' associated factors—which include a teacher's subject-matter expertise, inappropriate audiovisual use, and a variety of topics covered in a single class—affect students' performance the most. Personal difficulties, such as viewing the board and other multimedia, affect nursing students as well as personal, home-related, and work-related issues. This should be noted by the institute for the best performance of their students.

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