

## Original Article

# Personal, Sociodemographic and Educator Factors Affecting the Academic Performance of Bachelor of Science in Nursing Students in Quetta

 Faheem Ahmed<sup>1\*</sup>,  Gideon Victor<sup>1</sup>,  Anila Samreen<sup>1</sup> &  Jamila Bibi<sup>2</sup>

<sup>1</sup> Shifa College of Nursing, Shifa Tameer-e-Millat University Islamabad

<sup>2</sup> Kulsum Institute of Health Sciences, Islamabad

## Abstract

This study aimed to measure the academic performance of nursing students and determine the association between various demographic factors and academic performance of BScN nursing students in Quetta, Balochistan. Using census sampling, this cross-sectional analytical study involved 178 BScN students from three public-sector nursing colleges in Quetta. Data were collected via a structured questionnaire and analyzed using SPSS IBM (Version 26). Categorical variables were reported as frequencies and percentages, while continuous variables were presented as medians and standard deviations. Associations were evaluated using Spearman's correlation (rs), and differences in academic performance between nursing colleges were analyzed using a One-Way ANOVA. Statistical significance was set at  $p < 0.05$ . The results revealed that the mean age of 178 students ranged from 18 to 32 years. Most of the students resided in the hostel (59.6%,  $n = 106$ ). The predominant ethnicity was the Baloch community, comprising 55.1% ( $n = 98$ ) of the students. Regarding educational background, 75.8% ( $n=135$ ) completed SSC and 85.4% ( $n=152$ ) completed HSSC at public institutions. English-medium instruction ( $p = 0.01$ ,  $rs = 0.15$ ) and class participation ( $p = 0.03$ ,  $rs = 0.17$ ) positively correlated with academic performance. The fathers' education ( $p = 0.01$ ,  $rs = 0.20$ ) also showed significant associations with academic performance. The study underscores complex factors affecting nursing students' academic performance, influenced by demographic and institutional elements. Early identification allows educators to develop targeted remediation plans, effectively support students, and promote higher academic achievement in resource-limited nursing education settings.

**Keywords:** Academic performance, nursing students, cumulative grade point average

## INTRODUCTION

Academic performance is students' ability to manage their studies and the various responsibilities assigned to them by their teachers (Elsabagh et al., 2017; Khaliq et al., 2019). In nursing education, academic performance is a key indicator of how well students acquire the necessary skills, attitudes, and knowledge to provide high-quality patient care (Garrigues et al., 2022). Clinical skills are essential, including correct medicine administration, accurate patient assessment, and good communication with patients and colleagues. Attitude is essential for nurses to have compassion and empathy, which allows them to relate to patients on an emotional level, offer emotional support, and maintain a patient-centered approach to overall care (Rekisso et al., 2022).

These performances are commonly measured using various assessment methods including grades, test scores, class participation, projects, research, and other assessments such as assignments (Marquez et al., 2023). Academic achievement is a measure of performance outcomes that show how well a person performs specific goals, which are the main focus of activities in instructional settings (Steinmayr et al., 2017). It is an indicator of how successfully a student meets the standards established by educational institutions (Elsabagh et al., 2017; Khaliq et al., 2019). Student progress can be evaluated through various means, including grades, test scores, class participation, projects, research, and other assessments, such as assignments (Marquez et al., 2023). Moreover, the faculty monitor students' progress through different assessment strategies, including



**Copyright** © The Author(s). 2024

This is an open-access article distributed under the terms of the Creative Commons Attribute 4.0 International License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author(s) and source are credited.



### How to cite:

Ahmed, F., Victor, G., Samreen, A., & Bibi, J. (2024). Personal, Sociodemographic and Educator Factors Affecting the Academic Performance of Bachelor of Science in Nursing Students in Quetta. *Siazga Research Journal*, 3(4), 30–43.

<https://doi.org/10.5281/zenodo.15411669>

\*Corresponding Author: Faheem Ahmed, Shifa College of Nursing, Shifa Tameer-e-Millat University Islamabad

 [faheemahmedshifa@gmail.com](mailto:faheemahmedshifa@gmail.com)

written tests, viva, written assignments, problem-based learning (PBL), clinical checklists, objective structured clinical evaluation (OSCE), and reflective portfolios. According to Saeedi et al. (2018), improving academic performance in schools requires a multifaceted approach to monitoring student achievement. Schools can implement several strategies to enhance academic performance. These strategies include effective teaching, curriculum enhancement, professional development, supportive learning environments, student-support services, assessments, and feedback.

Several factors influence students' academic performance, including teacher-related, student-related, and study-related habits (Elsabagh & Elhefnawy, 2017; Khaliq et al., 2019; Mushtaq et al., 2019). Teacher-related factors include the competency of the teacher, teaching and learning styles, and teacher behavior. Teacher competency, which includes subject mastery, teaching effectiveness, and adaptability, improves student achievement, and ensures that students receive excellent instruction. Teaching and learning styles include interactive discussions and hands-on activities that foster active student participation (Keerthigha et al., 2023). Teacher behavior, including interpersonal skills and communication, enhances student confidence and motivation (Ayesha, 2022). Effective teaching strategies such as interactive discussions and hands-on learning foster active engagement and enhance students' understanding of complex clinical concepts (Keerthigha et al. 2023). Additionally, teacher behavior, including positive interpersonal skills and clear communication, can significantly boost student motivation and confidence (Ayesha, 2022).

Student-related factors include feeling sleepy in class, experiencing hunger during lessons, and facing difficulties in seeing, hearing, and breathing (Bibi et al. 2022). Additionally, study habits, such as managing laziness, adopting effective learning styles, and practicing good time management, also play a crucial role (Mushtaq et al., 2019). Moreover, home-related factors, such as the distance between home and school, household chores, and family responsibilities, can further affect academic performance (Alos et al., 2015). Furthermore, institute-related issues, such as the quality of the teaching and learning environment and the availability of resources, significantly influence student success (Bibi et al., 2022). Consequently, these factors collectively

play a crucial role in shaping student academic performance. Therefore, students' academic performance is affected by a range of factors that may vary across contexts.

## Problem Statement

The BScN program was introduced in Pakistan in 1997 (Huda & Alisbinati, 2015). However, it was not until 2021 that Baluchistan became the last province to offer the program, facing challenges such as faculty shortages and inadequate infrastructure. As educators, I have observed growing concerns regarding the academic performance of BScN students in the public sector since the program's inception. Despite efforts to improve the quality of education, many students struggle to maintain a cumulative GPA of above three. This trend raises concerns about their academic success as poor performance can lead to demotivation. However, an association between these factors has not yet been identified in Quetta. Moreover, there is limited literature on the factors affecting BScN students in Pakistan (Ayesha, 2022; Bibi, 2021; Khaliq et al., 2019; Mushtaq et al., 2019).

## Purpose of Study

The purpose of the study was twofold: first, to measure the academic performance of BScN students and second, to determine the association between academic performance and demographic variables.

## Research Question

- What are the academic performance levels of the BScN students?
- What is the association between the factors (parental background, peers, lecturers, characteristics of the institute, and instruction method) and academic performance of BScN students?
- What are the differences in the academic performance of BScN Students between nursing colleges?

## LITERATURE REVIEW

Academic performance is a student's learning outcome in the form of a degree after successfully achieving their learning objectives (Khaliq et al., 2019). Teachers use a variety of teaching and learning strategies to help students achieve their objectives. The existing literature has identified several factors that affect a student's academic performance, including external and internal factors. The factors associated with

students are internal, whereas those related to the environment are external and not under students' control (Alshammari et al., 2017). Therefore, to improve nursing students' academic performance, factors affecting academic performance must be thoroughly examined from different perspectives (Khatun et al., 2020).

### **Student-Related Factors**

A substantial proportion of studies (10 out of 29) emphasize student-related factors as critical determinants of academic achievement (Alghamdi et al., 2019; Alos et al., 2015; Devi et al., 2017; Elsabagh et al., 2017; Fajar et al., 2019; Khaliq et al., 2019; Ghiasvand et al., 2017; Pinehas et al., 2017; C. Thomas et al., 2018; Thomas et al., 2022). Several studies have highlighted the influence of personal condition on academic performance, including health status, sleep habits, and mental well-being (Alghamdi et al., 2019; Alos et al., 2015; Alshammari et al., 2017; Bibi et al., 2022; Kaliyaperumal et al., 2020; Ghiasvand et al., 2017; Oducado et al., 2017). Alos et al. (2015) reported that feelings sleepy in the classroom significantly affected students' academic performance. Similarly, Elsabagh et al. (2017) found that personal conditions such as sleep in the classroom were highly influential. Devi et al. (2017) observed that skipping breakfast was prevalent among students (70.8%), impacting both their nutrition and academic performance. Furthermore, Alghamdi et al. (2019) emphasized the detrimental effects of personal stress, academic workload, and interface worries scoring high.

Effective study habits are vital for students' academic performance, especially in rigorous nursing programmes. (2017). Fajar et al. (2019) found that students' attitudes towards their education and access to resources such as libraries and the Internet 78% significantly impacted their performance. Khaliq et al. (2019) identified time management as a crucial factor, demonstrating a strong positive correlation between organized study schedules and academic achievement. Ghiasvand et al. (2017) reported that 49% of students exhibited moderate time management skills, which positively correlated with academic motivation and reduced anxiety levels. Similarly, Thomas et al. (2022) found that regularity in completing assignments, managing study hours, and utilizing learning facilities were associated with improved academic success. Several studies have identified the significance of self-discipline and intrinsic motivation for academic achievement. Pinehas et al. (2017)

conducted a qualitative study that emphasized the importance of self-discipline, lack of motivation, and self-management were internal impediments to performance. Ghiasvand et al. (2017) found a positive correlation between academic motivation and effective time management.

### **Home-Related Factors**

Home-related factors are the second most prevalent (Alshammari et al., 2017; Dube et al., 2018; Elsabagh et al., 2017; Fajar et al., 2019; Khaliq et al., 2019; Khatun et al., 2020; El-awady et al., 2022; Bibi, 2021). Alshammari et al. (2017) Family support encompassing an emotional assistance is frequently associated with academic achievement. Bibi. (2021) identified a significant correlation between low family income and lower cumulative GPA. Fajar et al. (2019) observed that parental involvement and encouragement were positively correlated with student engagement and study habits. Similarly, Dube et al. (2018) emphasized the importance of parental involvement in the educational process and found that supportive parenting significantly enhanced students' academic performance, as 91% of students supported this view. Khatun et al. (2020) revealed a positive correlation between higher family income and academic success. Dube et al. (2018) reported that 51% of students found their academic performance was negatively affected by the distance from home to school, which increased commuting stress and reduced study time. Additionally, Khatun et al. (2020) identified stable home conditions and access to adequate study spaces as contributing factors to academic success.

### **Peer Influence and Support**

Dube et al. (2018) found that positive peer interactions and effective communication positively impacted student performance. Furthermore, Pinehas et al. (2017) emphasized that peer support networks can provide both emotional and academic assistance, contributing to a more cohesive learning community.

### **Language Factors**

Alharbi et al. (2018) highlighted non-native English speakers in Saudi Arabia faced significant challenges in academic performance due to language proficiency issues. The findings showed that 71% of the students scored low on the English Language Acculturation Scale, which negatively affected their overall academic performance. Similarly, Dube et al. (2018) in South Africa



found that English as a Second Language poses significant challenges for nursing students, especially those from non-English-speaking families. About 68% of the students in their study reported difficulties in studying English, which negatively affected their academic performance.

## **METHODOLOGY**

### **Research Design**

A cross-sectional analytical study design was used to analyze the data collected at a single point in time to examine the relationships between variables. Moreover, the analytical aspect of a cross-sectional study involves analyzing the collected data to identify patterns, correlations, or associations between variables. This includes the use of statistical techniques to assess the strength and significance of the relationships between variables (Hulley et al., 2021).

### **Study Settings**

This study was conducted at public-sector nursing colleges in Quetta in settings (I, II, and III). Setting I, located on Jinnah Road, which is in the main city of Quetta, is affiliated with Bolan Medical University and Health Sciences Balochistan and offers a range of nursing programs, including a four-year generic Bachelor of Science in Nursing (BSN), two years post-registered nursing bachelor of science in nursing education, and Post-Basic Specialty Nursing Diplomas. Setting II at Brewery Road offers a nursing program, BScN, and a Two-year Post RN BSN. Setting III, located 16.4 kilometers away from the city center on Mastung Road, offers only the four-year BScN program.

### **Study Population**

The study population comprised nursing students enrolled in the BScN program. A total of 200 students with BScNs were included. Of these, students in Semester I were excluded from this study as the outcome variable was CGPA, and these students did not possess academic scores.

### **Selection Criteria**

Enrolled BScN students who appeared in their final term exam received their final grades and the calculated Cumulative Grade Point Average (CGPA) was included in the study. Nursing students who had repeated their semesters were excluded.

### **Sampling Technique**

Census sampling was used as the primary

data-collection methodology. Using this method, every member of the population was included in the sample without being left out. Census sampling ensures maximum population representation, removes sample errors, and offers comprehensive and accurate information on the characteristics and outcomes of interest (Gray et al., 2017).

### **Instrument**

The data collection tool was adapted from a previous study by Olufemioladebinu et al. (2018). Permission was obtained by email. This tool has already been used and validated in the Pakistani context among BScN students (Bibi, 2021). The reported CVI of the modified tool was 0.83 (Bibi, 2021). This tool includes demographic information such as age, sex, sponsorship, residence, motivation to join nursing, involvement in class activities, class attendance, and previous educational background. Parental background, friend support, lecture abilities, institutional characteristics, and instructional methods were used in the class.

### **Data Analysis**

The collected data collected from the study were comprehensively analyzed using SPSS IBM (Version 26). The academic performance levels of BScN students were assessed using descriptive statistics. The means and standard deviations of the students' CGPA scores were calculated. The association between academic performance and various influencing factors was measured using the chi-square test for independence. This analysis assessed the relationship between categorical variables and academic performance levels of academic performance were determined using the CGPA categories provided by HEC (2015). For categorical variables, the Spearman correlation coefficient (rs) was used to evaluate the strength and direction of associations, with values ranging from 0±1, where 0 indicates no correlation, >0 indicates a positive correlation, and <0 indicates a negative correlation. The differences in academic performance between nursing students (settings I, II, and III) were analyzed using a One-Way ANOVA. Statistical significance was set at  $p < 0.05$ .

## **RESULTS**

### **Demographic Characteristics**

Of 200 eligible nursing students, 178 responded to the questionnaire, with a response rate of 89% (n=178). The analysis is representative

of these students.

Table 1 presents a descriptive analysis of students' demographic characteristics (n=178). The ages of the participants ranged from a minimum of 18 years to a maximum of 32 years, and their total monthly income ranged from a minimum of PKR 10,000 to a maximum of PKR 220,000. Moreover, 59.6% (n = 106) of students lived in hostels. Most participants were

in their 4th semester 57.9%, n=103). Regarding Educational background, 75.8 % (n = 135) of the participants responded to their SSC and 85.4 % (n = 152) to their HSSC from public institutes. The fathers' education level was higher; 74.3% (n=132) had formal education, compared to 41.6% (74) of mothers. Regarding ethnic background, most participants were from the Baloch community 55.1% (n = 98).

**Table 1**

Descriptive analysis of demographic characteristics of students (n=178)

Variable	Category	Frequency	Percentage
Where You Were Living	Home	71	39.9
	Hostel	106	59.6
	Relatives	01	0.6
Type of School at SSC	Public	135	75.8
	Private	43	24.2
Type of School at HSSC	Public	152	85.4
	Private	26	14.6
Ethnicity	Baloch	98	55.1
	Pashtun	34	19.1
	Saraiki	07	3.9
	Punjabi	26	14.6
	Others	13	7.3
Marital Status of Parents	Living Together	154	86.5
	Single parent	10	5.6
	Separated	04	2.2
	Divorced	05	2.8
	Deceased	05	2.8
Mother Education	No Formal Education	104	58.4
	Matric	34	19.1
	Intermediate	17	9.6
	Graduation	16	9.0
	Master	07	3.9
Father Education	No Formal Education	46	25.8
	Matric	42	23.8
	Intermediate	28	15.7
	Graduation	38	21.3
	Master	24	13.5

**Note.** SSC: Secondary School Certificate, HSSC: Higher Secondary School Certificate

Table 2 shows the descriptive statistics of factors related to nursing students' academic performance. Regarding the primary motivation for joining nursing, 59.6% (n=106) had joined because of their parental influence, while 34.3% (n=61) were self-motivated. Concerning friends' support, the results showed that 53.9% (n=96) of the participants' friends were mostly supportive during the study period. Regarding involvement in class activities, most students were engaged, with 57.3% (n=102) being

"Active" and 57.3% (n=72) being "Very Active" 40.2% (n=72). However, a minimal percentage 2.2% (n=4) reported being "Not Active." English was the medium of instruction, and participants sometimes responded to 77.5% (n=138). Attendance records show that while 65.7% (n=117) of students are "Sometimes" absent, 33.0% (n=57) never miss classes, and 2.2% (n=4) are absent "Most of the time." The key reason for absenteeism was illness, affecting 79.8% (n=142) of the students, followed by tiredness (11.2%,

n=20), and boredom (9.0%, n=16). Furthermore, the medium of instruction in English proficiency presents a significant challenge for numerous students, with 77.5% (n=138) reporting that English instruction is “Sometimes” used by teachers. Similarly, writing in English was another area of difficulty, as 59.6% (n=106) of

students faced “Sometimes”, 11.2% (n=20) “Most of the time”, and 2.8% (n=05) “Always”, with only 26.4% (n=47) reporting no difficulty. Reading in English was a challenge for 41.6% (n=74) of students “Sometimes”, 4.5% (n=08) “Most of the time”, and 2.2% (n=04) “Always”, while 51.7% (n=92) experienced no issues.

**Table 2**

Descriptive Statistics of Factors Influencing Students' Academic Performance

Variable	Category	Frequency	Percentage
Motivation to Join Nursing	Self	61	34.3
	Parents	106	59.6
	Friends	11	6.2
Friends Support in Study	Very good	96	53.9
	Good	71	39.9
	Poor	11	6.2
Involvement in Class Activities	Very Active	72	40.2
	Active	102	57.3
	Not Active	04	2.2
Absent From College	Never	57	33.0
	Sometimes	117	65.7
	Most of the time	04	2.2
	Always	57	33.0
Reason For Absenteeism	Illness	142	79.8
	Tiredness	20	11.2
	Boredom	16	9.0
English Medium of Instruction	Never	12	6.7
	Sometimes	138	77.5
	Most of the time	15	9.0
	Always	12	6.7
Difficulties With Writing in English	Never	47	26.4
	Sometimes	106	59.6
	Most of the time	20	11.2
	Always	05	2.8
Difficulties Reading in English	Never	97	51.7
	Sometimes	74	41.6
	Most of the time	08	4.5
	Always	02	2.2
Study Semester	4 <sup>th</sup> Semester	103	57.9
	5 <sup>th</sup> Semester	75	42.1

Figure 1 compares students' academic performance across the six grades: C+, B-, B, B+, A-, and A. In the C+ category, students exhibited minimal performance, with only two individuals in this group. In the B- category, students performed notably better, with 12 students achieving this grade. In Category B, the students outperformed with 37 students. However, the

trend shifts as performance improves. In the B+ category, the students were equally represented, with 31 individuals in this grade. The A- category marks outperforming students, as there were 46 students. Similarly, in Category A, the trend became more pronounced for students achieving the highest grades with 46 students.

**Figure 1**

Cumulative Grade Point Average (CGPA) of students

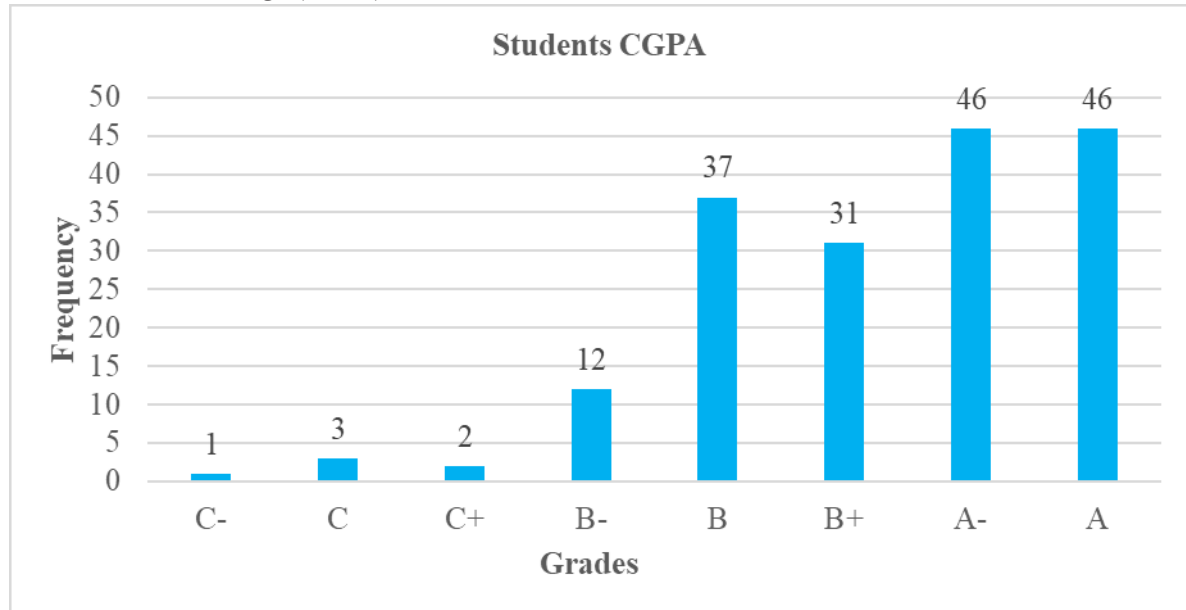


Table 3 presents data on students' perceptions of their lecturer abilities and skills, revealing distinct trends. Regarding communication Skills, a significant portion of students 39.3% (n=70) deemed the lecturer "Very Good," whilst 31.5% (n=56) considered them "Excellent." A mere 3.4% of six rated communication as "Poor." The lecturer's grasp of the subject matter was also highly regarded, with 40.4% (n=72) of students marking it "Very Good" and 23% (n=41) "Excellent." Only 5.6% (n=10) viewed subject mastery as "Poor." Class management elicited more diverse responses; although 38.2% (n=68) rated it "Good" and 28.1% (n=50) "Excellent," a noteworthy 15.2% (n=27) deemed it "Poor." In contrast, the lecturer's organizational skills were

overwhelmingly praised, with 93.3% (n=166) of students describing the lecturer as "Organized," and a mere 6.7% (n=12) perceiving unorganized. The comprehensive handouts were another strong suit, as 78.7% (n=140) of students rated them "Comprehensive," with only 3.4% (n=12) indicating that no notes were supplied. Likewise, 75.8% (n=135) of students reported that the lecturer "Often" utilized handouts or textbooks. Emotional stability yielded mixed responses; whilst 43.8% (n=78) of students found the lecturer "Friendly" and 32.6% (n=58) described them as "Calm," a considerable 23.6% (n=42) noted that the lecturer "Easily gets upset."

**Table 3**

Descriptive analysis of Lecture's abilities/ skills

Lecturer's abilities/ skills	Category	F	%
Communications skills	Poor	6	3.4
	Good	46	26
	Very Good	70	39
	Excellent	56	32
Subject Mystery	Poor	10	5.6
	Good	55	31
	Very Good	72	40
	Excellent	41	23
Class Management	Poor	27	15
	Good	68	38
	Very Good	33	19
	Excellent	50	28
Lecturer Organization	Organized	166	93
	Unorganized	12	6.7
Provision of Lecture Notes	No Notes	6	3.4
	Scanty	32	18
	Comprehensive	140	79
Use of Hand-outs/ Textbooks	Never	12	6.7
	Seldom	31	17
	Often	135	76
Emotional Stability	Easily gets upset	42	24
	Calm	58	33
	Friendly	78	44

**Note.** f= frequency, %= percentages

Figure 2 shows the utilization of different teaching techniques among the participants. The lecture method was the most commonly employed approach, with 142 participants (80%) indicating that it was “always” used. In contrast, case-based learning was “occasionally”

used by 101 participants (57%), roleplay by 89 participants (50%), and problem-based learning (PBL) by 111 participants (62%). In contrast, small-group discussions appeared to be the least utilized method, as 88 participants (49.4%) reported not using it at all.

**Figure 2**

Descriptive Analysis of Instructional Methods Used at the Institution

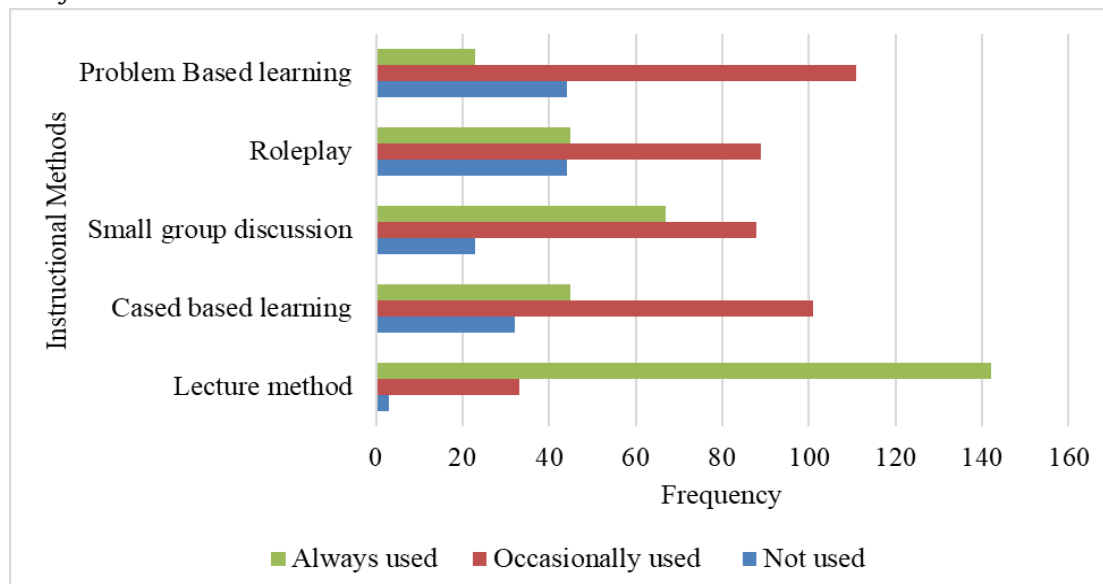




Table 4 shows the correlation analysis between the students' academic performance (CGPA) and their demographic characteristics. The analyses included p-values and correlation coefficients (Spearman's  $r$ ). According to the analysis, first, place of residence showed a significant positive correlation ( $p = 0.01$ ,  $r_s = 0.26$ ). Similarly, involvement in class also has a significant, though weak, positive correlation ( $p = 0.03$ ,  $r_s = 0.17$ ). Another important variable is the English medium of instruction ( $p = 0.01$ ,  $r_s = 0.15$ ), which indicates a weak but significant positive correlation. Conversely, difficulty reading in

English had a significant negative correlation ( $p = 0.01$ ,  $r_s = -0.20$ ). Additionally, fathers' educational level ( $p = 0.01$ ,  $r_s = 0.20$ ) showed a significant positive correlation. However, several variables, such as the motivation of students to join nursing ( $p = 0.30$ ,  $r_s = 0.08$ ) and reason for absenteeism ( $p = 0.83$ ,  $r_s = 0.02$ ), did not show significant correlations. These variables, along with others, such as ethnic background ( $p = 0.09$ ,  $r_s = 0.13$ ) and mothers' education ( $p = 0.43$ ,  $r_s = 0.06$ ), were not significantly associated with academic outcomes.

**Table 4**

Correlation of CGPA with Demographic Variables

Demographic Variable	P Value	Spearman's $r_s$	Confidence Interval	
			Lower Bound	Upper Bound
Living place during Studies	0.01*	0.26	0.11	0.39
Who motivated to join Nursing	0.30	0.08	-0.07	0.22
Involvement in class	0.03*	0.17	0.02	0.31
Reason for absenteeism	0.83	0.02	-0.13	0.16
Types of School HSSC	0.11	0.12	-0.03	0.26
Types of School FSC	0.31	0.08	-0.07	0.22
English medium of instruction	0.01*	0.15	0.01	0.29
Difficulties with writing in English	0.24	-0.09	-0.23	0.05
Difficulties reading in English	0.01*	-0.20	-0.33	-0.05
Ethnic background	0.09	0.13	-0.02	0.27
Any form of discrimination	0.43	-0.1	-0.21	0.09
Marital status of parents	0.31	0.08	-0.07	0.22
Mother education	0.43	0.06	-0.09	0.20
Father education	0.01*	0.20	0.06	0.34
Friends support	0.18	0.10	-0.05	0.25

\*Significant p-value

Table 5 shows the analysis of variables related to lecture effectiveness, revealing no significant correlations across the multiple aspects of teaching practice. Classroom management ( $p = 0.24$ ,  $r_s = 0.09$ ) and lectures ( $p = 0.29$ ,  $r_s = 0.08$ ) also showed weak and nonsignificant associations. Other variables, such as lesson note presentation ( $p = 0.33$ ,  $r_s = 0.07$ ), the use

of handouts/textbooks ( $p = 0.32$ ,  $r_s = 0.08$ ), and emotional stability ( $p = 0.52$ ,  $r_s = -0.05$ ), were not significantly correlated. Perhaps most surprisingly, even factors traditionally considered crucial for effective teaching, such as communication ( $p = 0.92$ ,  $r_s = 0.01$ ) and subject mastery ( $p = 0.61$ ,  $r_s = 0.04$ ), show remarkably weak non-significant correlations.

**Table 5**

Correlation of CGPA with Lecture Effectiveness

Lecture effectiveness	P Value	Spearman's $r_s$	Confidence Interval	
			Lower Bound	Upper Bound
Communication	0.92	0.01	-0.14	0.15
Subject Mystery	0.61	0.04	-0.11	0.19
Classroom Management	0.24	0.09	-0.06	0.23
Lectures	0.29	0.08	-0.07	0.22
Lesson note presentation	0.33	0.07	-0.07	0.22
Use of handouts/ Textbooks	0.32	0.08	-0.07	0.22
Emotional Stability	0.52	-0.05	-0.19	0.10

Table 6 demonstrates that the majority of teaching strategies exhibited a weak and statistically non-significant correlation with CGPA. The small-group discussion presents the most notable result ( $p = 0.18$ ,  $r_s = 0.18$ ), although it is not statistically significant when the  $p$ -value exceeds 0.05. The remaining instructional

methods, including the lecture method, case-based learning, roleplay, and problem-based learning, also demonstrated no significant relationship with academic performance, as their  $p$ -values were greater than 0.05, and their correlations were weak or negligible.

**Table 6**  
Correlation of CGPA With Instructional Methods

Instructional Methods	P Value	Spearman's $r_s$	Confidence Interval	
			Lower Bound	Upper Bound
Lecture Method	0.63	-0.04	-0.18	0.11
Case-based Learning	0.77	-0.02	-0.17	0.13
Small Group Discussion	0.18	0.18	0.03	0.31
Roleplay	0.53	-0.05	-0.19	0.10
Problem-Based Learning	0.61	-0.04	-0.18	0.11

Table 7 shows the results of the ANOVA comparing the cumulative CGPA of nursing students across three different institutions: I, II, and III. The results revealed that for the student's CGPA, the mean and standard deviation scores were as follows: setting I  $3.6 \pm 0.4$ , Setting II  $3.2 \pm 0.4$ , and Setting III ( $3.3 \pm 0.4$ ). The standard deviations (SD) are relatively similar, indicating a moderate level of variation within each group.

However, it is worth noting that the mean CGPA for students from Civil ( $M = 3.6$ ,  $SD = 0.4$ ) was slightly higher than that of SKBZ ( $M = 3.2$ ,  $SD = 0.4$ ) and BMC ( $M = 3.3$ ,  $SD = 0.4$ ). The ANOVA results showed an F-value of 1.032 with a significance level (Sig.) and 0.36, respectively, indicating no statistically significant differences in the cumulative CGPA of students across these institutions.

**Table 7**  
Comparison of Cumulative CGPA Among Students Across Different Institutions Using ANOVA

		ANOVA				
		Mean	SD	df	F	Sig.
Cumulative CGPA Student	Setting I	3.6	0.4	2	1.032	0.360
	Setting II	3.2	0.4			
	Setting III	3.3	0.4			

### DISCUSSION

The findings of this study revealed that of 178 students, one-third lived in hostels. Similarly, (Muhammad et al., 2023) found that nearly one-third of students living in more stable and structured environments, such as hostels, tended to perform better. This suggests that the place of residence has an impact on academic outcomes. In contrast, Kassaw and Demareva (2023) indicate that students living in hostels may face challenges, such as peer pressure and temptation to engage in behaviors that could harm their academic focus. In the current study, this may often be attributed to the structured environment and support provided by the hostel. Students who live in hostels can benefit from administrative supervision, which

may help them maintain a focus on their studies and avoid distractions. Therefore, students may have better access to study resources and a quieter atmosphere conducive to learning that can enhance their academic success.

A weak positive correlation was observed between CGPA and living arrangements, including (hostels, homes, relatives) and CGPA. Another comparative study indicated that living arrangements such as hostels have a moderate association (Simpson & Burnett, 2019). The findings of the current study may be attributed to the fact that most students originated from rural areas and potentially experienced psychological stress related to accommodation or adaptation to different living conditions, which could inadvertently divert their attention from their

academic pursuits.

Similarly, the most notable finding was the significant positive correlation between not living with parents and CGPA, suggesting that students who did not live with their parents tended to perform academically better. This could indicate that living independently, as with hostels, offers a more focused study environment.

Fathers' education levels showed a weak positive correlation with students' academic performance, while another study conducted a descriptive correlation by Khatun et al. (2020), who demonstrated that parental education, particularly that of the father, significantly influenced students' academic success. However, in the current study, the majority of participants' mothers were categorized as having a matric or below-matric education. Given that the participants were university students, the influence of maternal education on academic performance was rated limited or minimal. This could be due to patriarchal influences in certain cultural settings where fathers' educational status may play a larger role in shaping students' academic priorities.

Involvement in class activities was found to be positively correlated. Similarly, Khaliq et al. (2019) revealed that active participation in class discussions, group projects, and hands-on activities is significantly associated with academic performance. The finding of the current study could be that educators encounter resistance from students who are accustomed to passive rather than active learning approaches.

For students, the mean CGPA in setting I was higher than those in settings II and III. However, the results indicated that this difference was not statistically significant. Similarly, previous studies reveal that institutional resources and student engagement can vary, but may not significantly impact overall academic performance in similar programs (Pinehas et al., 2017).

This finding suggests that students' academic performance varies among institutions, indicating that academic environments may be more conducive to success in setting I. This observation aligns with the literature suggesting that supported environments and networks play a critical role in shaping academic outcomes, particularly in nursing programs, in which collaboration and support are vital (Dube et al., 2018; Ghiasvand et al., 2017). Consequently, in the current study, I set up an institution with a well-established presence in the province. The faculty

comprises highly qualified and experienced educators. Furthermore, the institution implemented effective feedback mechanisms that enabled the students to receive timely and constructive feedback. This combination of experienced educators and structured support systems creates an environment conducive to learning, which is often absent in recently established institutions, where faculty may still be developing their teaching practices and institutional processes.

### **Strengths and Limitations of the Study**

This study has several strengths, given the limited research in Pakistan, particularly Balochistan, in assessing the factors affecting BScN students' academic performance, especially as no study has been conducted in Quetta. The findings could provide valuable insights for students, parents, teachers, and nursing administrators, allowing them to analyze factors and identify gaps that may hinder students' learning. Factors such as English-medium instruction, ethnicity, and cultural diversity were also included. This study has certain limitations. First, the questionnaire was self-administered; therefore, chances of response bias are present. Second, the study was conducted only at the institutes in Quetta City. The small sample size is also a limitation. Findings may be generalized with caution.

### **Implications and Recommendations**

This study illuminates the significance of seeking language support and personal development resources for students by identifying influential factors such as English proficiency and confidence. Recognizing personal challenges, including visual impairments and confidence issues, may prompt students to seek interventions or counseling, potentially enhancing their academic performance and well-being.

For educators, the findings from the study underscore the significance of instructional quality and prompt feedback on student achievement. Educators should engage in professional development to enhance their communication skills, feedback mechanisms, and interactive teaching methods. Educators are encouraged to pursue advanced degrees to augment their expertise and pedagogical proficiency, enabling them to support student learning through advanced knowledge and innovative strategies.

For administrators, institutional support such as reliable electrical infrastructure and English language programs enhances academic performance. Administrators should implement English support initiatives, including workshops and language courses, to assist students with limited proficiency.

## CONCLUSION

Findings revealed a positive correlation between living arrangements, particularly hostel residence, fathers, and class involvement, and academic outcomes. English proficiency emerged as significant, with difficulties in reading English negatively affecting performance. These findings highlight the interplay of personal, sociodemographic, and institutional factors affecting nursing students' academic success. Results underscore the need for targeted interventions, including language support and enhanced institutional resources, to improve academic outcomes in nursing education in Quetta.

## Acknowledgement

The Pakistan Endowment Education Fund (PEEF) and the Nursing Director of Balochistan provided support for the completion of the Master of Science in Nursing degree. The principals of the respective nursing colleges granted permission for data collection. Mr. Muzamil Tariq, Mr. Irshad Ahmed, and Ms. Saba Raisani voluntarily assisted with data collection, and nursing students allocated time to participate in the study.

## Competing Interests

The authors did not declare any competing interest.

## References

Alghamdi, S., Aljabri, S., Jafari, G., Alzebali, R., Alkunaideri, N., & Kalantan, N. (2019). Sources of Stress Among Undergraduate Nursing Students. *Global Journal of Health Science*, 11(9), 116.  
<https://doi.org/10.5539/gjhs.v11n9p116>

Alharbi, M. F., & Yakout, S. M. (2018). English language proficiency and academic performance of Nursing Students speaking English as a second language. *Pielęgniarstwo XXI Wieku / Nursing in the 21st Century*, 17(4), 5–11.  
<https://doi.org/10.2478/pielxxiw-2018-0035>

Alos, S. B., Caranto, L. C., & David, J. J. T. (2015). Factors Affecting the Academic Performance of the Student Nurses of BSU. *International Journal of Nursing Science*, 5(2), 60–65.  
<https://doi.org/10.5923/j.nursing.20150502.04>

Alshammari, L., Alshammari, F., Astodello, E., Saguban, R., & Altheban, A. (2017). Factors affecting the academic performance of student nurses: A cross-sectional study. *Journal of Nursing Education and Practice*, 8(1), 60.  
<https://doi.org/10.5430/jnep.v8n1p60>

Ayesha. (2022). Effect of Teacher ' s Behaviour on Student ' s Academic Performance and Personality Author ' s Name : Ayesha Dar Email ID : ayesha.dar5815@gmail.com Qualification : MA in English ( Linguistics & Literature ) from the National University of Modern Language. *Global Scientific*, 10(10), 2491–2508.

Bibi, A., Sohni, ., Ur-Rehman, A.-, Ahmed, F., Iqbal, N., & Sultan, A. (2022). Factors That Affect the Performance of Undergraduate Nursing Students of Khyber Pukhtankhwa, Pakistan. *Pakistan Journal of Health Sciences*, 3(August), 33–37.  
<https://doi.org/10.54393/pjhs.v3i03.83>

Bibi, J. (2021). *Factors affecting the academic performance baccalaureate nursing students*. Master thesis, shifa Tameer-e-Millat University Islamabad.

Devi, R., Devi, S. S., & Singh, S. B. (2017). An exploratory study to assess the effect of breakfast skipping on college performance among Bsc nursing students in MM College of nursing, Mullana, Ambala. *International Journal of Applied Research* 2017, 3(3), 904–906.

Dube, M. B., & Mlotshwa, P. R. (2018). Factors influencing enrolled nursing students' academic performance at a selected private nursing education institution in KwaZulu-Natal. *Curationis*, 41(1).  
<https://doi.org/10.4102/curationis.v41i1.1850>

Elsabagh, E. E. M., & Elhefnawy, K. A. H. (2017). Factors Affecting the Academic Performance Among Female Nursing Students. *International Journal of Current Research*, 9(2), 46914–46920.



- Fajar, S., M, H., Hajira, S., M, A., & Syed, A. G. (2019). Factors Affecting Academic Performance of Undergraduate Nursing Students. *International Journal of Social Sciences and Management*, 6(1), 17–27.  
<https://doi.org/10.3126/ijssm.v6i1.22563>
- Garrigues et al. (2022). nurses' knowledge, skills and personal attributes for providing competent health education practice, and its influencing factors: A cross-sectional study. *Nurse Education in Practice*, 58, 103277.  
<https://doi.org/10.1016/j.nepr.2021.103277>
- Gray, J. R., Grove, S. K., & Sutherland, S. (2017). The Practice of Nursing Research 8th Edition. In *Angewandte Chemie International Edition*, 6(11), 951–952.
- Horiuchi et al. (2023). Integration of anatomy and physiology into nursing practice as perceived by undergraduate students and registered nurses: a scoping review. *BMC Nursing*, 22(1), 1–10.  
<https://doi.org/10.1186/s12912-023-01436-0>
- Huda, S. U., & Alisbinati, A. S. A. (2015). Nursing Education in Pakistan: Challenges and Trends in Degree Program. *International Journal of Nursing Education*, 7(4), 59.  
<https://doi.org/10.5958/0974-9357.2015.00194.4>
- Hulley, S. B., Cummings, S. R., Browner, W. S., Grady, D. G., & Newman, T. B. (2021). Causal Inference in Observational Studies. In *Replication and Evidence Factors in Observational Studies*.  
<https://doi.org/10.1201/9781003039648-ch2>
- Kaliyaperumal, R., Megahed, M. M., Raju, J., & RA, C. (2020). Factors affecting Grade Point Average among nursing students at college of applied medical science. *Journal of Health Sciences and Medicine*, 3(4), 436–441.  
<https://doi.org/10.32322/jhsm.786215>
- Kassaw, C., & Demareva, V. (2023). Determinants of academic achievement among higher education student found in low resource setting, A systematic review. *PLoS ONE*, 18(11 November), 1–17.  
<https://doi.org/10.1371/journal.pone.0294585>
- Keerthigha et al. (2023). The effect of teaching style and academic motivation on student evaluation of teaching: Insights from social cognition. *Frontiers in Psychology*, 13(January), 1–7.  
<https://doi.org/10.3389/fpsyg.2022.1107375>
- Khalik, J., Hussain, M., Afzal, M., & Gilani, S. A. (2019). Exploring the Factors Affecting Academic Performance of Undergraduate Nursing Students. *Merit Research Journal*.
- Marquez et al. (2023). Class participation and feedback as enablers of student academic performance. *SAGE Open*, 13(2), 1–16.  
<https://doi.org/10.1177/21582440231177298>
- Mohamadkhani Ghasvand, A., Naderi, M., Zagheri Tafreshi, M., Ahmadi, F., & Hosseini, M. (2017). Relationship between time management skills and anxiety and academic motivation of nursing students in Tehran. *Electronic Physician*, 9(1), 3678–3684.  
<https://doi.org/10.19082/3678>
- Muhammad, I., Jaffar, R., Rahim, P., & Muhammad, S. A. (2023). The Role Of Study Habits In Academic Achievement: A Comparative Study Between Hostel-Living And Day Scholars Israr. *Academic Journal of Psychology and Counseling*, 04(1), 27–46.  
<https://doi.org/https://doi.org/10.22515/ajpc.v4i1.5688>
- Mushtaq et al. (2019). Factors Affecting the Academic Performance of Undergraduate Student Nurses. *National Journal of Health Sciences*, 4(2), 71–79.  
<https://doi.org/10.21089/njhs.42.0071>
- Oducado, R. M. F., Frigillano, P. R. S., Gunce, J. J. T., & Jover, P. L. B. (2017). Guidance Needs of Nursing Students in Iloilo City, Philippines. *PEERS Inc. Multidisciplinary Research Journal*, July.  
<https://doi.org/10.17613/f4gt-az80>
- Pinehas, L. N., Mulenga, E., & Amadhila, J. (2017). Factors that hinder the academic performance of the nursing students who registered as first years in 2010 at the University of Namibia (UNAM), Oshakati Campus in Oshana, Namibia. *Journal of Nursing Education and Practice*, 7(8), 63.  
<https://doi.org/10.5430/jnep.v7n8p63>
- Polit, D., & Beck, C. (2019). *Nursing Research Generating and Assessing Evidence for Nursing Research* (11th ed.). Wolters Kluwer Health, 2019.
- Rekisso et al. (2022). Nurses' attitudes towards

- the nursing profession and associated factors in selected public hospitals, Addis Ababa, Ethiopia, 2021: a cross-sectional study. *BMC Nursing*, 21(1), 1–9.  
<https://doi.org/10.1186/s12912-022-00808-2>
- Saeedi et al. (2018). *Social Support and Self - Care Behavior Study*. January, 1–6.  
<https://doi.org/10.4103/jehp.jehp>
- Simpson, D. B., & Burnett, D. (2019). Commuters Versus Residents: The Effects of Living Arrangement and Student Engagement on Academic Performance. *Journal of College Student Retention: Research, Theory and Practice*, 21(3), 286–304.  
<https://doi.org/10.1177/1521025117707516>
- Steinmayr, R., Meißner, A., Weidinger, A. F., & Wirthwein, L. (2017). *Beginning Teacher Induction*. February, 1–4.  
<https://doi.org/10.1093/OBO/9780199756810>
- Taslina Khatun, M., Fahima Khatun, ;, Mosammet, ;, & Akter, K. (2020). Factor's Related to Academic Performance Among Undergraduate Nursing Students in Bangladesh. *Issue 1 Ser. XIII*, 9(1), 14–23.  
<https://doi.org/10.9790/1959-0901131423>
- Thomas, C., & Maru, K. K. (2018). *Assess the Factors Affecting Academic Performance of the Nursing Students of Selected Nursing Colleges , Rajasthan*. 3–7.
- Thomas, S., & Mahida, A. (2022). Analysis of academic performance, study behaviour and factors influencing study behaviour among nursing students. *Indian Journal of Continuing Nursing Education*, 23(1), 44.  
[https://doi.org/10.4103/ijcn.ijcn\\_24\\_21](https://doi.org/10.4103/ijcn.ijcn_24_21)