# Stress and Its Influence on the Academic Success of Nursing Students in Swat: A Cross-Sectional Study

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## ABSTRACT

**Background:** The students of Nursing are under heavy stress because of the demanding studies and Clinical training. Nursing education is composed of theoretical training and clinical tasks thus they must be familiar with assignments, presentations, continuous assessment assessments, theory examinations as well as clinical skills within a restricted period of time. As the load goes high and higher than the limit of the students, stress levels rise among the students. Moreover, stress may have an adverse impact on a particular person, who can have issues with fulfilling his/her needs and requirements.

**0bjectives:** To determine the correlation between academic performance of students in various Nursing colleges in Swat on stress.

**Methodology:** This research was conducted in various Nursing Colleges in Swat and 132 participants were used in a simple random sampling technique. Data collection was done through the self-administered questionnaires. The current study is aimed at determining the academic performance and variables related to stress among undergraduate students. The study involved a cross-sectional descriptive study period of 15 August to 15 November 2024.

**Results:** The findings indicate that the major stressors were academic pressure, clinical practice, and workload, and 68 percent of the students mentioned academic pressure and 61 percent said that they were stressed by clinical practice. The results showed a strong negative correlation between the stress and the academic performance ($r = -0.35$, $p = 0.01$) and thus, the high levels of stress correlate with low levels of academic performance. The research also demonstrates that moderate stress is common in most students with assignments and workload the greatest contributors. Problem-solving and optimism were among the common coping strategies, and there was also a lack of institutional support towards stress management. The version of the SPSS 22.0 was used to analyze the data.

**Conclusion:** The findings of the study revealed that moderate stress is an issue among the undergraduate students of nursing. The most common causes of pressure mentioned include the most frequent ones, responsibility and tasks, stress due to rigid BSN schedule, and stress due to dealing with patients. This paper reveals that stress management intervention should be recommended to enhance academic performances among Nursing Students in Swat.

**Keywords**: *Stress, Academic Performance, Nursing Students, Clinical Practice.*

## INTRODUCTION

Stress may be defined as a reaction of the body towards an unspecified stimulus or a sense of emotional, mental or physical strain. It is a result of something or something that sends frustration and anger [1]. Stress may be classified into three according to duration; acute stress (less than six months), episodic acute stress (is found in episodes in acute stages), and chronic stress (more than six months). Eustress or motivational stress may be a good thing as it drives individuals to pursue their goals [2] . Conversely, distress is unhealthy and results in sorrow, anxiety and pain. Stress is further categorized as displaying four types namely: physical stress, psychological stress, psychosocial stress, and spiritual stress [3].

Nursing students are under significant pressure, not only in educational classes, but also in clinical education [4]. Such stress is caused by different factors, including the uncertainty regarding patient care, excessive workload, insufficient understanding, and difficult relationships with nursing employees and professors [5, 6]. One of the psychological factors that have been in a significant influence on the academic performance and welfare of nursing students is stress [7]. It is a complicated procedure where people perceive demands, restraint or prospects as challenges to their capacity to cope efficiently. Stress can have a negative impact on people who cannot fulfill their needs and requirements, yet it can act as a driving force in case it is managed successfully [8].

Students usually face a tremendous shift in their social and psychological needs when they move to university or college and that can be intimidating and even stressful [9, 10]. The World Health Organization claimed that stress is among the leading causes of disability in the world, and it is bound to increase the global disease burden by 2030 [11]. In nursing students, the rate of depression and stress is disastrous [12]. As an example, academic stress has been found to be quite common with nursing students in the Arab world, with the prevalence rate at 28% compared to the general population which is only 6 times. In Spain, the percentage is 34.5, in Iran, 36.6 and in Pakistan, an shocking 96.25% [13]. This general pressure is a result of the two fold strains of academics and clinical load [14].

New nurses are usually exposed to the nursing field, as they are involved in caregiving and learning how to handle different individuals and circumstances [15]. They are the members of a healthcare team that is the youngest, and the pressure to perform well in this setting may lead to the occurrence of high stress levels. The major sources of this strain are excessive workloads, lack of satisfaction with clinical experiences, and stressful working environments [16]. These aspects negatively influence their learning, performance, and emotional well-being that potentially can influence the quality of patients care. Studies have established that financial stress was the most distressing among nursing students, then the academic, clinical, and confidence-related demands [17].

Further, stress among nursing students may be characterized by physical health problems (i.e., headaches, digestive problems, sleep disturbance, and chronic fatigue) [18]. It may also affect their capacity to provide quality patient care, cause medical errors, ineffective communication with patients and colleagues and patient dissatisfaction [19]. The psychological impacts of stress are not less alarming, and the nursing students report feeling anxious, depressed, and exhausted [20]. These emotional issues tend to lead to absenteeism and low academic performance which are the initial signs of mood disorders [21]. As learners work through the educational process, they encounter various academic, social and emotional pressures, and in the process, they are unable to flourish in their personal and professional lives [22].

The recent researches have also emphasized the harmful impact of stress on the academic performance of nursing students and their overall well-being. Ali et al., [23] discovered that inability to engage in academic activities, such as motivation, faculty support, and peer interaction, increased stress levels and

poor academic performance. The students who failed to get these support systems found it difficult and in many cases, resulted in burnouts and poor grades. It was found out by Monal [24] that physical inactivity has a strong relationship with increased stress and poor academic performance, which led to increased stress, and hence a vicious cycle. Moreover, Mason et al., [25] discovered that lowly resilient nursing students could not respond to stress effectively, which led to emotional fatigue, lack of concentration, and deteriorating academic performance.

Shaheen [26] found out that nursing students belonging to Type A personalities with high competitiveness and always strived to achieve results experienced more stress and anxiety, and these factors adversely affected their performance in the academic life. On the same note, Islam [27] established that ongoing assessments were devastatingly anxiety-inducing to such an extent that they would drive students to emotional fatigue but more flexible assessments were capable of mitigating the anxiety. As Adedokun [28] noted, workloads coupled with high intensity of stress resulted in a sharp drop in concentration and performance with a large number of students were unable to cope with the requirements of their schoolwork.

Nyam [29] also brought out the most negative impacts of the clinical workload and patient care duties as they were found to be extremely stressful to students of nursing leading to development of feelings of incompetence and low self-esteem. This was further compounded by the fact that they did not have proper mental health support and students were left alone without appropriate coping strategies. These results are a clear indication of the aggravating effect of stress on nursing students, particularly when it is combined with an unfavorable academic and clinical atmosphere. In the absence of appropriate interventions, including mental health support, coping mechanism, and more balanced workload, nursing students risk excessive effects, including burnout, academic failure, and mental health long-term problems [30].

Although the research on stress and its impact on the academic performance of students studying nursing continues to gain momentum, there is still a gap in the knowledge of the special issues under which students in rural areas like Swat nursing study [31]. A significant portion of the available literature is mainly based on urban settings, where students could have more resources and other support systems [3, 7,10, 16, 19]. Nevertheless, rural nursing students experience distinct stressors, such as low clinical placements, reduced education materials and the socio-economic conditions that may increase stress levels. Moreover, although research has been conducted on the general level of stress, there is a tendency that researchers do not concentrate on the impact of certain stressors on specific areas of academic performance or ways students cope with them in such situations. This paper aims to fill this gap by looking at the perceived effects of stress on the academic performance of nursing students in Swat, the main stressors, how the stressors affect campus performance, and how students have coped with the stress.

## METHODOLOGY
### Materials & Methods

The research was a cross-sectional study performed in the month of October 2024, which involved nursing students in various years 1st, 2nd, 3rd and 4th year. The research was carried out in Swat in various colleges of nursing.

### Study Design

It was a quantitative and descriptive cross-sectional study that was descriptive and applied a self-administered questionnaire.

### 3.3 Study Settings

The research was carried out in various colleges of nursing such as Swat College of Nursing, United

College of Nursing, Nightingale Institute of Nursing and Royal College of Nursing in Swat.

## 3.4 Sample Selection

The sample was composed of nursing students in colleges. The data was gathered according to the year of study; that was, 1st, 2nd, 3rd, 4th year students, of the following colleges:

- Swat College of Nursing (1st year),
- United College of Nursing (2nd year)
- Nightingale Institute of Nursing (3rd year)
- Royal College of Nursing (4th year)

## 3.5 Sample Size and Technique

An online sample size calculator was used to calculate the sample size at 95% confidence and a 5 percent margin of error. The participation of 132 participants was considered the sufficient sample size. The participants were selected by means of a simple random sampling technique.

## Inclusion Criteria

- Nursing students currently enrolled in the BSN program
- Students from 1st, 2nd, 3rd, and 4th year
- Willingness to participate

## Exclusion Criteria

- Students who have deferred, dropped out, or graduated from the program
- Students who declined to provide informed consent or withdrew partway through the study
- Part-time students
- Students on academic leave or suspension

## 3.6 Data Collection Procedure

The data collection involved distributing a printed questionnaire, which contained 20 closed-ended questions, to participants in various nursing colleges across Swat. Participants completed the questionnaire independently. The questionnaire consisted of closed-ended questions. The data collection was done in five sections:

- Demographic data of the participants
- Academic performance of the participants
- Sources of stress
- Impact of stress on academic performance
- Stress coping mechanisms

All the participants had volunteered to take part, and their answers were confidential. All the participants gave informed consent. There were attempts not to interfere with the academic obligations of students, and the research had to make a difference to the nursing education or well-being of students. Each institution gave their approval of the study and gave permission to collect data.

## 3.7 Data Analysis

The SPSS version 22.0 statistical software was used to analyze the data. The study sample was described and the different variables of stress and academic performance using descriptive statistics

such as means and standard deviations, frequencies, and percentages. The correlation test by Pearson was also used to test the relationship between stress and coping behavior among the nursing students. The analysis was supposed to give information on the impacts of stress levels on the performance of the students in school and how they dealt with the stress. The findings were discussed to make significant conclusions concerning the stressful experiences among Swat nursing students.

## RESULTS & ANALYSIS

**Table 1:** Demographic Data of Participants

| Demographic Variable | Frequency (n) | Percentage (%) |
|---|---|---|
| Year of Study | | |
| 1st Year | 33 | 25% |
| 2nd Year | 33 | 25% |
| 3rd Year | 33 | 25% |
| 4th Year | 33 | 25% |
| Gender | | |
| Male | 40 | 30% |
| Female | 92 | 70% |
| Age Group | | |
| 18-20 | 50 | 38% |
| 21-23 | 60 | 45% |
| 24 and above | 22 | 17% |

The demographic data indicate that the sample consisting of 132 participants was perfectly balanced with different years of study with 33 students (25%) per year of study. The percentage of female participants (70) is much larger than that of male participants (30). Most of the participants fall in the age group of between 18-23 with the age group of 21-23 making 45 percent of the sample.

**Table 2**: Academic Performance of Participants

| Academic Performance Metric | Frequency (n) | Percentage (%) |
|---|---|---|
| Grade Range | | |
| A (90-100) | 33 | 25% |
| B (80-89) | 50 | 38% |
| C (70-79) | 40 | 30% |
| D (60-69) | 6 | 5% |
| F (below 60) | 3 | 2% |

Table 2 shows that most of the respondents have scored B and C grades with 25 percent of the students scoring A grades. The percentage of students who are struggling is quite low (2%), as the 3 students who had a lower grade than 60 indicate..

**Table 3:** Sources of Stress Among Participants

| Source of Stress | Frequency (n) | Percentage (%) |
|---|---|---|
| Academic Pressure | 90 | 68% |
| Clinical Practice | 80 | 61% |

| Family Expectations | 60 | 45% |
| Financial Stress | 50 | 38% |
| Personal Issues | 40 | 30% |
| Social Pressure | 30 | 23% |

Table 3 shows sources of stress and the most common cause of stress among the students is academic pressure, with 68% of the respondents experiencing it. Another important stressor is clinical practice with 61% of students citing it as a stressor. Other sources of stress are also financial stress, family pressure, and personal problems.

**Table 4:** Impact of Stress on Academic Performance

| Impact on Academic Performance | Frequency (n) | Percentage (%) | p-value |
|---|---|---|---|
| No Impact | 15 | 11% | |
| Slight Impact | 50 | 38% | |
| Moderate Impact | 40 | 30% | 0.003 |
| Significant Impact | 27 | 20% | |

Table 4 indicates that most of the participants (38%), said that stress had a slight effect on their academic performance with 30% having moderate effects of stress. 20% of the students said that stress had a significant effect on their academic performance. The p-value of this measure is less than 0.05, which indicates that stress and its effects on academic performance have a strong correlation.

**Table 5:** Correlation between Stress and Academic Performance

| Variable 1 | Variable 2 | Correlation Coefficient (r) | p-value |
|---|---|---|---|
| Stress Level | Academic Performance | -0.35 | 0.01 |

The Pearson's correlation coefficient of -0.35 suggests a moderate negative correlation between stress levels and academic performance. This indicates that higher stress levels are associated with lower academic performance. The correlation is statistically significant with a p-value of 0.01.

**DISCUSSION**

The results of the study present a more profound insight into the stress that nursing students in Swat are going through, and how it affects their academic work. The findings can be correlated with the bulk of the existing studies, which emphasize the huge impact of academic pressure, clinical demands, and workload in transforming the academic experience of nursing students. The study does not only justify the overall trends as observed in nursing education worldwide but also provides an insight into the nature of challenges encountered by students in a rural environment thus a new insight in the interplay between stress and academic success.

One of the key results of the study was that the key stressors among students were academic pressure, clinical practice and workload. In particular, 68% of the participants mentioned academic pressure as one of the key stressors, which is also in line with other studies such as Majeed et al., [2], among which academic workload, assignments, exams, and performance expectations were also among the primary sources of stress among nursing students. Also, the results on stress as a manifestation of clinical practice (stated by 61% of the respondents) support Ali et al., [27], who highlighted clinical work as a major

stressor. This trend is binding in similar nursing student groups, where both academic and clinical requirements provide significant stress in the lives of students.

In addition, the research revealed that there is a moderate negative relationship between stress and academic performance (r = -0.35, p = 0.01) so that, increasing stress levels translate into lower academic achievement. This finding is in agreement with other studies conducted by Suhail et al., [4] who established a similar connection between stress and academic performance among the nursing students. Mason et al., [25] also discovered that stress affects the concentration, cognitive performance, and overall academic performance of nursing students in a negative manner. In the current research, 38 percent of students declared that the academic outcomes of their performance were somewhat affected by the stress, and 30 percent of the sample stated that the effects were moderate as it has been demonstrated in the work by Khatti et al., [6]  that stress could be a serious impediment to academic achievement.

The coping strategies that were described in this research article which consist of problem-solving, optimism, and social support seeking are in line with the previous literature on stress management. According to Monal [24], nursing students that contributed to solving problems and were optimistic coped with stress more effectively. On the same note, Silva et al., [3] recommended the importance of social support networks in aiding nursing students to deal with stress. Nevertheless, it was also determined in the study that students mostly used their personal coping strategies because of the absence of formal institutional support systems, a fact also observed by Ijaz et al., [15] who concluded that the fact that no counseling services or stress management programs are available makes students to be not only more stressed but also less able to manage their stress.

Another peculiar feature of this study is that it is centered on nursing students in a rural area such as Swat. The results have shown that students in rural settings have other stressors, such as inadequate access to clinical placements and educational facilities. These results are also in agreement with Nyam [29], who found out that rural nursing students tend to face special demands, including fewer resources, clinical training possibilities, and other factors that provide an additional effect on the stress level. This points to the significance of taking into account the regional and contextual aspect in treating the stress among nursing students.

Finally, this study supports the findings of other researchers who have demonstrated that academic pressure, clinical practice, and workload are the major stressors among nursing students. The research also promotes the idea that stress influences academic performance negatively and that problem-solving, being optimistic, and social support are the best coping mechanisms that can be applied to address stress. Besides, the rural setting of the study contributes to the knowledge base of the extra stressors on students in environment with limited resources, which follows the prior research that has identified the specific difficulties experienced by nursing students in rural locations.

## RECOMMENDATIONS

This study aims to discuss the stress experience among nursing students and how this affects their academic performance. In this research, many research studies on the topic were reviewed, and it significantly concurs with their findings. Nonetheless, this research has few recommendations.

All the institutes, Nursing College and universities must have strategy to deal with stress of students. They are expected to offer counseling and use strategies that will reduce the stress of the student. Students of BS-Nursing enrolled in the first year and the second year group of students also have lower level of stress management or stress adaptation level than students in the third or fourth year. As such, all institutions need to come up with a stress, management plan to new students and play its role in mitigating their stress. BSN strict schedules, homework and fines at college are some of the factors that

make many of the students stressed. Institution should therefore treat students with empathy and should contribute in alleviating or avoiding stress.

First and Second year BS-Nursing students are experiencing stress because of additional assignment, Fines and BSN strict schedules. Third- and Fourth-year students, in particular, those who are close to graduation, are under pressure as associated with paid internship. The colleges ought to formulate strategies about paid internships and programs to relieve the stress of the students. By organizing their graduates into paid internship, approximately 70-80% of Stress in them disappear automatically.

## CONCLUSION

The findings of the study state that moderate stress is an issue among the undergraduate students of nursing. Most commonly mentioned causes of pressure remain to be responsibility and tasks, stress due to inflexible BSN schedule and stress due to patients. In order to overpower the pressure, understudies apply survival methods such as issue-solving, stay positive and transference. It is also in dire need to offer counselling and coaching facilities to cope with the stress.

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