

## Academic Stress and Eating Pattern among the Student Nurses

Nida Wajid\*, Veena Sharma\*\*, Anju Hooda\*\*\*

\*M.Sc. Nursing, \*\*Associate Professor, \*\*\*Tutor, Rufaida College of Nursing, Jamia Hamdard, New Delhi- 110062.

### Abstract

*Background:* Stress is thought to influence human eating behavior. As young adults transition from school to university and move in to an independent living situation, there is a high risk for unhealthy eating pattern. *Objectives:* The present study aimed to assess the relationship between academic stress and eating pattern among the student nurses. *Method:* A correlational study was conducted. A self-administered questionnaire was used including structured questions on demographic characteristics, rating scale for academic stress and eating pattern to assess the academic stress and eating pattern. The convenient sample technique was used to select 100 student nurses from a selected College of Nursing in Uttar Pradesh, India. *Result:* 65% of the study subjects were found to have moderate academic stress. A little more than half of the study subjects were having unhealthy eating pattern and rest were found to have healthy eating pattern. There was statistically significant correlation between academic stress of the student nurses and their eating pattern. No significant statistical relationship was found between academic stress of student nurses and their demographic variables, i.e., gender, community and body mass index. No significant statistical relationship was found between eating pattern of student nurses and their demographic variables, i.e., gender, community and body mass index. The study also revealed some common unhealthy eating pattern among student nurses, such as meal skipping (62%), eating outside (73%), midnight snacking (69%) and fast food consumption (59%) were prominent among them.

*Conclusion:* Result confirmed that there was positive relation between academic stress and eating pattern. Some unhealthy eating habits particularly meal skipping, eating outside, midnight snacking and food consumption were common among student nurses and were associated with stress.

**Keywords:** Academic Stress; Eating Pattern and Student Nurses.

### Introduction

Modern life is full of hassles, deadlines, frustrations, and demands. For many people, stress is so common place that it has become a way of life. Stress isn't always bad. In small doses, it can help them perform under pressure and motivate them to do their best. But when they are constantly running in emergency mode, their mind and body pay the price. They can protect themselves by recognizing the signs and symptoms of stress and taking steps to reduce its harmful effects. Stress is a normal physical response to events that make people feel threatened or upset their balance in some way. When they sense danger – whether it's real or imagined – the body's defenses kick into high gear in a rapid, automatic mobilization process known as the "fight-or-flight" response [1]. Stress may be viewed as an individual's reaction to any change that requires an adjustment or responses, which can be physical, mental or emotional. Responses directed at stabilizing internal biological processes and preserving self-esteem can be viewed as healthy adaptations to stress [2].

Physiological or biological stress is an organism's response to a stressor such as an environmental condition or a stimulus. Stress is a body's method of reacting to a challenge. The body's way to respond to stress is by sympathetic nervous system activation

**Corresponding Author:** Veena Sharma, Associate Professor, Rufaida College of Nursing, Jamia Hamdard, New Delhi, 110062.

E-mail: [veena7sharma@yahoo.co.in](mailto:veena7sharma@yahoo.co.in)

which results in the fight-or-flight response. Because the body cannot keep this state for long periods of time, the parasympathetic system returns the body's physiological conditions to normal (homeostasis). In humans, stress typically describes a negative condition or a positive condition that can have an impact on a person's mental and physical well-being [3].

Students are learners with a social life that is disassociated from classroom learning. The impression that students spend the majority of their college life partying is not accurate. In fact, the reality is that students spend most of their time in class, reading textbooks, studying for exams or working either part-time jobs or college-work study. The desire to be recognized through their academic pursuits and not defined by their social activities are part of the learning process. Student life might have some common aspects, but when grouped together, it varies according to individual schools and their norms. What might be a popular activity at one particular college, will not be the norm at every college. Individual aspects and commonalities are what comprise the concept of student life [4].

Nursing schools are now recognized as a stressful environment that often exerts a negative effect on the academic performance and psychological well-being of the students [5]. It is a known fact that students are subjected to different kinds of stressors, such as the pressure of academics with an obligation to succeed, an uncertain future, and difficulties of integrating into the system [6]. Torres and Nowson defined stress as any general response of the body that either overwhelms or threatens the body and its ability to maintain homeostasis. Studies looking at the effect of stress on eating habits have shown that the level of the stressor has an impact on the individual's eating habits [7]. People living in a stressful environment, often eat as a way of dealing with stress or as a way to calm themselves [8]. Eating has been theorized as a coping strategy for stressful situations [9].

## Methodology

Research approach in this study was quantitative

with correlational design to assess the relationship between academic stress and eating pattern among student nurses in a selected College of Nursing in Uttar Pradesh, India. 100 sample were selected through convenience sampling technique. The tool used for the study was structured questionnaire, which was divided in three parts to assess the academic stress and eating pattern. Part 1 consisted of questions related to the demographic profile. Part 2 consisted of 33 items to assess the academic stress among student nurses. Part 3 comprised of 25 items to assess the eating pattern among student nurses. The content validation of tool was done by seven experts from the field of Psychiatry, Nursing and Clinical Psychology. The reliability of the tool to assess academic stress and eating pattern was established using Cronbach's Alpha formula and the reliability was found to be 0.08 and 1, respectively. For the collection of data, a formal administrative approval was sought from the concerned authorities of selected College of Nursing to conduct the study. Ethical clearance to conduct the study was taken from the Institutional Ethical committee. The data was collected from 16<sup>th</sup> October to 23<sup>rd</sup> October 2015. The purpose of the study was explained to respondents and their consent for participation in the study was taken. The data taken were subjected to analyse using descriptive and inferential statistics.

## Results

### *Findings Related to the Academic Stress among Student Nurses*

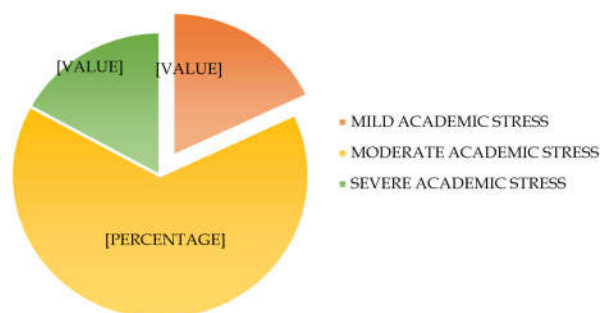
The data indicated that out of 100 study subjects, 65% had moderate academic stress, 18 percent had mild academic stress and 17 percent had severe academic stress (Figure 1).

### *Findings Related to the Eating Pattern among Student Nurses*

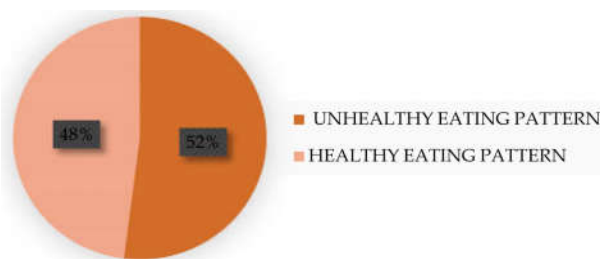
The data indicated that out of 100 study subjects, more than 50 percent were found to be having unhealthy eating pattern, i.e., 52% and rest 48 percent were found to be having healthy eating pattern (Figure 2).

**Table 1:** Mean, standard deviation, possible range and range of obtained score of academic stress and eating pattern scores of student nurses n=100

Category	Possible range of scores	Range of obtained scores	Mean	Standard deviation
Academic stress	00-297	57-279	150.63	52.64
Eating pattern	25-100	39-93	68.08	9.97



**Fig. 1:** Pie Diagram showing the frequency distribution of the study subjects by their academic stress



**Fig. 2:** Pie diagram showing the frequency distribution of the study subjects by their eating pattern

#### *Findings Related to Relationship between Academic Stress and Eating Pattern among Student Nurses*

The coefficient of correlation ( $r$ ) was calculated to find the correlation between academic stress and eating pattern. The computed value of  $r$  was 0.454, which was higher than the table value, 0.197 at  $df$  (98) at 0.05 level of significance. It indicated that there was positive and statistically significant relationship between academic stress and eating pattern among student nurses. So, it can be said that academic stress affects eating pattern among student nurses

#### *Findings Related to Association between Academic Stress and Eating Pattern with Selected Demographic Variables*

The Chi-square test and Fisher's Exact test were computed to establish the relationship between academic stress and eating pattern with selected demographic variables, i.e., gender, types of community and body mass index of student nurses. A statistically non-significant relationship was found between academic stress as well as eating pattern and selected demographic variables of student nurses at 0.05 level of significance.

## **Discussion**

Most of us live in a stressful environment, and we often eat as a way of dealing with stress or as a way to

calm ourselves [8]. Eating has been theorized as a coping strategy for stressful situations [9]. Regarding the aim of this study, the results found that, there was statistically significant correlation between academic stress of the student nurses and their eating pattern. At the same time, findings revealed that, the little more than half of students (52%) had unhealthy eating pattern.

This finding was consistent with Gan et al. [10], who highlighted the presence of unhealthy eating behaviors and inadequate nutrient intake among university students. They lack knowledge of healthy food choices that may affect habits and nutritional status negatively. University students had frequent snacking habits and a higher frequency of fast food consumption [11]. The present study found that there was statistically significant co-relation between eating pattern and academic stress. Similar findings were reported among Chinese university students who found a significant association between stress and eating habits [12].

The present study found that there was statistically significant co-relation between eating pattern and academic stress. Similar findings were reported among Chinese university students who found a significant association between stress and eating habits [13].

The findings of the present study revealed some common unhealthy eating pattern among students nurses including meal skipping (62%), eating outside (73%), midnight snacking (69%) and fast food consumption (59%) were prominent among them which is consistent with the findings of study of Shi et al [14], Savige et al [15], Chin et al [16] and Wallace [17] which also revealed that some common unhealthy eating patterns among adults included meal skipping, eating away from home, snacking and fast food consumption.

Many studies showed that people (particularly women and restrained eaters) responded to high levels of stress by consuming foods high in calories, fewer main meals, and fewer portions of vegetables [18,19]. Similarly, this study showed that's students with high level of academic stress showed significantly unhealthy eating habits such as skipping breakfast, infrequently daily meals, and infrequent fruits consumption. Other eating habits such as snacking between meals, eating fast meals, infrequent vegetable consumption were also common among stressed students but without significant association. In this study, the percentage of underweight students was 20% and 5% were obese. This may be partly because females constituted the majority of the study population, and also females are more cautious about

their weight than males [20].

### Conclusion

Stress related to academics is a reality of student nurses. The stress leading to various health problems, be it physical, psychological, social and spiritual, is also a reality. A systematic study which substantiates the correlation between stress and eating pattern may help in looking at ways and means of addressing the stress related to academic and associated physical health problems as well due to the unhealthy eating pattern.

Young people should have everything to be happy about, but as the generation with the least responsibility they actually experience the most stress. This study found that more than 65% of students felt stressed significantly. Through this systematically conducted study, there is an evidence to prove that mental health and physical health are related that stress is the root cause of many of the physical ailments. Many physical ailments are a result of unhealthy eating practices which people resort to under stress. Once stress as the root cause of physical health problems is recognized, one can take proactive measures to take care of their mental health so that physical health is also taken care of. These measures may include an adequate and healthy diet, adequate sleep, and sign off Facebook, quit smoking, try to see the positive side, take short breaks in between study or working period and regular practice of relaxation techniques such as yoga, meditation, physical exercise and walks, deep breathing exercises and visual imagery etc.

Research study related to academic stress and eating pattern needs to be conducted routinely to monitor the stress level and improve the unhealthy eating habits for all round healthy development of the individual. There is also need to conduct research studies to explore the cause of stress and other unhealthy life style, health practices related to stress such as sleep and rest pattern.

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