

## ORIGINAL ARTICLE

## PERCEIVED LEVEL OF STRESS AMONG ALLIED HEALTH SCIENCES STUDENTS AT UNIVERSITY OF HAIL

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## Abstract

**Background:** Health education is very challenging and demands an extensive commitment. Perceived stress (PS) among healthcare students worldwide is a recognized problem

**Aims:** The primary aim of this study was to evaluate the stress levels among under-graduate applied medical college students. **Methods and materials:** A cross-sectional survey was conducted in which 85 undergraduate allied health sciences (AHS) students at University of Hail participated. Purposive sampling technique was used. Data was collected using a Perceived Stress Scale (PSS). The study was conducted over period of three months. **Results:** The mean  $\pm$  SD age of the participants (N=85) were  $22.55 \pm 1.96$  years. No significant difference in perceived stress was observed across gender, department and years of study. Overall perceived level of stress ( $20.6 \pm 5.68$ ) among all students was slightly higher than average. **Conclusion:** Perceived level of stress among all healthcare students at University of Hail was found slightly higher than average.

**Keywords:** Healthcare Students, Perceived level of stress, University of Hail, Perceived Stress Scale.

may lead to poor physical health and emotional wellbeing. Stress reduces the student's self-esteem and disturbs the cognitive functioning. It can affect the memory and learning skills, although, an optimal level of stress can be considered, that some stress in medical school is needed for learning.<sup>6</sup>

The studies showed that examinations in medical schools are stressful enough to produce changes in blood cells parameters. In the long term stress may have negative impact on student's health, patient's lives and in turn on the community's health as a whole.<sup>7,8</sup> The primary aim of this study was to evaluate the stress levels among under-graduate applied medical college students.

## INTRODUCTION

Stress generally refers to psychological perception of pressure, and the body's response to it.<sup>1</sup> Stress is not only the psychological health which is affected by stress, various physiological studies have confirmed that stress can affect the blood cells parameters, endocrine, hemopoietic and immune systems.<sup>2</sup>

College students are at a high risk for increased stress. Strenuous academic pressure and limited social and personal time can add to the normal stress of life and begin to have a negative effect on a person. College students suffer high levels of stress during their education experiences. Those who dwell on life events suffer higher stress.<sup>3</sup> An estimated 75-90 percent of all primary healthcare providers see patients with stress related problems. Research supports that students in higher education have higher stress levels than the general public.<sup>4</sup>

Perceived stress (PS) among healthcare students worldwide is a recognized problem.<sup>5</sup> It is commonly observed that healthcare students undergo tremendous amount of stress and psychological distress during various stages of undergraduate training. High level of stress may have a negative effect on different aspects of student's life which

## MATERIAL &amp; METHODS

A cross-sectional survey was conducted on 85 students at University of Hail (College of Applied Medical Science). Purposive sampling technique was used to collect the data through Perceived Stress Scale (PSS) over a period of three months. Questionnaire was self-administered to all the registered students (Male & Female) of College of Applied Medical Science at University of Hail with prior informed consent. The data was analyzed by SPSS IBM 21. Categorical variables were presented as frequency and percentages, whereas continuous



variables were presented as Mean±S.D. Independent samples t-test and One-way ANOVA was used to compare groups.

## RESULTS

The mean ± SD age of the participants (N=85) were 22.55 ± 1.96 years. (Table 1) the results of the study showed no significant difference between the scores of males and females, physiotherapy, diagnostic radiology, clinical nutrition, clinical laboratory sciences and 2nd year, 3rd year, 4th year. (Table 2)

**Table 1: Demographics of students**

		Mean ± SD/n(%)
Age		21.5 ± 1.96
Gender	Male	56(65.9)
	Female	29(34.1)
Department	PT	31(36.5)
	RAD	17(20)
	CLN	18(21.2)
	LAB	19(22.4)
Year	2nd Year	29(34.1)
	3rd Year	34(40)
	4th Year	22(25.9)

**Table 2: Perceived level of stress among students**

		Total Score (PSS)	
		Mean±SD	P-value
Gender	Male(n=56)	19.8±6.2	0.09
	Female(n=29)	22.1±4.3	
Department	PT(n=31)	20.7±4.03	0.22
	RAD(n=17)	22.9±6.5	
	CLN(n=18)	19±6.1	
	LAB(n=19)	19.9±6.8	
Year	2nd Year(n=29)	20±6.4	0.42
	3rd Year(n=34)	20.2±5.4	
	4th Year(n=22)	22±5.3	

## DISCUSSION

The objective of the study was to evaluate the perceived level of stress among undergraduate allied health sciences students of University of Hail kingdom of Saudi Arabia. The results showed slightly higher than average perceived level of stress among AHS student.

A study of Sweden concluded that Medical students had higher depression rates than the general population, and women students had higher rates

than men.<sup>9</sup> Higher Perceived Stress Scale Scores are associated with higher levels of stress. Medical students had higher depression rates than the general population.<sup>10</sup> A study conducted in Pakistan suggested that higher level of perceived stress exists among students.<sup>11</sup> A study of Malaysia concluded that the prevalence of psychological stress among medical students was high.<sup>12</sup>

The current study did not show gender based differences in perceived level of stress among students. The study was supported by Birks Y. et al. that also showed no significance difference between male and female in relation to perceived level of stress among health care students.<sup>5</sup> But study conducted by Archer and colleagues found that female students reported higher levels of stress than male medical students.<sup>13</sup>

The results of current study showed that no significant difference was found between perceived level of stress according to year of study. Level of stress varies with the year of study. A study conducted in Pakistan showed that prevalence of Anxiety and Depression was high among newly entered students as compared to subsequent year.<sup>14</sup> While a study in Thailand showed that the prevalence of stress was highest among third-year medical students.<sup>15</sup> Some studies suggest that most stress occurs during the transition from preclinical to clinical training.<sup>16,17</sup> Others suggest higher levels of stress in first-year medical students due to the tremendous change in lifestyle, or in the penultimate clinical year.<sup>18,19</sup>

A study showed high level of stress among nursing students<sup>20</sup>. But current study showed no significant differences in measured perceived stress across student faculties of different departments. A prospective cross-sectional study was conducted at Sri Aurobindo Medical College and P. G. Institute, Indore, (M. P.) India. The study showed no significant difference between physiotherapy and MBBS students.<sup>21</sup>

There were multiple limitations that may mask the results of the study including single centered study with small sample size, so generalizability of the study was compromised. In this study no data was obtained regarding contributing factors of stress.

These factors may be academic and personal etc that can contribute in development of stress in students.

## CONCLUSION

The results of the study indicated that Perceived level of stress among all healthcare students at University of Hail (College of Applied Medical Science) was found to be slightly higher than average. It is recommended that further studies including evaluation of contributing factors of stress should also be studied. It is also recommended that nationwide study from different Universities should be conducted so results can be generalized to all over the Kingdom of Saudi Arabia.

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