

# Perceived Stress, Emotional Exhaustion and Burnout among Medical and Dental Undergraduate Students

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## ABSTRACT

**Objective:** To explore the level of perceived stress, emotional exhaustion and burnout among students of private dental and medical colleges in Lahore

**Method:** This analytical crosssectional study was designed and conducted, and data was collected using Emotional exhaustion scale (10 items; Cronbach's  $\alpha=.78$ ),<sup>21</sup> Perceived Stress Scale (14 items, Cronbach's  $\alpha=.80$ ),<sup>22</sup> and Maslach Burnout Inventory (15 items; Cronbach's  $\alpha=.79$ ).<sup>23</sup> Total sample was 150 undergraduate students (75 from medical college 4<sup>th</sup> year and 75 from dental college 4<sup>th</sup> year).

**Results:** The results of independent sample t test revealed a significant difference between the level of perceived stress ( $t=-24.02$ ,  $P=.020$ ), emotional exhaustion ( $t=-18.51$ ,  $P=.001$ ) and burnout ( $t=12.871$ ,  $P=.010$ ) among medical and dental undergraduate students

**Conclusion:** Perceived stress, emotional exhaustion and burnout was found more among students of medical colleges as compared to the students of dental colleges

**Keywords:** Perceived stress, Emotional exhaustion, Burnout, Medical Professionals

## INTRODUCTION

Persistent reaction to continued interpersonal and emotional stressors is known as burnout. Exhaustion, cynicism and professional inefficacy are the three dimension of burnout known in literature at global level.<sup>1</sup> In literature, problems related to work are normally referred to stress, emotional exhaustion and burnout.<sup>2</sup> Many studies have explored the incidence as well as consequences of burnout among health workers and students studying in medical and dental colleges etc.<sup>3-5</sup>

Due to the burnout faced by the health care professionals, personal as well as social functioning impairment is very common resulting in low quality of work and bad impact on mental and psychological health.<sup>6</sup> Among students of health professions, perceived stress and burnout resulted in anxiety, depression, low self-esteem and level of academic achievement, high drop-out ratio, suicidal ideation and low quality of life.<sup>7-9</sup> For preventing health care professionals from suicidal ideation and attempts, World Health organization promotes more research to develop interventions.<sup>10</sup>

Factors associated with perceived stress are different for students studying in medical colleges as compared to those who are studying in dental colleges and it also differs as per the level of their career.<sup>11-13</sup> In western literature, it was found that medical students face less exhaustion and feeling of being depersonalized as compared to dental students.<sup>14</sup> Perceived stress rate was higher among undergraduate students of both medical and dental colleges during their first academic year.<sup>15</sup> Level of perceived stress remain same in dental college students

throughout their academic career which lowered gradually among medical students.<sup>4, 16</sup>

Some research studies developed stress reducing interventions along with the distinct evaluation of different emotional exhaustion domains.<sup>17</sup> Stress is the major cause of burnout which is known as the predictor of low academic performance, decline in success and a main cause of drop-out from dental or medical college.<sup>18</sup> So, there is a dire need to explore the level of perceived stress, emotional exhaustion and burnout among students of private dental and medical colleges in Lahore as the stress intensifies the suicidal ideation and also increases the drop-out ratio.<sup>7,19,20</sup>

## METHODOLOGY

To explore the difference between the perceived stress, emotional exhaustion and burnout among students of private dental and medical colleges in Lahore, this analytical crosssectional study was designed and conducted. After study approval from the institutional ethical review committee, data was collected using Emotional exhaustion scale (10 items; Cronbach's  $\alpha=.78$ ),<sup>21</sup> Perceived Stress Scale (14 items, Cronbach's  $\alpha=.80$ ),<sup>22</sup> and Maslach Burnout Inventory (15 items; Cronbach's  $\alpha=.79$ ).<sup>23</sup> Total sample was 150 undergraduate students (75 from medical college 4<sup>th</sup> year and 75 from dental college 4<sup>th</sup> year). Gender and age was taken as demographic variables.

Independent sample t test was used as analysis for exploring the level of perceived stress, emotional exhaustion and burnout among students of private dental and medical colleges in Lahore

## RESULTS

Male students were 64(42.66%) and female students were 86(57.34%) of the entire data. Mean age was 23±1.89 of the students in entire data.

Table 1| Demographic variables

Gender	
Male	64(42.66%)
Female	86(57.34%)
Mean Age	23±1.89

Table 2| Perceived stress, emotional exhaustion and burnout among medical and dental students

	Perceived Stress			Emotional Exhaustion			Burnout		
	Mean±SD	t	Sig	Mean±SD	t	Sig	Mean±SD	t	Sig
Medical students (n=75)	15.8±3.29	-24.02	.020	12.5±3.46	-18.51	.001	52.91±17.05	12.871	.010
Dental Students (n=75)	26.67±2.13			21.75±2.60			43.29±16.86		

## DISCUSSION

Academic performance as well as satisfaction of treatment get affected by both emotional exhaustion and perceived stress among dental and medical students and emotional exhaustion. These are the main triggers of additional mental and psychological disorders, for instance anxiety, resulting in higher drop-out ratio as well as increased risk of suicidal ideation.<sup>24</sup>

The main aim of the study was explore the difference between the level of perceived stress, emotional exhaustion and burnout among 4<sup>th</sup> year students of private dental and medical colleges in Lahore. Reason for including 4<sup>th</sup> year students was the exposure at both academic and clinical level. The unique feature of the current study was that participants differentiate from other health care professionals as the students were from private medical and dental colleges who were living in Lahore. However, this medical and dental population may have familiarity with stress due to numerous reasons, for instance, little or no free time, working under close supervision, or academic pressure as well as peer pressure of getting good grades.

The findings of current study is in line with the findings of other studies that showed a higher incidence rate of stress among students of health care professions.

Limitation of the study are small sample size and the presence of continuous and common factors associated with stress.<sup>25</sup>

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