



## SELF-CONCEPT, EMOTIONAL REGULATION AND MENTAL HEALTH PROBLEMS IN MEDICAL AND DENTAL UNDERGRADS

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### ABSTRACT

The present study aimed to find out the relationship between Self-Concept emotional regulation and mental health problems in medical and dental final year undergrads. Data was collected from medical universities. Sample was consisted of 300 medical and dental students. Cross-sectional research design along with non-probability purposive sampling technique was used to collect data from participants by using three tools i.e. Self-Concept Scale (SCS) (Hussain & Rizvi, 2015), Emotional Regulation Scale for students (ERSS) (Durrani & Mahmood 2016), and Depression Anxiety and Stress (DASS-21; Lovibond & Lovibond 1995). The results revealed that positive self-concept has significant negative relationship with mental health i.e. Depression Anxiety and stress. It also revealed that negative self-concept and emotional dysregulation are positive predictors of mental health problems whereas positive self-concept and emotional regulation are negative predictors of mental health problems.

Keywords: Self-concept, Emotional Regulation, Mental Health problems

### Introduction

Choosing a career is a difficult choice for many students. The most difficult thing to have a secure idea is what you want to do or become. Many students have dream of becoming a doctor and serving their nation. Medicine and dentistry both careers are motivated by service. From the start they are taught to put others first. Medical education and dentistry place a significant demand on their students which leads them to several mental health issues like stress, anxiety depression (Dyrbye et al, 2012). The journey through medical school is a stressful and challenging task. High level of stress is seen in medical students as well as dental students. Regardless of having easy facilities to healthcare centers, medical students are often unwilling to hunt for help of their mental health issues (MacLean et al., 2016). Becoming a doctor requires many years of education. Medical and dental students have a very tough routine. They have to fulfill demand of their course. Medical students are pressured with incredible amount of information. Self-concept is typically understood as our unique perceptions of our own conduct, skills, and distinguishing qualities. It is essentially a mental representation of who you are. When people are younger and still undergoing the process of self-discovery and identity construction, their self-concepts are more prone to change. Self-perceptions significantly improve with age as people have a greater understanding of who they are and what is important to them (Cherry, 2018). Self-concept is the individual's belief on himself that based upon his perception of attributes. The self-concept is the sum of a composite, organized and dynamic system of learned beliefs, attitudes and opinions that each person holds to be true about his or her private and particular existence (Yahaya, 2009). The self-concept includes 3 additives; self-worth, self-picture and perfect self. (McLeod, 2007).

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Although there is typically a favorable correlation between academic success and self-concept, it seems that high achievement is more of an effect than a cause. This shows that improving students' academic performance rather than vice versa is a more effective way to improve their self-concept (Baumeister et al., 2003). Positive self-concept can also help in regulating your emotions. Emotions are part of our everyday lives. Everyone experiences emotions differently. For some emotions are feelings of overwhelmed and for some frustrated or guilt.

Emotion regulation is defined as how effectively a person can respond and act in an emotional situation. Everyday everyone unconsciously uses emotional regulation techniques to deal with difficult situation in their lives. Many of us use emotional regulation techniques to meet the demand of their problematic situation (Rolston & Lloyd-Richardson, 2018). The most important thing is that the emotions not focused to behave in specific situation in certain way however they make it more likely to do so. As the ability to regulate the emotions makes it different in different situations as when the people get afraid sometimes they reacts strangely but not all the times as like when the people gets angry sometimes they reacts like showing outburst anger but not all the time and when they get happy they express their feeling towards other but not all the times as sometimes they prefer to make it confidential or save it for another situation (Gross, 2002). Emotional regulation is not something we are born with. When a baby is born they don't have any emotional regulation skills. They moods swing like a pendulum. We learn it with our everyday situations (Schore, 2015).

Mental health is a state in which an individual knows about his/her own abilities, knowing certain ways to deal with the daily life stressors, and is enabled to work adequately. Mental health is the most important part of the health (Auerbach, 2018). Both mental and physical health is important but it is difficult to recognize that a person is going through mental illness which can ultimately leads to physical illness such as if individual is continuously going through mental illness as a state of depression, anxiety this can lead to physical problems like stroke or heart attack (Seixas, 2018). Mental health issues can make it difficult for a person to perform well in their daily life such as at school or at home or at their universities or some workplace. Mental health issues have great influence on one's thoughts, emotions and behavior's. There are certain reasons behind mental health issues, it can be either genetics or there could be certain environmental factors involved.

### **Aim of Study**

- The current study aims to find relationship among self-concept, emotional regulation and mental health problems of dental under grates and medical students.

### **Hypotheses of Study**

- Positive self-concept and emotion regulation would have negatively correlated with depression, anxiety and stress.
- Medical students would have higher self-concept as compared to dental undergraduates.

### **Method**

This study was conducted to find out the relationship between self-concept, emotional regulation and mental health problems of dental and medical students. Informed consent was taken from the students. The participants were ensured that their data will be kept confidential. Participants were selected on the basis of inclusion criteria specifically final year university students. The correlational research design along with non-probability purposive sampling technique was used to collect data from the participants to find out the relationship among study variables. Data was collected from 300 university students and data was divided into two categories i.e. 150 from medical university students and 150 from dental students. Demographic information was gathered such as age, gender, residence, and family system.

**Self-concept Scale** (Hussain & Rizvi, 2015), was used to figure out the self-concept of the students and it comprises of 38 items with two sub-scales i.e. positive self-concept and negative self-concept. The positive self-concept consisted of 22 items and these items explained the positive aspect of self-concept of the individuals. The negative self-concept consisted of 16 items and these items explained the negative aspect of self-concept of the individuals. The response options were based on 5-point Likert scale. The reliability of this scale is .88.

**Depression, Anxiety, Stress Scale (DASS)**. DASS was used to check mental health problems in medical and dental students and it was developed by Lovibond and Lovibond in (1995). DASS included 21 items and the participants had to rate each item on the level of severity of the problem on four-point rating scale. The reliability of this scale is .90.

**The emotion regulation scale** (Durrani & Mahmood 2016), was used to find the emotion regulation between medical and dental students. This scale consisted of 50 items and based on two factors such as emotion dysregulation and second one is emotion regulation. The response options were based on 4-point rating scale. The reliability of this scale is .83.

**Results**

**Table 1**

Pearson Correlation, Mean and Standard Deviation on Self-concept, Emotion Regulation and Mental Health (N=300)

Variable	1	2	3	4	5	6	7	8
1. PSC	-	-.42***	-.07	.39***	-.25**	-.28**	.27**	-.25**
2. NSC	-	-	.38***	-.20*	.20*	.28**	.29**	.30**
3. ED	-	-	-	.16	.39***	.31***	.46***	.47***
4. ER	-	-	-	-	-.26**	-.29**	-.32***	-.25**
5. Depression	-	-	-	-	-	.53***	.64***	.87**
6. Anxiety	-	-	-	-	-	-	.54***	.79**
7. Stress	-	-	-	-	-	-	-	.88**
<i>M</i>	58.59	32.27	34.82	39.96	7.16	6.25	8.32	21.73
<i>SD</i>	13.07	7.83	10.02	10.34	3.69	2.89	3.78	8.79

*Note.* PSC= Positive Self-concept, NSC= Negative Self-concept, ED= Emotion Dysregulation, ER= Emotion Regulation, \*=  $p < .05$ , \*\*= $p < .01$ , \*\*\*= $p < .001$

The results in above table showed that positive self-concept has significant negative relationship with mental health i.e. depression, anxiety and stress as  $p < .01$  indicating that increase in positive self-concept leads to less mental health problems. Along with this, values in above table showed that negative self-concept has significant positive relationship with mental health i.e. depression, anxiety and stress as  $p < .01$  indicating that increase in negative self-concept leads to increase mental health' problems. Moreover, emotion dysregulation has highly significant positive relationship with mental health i.e. depression, anxiety and stress as  $p < .001$  indicating that increase in emotion dysregulation leads to increase mental health problems. Likewise, emotion regulation has significant negative relationship with mental health i.e. depression and anxiety as  $p < .01$  whereas highly significant negative relationship with stress as  $p < .001$  indicating that increase in emotion regulation leads to decrease mental health problems.

**Table 2**

Multiple Regression Analysis of Gender, Self-concept and Emotion Regulation with Mental Health Issues in Medical and Dental Undergraduates (N=300)

Variable	<i>B</i>	<i>SEB</i>	$\beta$	<i>t</i>	<i>p</i> <
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**Step I ( $R^2 = .20, \Delta R^2 = .03$ )**

Gender	3.42	1.02	0.19	3.35	.001***
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**Step II ( $R^2 = .37, \Delta R^2 = .11$ )**

Positive self-concept	0.06	0.04	0.08	1.35	.179
Negative self-concept	0.37	0.07	0.33	5.45	.001***

**Step III ( $R^2 = .57, \Delta R^2 = .29$ )**

Emotion Dysregulation	0.34	0.04	0.47	8.35	.001***
Emotion Regulation	-0.25	0.05	-0.29	-5.28	.001***

*Note.* \*\*\* $p < 0.001$

Values in above table showed that gender is the predictor of mental health problems in medical and dental undergraduates. Moreover, in model II, negative self-concept is the significant positive predictor of mental health problem. Whereas, multiple regression analysis showed that variables in model II are the highly significant  $p = .001$  which is  $p < .001$  predictors of mental health problems. In model III, emotion dysregulation is the positive predictors of mental health problems as  $p = .001$  which is  $p < .001$ . Emotion regulation was found to be negative predictor of mental health problems.

**Table 3**

Independent Sample t-test for Self-concept and Degree Program in Medical and Dental Students (N=300)

Variable	Degree	M	SD	t	p	Cohen's d
PSC	Medical	61.75	12.42	4.32	.001***	.49
	Dental	55.42	12.98			
NSC	Medical	31.52	7.99	1.67	.096	.19
	Dental	33.03	7.61			

*Note.* M= Mean, SD= Standard Deviation, \* $p < 0.05$  \*\* $p < 0.01$  \*\*\* $p < 0.001$

The values in above table showed that positive self-concept had highly significant difference in degree program in form of medical and dental students as  $p < .001$ . Means of degree program showed that positive self-concept is higher in medical students (M=61.76, SD=12.42) as compared to dental students (M=55.42, SD=12.98). Moreover, there was non-significant difference in medical and dental students on the basis of negative self-concept.

**Table 4**

Independent Sample t-test for Gender and Mental Health in Medical and Dental Students (N=300)

Variable	Gender	M	SD	t	p	Cohen's d
Depression	Males	6.67	3.55	2.26	.024*	.18
	Females	7.63	3.78			
Anxiety	Males	5.93	2.95	1.87	.026*	.22
	Females	6.55	2.81			
Stress	Males	7.34	3.54	4.45	.001***	.52
	Females	9.23	3.78			

*Note.* \* $p < .05$ , \*\*= $p < .01$

Values in above table showed that there was difference in mental health problems i.e. depression, anxiety and stress on the basis of gender. Results revealed that females experience more depression, anxiety and stress as compared to males.

**Discussion**

The purpose of the current study was to explore how self-concept, emotion regulation plays a role in mental health problems of medical and dental undergrads.

The present study hypothesized that there would be negative relationship between self-concept, emotion regulation and mental health problems in undergrads. Results showed that increase in positive self-concept can have less mental health problems. As you have positive self-concept you will feel worthy of yourself and a person having emotion regulation knows how to react in a certain situation. Negative self-concept will lead towards mental health problems. Likewise, previous literature indicates that having positive self-concept and emotion regulation makes you less stressful. Self-concept also helps in shaping your career and personality. In academic and professional life there are many hurdles in which a person should have active self-concept and emotionally regulated. This helps them to function accurately and maintain a balance life (Yeung et al., 2014)

Findings of the current study showed that negative self-concept and emotion dysregulation are positive predictors of mental health problems whereas positive self-concept and emotion regulation are negative predictors of mental health problems. Literature shows that negative self-concept leads to self-doubt that they are not good enough for medicine and they feel incompetent which results in anxiety as we all know that anxiety is one of the components of mental health problems. Due to having worthless thoughts about oneself, one starts to feel uneasy all the time because of this they aren't able to manage their emotions at any given situations and consequently a person faces mental health problem. In contrast, students who have positive self-concept and feel good about themselves, they regulate their emotions well and don't have any mental health problems.

Current study makes a notion that medical students would have higher self-concept as compared to dental undergrads. Results indicated that positive self-concept is higher in medical students as compared in dental undergrads. It is seen in our culture that people prefer medical over dentistry. Parents are first educators of their children. They build foundation of their children. They support and motivate them. Appreciation and moral support of a parent is an important ingredient in every child successful life. In our society/culture parents insist children to study medical but dentistry. From the beginning they are being told to study medical and become a doctor. They are motivated and reinforced when they get admission in medical so their positive self-concept gets higher and they feel superior.

Further it was hypothesized that here would be no difference in medical and dental undergrads in experience of depression, anxiety and stress. Results also specified that there is difference in experience of depression, anxiety and stress. In past literature it is demarcated that medical and dental students experience same levels of depression, anxiety and stress because they both are overloaded with tremendous amount of information and work and they get little time to memorize it. So, they get disappointed they can't do well in exams because they got less time to memorize all the things they have learned and they get feeling of inability sometimes.

Furthermore, present study postulated a notion about gender that female undergrads will experience more mental health problems as compared to male undergrads. Results of the current study showed that female undergrads experience more depression, stress and anxiety as compared to male undergrads. In the past research was done between female and male medical and dental students to check stress level. Female students are more likely to deal with stress than male undergrads. Female students reported that they feel pressurized all the time because of work or exams. Women report more physical and emotional symptoms than men for example headache, indigestion, sweating, anger and abdominal pain. It is also concluded that mental distress can affect their clinical practice and educational process (Backović et al., 2012).

### Future Suggestions

- For increasing the generalizability, data must be collected from different cities in Pakistan and private universities and compare them for better understanding of mental health of medical and dental students.
- Sample size should be large to generalize the results to large population.

### Conflict of Interest

Author has declared no any conflict of interest.

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