



Burnout Syndrome among Medical Students of University of Kerbala: Prevalence and associated factors, 2020.

A thesis

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَقَالُوا الْحَمْدُ لِلَّهِ الَّذِي أَذْهَبَ عَنَّا الْحَزْنَ إِنَّ رَبَّنَا
لَغَفُورٌ شَكُورٌ

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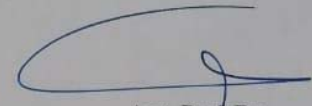


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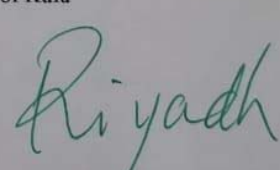


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Dedication

I dedicate my thesis to, my parents, my husband, my son, my brother and my sister for their continuous help and support.

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First and most praise to Allah, the Lord at all that be, the merciful, for assisting and guiding me to complete this work.

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List of Contents

Subject	Page No.
Dedication	I
Acknowledgement	II
List of Contents	III
List of Tables	IV
List of Figures	V
List of Abbreviations	VI
Abstract	VII
Chapter one Introduction	1-8
Chapter Two Subjects and Methods	9 - 12
Chapter Three Results	13 - 18
Chapter Four Discussion	19 - 23
Chapter Five Conclusion and Recommendation	24 - 25
References	26 - 35

List of Tables

Table No.	Title	Page No.
3.1	Socio-demographic characteristics of students from college of medicine, Kerbala University	14
3.2	Frequency and Percentage Distribution of Responses on MBI-SS	15
3.3	Prevalence of burnout syndrome among students from college of medicine, Kerbala University according to the subscales:	16
3.4	Association between three-dimensional burnout Syndrome diagnosis and Socio-demographic characteristics of students from college of medicine, University of Kerbala (N=424)	18

List of Figures

Figure No.	Title	Page No.
1	The prevalence of burnout Syndrome (tridimensional diagnostic criteria for Burnout Syndrome) among students from college of medicine, Kerbala University.	17

List of Abbreviations

CY	Cynicism
e-learning	Electronic learning
EX	Emotional Exhaustion
HSS	Human Services Survey
KMC	Kerbala Medical College
MBI	Maslach Burnout Inventory
MBI-GS	Maslach Burnout Inventory - General Survey
MBI-SS	MBI-Student Survey
OLBI	Oldenburg Burnout Inventory
PBL	Problem-based Learning
PE	Professional Efficacy

Abstract

Background: Burnout Syndrome is common among medical students. Throughout their training, medical students are frequently exposed to psychosocial stresses that, if not managed, can lead to Burnout Syndrome.

Objectives: To estimate the prevalence of burnout Syndrome among medical students in Kerbala Medical College and its associated factors.

Subjects and Methods: An analytic cross-sectional study. A sample of 424 students from all academic years from the College of Medicine, University of Kerbala was approached. Data collection was conducted from June 11 to July 3, 2020, through a self-administered online questionnaire based on the Maslach Burnout Inventory Student Survey (MBI-SS). The MBI-SS included 15 questions with a 7-point rating ranging from 0 (never) to 6 (always). The tool measures three subscales: emotional exhaustion (5 questions), Cynicism (4 questions), and professional efficacy(6 questions).

Results: The prevalence of burnout syndrome among medical students was 38.2%. About 85.6% of students had high emotional exhaustion, 77.8% had high cynicism, and 32.5% exhibited low professional efficacy. Female gender, chronic use of drugs, and family history of mental diseases were associated with significantly high rates of burnout Syndrome.

Conclusions: Burnout Syndrome is prevalent among medical students of the University of Kerbala with quite high levels of emotional exhaustion and cynicism, and lower professional efficacy levels.

Chapter One

Introduction

Definition and Conceptualization of burnout Syndrome

Burnout Syndrome was introduced by psychologists Herbert Freudenberger and Christina Maslach in the mid-1970s to describe the experience of being physically and emotionally drained as a result of extended stress (Amy and MaiLan, 2013, El-Masry et al., 2013).

Thereafter burnout Syndrome was identified by Christina Maslach as a condition marked by emotional exhaustion, depersonalization, and a low sense of personal accomplishment (Attenello et al., 2018).

Emotional exhaustion is expressed as emotional depletion from being overstressed, depersonalization is a feeling apathy towards patients or peers (often negative, callous and detached responses), and decreased professional efficacy, a diminished self - efficacy or accomplishment (Chin et al., 2016).

A person exhibiting emotional exhaustion feels overworked and has reached their coping limitations without any source of replenishment and recuperation (Ofeidodoo et al., 2019). Burnout Syndrome causes people to become emotionally drained, cynical about their employers and clients, ineffective in their jobs, and unsatisfied with their employment in general (Mazurkiewicz et al., 2012).

Maslach spent the next 40 years studying and defining burnout Syndrome , eventually developing the Maslach Burnout Syndrome Inventory (MBI)-Human Services Survey (HSS), which is now regarded the gold standard measure (Bridgeman et al., 2018).

Early burnout Syndrome studies was descriptive and qualitative, focusing on the job's interpersonal context, the individual's emotions as well as the motivations and values that underlie the work with client. Burnout Syndrome research grew more

rigorous in the 1980s, and quantitative data was collected through questionnaires and surveys (Leiter et al., 2014).

Students' main responsibilities are structured, obligatory and focused toward specific objectives, such as passing tests and earning a degree (Liu et al., 2018). Academic burnout Syndrome was defined as being exhausted by the pressures of study, displaying a detached, disinterested attitude toward learning, and feeling incompetent as a student (del Carmen Pérez-Fuentes et al., 2020).

The Maslach Burnout Syndrome Inventory

There are two commonly used tools for determining burnout Syndrome among medical students: MBI and Oldenburg Burnout Syndrome Inventory (OLBI)(Wani and Qazi, 2019)

The MBI is the standard method for evaluating burnout Syndrome and the most widely used self-completion questionnaire for evaluating burnout Syndrome, since it has higher validity and reliability when it comes to the numerous components of the condition than other, less prevalent tools (Rodrigues et al., 2018, Ishak et al., 2013).

The MBI-General Survey (MBI-GS) in an academic environment, also known as the MBI-Student Survey(MBI-SS), has traditionally been used to measure academic burnout Syndrome syndrome (Hederich-Martínez and Caballero-Domínguez, 2016). The MBI-SS is a modified version of the MBI-GS, which was created by Schaufeli, Leiter, Maslach, and Jackson in 1996 and adjusted for use on students in 2002 (Çapri et al., 2013).

The MBI-SS included 15 questions with a 7-point frequency rating scale ranging from 0 (never) to 6 (always), as well as three subscales: emotional exhaustion (5 items), depersonalization (4 items), and professional efficacy (6 items) (Puranitee et al., 2019).

The MBI-SS might be utilized as a useful screening tool for assessing burnout Syndrome across various student population due to its brevity, convenience of administration, and sound psychometric features (Wickramasinghe et al., 2018).

The MBI-SS has been translated into a variety of languages, including French, Serbian, Spanish, German, Japanese, and Korean, indicating its widespread use (Pérez-Mármol and Brown, 2019).

Student burnout Syndrome

Kafry and Pines were the first to describe student burnout syndrome ; they defined it as a syndrome characterized by a loss of interest in studies, a lack of motivation, and exhaustion (Pines et al., 2018). Student's burnout syndrome refers to a feeling of exhaustion caused by study pressures, a cynical and detached behavior toward one's studies, and a sense of inadequacy as a student (Yavuz et al., 2014).

Students' health is affected by chronic stress, and those who are under a lot of stress are at risk of burnout Syndrome (Ezenwaji et al., 2019). Burnout Syndrome has been related to drug abuse and an increased risk of suicidal ideation in students (Fares et al., 2016).

Medical student burnout Syndrome

Burnout Syndrome, depression, exhaustion, stress, and quality of life, both mental and physical, are all aspects of medical student distress (Hansell et al., 2019). Mistreatment of medical students (which can cause burnout Syndrome) was first documented in 1982 by Henry Silver, who spotlighted its similarities to child abuse (Cook et al., 2014). Burnout Syndrome is common among medical students, according to several research conducted throughout the world (Almalki et al., 2017, Altannir et al., 2019, Farrell et al., 2019, Ilic et al., 2017, Obregon et al., 2020)

Throughout their training, medical students are frequently exposed to psychosocial stresses, if not managed, can lead to Burnout Syndrome Syndrome (Costa et al., 2012, El-Masry et al., 2013).

Previous researches have indicated that medical students had higher rates of stress, depression, and anxiety than the general population. Some researches have also revealed that medical students had a higher risk of burnout Syndrome than their peers in other colleges (Dyrbye et al., 2014, Farrell et al., 2019).

According to the literature review and meta-analysis research, professional burnout Syndrome prevalence rates ranged from 7% to 75.2%, depending on country-specific characteristics, applied tools, and burnout Syndrome symptomatology cutoff criteria (Erschens et al., 2019).

Despite that most researches concentrate on medical residents and practicing physicians, stress and burnout Syndrome can begin as early as the first year of medical college, continue through residency, and peak during a physician's daily practice (Fares et al., 2016).

Associated factors and Consequences of burnout syndrome among students

The contributing elements for student burnout syndrome were identified as external (college workload and environment) and internal (personality); their mutual interactions were also thought to be essential in the development of burnout syndrome (Györfy et al., 2016).

Adaptation challenges, transfer from pre-clinical to clinical stage, heavy workload and high educational demands, and restricted time for friends and family are all issues that might contribute to burnout syndrome among medical students (Kumar et al., 2018).

Burnout syndrome is caused by a variety of factors in medical education; educators and students feel that the curriculum should be extremely rigorous, demanding personal commitment of time and resources (Lee et al., 2020).

Burnout syndrome among medical students has been related in several studies to negative outcomes such as depression, suicidal thoughts, thoughts of dropping out of medical college, and other major mental health difficulties (Guang et al., 2020).

Increased years of learning, multiple negative life events, stress, feelings of having limited control over life, poor peer relationships and support from friends, lower exercise levels, smoking cigarettes, gender, and increased alcohol consumption were all associated with burnout Syndrome among medical students (Haile et al., 2019, Cecil et al., 2014).

Academic burnout syndrome has a detrimental impact on students' subjective well-being, psychology, and physiology, as well as those around them (Sharif Shad et al., 2017). It also promotes unhealthy habits such as smoking, drinking alcohol, and a lack of physical exercise and lowering one's quality of life (Choi et al., 2019).

Medical curriculums and burnout Syndrome

The grading system and peer interaction are considered as a curriculum-related aspects linked to burnout syndrome (Vidhukumar and Hamza, 2020).

Recent revolutionary changes in medical college curriculum and teaching approaches in Iraq represent a new challenge to students contemplating medical school as well as those already studying within the traditional six-years medical system (Jawad et al., 2020, Al-Shamsi, 2017). The reasons for Iraqi schools' major curricular modifications are not universally understood by the present students (Jawad et al., 2020).

There are three kinds of curriculum now being used at Iraq's twenty-five medical colleges. The first strategy (Teacher Centered) is based on distinct scientific and

clinical subjects (the Subject Based Curriculum); the other two ways (based on students) are the integrated curriculum and the problem-based (problem-based approach Learning) (PBL)(Ghanim and Omar Mustafa, 2018). Kerbala Medical College implemented a 6-year undergraduate PBL program in the 2013/2014 academic year to enhance integrated system-based approach training (Jobori et al., 2016).

Major curriculum changes, like in most countries, have the potential to cause worry or confusion among students and teachers, at least briefly, because there is frequently no other framework with which to assess the efficacy of new quality improvement measures (Jawad et al., 2020).

Challenges to Online Medical Education during the COVID-19 Pandemic

The pandemic of corona is a major learning obstacle for medical students, as well as a possible stressor that has a significant impact on their psychological well-being (Abdulghani et al., 2020).

A rising number of universities and learning institutions are transitioning from conventional (face-to-face) learning styles to online education or a mixture of online and conventional learning styles (Rajab et al., 2020).

Decreased exposure to clinical courses combined with the postponement or deletion of attachments and electives will have a significant influence on medical education, specifically for final-year medical students who are supposed to obtain specific defined competences and skills before beginning their careers (Ahmed et al., 2020). This is another difficulty that the health-care system will encounter in the next months and years (Samarraee, 2020).

The implementation of novel methods of delivering learning to medical students has been prompted by the coronavirus pandemic; lectures have been

evolved rapidly to be provided on line as webinars using different programs such as Zoom, with such technologically advanced strategies already demonstrating high levels of engagement with medical students(Sandhu and de Wolf, 2020). Additionally, examination methods have changed as a result of the shift to online medical education (Sandhu and de Wolf, 2020).

Some of the limitations with online education include: teachers not being technology friendly, a lack of interactive learning, frequent distraction, and technical difficulties are all common problems (Verma et al., 2020).

Some of the important issues of university life, such as friendships, self-identity development, variety exposure and self-care skills, will be much more difficult to achieve in a purely online' environment(Torda et al., 2020).

Management and prevention

Early detection of the burnout Syndrome syndrome might be an effective approach for preventing and/or reducing the syndrome's impacts, such as exhaustion, incredulity, and a sense of poor professional efficacy, which might extend to the defining of the professional profile (Campos et al., 2013). If medical students will be to successfully complete medical school and proceed into their postgraduate specialty training, it is becoming more recognized that they must preserve their motivation for learning and well-being (Lyndon et al., 2017).

There are two approaches to overcoming burnout Syndrome : individual and organizational. Some researchers used individual approach, identifying the mismatches that led to their burnout Syndrome and then enlisting the help of their colleagues and institutions to correct those mismatches (Maslach and Leiter, 2016).

Task value and self-efficacy motivation are positively linked to student motivation and course testing scores, according to a study done by Park et al., found a link between stress, academic motivation and accomplishment (Park et al., 2012).

It is necessary for medical schools to ensure that they have adequate support and interventions for students who may experience greater stress and emotional discomfort during their studies (Farrell et al., 2019). With this in mind, our goal is to better characterize the wellbeing of among medical students in KMC.

The objective of the current study is:

To estimate the prevalence of burnout syndrome among medical students in Kerbala Medical College and its associated factors.

Chapter Two

Subjects and Methods

Study design, setting and time:

This cross-sectional study was conducted from college of medicine, Kerbala University, Karbala, Iraq. The participants were medical students from all years. Data collection was conducted from June 11 to July 3, 2020.

In 2004-2005, Kerbala Medical College (KMC) was established. Since then, most Iraqi medical institutions, including KMC, have followed the old UK learning style with a defined curriculum that includes knowledge, medical basic, medical communication, medical ethics, essential diagnostic and interventional clinical skills, and medical documentation (Al Helli, 2010).

Sample size

According to Fisher's formula for determination of sample size (Jaykaran and BiswasTamoghna, 2013)

$$n = Z^2 P (1-p)/d^2 \quad , \quad n = \text{sample size}$$

Z= 1.96 which is the corresponding value for the 95% confidence interval

P= prevalence of burnout Syndrome among medical students

d= the degree of precision was at 0.05 at 95% confidence interval

Anticipated prevalence of burnout Syndrome among medical students = 50 %

$$\text{Sample size} = \frac{(1.96)^2 * 0.5 * (1-0.5)}{(0.05)^2} = \frac{0.9515}{0.0025} = \mathbf{380}$$

Supposing the non-response rate, 10% of sample size was added, so, the minimum required sample size was 380+38 =418 students and a total number of 424 students were enrolled in the current study.

Sampling technique and questionnaire form

A self-administered online questionnaire using Google form was developed. Then it was distributed as a link to the student representatives of each stage who shared it with all (1016) other students through the telegram groups which were already formed for each stage academic year and requesting their voluntary participation. The survey took about 3 weeks to complete. The survey took about 8-10 minutes for one participant to be completed. The questionnaire (appendix) has been prepared. It was in English form then translated to Arabic one. It has been evaluated by two specialists in family medicine and psychiatry (the supervisors).

The questionnaire consisted of 2 parts.

- ❖ The first part contains socio-demographic characteristics like gender, age, marital status, residency, academic stage, smoking habit and type of smoking, exercise habit, daily sleep hours, chronic use of drugs, and family history of psychological disorders. Where to maintain maximum health, adults should sleep 7 or more hours every night regularly (according to American Academy of Sleep Medicine and Sleep Research Society). And regular exercise can improve anxiety, tension, and a general sense of well-being. (Panel et al., 2015, Bull et al., 2020).
- ❖ The second part of the questionnaire included Maslach Burnout Syndrome Inventory -Student Survey(MBI-SS). The Arabic version that was previously used and validated by other studies. It is a modified version of the Maslach Burnout Syndrome Inventory -General Survey (MBI-GS), which had been adjusted for use on students and become the classically used tool to measure academic burnout Syndrome syndrome(Çapri et al., 2013, Hassanein and Ibrahim, 2017)

The MBI-SS includes 15 questions that conform to three scales: Emotional Exhaustion (5 questions), Cynicism (4 questions), and Professional Efficacy (6 questions). The MBI-SS questions are scored by students on a 7-point scale, based on their indicated frequency,

ranging from 0 to 6. Where 0: never, 1: a few times a year, 2: monthly, 3: a few times a month, 4: weekly, 5: a few times a week, and 6: every day (Maslach et al., 1997).

The authors used similar classification of other studies for burnout Syndrome diagnosis. Students were identified as exhibiting burnout Syndrome (high level) if their scores were more than 14 for emotional exhaustion and cynicism (score >6) while low for professional efficacy (score <23). These results matched the 66th percentile of exhaustion and cynicism, as well as the 33rd percentile of efficacy. Low burnout Syndrome level indicated emotional exhaustion (<10) cynicism (<2), and efficacy (scores >27). A moderate level of burnout Syndrome was identified according to the following scores: emotional exhaustion (10-14), cynicism (2-6) and professional efficacy (23-27) (Calcides et al., 2019, Costa et al., 2012)

The internal consistency for the total items in the MBI-SS was 0.76 for 15 items. The internal consistency for the subscales were 0.75 (Cronbach's $\alpha = 0.75$) for the 5 items measuring emotional exhaustion, 0.8 (Cronbach's $\alpha = 0.8$) for the 4 items measuring cynicism, and 0.73 (Cronbach's $\alpha = 0.73$) for the 6 items measuring professional efficacy.

Pilot study

The clearance and time needed to complete the questionnaire was assessed by a pilot study, the study was involved 20 medical students. It's not involved in the analysis of data. This study showed that students had no difficulty in understanding and completing the questionnaire.

Ethical Considerations

This study is a part of a research approved by the ethics committee of the faculty of college of medicine, university of Kerbala. All participation were entirely voluntary, and the participants were able to respond at their convenience and time. Privacy was ensured, and whoever agreed to participate and give the viewpoint about the online learning class.

Statistical analysis:

Data analysis was done using SPSS version 24 computer software (statistical package for social sciences), categorical variables were presented as frequencies and percentages.

Binary logistic regression was used to assess the association between burnout Syndrome and students' variables. All predictor variables were tested in one block to assess their predictive ability.

Adjusted odds ratios (AOR) and 95% confidence intervals (95% CI) were calculated. A p-value of less than 0.05 was considered statistically significant throughout the analysis.

Chapter Three

Results

Description of the Sample

A total of 424 students were approached in the study, with an average age of (20.74±2) year, with a range (18_33) years, 145(34.2%) of them were within age group ≥ 22 years, 295 (69.6%) of them were females, 402 (94.8%) were singles, 313 (73.8%) were from Karbala, and 392 (92.5%) were nonsmokers.

About 221 (52.1%) of the students reported lower frequency of exercise (never or rarely), and 318 (75%) of them had adequate period of sleep hours (≥ 7 hours (hrs.))

Other characteristics are shown in table 3.1

The descriptive statistics for MBI-SS burnout Syndrome dimensions :

The mean score for 5 items emotional exhaustion was 23.21 ± 7.09 with range of 0 to 30, while the mean score for four item cynicism was 13.86 ± 7.74 with rang of 0 to 24. The mean score for 6 items professional efficacy was 22.38 ± 8.90 with rang of 0 to 36 as shown in table 3.2

Table 3.1: Socio-demographic characteristics of students from college of medicine, University of Kerbala (N=424)

Characteristics		Number N =424	Percentage %
Age\ Years Mean \pm SD: (20.74 \pm 2) Range (18 33)	18-19	142	33.5
	20-21	137	32.3
	\geq 22	145	34.2
Gender	Male	129	30.4
	Female	295	69.6
Marital status	Single	402	94.8
	Married	19	4.5
	Separated/divorced	3	0.7
Residence	Kerbala	313	73.8
	Others	111	26.2
Stage of study	First	163	38.4
	Second	62	14.6
	Third	58	13.7
	Fourth	57	13.4
	Fifth	35	8.3
	Sixth	49	11.6
Smoking status	Smoker	30	7.0
	Non smoker	392	92.5
	Ex-Smoker	2	0.5
Exercise habit per week	Never	63	15
	Rarely	158	37.3
	some times	170	40.1
	always	33	7.8
Daily Sleep hours	<7 hrs.	106	25.0
	\geq 7 hrs.	318	75.0
chronic use of drugs	Yes	56	13.2
	No	368	86.8
Family history of mental diseases	Yes	36	8.5
	No	388	91.5

Table 3.2. Frequency and Percentage Distribution of Responses on MBI-SS

MBI-SS	Responses							Min.	Max.	Mean (SD)
	Every day	A few times a week	Weekly	A few times a month	Monthly	A few times a year	Never			
Emotional Exhaustion	N %	N %	N %	N %	N %	N %	N %			
1. I feel emotionally drained by my studies.	182 42.9%	100 23.6%	43 10.1%	36 8.5%	28 6.6%	28 6.6%	7 1.7%	0	30	23.21 (7.09)
2. I feel used up at the end of a day at university.	212 50.1%	98 23.1%	31 7.3%	36 8.5%	18 4.2%	18 4.2%	11 2.6%			
3. I feel tired when I get up in the morning and I have to face another day at the university.	243 57.3%	89 21%	16 3.8%	30 7.1%	11 2.6%	18 4.2%	17 4%			
4. Studying or attending a class is really a strain for me.	168 39.6%	115 27.1%	24 5.7%	41 9.7%	22 5.2%	29 6.8%	25 5.9%			
5. I feel burned out from my studies.	186 43.9%	84 19.8%	25 5.9%	49 11.6%	27 6.4%	26 6.0%	27 6.4%			
Cynicism										
6. I have become less interested in my studies since my enrollment at the university.	177 41.7%	61 14.4%	22 5.2%	48 11.3%	21 5.0%	32 7.5%	63 14.9%	0	24	13.86 (7.74)
7. I have become less enthusiastic about my studies.	190 44.8%	68 16%	32 7.5%	42 9.9%	21 5.1%	29 6.8%	42 9.9%			
8. I have become more cynical about the potential usefulness of my studies.	98 23.1%	52 12.3%	18 4.2%	29 6.8%	20 4.8%	40 9.4%	167 39.4%			
9. I doubt the significance of my studies.	121 28.5%	52 12.3%	28 6.6%	33 7.8%	32 7.5%	52 12.3%	106 25%			
Professional Efficacy										
10. I can effectively solve the problems that arise in my studies.	110 26%	110 26%	57 13.4%	67 15.8%	15 3.5%	34 8%	31 7.3%	0	36	22.38 (8.90)
11. I believe that I make an effective contribution to the classes that I attend.	70 16.5%	81 19.1%	30 7.1%	78 18.4%	26 6.1%	34 8%	105 24.8%			
12. In my opinion, I am a good student.	72 17%	80 18.9%	43 10.1%	71 16.7%	38 9%	37 8.7%	83 19.6%			
13. I feel stimulated when I achieve my study goals.	165 39%	92 21.7%	37 8.7%	46 10.8%	18 4.2%	32 7.5%	34 8.1%			
14. I have learned many interesting things during the course of my studies.	170 40.1%	89 21%	50 11.8%	51 12%	20 4.7%	24 5.7%	20 4.7%			
15. During class I feel confident that I am effective in getting things done.	99 23.3%	105 24.8%	36 8.5%	55 13%	23 5.4%	31 7.3%	75 17.7%			

Prevalence of burnout Syndrome syndrome

Emotional exhaustion, cynicism, and professional efficacy categories had been used to classify burnout Syndrome scales. As a result of this classification, 85.6% of students were classified as having high emotional exhaustion, 77.8% as having high cynicism, and 32.5% as exhibiting low professional efficacy as shown in table.3.3

Table 3.3: Prevalence of burnout Syndrome syndrome among students from college of medicine, Kerbala University according to the subscales:

Burnout Syndrome syndrome subscales and levels with scores*	Number N=424	Percent (%)
MBI Emotional Exhaustion		
Low (0-9)	24	5.7%
Moderate (10-14)	37	8.7%
High (>14)	363	85.6%
MBI Cynicism		
Low (0-1)	31	7.3%
Moderate (2-6)	63	14.9%
High (>6)	330	77.8%
MBI Professional Efficacy		
Low (>27)	193	45.5%
Moderate (23-27)	93	22 %
High (<23)	138	32.5%

- According to the three-dimensional criterion of burnout Syndrome (high exhaustion + high cynicism + low professional efficacy), 162 of the students (38.2%) were experiencing burnout Syndrome , as shown in figure 3.1.

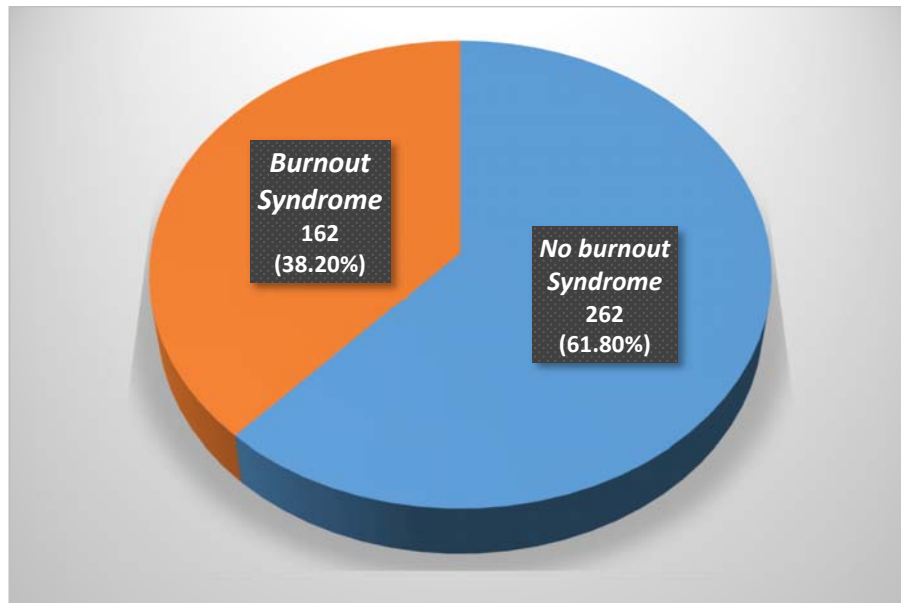


Figure 3.1: The prevalence of burnout Syndrome syndrome (tridimensional diagnostic criteria for Burnout Syndrome Syndrome) among students from college of medicine, Kerbala University.

- Using binary logistic regression to find the association between socio-demographic variables and burnout syndrome, after adjusting for multiple variables in this analysis, burnout Syndrome was associated with (P value < 0.05): female gender (adjusted OR= 1.824, 95% CI 1.074 - 3.095), chronic use of drugs (adjusted OR= 1.868, 95% CI 1.001- 3.484) and family history of mental diseases (adjusted OR= 2.65 95% CI 1.251 - 5.624). Other variables did not show significant association with burnout syndrome as shown in table 3.4

Table 3.4 Association between three-dimensional burnout Syndrome diagnosis and Socio-demographic characteristics of students from college of medicine, University of Kerbala (N=424)

Variables		Adjusted OR	OR CI 95% Lower- Upper	p-value
Age groups \ years	18-19	2.058	0.697 - 6.072	0.19
	20-21	1.319	0.570 - 3.055	0.51
	≥22 (ref.)	1		
Gender	Male (ref.)	1		
	Female	1.824	1.074 - 3.095	0.02
Marital Status	Single	0.943	0.080 -11.135	0.96
	Married	0.439	0.029 - 6.584	0.55
	Separated/Divorced(ref.)	1		
Residence	Kerbala	1.023	0.616 - 1.696	0.93
	Others(ref.)	1		
Smoking Status	Smoker	0.670	0.030 -15.184	0.80
	Non smoker	0.278	0.013 5.983	0.41
	Ex-Smoker(ref.)	1		
Stage	First	0.741	0.218 - 2.519	0.63
	Second	0.855	0.260 - 2.810	0.79
	Third	1.047	0.355 - 3.088	0.93
	Fourth	1.461	0.6 - 3.561	0.40
	Fifth	2.334	0.908 - 6	0.07
	Sixth(ref.)	1		
Exercise habit /week	Never	1.541	0.611- 3.163	0.36
	Rarely	1.265	0.553 - 2.897	0.57
	Sometimes	0.80	0.353 -1.893	0.59
	Always(ref.)	1		
Daily Sleep hours	<7	1.456	0.879 - 2.413	0.14
	≥7(ref.)	1		
chronic use of drugs	Yes	1.868	1.001- 3.484	0.05
	No(ref.)	1		
Family history of mental diseases	Yes	2.653	1.251 - 5.624	0.01
	No(ref.)	1		

Chapter Four

Discussion

The concept of student burnout syndrome has been explored across different student populations representing varying educational contexts (Wickramasinghe et al., 2018). Medical students are more likely than non-medical students to have physical and mental health problems (Altannir et al., 2019). As medical college is a demanding educational environment, where learners are constantly required to acquire and recall a lot of knowledge in a fixed timeframe (Abdulghani et al., 2020)

In Iraq, there are a few studies that had assessed the stress among medical students (Rasheed and Hussein, 2019) Up to our knowledge, this study is probably the first study to cover this important mental hazard and focusing the sight on burnout syndrome among medical students. The study may provide a comprehensive view regarding the prevalence of burnout syndrome among medical students in college of medicine – university of Kerbala and its associated factors, in addition to assessment of medical students' perceptions towards online medical education. The study extensively explored the advantages and disadvantages of online education.

In the current study, MBI-SS was selected as the index test, which has been largely regarded as the most widely used burnout syndrome measure across the world (Campos et al., 2013, Wickramasinghe et al., 2018, Maroco and Tecedreiro, 2009). Coming across the MBI-SS, the prevalence of burnout syndrome was 38.2% among medical students according to the three-dimensional criteria. A variant range of burnout syndrome rates among medical students from different countries were reported by literatures.

The finding of the current study matched the previous study conducted by Shadid et al. showed that 38.2% of the medical students exhibited high burnout syndrome rate (Shadid et al., 2020). While a lower rates of burnout Syndrome among medical students were reported in other studies performed by Altannir et al. and Almeida et al., represented 13.4% and 14.9% respectively (Almeida et al., 2016, Altannir et al., 2019). On the other hand, a high burnout syndrome level (67%) was reported among medical students in a study done in Saudi Arabia (Almalki et al., 2017).

The high burnout syndrome level could reflect a stressful teaching environment in KMC. However, other explanations for such differences in burnout syndrome rates might be related to variant instruments used to evaluate burnout syndrome among medical students. Further, some studies used the two-dimensional criteria, which were less sensitive than those used in the current study (three-dimensional criteria). Furthermore, students' psychological stress and burnout syndrome were considered to be increased by online learning. Thus, the curfew and the necessity accelerated shift to online teaching due to the COVID-19 pandemic could be a part of increasing burnout syndrome levels among medical students at the University of Kerbala (Mheidly et al., 2020, Al-Shamsi, 2017, Costa et al., 2012).

When each dimension of burnout syndrome was assessed separately, medical students from the University of Kerbala had high percentages of emotional exhaustion (85.6%) and cynicism (77.8%), but lower percentages in reduced professional efficacy (32.5%). Similar findings were described by other studies (Almeida et al., 2016, Costa et al., 2012), which reported high rates of cynicism and emotional exhaustion, while lower rates in decreased professional efficacy. This implies that in medical students, a high degree of professional effectiveness can compensate for the stress of academic life. While students with a high level of burnout syndrome had lower academic efficacy (Atalayin et al., 2015).

The current findings of this research did not match a previous study performed by Altannir et al., which reported lower rates of emotional exhaustion, high cynicism and high rates of reduced professional efficacy (Altannir et al., 2019). Another different result was reported in a study done in Egypt in which about 38.1% of the medical students experienced high emotional exhaustion, whereas those complaining from high cynicism and low professional efficacy represented 32.4% and 31% respectively (ElKholy et al., 2019).

The difference in these results between the current study and the previously mentioned study may be due to different instruments and cutoff points used to calculate burnout syndrome (risk calculation methods). The MBI Questionnaire that used in Altannir et al. study was a 22-item instrument with the following scores for burnout syndrome diagnosis: emotional exhaustion ≥ 30 , cynicism ≥ 12 , and professional efficacy ≤ 33 (Rasheed and Hussein, 2019). In addition to the variations in curricula between medical colleges and differences in the demography of medical students from one country to other

Binary logistic regression analysis, reveals that three variables were associated with Burnout syndrome ; gender (female), chronic use of drugs and family history of mental diseases.

The current study found that female medical students had a significant risk of burnout syndrome more than male students. This result agreed with other studies done in Saudi Arabia, Pakistan, India(Kerala), Ethiopia(Debre Berhan), and Croatia (Backović et al., 2012, Muzafar et al., 2015, Vidhukumar and Hamza, 2020, Mahfouz et al., 2020, Haile et al., 2019, Choi et al., 2015), which reported that female gender was associated with high burnout Syndrome rates more than male.

In contrast to other studies done in Thailand and Brazil, which reported high burnout Syndrome rates among males as compared with females medical students(Puranitee et al., 2019, Costa et al., 2012). However, other studies reported no significant gender differences in burnout syndrome rates (Vale et al., 2021, El-Masry et al., 2013, Chin et al., 2016, Boni et al., 2018).

Generally, females are more vulnerable to stress and depression, which can be contributed to their high rates of burnout syndrome as, compared to male students. Women are more vulnerable to several stress-related mental disorders, such as major depression and general anxiety (Palanza and Parmigiani, 2017).

This view is concordant with other study done in Belgrade, which reported that female students usually expressed significant levels of stress as a result of their contacts with patients and autopsy (Backović et al., 2012). Thus, the stress of medical college tend to have a greater impact on female students, resulting in more often burnout syndrome.

The chronic use of drugs among medical students was significantly related to high burnout syndrome rates in this study. Also, a significant relationship between the occurrence of burnout syndrome and drug intake was reported in a study done in Brazil among dental students (Campos et al., 2012).

While other studies were done in Hong Kong and Srinagar, had reported no association between chronic use of drugs and burnout syndrome (Lee et al., 2020, Wani and Qazi, 2019). The chronic use of drugs among students could be a part of a particular disease (physical or psychological) that might have a negative impact on student and can result in a higher risk for burnout Syndrome.

The current study showed that the presence of mental diseases within the family can predict for burnout syndrome of medical students. While a study done in Nepal showed no association between family history of mental health problems and burnout syndrome among medical students (Pokhrel et al., 2020). The students whose relatives had mental health conditions might take on the responsibility of caretaker for them. Thus, those students might expose to daily tension in the context of caring for individuals with mental disorders and thus can lead to burnout syndrome . A positive family history of mental diseases might provide a genetic vulnerability in reaction to stressful events (evidence for gene-stress interaction) (Van Winkel et al., 2008).

In the current study, burnout syndrome was not significantly associated with age, marital status, residence, academic stage, smoking status, exercise habit and daily sleeping hours.

Nearly similar finding was reported in a study done in Hong Kong, which showed that burnout syndrome was not associated with age, academic stage, marital status and

smoking status but contrast with our results regarding sleep and exercise habits that were significantly related to burnout Syndrome (Lee et al., 2020). Also, burnout syndrome was not associated with age, marital status, academic year and smoking status in a study done in Saudi Arabia (Shadid et al., 2020). Another similar findings was found in the study done in Brazil which reported that there was no significant association of burnout Syndrome with age and marital status (Almeida et al., 2016).

While other studies showed a different results regarding exercise and sleep habits, such that mentioned in a study done in Pittsburgh city in USA, which reported a significant association of burnout syndrome with low exercise frequency and inadequate sleep among medical student (Wolf and Rosenstock, 2017). Another different findings were found in a study done in Egypt, a significant association of burnout syndrome with grade of medical college and marital status (being married) (Al-Maksoud et al., 2020).

The variation between the current study and other studies might be related difference in culture, sample size, study population, socioeconomic status and questionnaire format.

Limitations

- Exam frequency, academic curriculum, frequency of involvement in extracurricular activities and peer pressure were not included in this study, which are all important variables in this study.
- Because this is a cross-sectional study, no cause-and-effect link can be established; only relationships can be proved.
- The differences in the tools used to classify burnout syndrome make it difficult to compare our findings to those of previous research. In addition to the differences in questionnaire format regarding the attitude of medical students towards online education, make it make it difficult to compare our results to those of previous research. excluded from the study.

Chapter Five

Conclusions

and

Recommendations

Conclusions

- More than one third of medical students from University of Kerbala College of medicine complaining from burnout Syndrome with quite high rates of emotional exhaustion and cynicism, and a low level of professional Efficacy.
- Female gender, chronic use of drugs and family history of mental diseases were associated with a significant high rates of burnout syndrome.

Recommendations

- Faculty efforts should be directed at altering educational and clinical environments in order to reduce unnecessary stresses and create more favorable teaching and clinical practice.
- Professors must understand students' needs, motivations and experiences to keep students interested in education and to minimize their burnout syndrome rates.
- Continuous assessment of medical students throughout the curriculum is important and there is a need for future studies that might investigate this, while developing a curriculum to adapt and enhance the learning experience during a corona pandemic is necessary.
- Provide students with comprehensive psychosocial support and developmental wellness programs, with a concentration on learning positive coping methods for dealing with stressors.
- Training program to teaching staff for early detection of psychiatric illness and support the student.

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Appendix



FINAL APPROVAL LETTER

Marwa Saad Yahya

**University of Kerbala, College of Medicine, Dept. of Family and Community
Medicine**

Date June, 8th, 2021

Dear Marwa

Title of Project

Burnout among Medical Students of University of Kerbala and its correlates

Reference Number: 8

Thank you for your recent correspondence. This is to certify that your responses have satisfactorily addressed the research bioethical guidelines. You may now proceed with your research.

Please consider the following requirements of approval:

1. Approval will be valid for one year. By the end of this period, if the project has been completed, abandoned, discontinued or not commenced for any reason, you are required to announce the Committee.
2. However, at the end of the one-year period if the project is still current you should instead submit an application for renewal of the approval. This allows the Committee to fully re-review research in an environment where legislation, guidelines and requirements are continually changing.
3. Please remember the Committee must be notified of any alteration to the project.
4. You must notify the Committee immediately in the event of any adverse effects on participants or of any unforeseen events that might affect continued ethical acceptability of the project.
5. At all times you are responsible for the ethical conduct of your research in accordance with the standard bioethical guidelines.
6. The Committee should be notified if you will be applying for or have applied for internal or external funding for the above project.

Yours sincerely

**Assist. Professor Ali Mansoor Al-Ameri
Chair, Medical Research Bioethical Committee**

Date: June, 8th, 2021

(Questionnaire) English
**Burnout Syndrome among Medical Students of University of Kerbala:
Prevalence and associated factors, 2020.**

Burnout Syndrome is a chronic state of being out of sync with your role as a student and it can be a significant problem in your life.

Burnout Syndrome has many consequences for you including physical illness, increased feelings of hopelessness, irritability, impatience, and poor interpersonal relationships with family and other students. In severe cases, burnout Syndrome can negatively impact executive functioning, attention and memory.

The questionnaire composed of 3 sections; the first one collect your socio-demographic data , the second one use MBI-SS to measure your burn out levels according to emotional exhaustion, depersonalization and personal accomplishment.

#All data will be confidential and will not used for other purposes aside from this research

Section I General (Socio-demographic) Data

1. Gender :

Male

Female

2. Age _____ (years).

3. Marital status

Single

Married

Divorced

Separated

4. Residence

Karbala

Others

5. Year in Medical college (Stage)

First

Second

Third

Forth

Fifth

Sixth

6. Smoking Habit

- Non-smoker
- Smoker
- Ex-Smoker

7. Chronic use of drugs

- Yes
- No

8. Exercise habit per week

- Always
- Sometimes
- Rarely
- Never

9. Number of hours of sleep per day (put a number (____))

10. Having a family history of mental illness

- Yes
- No

Second section (MBI-SS)

This section consists of 15 questions to measure levels of psychological burnout syndrome according to emotional exhaustion, dulling of personality and personal achievement (starting from a choice that never happens to a choice that occurs every day) choose the appropriate answer:

1. I feel emotionally drained by my studies.

- A few times a year or less
- Once a month or less
- A few times a month or less
- Once a week
- A few times a week
- Every day

2. I feel used up at the end of a day at university.

- A few times a year or less
- Once a month or less

A few times a month or less

Once a week

A few times a week

Every day

3. I feel tired when I get up in the morning and I have to face another day at the university.

A few times a year or less

Once a month or less

A few times a month or less

Once a week

A few times a week

Every day

4. Studying or attending a class is really a strain for me.

A few times a year or less

Once a month or less

A few times a month or less

Once a week

A few times a week

Every day

5. I feel burned out from my studies.

A few times a year or less

Once a month or less

A few times a month or less

Once a week

A few times a week

Every day

6. I have become less interested in my studies since my enrollment at the university.

A few times a year or less

Once a month or less

A few times a month or less

Once a week

A few times a week

Every day

7. I have become less enthusiastic about my studies.

A few times a year or less

- Once a month or less
- A few times a month or less
- Once a week
- A few times a week
- Every day

8. I have become more cynical about the potential usefulness of my studies.

- A few times a year or less
- Once a month or less
- A few times a month or less
- Once a week
- A few times a week
- Every day

9. I doubt the significance of my studies.

- A few times a year or less
- Once a month or less
- A few times a month or less
- Once a week
- A few times a week
- Every day

10. I can effectively solve the problems that arise in my studies.

- A few times a year or less
- Once a month or less
- A few times a month or less
- Once a week
- A few times a week
- Every day

11. I believe that I make an effective contribution to the classes that I attend.

- A few times a year or less
- Once a month or less
- A few times a month or less
- Once a week
- A few times a week
- Every day

12. In my opinion, I am a good student.

- A few times a year or less
- Once a month or less
- A few times a month or less
- Once a week
- A few times a week
- Every day

13. I feel stimulated when I achieve my study goals.

- A few times a year or less
- Once a month or less
- A few times a month or less
- Once a week
- A few times a week
- Every day

14. I have learned many interesting things during the course of my studies.

- A few times a year or less
- Once a month or less
- A few times a month or less
- Once a week
- A few times a week
- Every day

15. During class I feel confident that I am effective in getting things done.

- A few times a year or less
- Once a month or less
- A few times a month or less
- Once a week
- A few times a week
- Every day

الاحترق النفسي لدى طلاب كلية الطب جامعة كربلاء: الانتشار والعوامل المرتبطة به ٢٠٢٠

يعتبر الاحتراق النفسي حالة من التعب والارهاق والاجهاد البدني والنفسي والعقلي يصل اليه الطالب بسبب تعرضه المستمر لمواقف ضاغطة في حياته الدراسية والاسرية والاجتماعية مما يؤثر سلبا على توافقه النفسي والاجتماعي والدراسي

*يتكون الاستبيان من ثلاثة اقسام ؛ يقوم الأول بجمع بياناتك الاجتماعية والديموغرافية ، والثاني يستخدم مقياس الما سلاح لقياس مستويات الحرق وفقاً للإرهاق العاطفي وتبلد الشخصية والإنجاز الشخصي, القسم الثالث سيتضمن بعض الاسئلة حول التعليم.الالكتروني وجانحة كورونا

ندعوكم للمشاركة في هذه الدراسة العلمية علما بان الاستبيان من دون اسم وطوعي وان سرية الاجابات والمعلومات ستحفظ (لن يستغرق سوى بضع دقائق فقط)

(القسم الأول: معلومات الطالب البيانات العامة (الاجتماعية والديموغرافية)

١. الجنس : انثى ذكر

٢. العمر(ضع رقما) _____

٣. الحالة الزوجية: اعزب متزوج مطلق / منفصل

٤. السكن: كربلاء اخرى

٥. المرحلة الدراسية

الاولى

الثانية

الثالثة

الرابعة

الخامسة

السادسة

٦. عادة التدخين: مدخن غير مدخن مدخن سابق

٧. الاستخدام المزمن للأدوية نعم لا

٨. ممارسة الرياضة في الاسبوع : دأنا أحيانا نادرا أبدا

٩. عدد ساعات النوم يوميا (ضع رقما _____).

١٠. وجود تاريخ عائلي للأمراض العقلية والنفسية: نعم لا

القسم الثاني (MBI-SS)

يتكون هذا القسم من ١٥ سؤال لقياس مستويات الاحتراق النفسي وفقا للارهاق العاطفي وتبدل الشخصية والانجاز الشخصي (تبدأ من اختيار لا يحدث ابدا الى اختياري يحدث كل يوم) اختر الاجابة المناسبة

١. شعر أني منهك انفعاليا من الدراسة

- لا يحدث ابدا
- يحدث بضع مرات في السنة او اقل
- يحدث مرة واحدة في الشهر او اقل
- يحدث مرات قليلة في الشهر
- يحدث مرة واحدة اسبوعيا
- يحدث مرات قليلة في الأسبوع
- يحدث كل يوم

٢. أشعر أن طاقتي مستنفذة مع نهاية اليوم الدراسي

- لا يحدث ابدا
- يحدث بضع مرات في السنة او اقل
- يحدث مرة واحدة في الشهر او اقل
- يحدث مرات قليلة في الشهر
- يحدث مرة واحدة اسبوعيا
- يحدث مرات قليلة في الأسبوع
- يحدث كل يوم

٣. اشعر بالتعب حينما استيقظ في الصباح وعلي ان أواجه يوما دراسيا اخر

- لا يحدث ابدا
- يحدث بضع مرات في السنة او اقل
- يحدث مرة واحدة في الشهر او اقل
- يحدث مرات قليلة في الشهر
- يحدث مرة واحدة اسبوعيا
- يحدث مرات قليلة في الأسبوع
- يحدث كل يوم

٤. تعد الدراسة أو حضور المحاضرات عملا مجهدا بالنسبة لي

- لا يحدث ابدا

- يحدث بضع مرات في السنة او اقل
- يحدث مرة واحدة في الشهر او اقل
- يحدث مرات قليلة في الشهر
- يحدث مرة واحدة اسبوعيا
- يحدث مرات قليلة في الاسبوع
- يحدث كل يوم

٥. أشعر بالاحترق النفسى من دراستي

- لا يحدث ابدا
- يحدث بضع مرات في السنة او اقل
- يحدث مرة واحدة في الشهر او اقل
- يحدث مرات قليلة في الشهر
- يحدث مرة واحدة اسبوعيا
- يحدث مرات قليلة في الاسبوع
- يحدث كل يوم

٦. أصبحت أقل اهتماما بالدراسة منذ التحاقى بالجامعة

- لا يحدث ابدا
- يحدث بضع مرات في السنة او اقل
- يحدث مرة واحدة في الشهر او اقل
- يحدث مرات قليلة في الشهر
- يحدث مرة واحدة اسبوعيا
- يحدث مرات قليلة في الاسبوع
- يحدث كل يوم

٧. أصبحت أقل حماسا للدراسة

- لا يحدث ابدا
- يحدث بضع مرات في السنة او اقل
- يحدث مرة واحدة في الشهر او اقل
- يحدث مرات قليلة في الشهر
- يحدث مرة واحدة اسبوعيا
- يحدث مرات قليلة في الاسبوع

يحدث كل يوم

٨. أصبحت أنظر إلى الفائدة المحتملة من دراستي بسخرية أو بصورة تهكمية

لا يحدث ابدا

يحدث بضع مرات في السنة او اقل

يحدث مرة واحدة في الشهر او اقل

يحدث مرات قليلة في الشهر

يحدث مرة واحدة اسبوعيا

يحدث مرات قليلة في الأسبوع

يحدث كل يوم

٩. أشكك في جدوى دراستي

لا يحدث ابدا

يحدث بضع مرات في السنة او اقل

يحدث مرة واحدة في الشهر او اقل

يحدث مرات قليلة في الشهر

يحدث مرة واحدة اسبوعيا

يحدث مرات قليلة في الأسبوع

يحدث كل يوم

١٠. لدي القدرة على حل المشكلات التي تواجهني في دراستي

لا يحدث ابدا

يحدث بضع مرات في السنة او اقل

يحدث مرة واحدة في الشهر او اقل

يحدث مرات قليلة في الشهر

يحدث مرة واحدة اسبوعيا

يحدث مرات قليلة في الأسبوع

يحدث كل يوم

١١. أعتقد أنني أسهم بفاعلية في المحاضرات التي أحضرها

لا يحدث ابدا

يحدث بضع مرات في السنة او اقل

يحدث مرة واحدة في الشهر او اقل

يحدث مرات قليلة في الشهر

يحدث مرة واحدة اسبوعيا

يحدث مرات قليلة في الاسبوع

يحدث كل يوم

١٢. أتصور أني طالب مجتهد

لا يحدث ابدا

يحدث بضع مرات في السنة او اقل

يحدث مرة واحدة في الشهر او اقل

يحدث مرات قليلة في الشهر

يحدث مرة واحدة اسبوعيا

يحدث مرات قليلة في الاسبوع

يحدث كل يوم

١٣. أشعر بزيادة الدافعية عند تحقيق أهدافي الدراسية

لا يحدث ابدا

يحدث بضع مرات في السنة او اقل

يحدث مرة واحدة في الشهر او اقل

يحدث مرات قليلة في الشهر

يحدث مرة واحدة اسبوعيا

يحدث مرات قليلة في الاسبوع

يحدث كل يوم

١٤. تعلمت العديد من الأشياء المفيدة أثناء دراستي

لا يحدث ابدا

يحدث بضع مرات في السنة او اقل

يحدث مرة واحدة في الشهر او اقل

يحدث مرات قليلة في الشهر

يحدث مرة واحدة اسبوعيا

يحدث مرات قليلة في الاسبوع

يحدث كل يوم

١٥. عند حضوري بالصف أشعر بالثقة في قدرتي على انجاز الأمور

لا يحدث ابدا

يحدث بضع مرات في السنة او اقل

يحدث مرة واحدة في الشهر او اقل

يحدث مرات قليلة في الشهر

يحدث مرة واحدة اسبوعيا

يحدث مرات قليلة في الأسبوع

يحدث كل يوم

الخلاصة

الخلفية: الاحتراق النفسي شائع بين طلاب الطب. خلال فترة تدريبهم، كثيرًا ما يتعرض طلاب الطب لضغوط نفسية واجتماعية والتي، إذا لم تتم إدارتها، يمكن أن تؤدي إلى متلازمة الاحتراق النفسي.

الهدف من الدراسة: لتقدير مدى انتشار الاحتراق لدى طلبة كلية الطب في جامعة كربلاء والعوامل المرتبطة به.

طريقة البحث: تم اجراء دراسة مقطعية تحليلية على عينة مؤلفة من ٤٢٤ من الطلاب من جميع السنوات الدراسية في كلية الطب جامعة كربلاء. وقد تم جمع البيانات في الفترة من ١١ حزيران ٢٠٢٠ الى ١٣ تموز ٢٠٢٠ خلال استبيان الكتروني استنادًا إلى استبيان الطلاب Inventory Maslach Burnout (MBI-SS) تضمن ١٥ سؤالاً بتقييم مكون من ٧ نقاط يتراوح من ٠ (أبدًا) إلى ٦ (دائمًا). تقيس الأداة ثلاثة مقاييس فرعية: الإنهاك العاطفي (٥ أسئلة) ، السخرية (٤ أسئلة) ، الكفاءة المهنية (٦ أسئلة). تم استخدام برنامج الحزمة الإحصائية للعلوم الاجتماعية (SPSS) الإصدار ٢٤ لتحليل البيانات.

النتائج: بلغت نسبة انتشار متلازمة الاحتراق بين طلاب الطب 38.2%. كان حوالي 85.6% من الطلاب يعانون من استنفاد عاطفي مرتفع، و 77.8% لديهم سخرية عالية، و 32.5% أظهروا كفاءة مهنية منخفضة. ارتبط جنس الإناث، الاستخدام المزمن للأدوية والتاريخ العائلي للأمراض العقلية بمعدلات عالية من الاحتراق النفسي.

الاستنتاجات انتشار كبير للاحتراق النفسي بين طلاب الطب من كلية الطب بجامعة كربلاء مع معدلات عالية جدًا من الإرهاق العاطفي والسخرية ، وانخفاض مستوى الكفاءة المهنية.



متلازمة الاحتراق النفسي لدى طلبة كلية الطب في جامعة كربلاء: معدل

الانتشار والعوامل المرتبطة به ٢٠٢٠

رسالة مقدمة الى مجلس كلية الطب – جامعة كربلاء كجزء من متطلبات نيل شهادة الدبلوم العالي

في طب الأسرة

قدم بواسطة

مروة سعد يحيى

بكالوريوس طب وجراحة عامة

بإشراف

أ.م. د. عامر فاضل الحيدري

بوردر في الطب النفسي

كلية الطب – جامعة كربلاء

٢٠٢١ م

أ.م. د. علي عبد الرضا أبو طحين

بوردر في طب الأسرة

كلية الطب – جامعة كربلاء

٥١٤٤٢