

# Assessment of the Burnout Level in Health Care Worker During COVID 19

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## Abstract

**Background:** Health care workers are considered the first and real resisting line in the face of the COVID19 pandemic, and therefore they have an greater workload, tension and the stress. Understanding the risks of burnout is very important to support healthcare workers and also to maintain high-quality health care through an epidemic. **Methods:** A cross-sectional study design could be used to assessment the level of burnout during COVID 19. Included 1000 samples as a healthcare worker involved in the study by used of convenience sampling technic , The study has been carried out in Iraqi, conducted throughout the period of April 15<sup>th</sup>, to July 19<sup>th</sup>, 2020. A self-questionnaire and Maslach Burnout Inventory Human Service Survey were used to data collect.

**Results:** Overall, burnout were high level among 59.9 % of participation in the study. Workload high and intention to leave were related with burnout at statistically significant ( $P<0.05$ ), and high significant relationship between demographic characteristics (age, gender, level of education, job title, work place ) and level of burnout ( $P<0.05$ ).

**Conclusions:** The study found that the increase in the level of fatigue that was identified among health workers was associated with high workload and psychological stress fronting them during COVID 19, as well as the lack of personal equipment necessary to protect themselves from this epidemic.

**Keywords:** burn out, COVID 19.

## Introduction

Health Workers are exposed to a group of stress and influences that increase the negative effect on their performance. Burnout it is one of the stress and considered a problem in worldwide in provider of healthcare. Maslach & describe burnout as condition of emotional exhaustion, depersonalization and may be reduced in the personal competence that can occur among individuals <sup>(1)(2)</sup>.

Burnout is one of the most important challenges facing all occupations and private professions, as well as care-based professions and health services. Also, burnout is also known to negatively effect of job satisfaction, productivity and decrease organizational citizenship behaviors. It is estimated that healthcare workforce represents 12% of the working population

worldwide <sup>(3,4)</sup>.

In 2020, the COVID 19 epidemic began to prevalence, which led to spreading fear and terror among people because it is a fatal disease and has no treatment or vaccine. health workers are more vulnerable to this pandemic being the first line to confront it, and this constitutes a source of anxiety and fatigue for them<sup>(5)</sup>.

In addition health care workers (physicians, nurses, and other health) a high ratio to exposure of infectious disease and therefore they have an increased work load, and stress in finally lead to burn out <sup>(2)</sup>.

This burnout should be identification in early to prevent the depersonalization of the care provider relationship with patient . So understanding the risk of burnout is very important to improve and maintain the quality of health care during a pandemic<sup>(6)</sup>.

AS result of that, the fatal and uncontrollable and what is nature of COVID-19, this period is expected to substantial impact psychological on healthcare workers.

The Burnout have risky consequences for the healthcare professionals and patients. It does not only lead to negative consequences for mental, physical and psychological health, lack of motivation and low morale, but it only leads to a decrease in the quality of care provided by the affected staff, which leads to poor and unsatisfactory results for patients. Some studies of the literature have found that high levels of burnout in health care specialists are related with less-safe patient care. (7,8,9).

Many studies were concerned with psychological burnout and showed that health workers are more vulnerable to psychological burnout, as one study assessment Burnout in a healthcare professionals during COVID-19 pandemic found that burnout level 53% in a wide range of medical specialties and other rates ranging between 10% and 78% between powers European Nursing Worker (10,21).

In 2019, the World Health Organization recognized psychological burnt and considered it a professional phenomenon and not a medical condition, and defined it as a syndrome resulting from psychological stress in the middle of work, and that the purpose of this study is to know the phenomena and behaviors related to psychological combustion among health workers, so that we can direct some correct procedures to reduce these behaviors as well as increase the self-efficacy of all people working in this field (5,7,11).

In these difficult circumstances, all health workers must perform the tasks required of them with skill and high efficiency, and it is accepted that any employee in order to carry out his duties on. The most complete aspect he must have a suitable work environment and be in a state of calm and psychological safety. This study comes in this context in an attempt to reveal the levels of burnout For all employees of government hospitals and its relationship to their professional performance. as well as increase the self-efficacy of all people working in this field (12,13).

### Study sample

A convenience sample of all individuals working in the health care field in all their specialties (N=1000).

### Instrument Construction

To assessment the prevalence of burnout among health care workers and identify the main causes leading to the spread of this burnout , the researchers made some adjustments to the questionnaire as required by the study design in order to reach the objectives of the study. The questionnaire contains of two parts: Part one: Self-administered questionnaire sheet related to demographic data characteristic of the sample: part two : Self-administered questionnaire sheet associated with (burn out according to the Cristina Maslach scale ).

A self-managed questionnaire linked to the Burnout Assessment, which included a group of questions according to the Cristina Maslach scale. This questionnaire consists of 22 items, where each item is answered according to the Likert scale, where this tool has been widely used in some studies in some parts of the world.(14).

### Data collection

An invitation were used to participate in the study, which included a letter explanation the aims of conducting the study, as well as a ready-made online questionnaire. Inclusion criteria was restricted to membership in COVID-19-specific social media groups restricted to health care worker. social media including WhatsApp, telegram, and Facebook, In addition to the email, As the sample collection period continued from May 1 to June 30, 2020.

### Results

The (table 1) show the (44.3%) of participant in the study at age groups between (18-27) years. Regard gender (61.6%) were male. The residence, more than half of them (77.5%) from urban area. Regarding the level of education the highest percentage is (40.4%) of the sample in study were bachelor level. Regarding the workplace (59.6%) of sample were work in general hospital. The job title (40.8%) from the sample study were nurse. The result of (table 2) found that there is a high level of burnout among health workers, where the burnout rate was 59.9%.

The (figure 1) show the nurses more participant in this study at present (40.8%) from all study sample. The (figure 2) show the level of burnout among overall health workers according on their educational level, this study found that workers with a diploma degree s are high level of burnout this

The result of (table 3) indicate when assessment the level of the burnout for health workers according

job title there is a high level of burnout in the nurses compared to other specialties. This study found that the level of burnout is high in the age group between (18-27) years, as shown in the (figure 3).

Table (4) show that there is a highly significant association among the health worker burnout and their (age; levels of education; workplace; and job title) at p-value (0.001).

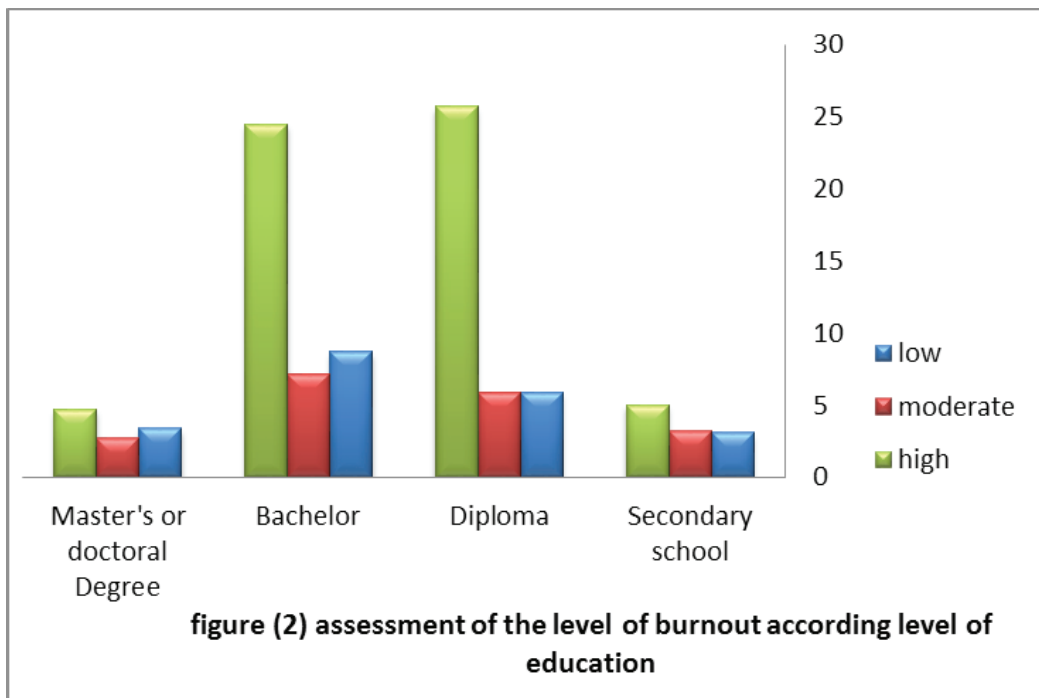
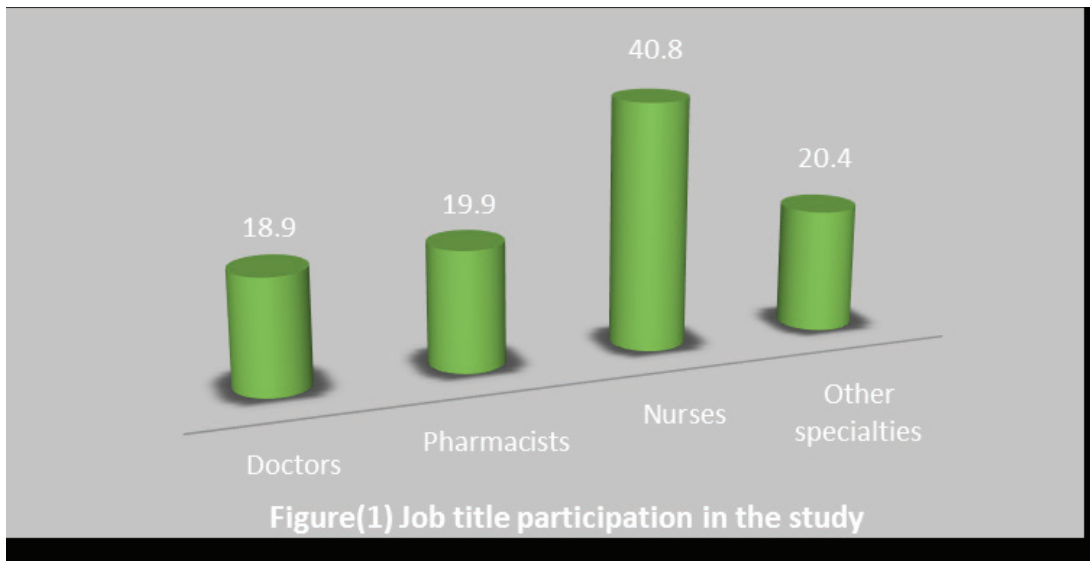
**Table (1) Demographic date**

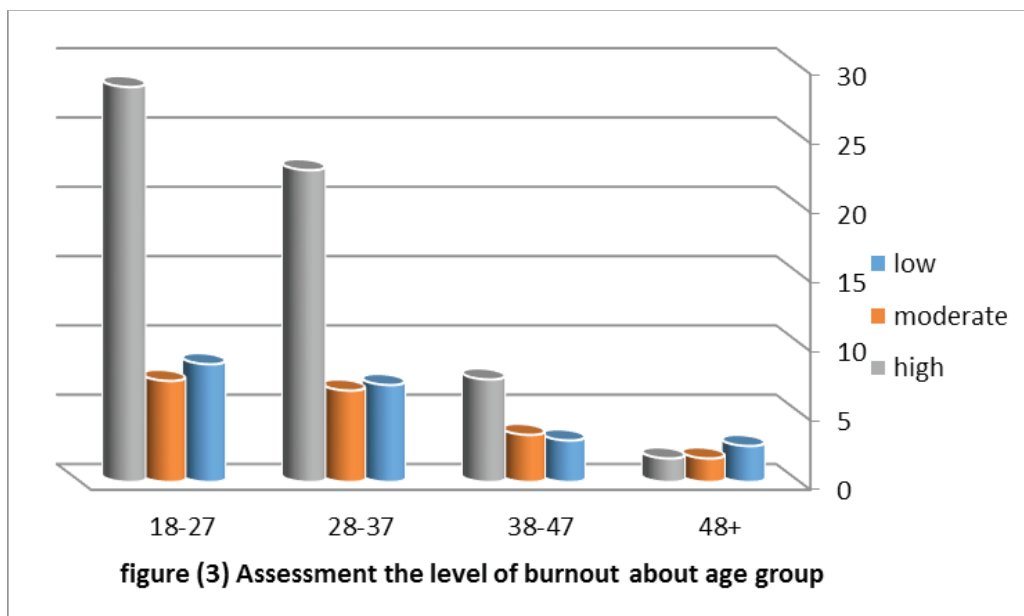
<b>Demographic Data</b>	<b>Rating and Interval</b>	<b>Frequency</b>	<b>Percent</b>
<b>Age / Years</b>	18-27	443	44.3
	28 - 37	358	35.8
	38 - 47	138	13.8
	48+	61	6.1
<b>Gender</b>	female	384	38.4
	male	616	61.6
<b>Residency</b>	rural	225	22.5
	Urban	775	77.5
<b>Educational Levels</b>	Secondary school	113	11.3
	Diploma	375	37.5
	Bachelor	404	40.4
	Master's or doctoral Degree	108	10.8
<b>Workplace</b>	General hospital	596	59.6
	Health care center	163	16.3
	Specialist Center	113	11.3
	Others	128	12.8

□

**Table (2) Overall assessment the level of burnout of health worker**

Level of burnout	Frequency	Percent
low	211	21.1
moderate	190	19
high	599	59.9
Total	1000	100





**Table (4) Relationship Between The Demographic Data And Their burn out Scores**

Demographic data	Rating and intervals	Assessment			X2 value	df	p-value
		Low	moderate	high			
Age	18-27	85	73	285	35.1	8	0.001 HS
	28 – 37	70	66	222			
	38 – 47	30	34	74			
	48+	26	17	17			
Gender	Female	88	87	209	8.47	2	0.014 S
	Male	123	103	390			
Educational level	Secondary school	31	32	50	36.59	6	0.001 HS
	Diploma	59	59	257			
	Bachelor	87	72	245			
	Master’s or doctoral Degree	34	27	47			
Work place	General hospital	108	96	392	24.76	6	0.001 HS
	Health care center	37	39	87			
	Specialist center	28	30	55			
	Other	38	25	65			
Job title	Doctor	25	39	125	86.27	6	0.001 HS
	Pharmacist	26	40	133			
	Nurses	144	68	196			
	Other	16	43	145			

## Discussion

The aim of conducting this study is to determine the level of burnout experienced by health care workers and to identify the main sources related to burnout and coping mechanism. Through the outcomes of this study was found that there are the levels of burnout is high in the health workers<sup>(15)</sup>. Burnout is more prevalent than previously reported in healthcare worker during the pandemic of COVID-19 and is related to stress, high workload, and inadequate organizational support<sup>(13)</sup>.

health care worker burnout has the form of an epidemic that may affect basic domains of health care provide, including quality of care, patient satisfaction, and patient safety<sup>(8)</sup>. Our study indicates that most cases in the research suffer from a high level of burnout. This is confirmed by the test results, and according to Maslach, it says that if one of the three dimensions is high the level of burnout is high, and this is shown by the percentage. Thus, the phenomenon of combustion There are variations in its degree<sup>(12)</sup>.

There was an high significant between burnout and demographic data qualities: age, gender, marital status, occupation and educational level.<sup>(15,16,22)</sup>. Most of the participants were male, and this indicates that these results differ from many of the studies that were conducted, which showed that the percentage of females is more than males, this agree with the study conducted in 2013 by Ayala and Carnero<sup>(17)</sup>.

This study found that there is a high rate of burnout in the health care workers during the COVID 19 pandemic this agree with<sup>(18)</sup> The reason may be a lack of experience in dealing with such an epidemic, as well as a lack of personal equipment to deal directly contact with COVID19 patients.

Most of the participants in this study are from the specialty of nursing workers in health institutions of all types, as showed in (Figure 1). The reason is that the nursing staff constitutes a high percentage of the Ministry of Health, this finding agree with study (Prevalence of burnout among nurses in Iran<sup>(19)</sup>.

The majority of the participants (25.7 %) with diploma in nursing were found to have high level of burnout, The reason may be due to the health policy in hospitals, where the diploma level is the weakest part

of the group. Therefore, the level of burnout is high this result agree with study conducted in Iran in 2017 entitled ( Burnout among nurses working in critical care settings: a case of a selected tertiary hospital in Rwanda)<sup>(18)</sup>.

The study found that a high level of burnout in the nurses specialty compared to other specialties, and this indicates that nurses work in a stressful work environment and in direct contact with patients in addition to long working times and also wearing the save equipment for COVID19 this result agree with study<sup>(19,20)</sup>.

The results of this study was found that the place of work has a major impact on the level of burnout, because workers in general hospitals are assigned tasks that are more than workers in health centers and workers in specialized centers, as well as the nature of work and the presence of isolation room and direct confrontation of COVID 19 patients<sup>(10,23,24)</sup>.

From the results of the current study, we emphasize that it is important for health care organizations to give importance to the need for prevention program , which can include parts of positive psychology and training in coping policies, Most health workers are exposed to burnout may benefit from this programs to improve their coping skills in dealing with stressful work problems and in reducing their negative emotional responses under such circumstances<sup>(16)</sup>.

High levels of burnout as generally, it was more common in the age of the younger ( $\leq 37$  years) participation this result of study agree with study conducting by Jalili, et al,2020<sup>(10)</sup>. Regarding the relationship between the demographic data and their burn out scores that there is a highly significant association between the health worker burnout and their age group at p-value (0.001), also levels of education shows high significant association at P-value (0.001) . The results also showed that there is a high significant association between burnout and the workplace at p- value (0.001) and there is also high significant association between burnout and job title at p- value (0.001) this agree with other study<sup>(21,22,23)</sup>.

## Conclusion

According to this study, the participants in the study have high level of burnout (59.9 %) which is mostly related to high workload during the COVID

19 pandemic. Several factors included in our study, like increased working hours, exposed to occupational pressures that exceed their ability to tolerate, as he is in constant confrontation with the patients' problems, insufficient personal protective equipment or lack of up-to-date guidance. As it contributed to the high rate of infection among health care providers since the start of the disease outbreak.

**Financial Disclosure:** There is no financial disclosure.

**Conflict of Interest:** None to declare.

**Ethical Clearance:** All experimental protocols were approved under the AL-Dewaniya Health Office and all experiments were carried out in accordance with approved guidelines.

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