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# Nursing & Primary Care

# The Relationship Between the COVID-19 Pandemic and Burnout Among the Healthcare Team

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#### **ABSTRACT**

Introduction: The COVID-19 pandemic led to significant challenges physically and emotionally for healthcare workers. Frontline workers treating COVID-19 patients have battled stressful work environments, high patient mortality, lack of personal protective equipment (PPE), and feelings of exhaustion and powerlessness. This research study explored the relationship that COVID-19 has had on employees' feelings and attitudes regarding their job.

Methods: This quantitative research project took pace in an Emergency Department in Boston, MA. The paper questionnaire contained demographic questions and the Maslach Burnout Inventory was used as a guide. The variables that were examined were gender, age, number of years working in the emergency department, job category, and marital status. This tool was designed to measure burnout among human service professionals. The inventory contains three scales; emotional exhaustion, depersonalization, and personal accomplishment, and contains 22 questions that are rated on a seven-point scale from never to every day. The emotional exhaustion section contains nine questions and reflects fatigue or stress. Depersonalization contains five questions and refers to feelings of callousness or indifference in regard to recipients, i.e. patients. Personal accomplishment contains eight questions and examines feelings of enthusiasm and effectiveness. The overall aim of the survey was to determine the relationship the COVID-19 pandemic had on employee burnout.

Sample: A convenience sampling of all employees in one emergency department in the Boston area were recruited for this study. A total of 110 participants were recruited through word of mouth during shift huddles, as well as, during rounds on the unit with the team. The survey was open to all employees who worked in the emergency department, without regard to job title. Responses remained anonymous, participants were informed that their responses were used for an academic research project, and that they could not withdraw from the study once they had completed the survey as it was anonymous.

**Data Collection:** The tool was administered to physicians, physician assistants, nurses, advanced care providers, medical assistants, social workers, and security officers in the emergency department in a hospital located in in Boston, Massachusetts. The variables that were examined were gender, age, number of years working in the emergency department, job category, and marital status. Once the surveys were collected, an excel spreadsheet was developed and the data analyzed. The results were disseminated to the nurse manager and posted on the bulletin board on the unit. All data that was collected in this research study has been securely stored in the lead researcher's office for the next three years.

**Results:** Those who had worked in the emergency department greater than 10 years scored higher than their counterparts on emotional exhaustion (11.8%), depersonalization (25.4%), and lack of personal achievement (17.2%). Female scores revealed higher levels of burnout compared to males. Single participants scored higher levels of burnout. Lastly, nurses scored higher on burnout followed by ESA's (assistants).

Conclusion: The COVID-19 pandemic has led to significant changes in healthcare resulting in higher stress levels, fatigue, and burnout among healthcare workers. COVID-19 will continue to evolve as will healthcare. Further education and research is essential to prevent future pandemics that lead to crisis situations that could exacerbate future burnout in the healthcare industry. Adequate preparation for future pandemic situations could play a key role in prevention of burnout among healthcare teams.

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#### **Keywords**

COVID-19, Healthcare workers, Nursing.

#### Introduction

The COVID-19 pandemic has affected life as we know it in countless ways. It has affected the way we work, go to school, shop, worship, travel, see the doctor, celebrate holidays, and socialize with our friends and family just to name a few. Mask mandates, social distancing guidelines, vaccine requirements, and various other rules and regulations that were created in response to the pandemic have led to numerous emotional responses to include fear, anger, sadness, isolation, depression, and stress.

Healthcare workers in emergency departments (EDs) across the nation experienced the COVID-19 pandemic like no one else. These employees faced uncertain situations and ever-changing protocols during a highly stressful time. Hospitals set up tents outside their EDs to facilitate screening, testing, and triaging patients when they arrived. Visitors were not allowed to accompany their loved ones inside. Some EDs in certain areas experienced overcrowding, higher acuities, and staffing shortages while other EDs around the country were empty, perhaps because patients feared going to the ED. These stressful working environments may have contributed to employee burnout, leading to job dissatisfaction, mistakes affecting patient outcomes, and healthcare workers leaving the profession.

The purpose of this research study was to explore the relationship that COVID-19 has had on employees' feelings and attitudes regarding their job at one ED in Boston, MA. The knowledge that was gained in this research could be utilized to help navigate future pandemic situations in a positive way to guide and protect healthcare workers and patients alike.

#### **Aims and Goals**

The aim of this study was to examine the impact that the COVID-19 pandemic had on healthcare workers. The goals of this study were to examine the impact the pandemic had on healthcare workers mental and physical health. What were some of the factors contributing to the burnout? How did they feel about the people they work with and the patients they are caring for? How did they handle the emotions they feel at work? Were they at the end of their rope and was this job too hard to continue doing? Did they feel frustrated and was the work breaking them down?

#### **Research Question**

What is the relationship between the COVID-19 pandemic and burnout among the healthcare team?

# **Problem Statement**

Burnout is defined as a psychological syndrome characterized as a negative emotional response to a person's work as a result of prolonged exposure to a stressful work environment. Employees working in stressful environments are more likely to develop burnout [1]. The World Health Organization considers COVID-19 a pandemic that is a serious health problem facing humanity. During the pandemic, 93% of healthcare workers polled said they had experienced stress in the past three months. Of the healthcare workers surveyed, 86% reported anxiety, 77% reported frustration, 76% reported exhaustion and burnout, and 75% said they were overwhelmed [2].



"Frank just up and exploded. I hope I never get that burned out."

Burnout among healthcare employees can have negative consequences and contribute to unhealthy working environments. When healthcare employees experience burnout, they are more prone to mistakes, have increased stress, fatigue, and lack compassion. Many factors can contribute to healthcare burnout including inadequate resources, not enough staff, lack of PPE, having to wear PPE all day, mandatory overtime, long shifts, no breaks, overcrowding, higher patient acuity, unnecessary patient visits to the ER, and poor leadership. According to the American Association of Critical Care Nurses [3], healthy work environments (HWE) can lead to more engaged employees, decreased burnout, better patient care, and lower turnover rate.

#### **Nurse Theorist**

The nursing theorist that this quantitative research study focused on was Dorothy Orem and her Theory of Nursing. Her theory consists of three parts; the theory of self-care, the theory of self-care deficit, and the theory of nursing systems. The theory of self-care focuses on the performance or practice of activities that individuals perform on their own behalf. Those might be actions to maintain one's life and life functioning, developing oneself, or correcting a health deviation or condition. The theory of self-care deficit, which this paper will focus on, defines when nursing is needed because a person is limited or incapable of providing self-care and therefore needs help. The theory of nursing systems focuses on the relationship between a nurse and a patient and compensatory nursing system and supportive-educative system that takes place between the nurse and a patient.

Orem proposed that the self-care deficit theory reflects an imbalance in the ability to provide care if you do not engage in necessary self-care [4]. The term deficit refers to the relationship between abilities of individuals to care for themselves and the

self-care needs of the individuals they are caring for. In order to prevent burnout, healthcare providers need to be able to recognize when they are overworked and stressed. One of the assumptions of Orem's theory is that a person's knowledge of potential health problems is necessary for promoting self-care behaviors. Selfcare is necessary during times of stress and turmoil. Healthcare workers cannot be expected to provide care to others when they are personally suffering. Orem's self-care deficit theory has never been more relevant than now, when the world is facing one of the worst healthcare crises it has ever seen. Healthcare professionals are exhausted, overworked, and underappreciated. Burnout is a global problem as the pandemic continues to rage. Not only are healthcare providers not able to take time to care for themselves, but they are also being forced to work longer hours because of staffing shortages, all of which could lead to adverse patient outcomes. All of these factors are contributing to healthcare worker burnout.

#### **Literature Review**

A comprehensive search of the literature was performed using the Simmons University Library databases' CINAHL complete, PubMed, and Medline to find studies on burnout among healthcare workers during the covid-19 pandemic. Google scholar was used to search for additional articles. The research was conducted using the following keywords in various combinations; burnout, burn out, burn-out, stress, occupational stress, compassion fatigue, healthcare workers, health care, hospitals, health facilities, health services, COVID-19, coronavirus, 2019-ncov, sars-cov-2, cov-19, pandemic, emergency room, and emergency department. The search was narrowed to articles dating back to 2019 which was the start of the COVID-19 pandemic. Burnout among healthcare employees has been a problem for many years, but the aim of this study was to determine the relationship between COVID-19 and burnout among the healthcare team. The goal was to obtain the most relevant and recent information on the relationship between burnout among healthcare teams in emergency departments and the COVID-19 pandemic. Articles that were written in any language other than English were not reviewed. Numerous studies were reviewed, but only the most relevant studies were compared, contrasted, critically evaluated, organized, analyzed, and conceptualized for this research assignment.

Several key concepts related to burnout in healthcare were noted in our review; the prevalence of burnout in healthcare, the factors that contribute to burnout in healthcare, coping with burnout, and the consequences of burnout in healthcare. Further descriptions of these key concepts that were synthesized from the review of the literature are discussed in the following paragraphs.

Burnout was first described by Maslach et al. as a state of psychological, emotional, and physical stress in response to prolonged exposure to occupational stress [5]. COVID-19 has proven to be a deadly and uncontrollable infection with high mortality. This has contributed to feelings of stress and anxiety for the medical staff tasked with caring for these patients.

#### Prevalence of burnout in healthcare

Burnout has been an issue for healthcare providers long before the pandemic. Prior to COVID-19, clinician burnout reached alarming rates with over 50% of clinicians experiencing some level of burnout [6]. In one descriptive study of 705 hospital nurses working during the pandemic, nurses reported high levels of stress and burnout, and moderate depression [7]. Working in healthcare can be challenging, ever changing, fast paced, and stressful, especially for newly graduated healthcare professionals. Adding COVID-19 to the healthcare environment can multiply stress levels leading to burnout. Stress levels were found to be higher in those who had just started their professional careers during the COVID-19 pandemic, those working in government institutions, and in nurses who felt inadequate regarding their nursing care [7].

Some studies have compared burnout among healthcare workers of different departments. Chen et al. found that there was a significantly higher prevalence of burnout among nurses working in critical care units as compared to non-critical care units [8]. Burnout also varies based upon geographical location. According to Wahlseer and colleagues, healthcare workers in North America reached the highest prevalence of burnout (57%) followed by Europe and Central Asia (48%) and East Asia and the Pacific (30%). There were also several variables identified as being associated with higher prevalence of burnout among ICU and ED staff. Age and female gender were associated with a higher prevalence of burnout [8].

The impact of the COVID-19 pandemic on nurses has been particularly significant. Initially there was a lack of preparation which led to a shortage of testing kits, lack of ventilators, and ongoing shortages of personal protective equipment (PPE) forcing nurses to reuse what would under normal circumstances, be one time use N95 respirators. Wearing PPE for prolonged periods of time can lead to hypoventilation causing headaches, reduction in cognition, altered judgment, and decreased situational awareness [9]. Nurses were unable to take adequate breaks during their shift leading to feelings of dehydration and starvation. Nurses faced emotional and mental health challenges while providing care to COVID-19 patients and their families. Nurses often work 12-hour shifts, which on a good day can be exhausting. Many large hotel chains began offering hotel rooms to nurses, providing a place to sleep and shower so that they wouldn't have to commute home in between shifts.

Apaydin et al. [10] surveyed 152 primary care health care workers including providers, nurses, and medical support assistants/clerks in two clinics in the Veterans Health Administration (VA) network during July and August 2020, the first summer of the COVID-19 pandemic. Over 40% of their respondents reported burnout and emotional exhaustion. They found that mid-career healthcare workers were more likely to report burnout than those earlier in their career. They hypothesized that workplace rewards and values may be important to healthcare workers during the pandemic as leaders are forced to make difficult decisions regarding resources, risks, and staffing to avoid overwhelming their healthcare system.

Factors that were linked to lower rates of burnout include staff whose personal values align with the values of their workplace, and if the worker felt a "calling" to healthcare.

# Contributing factors to burnout in healthcare

Early on in the pandemic, the lack of access to appropriate testing and personal protective equipment (PPE) was heavily reported in the press and on social media. China, the United States, and Europe have all reported on the significant levels of depression, anxiety, and even post-traumatic stress disorder that healthcare workers have experienced during this pandemic. Depression and anxiety rose among healthcare workers as a result of isolation, moving to different residences, and sending their families away for fear of bringing the virus home and infecting their loved ones. Having been infected with COVID-19 led to higher rates of depression, anxiety, and burnout in healthcare workers [11]. Healthcare employees face many job-related stressors throughout their daily work routines. Inadequate staffing, limited resources, high levels of patient acuity, long shifts, and mandatory overtime are some examples of these stressors. Insufficient personal protective equipment (PPE) access, shortages in resources, stigma from the community, worries about financial situations, poor communication from supervisors, workload, and job demands were all associated with a higher risk of burnout [8].

Gualano et al. [8] discussed the disruption that the nursing staff had in their everyday activity as they were now tasked with caring for patients who were suddenly deprived of their families. Families often share the burden of helping to care for their loved ones while they are hospitalized. This responsibility now fell solely on the shoulders of the nurses. This carried with it a significant emotional burden leading to an increase in physiological distress. Nurses are often not involved in end-of-life decisions and are simply the executing agents. In order to protect themselves from the emotions felt from having to carry out the orders based on a decision that they were not involved in, and at times may not agree with, nurses remove the emotional connection that they can develop with their patients. They do this in order to protect themselves while still carrying out the tasks bestowed upon them. This can lead to nurses feeling like they cannot adequately care for the needs of their patients. During the pandemic there was a higher-than-normal number of deaths. It is possible that these feelings increased, leading to nurses feeling dissatisfaction with their jobs, leading to burnout [8].

Zakaria et al. [12] conducted a study in the emergency department (ED) at a teaching hospital in Malaysia and found that nurses had the highest rates of burnout among healthcare employees. This could be due to the fact that their work conditions and responsibilities lead to more prolonged contact with COVID-19 patients. The nurses also expressed fear of exposing family members with the virus, a common concern discovered in several of the studies in this review, thus they reported higher stress levels. Zakaria et al. [12] also found that there was a correlation with an increasing number of years having worked in the emergency department. Staff with five years or more work experience in the ED had higher burnout

compared with those who had worked less than five years. They concluded that this was due to the more experienced nurses having more responsibility, leading to a higher likelihood of developing burnout. More experienced staff have also had significantly more time to develop job related burnout in comparison to the less experienced.

Norful et al. [6], conducted a descriptive study of healthcare workers in a hospital setting during the initial COVID-19 surge and found participants feared the uncertainty of COVID-19 patients and how to care for COVID-19 patients. They identified the stress of how policies regarding PPE would frequently change, they feared bringing COVID-19 home to their families and infecting others, and described feeling anxious at times [6]. Shortages of PPE, especially masks and eye protection, inadequate COVID-19 testing, and a feeling that their hospitals were unable to keep them safe were the sources of burnout among ICU nurses in another study [13]. Fear as a contributing factor to burnout was found to be higher in nurses who were educated at the bachelor's level [14].

Colberson et al. [15] found that ICU healthcare employees contributed significant stress and burnout to having difficult conversations with family members, having long working hours but insufficient time to get the work completed, and the everincreasing administrative burdens of charting. The amount of charting on patient care has been an increasing burden on healthcare workers contributing to high stress and burnout. Some providers view charting as taking time away from patient care. The regulations in healthcare have increased the amount of adequate, detailed charting that providers must accomplish to be reimbursed and prove evidenced based care. The increasingly long shifts, added by no lunch, no breaks, and high stress situations such as high patient acuity and difficult conversations with family members can additionally add to burnout risk.

#### Stress and the consequences

The consequences of burnout among healthcare employees prior to the COVID-19 pandemic included increased risk of chronic disease such as obesity and cardiovascular disease, depression, suicidal thoughts, lower retention rates, and poorer quality of care for the patients [6]. When burnout is experienced over time, employees begin to think of exhaustion in emotional terms, have negative thoughts about their professional skills and abilities, and negative attitudes towards patients [7].

Burnout can have serious consequences for not only healthcare providers, but for the patients as well. It can result in poor physical and mental health outcomes, a lack of motivation, low morale, absenteeism, and decrease in the quality of care provided by affected staff resulting in poor patient outcomes [5]. A study by Azuolayet et al. [8] found that clinicians affected by severe burnout were more likely to take sleeping pills and were smoking more frequently. Interestingly, they did not find an increase in alcohol consumption. Depression, post-traumatic stress disorders, and anxiety were high. Stress and insomnia also rose. Zakaria et

al. [12] found that healthcare workers reported fatigue, even after getting enough sleep.

Mental health status is an important factor to consider when thinking about burnout. Burnout is a response to job stress. These stressors can have physiological, emotional, and interpersonal ramifications. Burnout can lead to increases in psychological problems, substance abuse, and even suicide. Healthcare workers can neglect their own physical and emotional health because they are caring for others [16].

Pearman et al. [17] compared 90 healthcare providers against 90 age-matched controls from March 20 to May 14, 2020. They found that the healthcare providers were significantly more depressed and anxious than the control group. They had higher rates of lack of control and tiredness compared to the controls. The healthcare group fell into the clinically depressed range. They were also more concerned about their health, possibly due to the exposures that they faced caring for COVID-19 patients. The healthcare providers had lower proactive coping and fewer resources to deal with coping behavior. Pearman et al. [17] described healthcare workers appearing to be at an increased risk for mental health challenges.

Fitzpatrick et al. [18] conducted a prospective study among 55 emergency physicians (EPs) comparing personal wellness prepandemic and wellness during the pandemic. Results showed that during the pandemic, EPs felt less in control, decreased happiness while at work, had more trouble falling asleep, had an increased sense of dread when thinking of work needing to be done, felt more stress on days not at work, and were more concerned about their own health, as well as their family's health [18].

#### Strategies to deal with stress

During times of high stress, it is important to find healthy ways to adapt in order to prevent negative consequences. Healthcare providers who identify as having a high level of resilience and grit reported less stress, less fatigue, less anxiety, and fewer sleep disturbances than those with low levels of resilience and grit [19]. Upper management in healthcare systems can play a key role in supporting staff through effective communication, incentive pay, adequate training, providing adequate resources to include PPE and staff, as well as providing emotional support and leading by example. In one study, participants-maintained resilience through prayer, effective teamwork, supportive leadership, social media, on site yoga, and ice cream socials [6]. Sharing jokes and humor with coworkers, having sufficient time off, being recognized and supported by their communities, financial incentives, mental health support, and participating in activities such as shopping, watching movies, outdoor exercise, and social media were identified as major stress relievers during the pandemic by one study of nurses [14].

A review conducted by Baskin and Bartlett [20], found that there is an inverse relationship between resilience and burnout. Previous studies have established a link between resilience and burnout and between burnout and both poorer quality of patient care and

patient outcomes. Support and resources should be prioritized to healthcare workers, particularly those in frontline positions as they face unique challenges, especially during times like a pandemic. Nurse leaders therefore have the responsibility to create an inclusive and safe workplace and develop strategies to address the well-being of staff in the aftermath of stress and trauma created by the COVID-19 pandemic.

Addressing the burnout among healthcare professionals is a shared responsibility between the individual and the organization. Trinkoff et al. [21] suggest various strategies to promote the well being of nursing staff including offering adequate breaks, a two-five minute break every two hours during a shift to hydrate and use the restroom, 20-30 minute naps for staff to offset sleep deprivation and prevent medical errors, offering healthy food options at the workplace, and refrain from assigning extra shifts or mandatory overtime to staff to ensure adequate time off for rest and promoting adequate work-life balance. Practicing meditation, yoga, or journaling after work can promote relaxation and improved sleep quality, reducing fatigue and potential burnout [21].

Sometimes, finding the positive attributes in a negative situation can lead to effective and healthy coping. In a study of palliative care providers during COVID-19, participants reported on the personal and professional benefits that they perceived from experiencing the pandemic. They reported learning what matters in life, learning to achieve an improved work-life balance, and the development of new skills and perspectives related to patient care as positive aspects in such a tragic time [22].

There are multiple, simple, and healthy ways to relieve stress throughout the workday. Starting each shift with healthy, positive working attitudes and sharing with team members something positive about the day is a great beginning. Healthcare teams must support each other in order to remain effective, provide adequate patient care, and prevent burnout. Management and team members can support each other through making sure staff get adequate and timely lunch breaks by watching their patients for 30 minutes. Answering call lights, even if it's not your patient, is also very helpful. Being proactive by hanging a new IV bag if you see it getting low, emptying that full trash can, restocking the supply carts, emptying that full urinal, and removing the empty lunch tray from the patient's room are all simple interventions to support the team. A manager who walks through the units, personally thanking staff for their hard work and dedication, can be an effective leader by showing moral support. Managers can also provide lunches, afternoon snacks, coffee breaks, and an open-door policy where staff can go for emotional support, talk about their day, or just vent without being judged.

# Methodology Design

Approval from the Institutional Review Board was obtained through Simmons University. Prior to the survey being administered, permission and approval were obtained from the department manager and participation was 100% voluntary.

Clear instructions for the relatively short survey were provided to participants in verbal and written format with permission from the site. The self-administered survey used in this study supports a quantitative research design. The paper survey was distributed among emergency department staff during two weeks in February 2022. Survey results were analyzed and interpreted through a validated statistical analysis tool. The overall aim of the survey was to determine the relationship the COVID-19 pandemic had on employee burnout.

The instrument chosen for this study was the Maslach Burnout Inventory. This tool was designed to measure burnout among human service professionals. It was first published in 1981 and the Manual is now in its fourth edition. It is the first scientifically developed tool to measure burnout and is used around the world in research studies [23]. The inventory contains three scales; emotional exhaustion, depersonalization, and personal accomplishment, and contains 22 questions that are rated on a seven-point scale from never to every day. The emotional exhaustion section contains nine questions and reflects fatigue or stress. Depersonalization contains five questions and refers to feelings of callousness or indifference in regard to recipients, i.e. patients. Personal accomplishment contains eight questions and examines feelings of enthusiasm and effectiveness in working with people [24].

Riley et al. [25] looked at the reliability and validity of the Maslach Burnout Inventory three subscales as a screening measurement for burnout. They concluded that there was significant internal consistency and excellent convergent/divergent validity. There was also excellent sensitivity and adequate specificity which supported the use of the tool as effective for screening burnout.

# **Sampling**

A convenience sampling of all employees in one emergency department in the Boston area were recruited for this study. A total of 110 participants were recruited through word of mouth during shift huddles, as well as, during rounds on the unit with the team. The survey was open to all employees who worked in the emergency department, without regard to job title. Responses remained anonymous, participants were informed that their responses were used for an academic research project, and that they could not withdraw from the study once they had completed the survey as it was anonymous.

# **Data Collection**

The tool was administered to physicians, physician assistants, nurses, advanced care providers, medical assistants, social workers, and security officers in the emergency department at Hospital in Boston, Massachusetts. The variables that were examined were gender, age, number of years working in the emergency department, job category, and marital status.

Once the surveys were collected, an excel spreadsheet was developed and the data analyzed. The results were disseminated to the nurse manager and posted on the bulletin board on the unit. All data that was collected in this research study has been securely

stored in the lead researcher's office for the next three years.

#### **Strengths/ limitations**

Strengths of this research study include a large sample size and the use of a valid and reliable survey tool. The study also included all types of workers, not just nurses' or providers' viewpoints. The survey was relatively short, taking a short amount of time for respondents to complete which may have contributed to the higher number of voluntary responders.

There were multiple limitations to this study. There was a significant delay in receiving approval from IRB to start our study. The timeframe to complete the study was limited to only one week, during a very busy season for emergency room care, when COVID-19 had reached a peak. Healthcare workers may not have had sufficient time to complete the survey for various reasons, including being too busy due to low staffing, high patient acuity, and increased volumes of patients. This study was also limited to one department in one hospital in one region of the United States excluding other healthcare settings, departments, and regions of the country. The quantitative design of this project does not provide individualized responses. The researchers who conducted this study had very limited experience in research.

#### Results

In total, 110 surveys were administered. The surveys were administered over one week in the Emergency Department (ED) Hospital in Boston Massachusetts. Demographics collected included age, sex, number of years worked in the ED, marital status, and job category. Results are summarized by the different demographic categories below.

#### Age

In the age category of 18-25 years, there were 6 respondents (5.5%), 26-35 years there were 42 respondents (38%), 36-45 years there were 31 respondents (28%), ages 46-55 there were 14 respondents (12.7%), and in the 55+ age category there were 17 respondents (15.6%). The 26–35-year-old group had the highest level of depersonalization (25%) and lack of personal achievement (23.6%), followed by the 36–45-year-olds 18% and 13.6% respectively. These two age categories also scored the lowest level of emotional exhaustion, 16.3% for the 26–35-year-olds and 15% for the 36–45-year-olds.

#### Sex

Of the 110 respondents, 33 were male (30%), and 77 were female (70%). Females scored higher on emotional exhaustion (19%), compared to males (2.7%). Females scored higher on depersonalization (41.8%) compared to males (16.3%). Females also scored higher on lack of personal achievement (38%) compared to males (12.7%).

#### Number of Years Worked in the ED

Sixteen respondents (14.5%) had worked in the emergency department for 1-2 years, 26 (23.6%) respondents had worked in the emergency department 2-5 years, 21 (19%) respondents

worked in the emergency department 6-10 years, and 47 (42.7%) had worked in the emergency department for greater than 10 years. Those who had worked in the emergency department greater than 10 years scored higher than their counterparts on emotional exhaustion (11.8%), depersonalization (25.4%), and lack of personal achievement (17.2%).

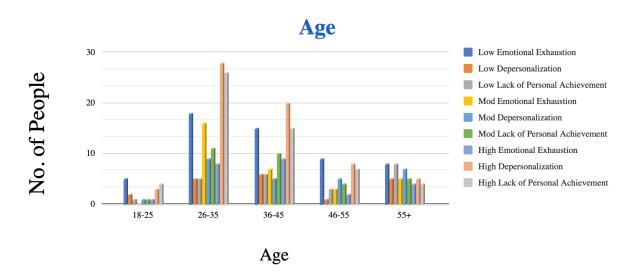
#### **Marital Status**

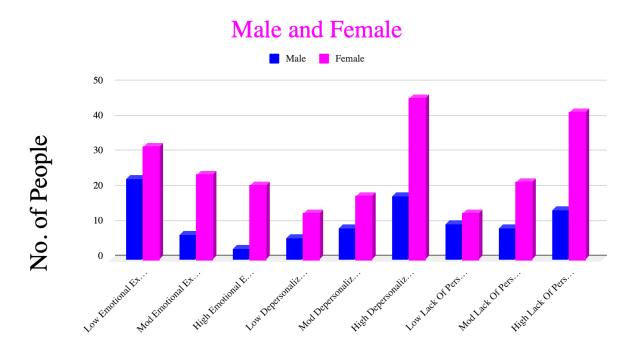
The total number of married participants was 48 (43.6%), single participants was 49 (44.5%), and divorced participants was 13 (11.8%). Those that were married scored lower on emotional exhaustion (22.7%) compared to those that were single or divorced. Those that were single scored higher on depersonalization (28%)

and higher on lack of personal achievement (26.3%).

#### **Job Category**

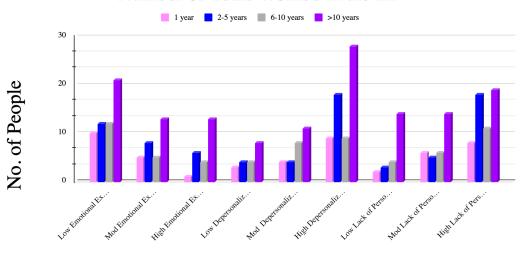
The nurses had the highest number of respondents n=64 (58%), followed by ESA's n=14 (12.7%), PA's n=8 (7%), business specialists n=7 (6.3%), security n=6 (5.4%), attendings n=4 (3.6%), other n=4 (3.6%, and residents n=3 (2.7%). The nurses scored highest on emotional exhaustion n=17 (15.4%), followed by ESA's n=3 (2.7%). The nurses also scored higher on depersonalization n=38 (34.5%), followed by ESA's n=7 (6%), and PA's n=6 (5.5%). The nurses scored highest on lack of personal achievement n=29 (26%), followed by business specialist n=7 (6%), ESA's and PA's n=5 (4.5%) for both categories.



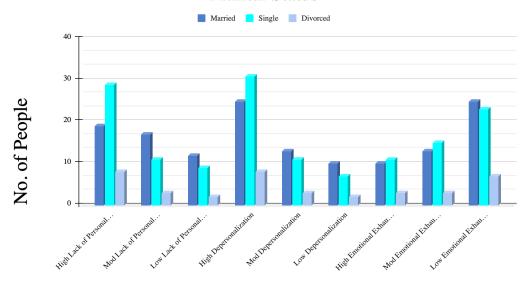


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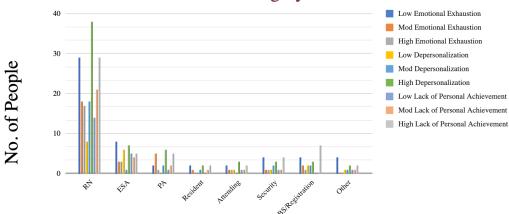




# **Marital Status**







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#### **Summary**

Overall, the respondents in the age category 26-35 years showed higher levels of burnout compared to the other age categories, with 36-45-year-olds coming in second. Female scores revealed higher levels of burnout compared to males. This is consistent with a study conducted by Gualano [8] who found that female gender was associated with a higher prevalence of burnout. Those that had worked in the emergency department for 10 years or longer scored higher levels of burnout. Zakaria et al. [12] also found that those who had worked greater than 5 years in the emergency department scored higher on burnout inventories. They contributed this to the more experienced nurses having more responsibility. Single participants scored higher levels of burnout. Lastly, nurses scored higher on burnout followed by ESA's. Haas et al. [9] and Zakaria et al. [12] also found that among various members of the medical staff working in the emergency department, nurses scored higher on burnout inventories. Hass et al. [9] reported that the impact of the pandemic was more significant for nurses than other disciplines. Zakaria et al. [12] felt that this could be due to the fact that their work conditions and responsibilities lead to more prolonged contact with COVID-19 patients.

#### **Implications to Nurse Practice**

The nursing team can gain useful information from the results of this study. Registered nurses and nurse Practioners represent a vital role in the healthcare team as leaders, providers, advocates, and role models. COVID-19 is a virus that is not going away anytime soon and burnout among healthcare providers is prevalent and can lead to numerous problems. Working in healthcare requires teamwork. It is important to recognize the signs and symptoms of burnout in yourself as well as your co-workers so that it can be prevented or treated. Self-care is as significant as teamwork. Healthcare professionals should strive to achieve a good work-life balance by knowing their limitations, participating in activities that reduce stress outside of work, take breaks at work, have good working relationships with their coworkers and leaders, get enough rest, a balanced diet, and learning to say "no" sometimes in order to prevent burnout and promote healthy work habits. Preventing burnout among healthcare providers leads to better outcomes for the patients, less call-outs among staff, fewer mistakes, and an overall healthier work environment.

#### **Conclusion**

The COVID-19 pandemic has led to significant changes in healthcare resulting in higher stress levels, fatigue, and burnout among healthcare workers. COVID-19 will continue to evolve as will healthcare. Further education and research are essential to prevent future pandemics that lead to crisis situations that could exacerbate future burnout in the healthcare industry. Adequate preparation for future pandemic situations could play a key role in prevention of burnout among healthcare teams.

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# **Appendix**

# **Maslach Burnout Inventory Tool**

# The Maslach Burnout Inventory

How do you perceive your work? Are you exhausted? How capable are you of shaping your relationship to others? To what degree are you personally fulfilled?

Indicate how frequently the following statements apply to you and add the points indicated on top of the respective box:

- 0 = Never
- 1 = At least a few times a year
- 2 = At least once a month
- 3 =Several times a month
- 4 =Once a week
- 5 =Several times a week
- 6 = Every day

01 – I feel emotionally exhausted because of my work	0	1	2	3	4	5	6
02 – I feel worn out at the end of a working day							
03 – I feel tired as soon as I get up in the morning and see a new working day stretched out in front of me							
04 – I can easily understand the actions of my colleagues/supervisors							
05 – I get the feeling that I treat some clients/colleagues impersonally, as if they were objects							
06 – Working with people the whole day is stressful for me							
07 – I deal with other people's problems successfully							
08 – I feel burned out because of my work							
09 – I feel that I influence other people positively through my work							
10 –I have become more callous to people since I have started doing this job							
11 – I'm afraid that my work makes me emotionally harder							
12 – I feel full of energy							
13 – I feel frustrated by my work							
14 – I get the feeling that I work too hard							
15 – I'm not really interested in what is going on with many of my colleagues							
16 – Being in direct contact with people at work is too stressful							
17 – I find it easy to build a relaxed atmosphere in my working environment							
18 – I feel stimulated when I been working closely with my colleagues							
19 – I have achieved many rewarding objectives in my work							
20 – I feel as if I'm at my wits' end							
21 – In my work I am very relaxed when dealing with emotional problems							
22 – I have the feeling that my colleagues blame me for some of their problems							

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