

Physician Burnout in COVID-19 Period

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Contributor: Shabbir Amanullah , Rashmi Ramesh Shankar

The main aim of this study was to analyse and summarise the current knowledge on factors/potential factors contributing to burnout amongst healthcare professionals amidst the pandemic . This study also makes a few recommendations on how best to prepare intervention programmes for physicians. Results from our systematic review generally showed that the introduction of COVID-19 has heightened existing challenges that physicians face such as increasing workload, which is directly correlated with increased burnout. However, exposure to COVID-19 does not necessarily correlate with increased burnout and is an area for more research. There is some evidence showing that techniques such as mindfulness may help relieve burnout. However, given the small number of studies focusing on physician burnout amidst a pandemic, conclusions should be taken with caution. More studies are needed to support these findings.

physician

health

burnout

pandemic

1. Introduction

The medical profession is deemed to be a demanding and stressful profession with serious consequences if there is flawed decision making as it impacts patient care. The concept of burnout, which has been defined as a “psychological syndrome characterised by emotional exhaustion, depersonalisation and a sense of reduced accomplishment in day to day work” ^[1], is being increasingly recognised as a factor not only affecting physician health but also the patients in their care. Numerous previous studies have reported the huge prevalence of burnout seen amongst physicians ^{[2][3][4][5]}, with one such study conducted by Shanafelt et al. reporting that 45.8% of a sample of 7288 US physicians had experienced burnout ^[6]. The consequences of burnout are potentially very serious for physicians as well as those with whom they interact. Burnout has been proven to cause a deterioration in the quality of care or services provided by the staff ^[1]. Furthermore, burnout appears to be correlated with increased use of alcohol and drugs, physical exhaustion and marital and family problems ^[1]. Hence, results reported by Shanafelt et al. are of huge concern, and with this current pandemic of COVID-19, it has only made it even more worrying and difficult for medical professionals.

To our knowledge, there have been very few papers that have explored the impact of COVID-19 on physician burnout, however, the method of assessing burnout has varied. The Maslach Burnout Inventory (MBI) is most widely used in research to measure burnout and has been regarded as the “measure of choice” for assessment of burnout ^[1]. It has been designed to assess the three components of burnout: emotional exhaustion, depersonalisation and reduced personal accomplishment—a score is then received for each component, which can be classified as low, average or high burnout status ^[1]. One such study by Wu et al. found that a significant

proportion of physicians are experiencing more burnout after the introduction of COVID-19 compared to pre-COVID-19 using the Maslach Burnout Inventory (MBI) [7]. Whereas a cross-sectional survey by Ruiz-Fernández et al. used the “Professional Quality of Life Questionnaire” (ProQoL) to assess burnout and found that burnout levels amongst Spanish healthcare professionals have remained similar to those studies prior to the pandemic despite the health crisis situation [8]. There could be a number of different causes for the difference in results, for instance, the month in which the data was collected, the situation of the pandemic at the time of collection of data in each country, the method of assessing burnout etc. Hence, to draw conclusions on burnout amidst the pandemic, papers analysed in this systematic review were grouped together based on the assessment method of burnout.

Due to the uncertainty of the length of the current pandemic, one can only speculate the lasting impact to be considerable. Hence, it is important to address the issues that are leading to increased burnout during this pandemic in order to reduce the long-term negative consequences. To date, there are very few evidence-based interventions in literature that focus on physician burnout during a pandemic. However, a few studies have made recommendations that may help prevent burnout and mitigate the consequences of occupational stress during COVID-19 [9][10]. More studies are required to corroborate existing findings.

To date, there have been no reviews that have examined this area of literature during the COVID-19 pandemic, hence, this would be the first review to summarise the existing findings on the impact of the pandemic on physician burnout and provide a detailed analysis of the various identified and potential factors contributing to physician burnout. This paper also aims to make certain recommendations that may help relieve the effects of burnout during the course of the COVID-19 pandemic.

2. Physician Burnout during the COVID-19 Pandemic

2.1. Using the MBI to Measure Physician Burnout during COVID-19

For the first part of the evaluation of physician burnout in this review, the Maslach Burnout Inventory (MBI) was used. The MBI questionnaire contains 22 items that were designed to evaluate three particular components of burnout: emotional exhaustion, depersonalisation and personal accomplishment [1]. To our knowledge, there have only been three studies so far that have explored physician burnout during this pandemic using the MBI.

Wu et al. first explored the prevalence of burnout amongst medical staff in China, when China was the epicenter of the virus [2]. This study surveyed 220 physicians, with an equal split between males and females. All participants were given the Maslach Burnout Inventory–medical personnel (MBI-HSS(MP)) to complete. The results recorded an 86% response rate [2]. When individually asked about their attitudes towards COVID-19, the results demonstrated that only 23% of physicians had felt more burnout compared with before the COVID-19 crisis, 15% of respondents neither disagreed nor agreed to feeling ‘more burnout’ and 62% disagreed to feeling more burnout [2]. Results from MBI suggested that almost 25% of the sample felt increased emotional exhaustion and depersonalisation, with almost half of the participants reporting decreased personal accomplishment [2]. In comparison, another study was conducted by Guisti et al. who surveyed healthcare professionals working in a

health institution in Northern Italy ^[11]. This study included a sample of 330 healthcare professionals who took part in the online survey that assessed burnout using the Maslach burnout Inventory-Human Service Survey (MBI-HSS). Results showed that more than two-thirds of participants had reported moderate to severe levels of emotional exhaustion and reduced personal accomplishment, and more than a quarter of the sample reported moderate to severe levels of depersonalisation. This level of physician burnout was further supported by Dimitriu et al. who also assessed burnout using the Maslach Burnout Inventory- Medical Personnel (MBI-HSS(MP)) ^[12]. One hundred medical residents were sent questionnaires including the 22 questions from the MBI. On average, 76% of the sample reported burnout. The authors noted that this level of burnout was “superior to studies conducted in normal periods” ^[12].

When Wu et al. further questioned them about their main worries and stress, 64% reported that they worried about becoming infected and 76% were worried about their families contracting the virus ^[7]. Both Wu et al. and Dimitriu et al. also found that there was a higher prevalence of burnout syndrome in staff working in regular wards compared to those working on the front line ^{[7][12]}. This idea will be further discussed in 5.1 Occupational Factors.

Guisti et al. also found that several personal and work-related factors contributed to the level of burnout ^[11]. The main reported predictors of burnout amidst this pandemic included:

- occupational factors such as department of work,
- female gender,
- increased work hours.

2.2. Other Survey Instruments to Measure Physician Burnout during COVID-19

Two other studies have reported the impact of COVID-19 on physician burnout, however, they have used other survey instruments other than the Maslach Burnout Inventory.

The first study by Morgantini et al. analysed 2707 responses from healthcare workers across 66 countries on their experiences ^[13]. Assessment of burnout was indicated by a “single item measure of emotional exhaustion” ^[13]. Hence, depersonalisation and personal accomplishment were not taken into account. More than half, 51.4%, of respondents reported burnout purely due to their work circumstances. The results found that adequate personal protective equipment (PPE) was a protective factor against reported burnout. The lack of PPE has been raised in many different countries and has led to significant levels of frustration ^[13]. Contrary to the findings from Wu et al. and Dimitriu et al., Morgantini et al. found that burnout was associated with exposure to COVID-19 patients (95% CI = 1.05–1.32, $p = 0.005$) ^[13].

The second study by Kannampallil et al. included a web-based survey which was sent to 1375 US physician trainees that assessed burnout using the Stanford Professional Fulfillment Index (PFI) ^[14]. The three components of burnout measured using the MBI, emotional exhaustion, depersonalization and personal accomplishment,

correlates with the PFI, however, the authors' decision to use PFI over MBI was due to the fact that the questions from the PFI captured burnout in the "past two weeks" ^[14]. There was a 29% response rate, and the sample was broadly split into "exposed group" and "unexposed group" accordingly, based on their response to the question about caring for patients currently being test for COVID-19 ^[14]. The results overall found certain predictors for burnout, which further supports the earlier mentioned predictors of burnout: female gender, increased work hours and family concerns. Doctors have often expressed the risks to their families but also one can recognise the feeling of being 'alone', with no one to turn to for help. Existential questions about what will happen to their families if they fall ill are bound to be prominent fears. There are a few studies that have addressed this question, but this will likely come up in the next few months.

Emerging papers ^[15] further reinforced these finding from listening sessions that were conducted with healthcare professionals. Along with inadequate access to PPE, other causes of anxiety leading to burnout were thought to be lack of access to up to date information and communications and unknowingly bringing COVID-19 infection home.

3. Conclusions

In conclusion, burnout amongst physicians is an important issue because it not only has an impact on the physician's life, but it can potentially affect patient care, let alone, their families and society. The current pandemic has brought with it ways of working that physicians need to adapt to, and developing ways to cope with burnout is important. The ability of hospitals to help with burnout management may be helpful and certainly more studies on burnout levels and looking at comparing data between regions and nations is needed. It may be important to learn best practices from other places and replicate it.

Future research is needed on the larger spectrum of burnout that has not been addressed in this review, which are important issues and includes but is not limited to personality, social situation and financial status. These can have a bearing on how one perceives burnout and interventions that may be sought.

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