

The relation between intensive care unit staff members' burnout condition and job satisfaction; Systematic review

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Abstract

Background: intensive care unit staff is vulnerable to burnout because of the everyday exposure to challenging circumstances like providing care for the severely ill patients. This study set intended to examine burnout, satisfaction, and related factors among ICU nurses.

Method: A systematic review was carried out using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). The search was conducted using the databases Medline, Scopus, and Google Scholar. Among the search terms are nurses, burnout, and intensive care units. The search was restricted to papers that were released between 2015 and 2020.

Result and conclusion: We considered 5 cross-sectional studies with a total of 1953 individuals in our systematic review. High emotional tiredness scores were shown to be significantly linked with personality characteristics and depression. Some psychologists claim that four personality traits—responsibility, agreeableness, neuroticism, and extraversion—have a strong link with emotional tiredness. The Depersonalization and Personal Achievement were linked to these related factors by including openness. These results show a connection between extreme job overload and high degrees of depersonalization and emotional weariness.

Keywords: Burnout; Intensive care unit; Exhaustion; Fatigue; Job satisfaction

1. Introduction

Burnout is defined by American psychiatrist in 1974 as a condition of exhaustion or dissatisfaction that follows commitment to a cause, way of life, or interpersonal connection in which the anticipated effort is not realized (1). Unfavorable reaction brought on by recurring stressful job experiences is known as burnout, professionals who suffer from this condition believe that there is a persistent mismatch between their job, their values, and their needs (2).

Emotional exhaustion is the gradual exhaustion, and fatigue that is externalized physically, psychologically, or both. These are the three main components of this phenomenon. Other instruments for measuring burnout exist as well (3).

A validated tool for measuring burnout syndrome, was created in 2001 by Maslach et al. (4). It is comprised of a questionnaire with 22 items that use Likert scale to score the three components (personal achievement, Emotional

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exhaustion and Depersonalization) as indicated (0 being never and 6 being every day). Burnout is indicated by high Emotional exhaustion E and Depersonalization scores as well as low Personal achievement levels. Burnout may be categorized into three degrees: high, medium, and low (4).

Physical conditions including migraines, hypercholesterolemia, type 2 diabetes, intestinal, cardiac, and pulmonary pathologies, as well as chronic weariness and muscular soreness, have been linked to burnout (5). Additionally detrimental to mental health, burnout can result in alcoholism, sleeplessness, suicidal thoughts, and symptoms of depression and anxiety (6). Moreover, work discontent and absenteeism may result from burnout syndrome (7).

Because nurses deal with challenging circumstances like mortality and pain management on a daily basis, they are regarded as high-risk professionals. ICUs in particular may be stressful because of high death rates, serious medical conditions, and moral conundrums (8). When staff members don't have enough time to give each patient the proper treatment, this scenario may get worse (9).

Because burnout syndrome is continuous, it can induce intense emotional reactions that, in the absence of treatment or prevention, might harm a health professional's physical and mental integrity. Due to subpar performance and a rise in mistakes in the healthcare setting, burnout can also likely to result in a decline in the care quality, raising the mortality risk and death for patients (10). In this regard, reviewing ICU burnout is intriguing. Since this illness has been labeled as an occupational phenomena, it is imperative to prevent it by putting coping mechanisms into place (9). Analyzing burnout levels, satisfaction, and associated variables in ICU nurses was the goal of this study.

2. Method

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) were followed in conducting a systematic review (11). The databases Medline, Scopus, and Google Scholar were used for the search. Intensive care units, burnout, and nurses are among the search phrases. The articles published between 2015 and 2020 were the focus of the search. The inclusion criteria were being published in both English, having a sample of critical care unit nurses, and being main quantitative studies that assessed burnout and associated risk variables. Prior to choosing the research, a screening process based on duplicate studies was conducted. Four writers independently examined the titles and abstracts of the publications they identified throughout the article selection process. At last, the entire material was perused. In the event of a dispute, the appropriate author was consulted. Data was extracted by all authors in a pre-designed Google sheet with access for all authors to avoid missing important information's or duplication of data.

3. Result and discussion

In this systematic review we included 5 cross sectional studies (Fig 1), with a total of 1953 participants (Table 1). Depression and personality traits were shown to be substantially correlated with high Emotional exhaustion scores (12). According to some scientists, there is a substantial correlation between Emotional exhaustion and four personality factors: responsibility, agreeableness, neuroticism, and extraversion. By including openness, the Depersonalization and Personal achievement were also connected to these similar elements (12).

Of the nurses who work complementary physical days, 15% had high emotional exhaustion, 18% had high depersonalization, and 66% had low Personal achievement in relation to working hours. These findings demonstrate the relationship between high levels of Emotional exhaustion and Depersonalization and excessive job overload (13). Similarly, a higher number of patients was linked to a higher workload, which was correlated with high Emotional exhaustion and low Personal achievement (14).

Certain writers examined resilience as a means of adjusting to unfavorable circumstances. Depersonalization and Personal achievement were favorably and adversely correlated with resilience. An increase in the mental health of nurses and their motivation to work efficiently were linked to higher resilience levels (15). There was no correlation found in the findings of other studies that looked at the association between burnout and the rate of infection in the ICU (13).

The study conducted by Arrogante et al. (2017) yielded a significant conclusion regarding the mediational function of resilience in critical care workers. The detrimental effects of burnout syndrome on these professions' mental health are lessened by resilience. The links between the three aspects of this syndrome—emotional weariness, depersonalization, and decreased personal accomplishment—and mental health are mediated by resilience, according to the developed mediational models. The findings of a prior study (16) involving nursing personnel employed in various hospital

services are validated by these mediational models. The resilience mediation was only partially effective in the cases of depersonalization and emotional weariness. This research implies that factors other than resilience affect critical care practitioners' mental health (16).

The study conducted by Filho et al. (2019) looked at three hospitals in Brazil's ICUs' ICU nurses' job-related burnout, workload, and practice environment. They discovered that two burnout subscales among ICU nurses, Emotional exhaustion and PA, were related to a composite measure of the nurse practice environment. Likewise, they discovered that the identical two burnout subscales were connected with the quantity of patients allocated to a nurse. High levels of Emotional exhaustion were reported by nearly one-third of the ICU nurses in the Filho et al., 2019 sample. This finding has been documented in nurses working in a variety of contexts (17,18).

According to the Filho et al., 2019 study, there was a statistically significant 10% increase in the likelihood that nurses would have a poor Personal achievement for every extra year they worked in the ICU. This result is consistent with prior research that found a lower Personal achievement was linked to more years spent working in the in ICU and that a higher ICU work experience was linked to severe burnout in nurses (16). The results of Filho et al.'s 2019 study are concerning because burnout has been connected to comments from nurses indicating that they want to quit their ICU jobs (19,20).

In particular, the findings of Galletta et al., 2016 demonstrated a clear and positive relationship between cynicism and emotional weariness. Accordingly, employees will become less enthusiastic and emotionally invested in their work the more they are exposed to emotional exhaustion. This finding is consistent with the literature on burnout and lends credence to the theory of burnout, which holds that personal inefficacy results from cynicism that develops after weariness. As a coping mechanism for intense job demands, people who are burned out typically describe a state of tiredness, which leads to an emotional and cognitive disengagement from their work (4).

Furthermore, Galletta et al. (13) discovered that the association between cynicism and team efficacy was significantly mediated by the perceived quality of team communication. This indicates that a work environment that fosters a persistent depersonalization, such as being removed from one's job, impairs a team's capacity to communicate, exchange important information, and avoid mistakes, all of which have an impact on the perception of the efficacy of the team, this might potentially explain a growing sense of personal non-accomplishment that appears to result from a loss of pertinent resources (4).

Patient infections contracted during their hospital stay were directly and adversely correlated with perceived team efficacy (13). This finding suggests that a team that functions in a synergistic and collaborative manner, with excellent staff communication, can enhance patient care quality and lower the rate of infections linked to medical treatment. As demonstrated by pioneering research, healthcare-associated infections really serve as a barometer for the standard of hospital treatment (21), therefore they may be viewed as an objective result of staff performance.

As shown by further research, mental problems and low job satisfaction were caused by an excessive number of daily working hours, a heavy workload, and a lack of time for patient care (22,23). Because of the intricate labor interventions performed by nursing personnel, the mental and physical domains are overburdened in critical care services. Some writers draw attention to the fact that high Emotional burnout was associated with both job-related and personal issues, including long workdays, a low quality of work life, and a lack of time for self-care (24). Personal factors included being unmarried and raising children.

Protective variables included having a suitable work environment, positive working relationships, and institutional support (25). Additional research by other authors shown that higher pay boosts motivation, which in turn raises job satisfaction and lowers the risk of burnout syndrome in professionals (26,27).

ICU nurses who experience significant levels of anxiety and despair have also demonstrated high levels of burnout with regard to psychological variables. The work environment in practice is demanding and unfavorable, which lowers the professional's quality of life and increases dissatisfaction and disinterest that lead to resignation (28). As a result, it is crucial to offer therapies to enhance mental health and encourage coping mechanisms (29).

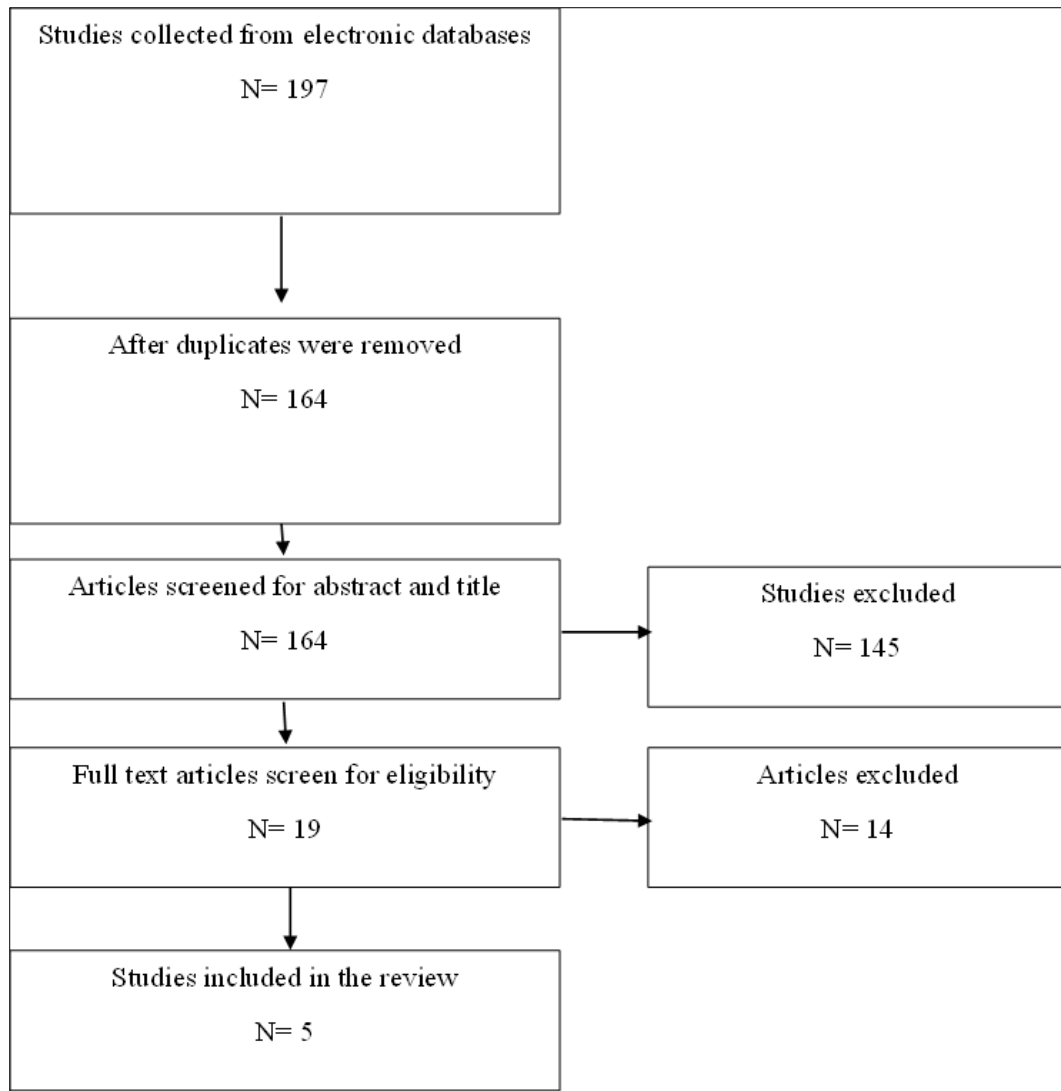


Figure 1 PRISMA consort chart of study selection

Table 1 Characteristics and main findings of the included studies

Author, Year, (Country)	Study Design	Burnout Prevalence	Sample	Main Results
Arrogante et al. (15)	Cross-sectional study	Personal achievement was high, whereas depersonalization and emotional tiredness were at medium levels.	30	Resilience, mental health, and physical health were all adversely impacted by emotional weariness and depersonalization. Resilience and mental health were favorably correlated with personal achievement.
Cañadas et al., 2016 (30)	Cross-sectional study	44.1% of the population had the highest syndrome levels.	1225	High degrees of emotional weariness, depersonalization, and poor levels of personal success were more common among nurses who worked extra shifts.
Cañadas et al 2018 (12)	Cross-sectional study	Elevated Emotional burnout 11%	337	High degrees of burnout were correlated with personality traits and depression. A statistical relationship was found between emotional

		Poor individual performance, 63.3% High Level of Depersonalization 17%		weariness and neuroticism, amiability, responsibility, extraversion, anxiety, and depression. The five personality traits, as well as anxiety and despair, were linked to depersonalization and personal achievement. A high level of burnout was linked to amiability and neuroticism.
Filho et al. (14)	Cross-sectional study	Emotional burnout 29% Personal accomplishment 52% Depersonalization 22%	209	The likelihood of experiencing emotional tiredness and poor personal achievement increased by 67% and 37%, respectively, for every additional patient added to a nurse's workload. Every year spent working in the intensive care unit was linked to a 7% increased risk of having little personal success.
Galleta et al.(13)	Cross-sectional study	Emotional burnout (53%) Depersonalization (61.5%)	101	Hospital rate infections and psychological factors were linked to burnout.

4. Conclusion

High emotional tiredness scores were shown to be significantly linked with personality characteristics and depression. In a similar vein, a greater workload was associated with more patients, and a higher burden was associated with low satisfaction and significant emotional tiredness.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

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