

## The relation between burnout, intention to leave and healthcare quality; Systematic review

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### Abstract

**Background:** Burnout has been linked to patient outcomes, safety metrics, medical mistakes, communication, and adherence to practice standards, according to an increasing corpus of primary literature and systematic reviews. We conducted a comprehensive study to investigate the relationship between burnout and patient safety as well as treatment quality.

**Method:** We conducted a comprehensive review of the literature in order to generate summary estimates of the link between provider burnout and care quality. The PRISMA rules were followed. Between 2012 and 2021, we ran a language-free search across MEDLINE, Google Scholar, Web of Science and Embase.

**Result and conclusion:** Most of the data points to a connection between worse care quality and burnout among providers, which is in line with previous evaluations of different aspects. Work-life conflicts and a lack of staffing are two major causes of burnout among nurses. Enhancing hospital work environments might be a very inexpensive way to raise satisfaction of patient while also enhancing safety and hospital quality of care.

**Keywords:** Burnout; Intention to leave; Healthcare quality; Patient satisfaction

### 1. Introduction

The constantly evolving world of technology, service delivery systems, and legislation poses a danger of professional burnout for healthcare practitioners. According to studies, burnout symptoms may occur in over half of healthcare professionals at some point. Burnout has been connected to negative outcomes for both the company and the provider, such as suicidality, strained relationships, lower productivity, impolite conduct, and employee turnover (1,2).

The relationship between healthcare providers burnout and lower quality of care has received more attention recently. A growing body of literature has found links between burnout and safety metrics, patient outcomes, medical errors, communication, and adherence to guidelines (3). The majority of research in this area use observational designs and investigate a variety of outcomes among heterogeneous patient groups using a broad range of burnout evaluations and analytical approaches (4).

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Patient safety events are the result of the interaction of several latent and active, systemic and individual elements. Human factors have a significant role, and recent studies suggest that they are crucial for employee wellbeing (5). A continuum representing heightened sadness, anxiety, and low wellbeing at one end and thriving, happiness, and high wellbeing at the other can be used to conceptualize wellbeing. The Hospital Depression and Anxiety Scale (6), the General Health Questionnaire, stress measurements like the Perceived Stress Scale, and the Positive and Negative Affect Schedule (7) are a few examples of wellbeing assessments. Burnout affects patient safety in addition to wellbeing; the two are fundamentally distinct variables.

There may be a connection between burnout and healthcare quality. There has been conflicting evidence in the research looking into the relationship between the quality of care and burnout. Although a number of research have found a correlation, these findings have not always been confirmed (5). Burnout has frequently been used as a stand-in for wellbeing; however, it is unclear which is more consistently linked to patient safety given the antecedents, symptoms, and outcomes of burnout and wellbeing are different (8). It is unknown what processes underlie the correlation between these factors and patient safety. To find out how burnout is related to patient safety and quality of treatment, we carried out a systematic study.

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## 2. Method

To give summary estimates of the relationship between care quality and burnout, we carried out a thorough evaluation of the literature. The PRISMA guidelines were adhered to. We conducted a language-free search of MEDLINE, Google Scholar, Embase, and Web of Science between 2012 and 2021. We searched for healthcare providers, indicators of the quality of treatment, burnout and its subcategories (emotional weariness, depersonalization, and decreased personal accomplishment).

All papers that presented original research on healthcare professional burnout in connection to an evaluation of the standard of patient care were included. We utilized a broad approach to find research on burnout, classifying evaluations as linked to burnout if their authors identified them as such and using any questionnaire designed to partially or completely detect exhaustion.

Data on publishing features, burnout and quality metric assessment techniques, and the degree of the reported relationship were extracted and put into a standard form. All writers extracted the data, and disagreements were settled by consensus.

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## 3. Results and discussion

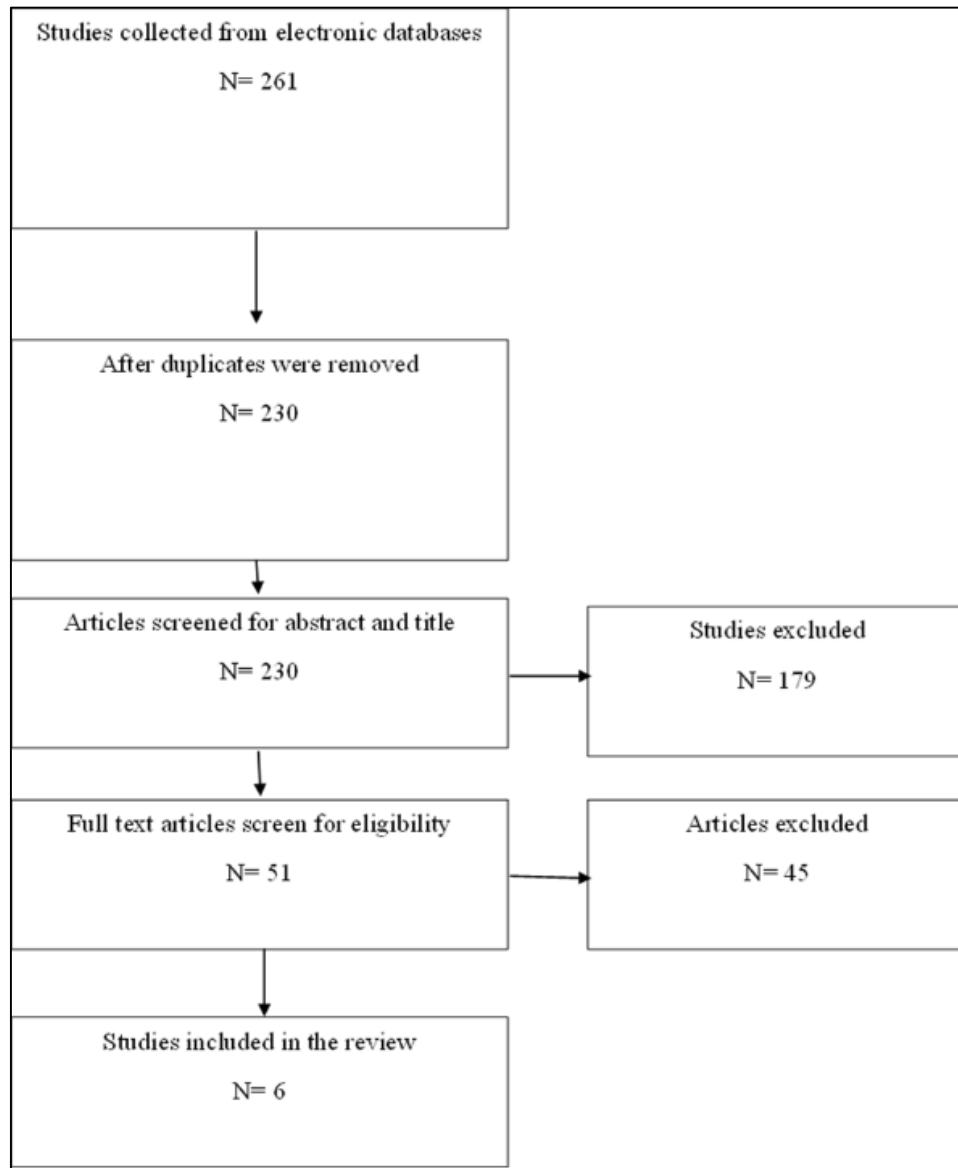
In this systematic review study we included 6 articles (Fig 1). Studies main findings and characteristics were presented in (table 1). Health care-associated infections are linked to morbidity, mortality, and significant expenditures for healthcare institutions, according to a 2012 study by Cimiotti et al. Compared to costs associated with diseases linked to healthcare, health care facilities can reduce job-related burnout in nurses and enhance other aspects of the care environment. Managers can enhance the wellbeing of nurses and raise the standard of patient care by lowering nurse burnout.

At least in part, the high rate of nurse burnout linked to larger patient caseloads appears to be connected to the higher infection rates in hospitals where nurses care for more patients. The general standard of patient care and work discontent have been related to nurse burnout (9) but not "nursing-sensitive" clinical outcomes. Self-reported medical mistakes by surgeons (10) and internal medicine residents (11) have been linked to burnout. Holden et al. (12) found that burnout and the risk of perceived medication-dispensing mistakes in pharmacists are related to external mental pressures, such as interruptions, split attention, and feeling hurried. Cimiotti et al. speculate that among registered nurses, the cognitive detachment linked to high levels of burnout may lead to subpar hand hygiene habits and errors in other infection control protocols.

In order to help RNs engaged in adverse occurrences, both official and informal methods should be put in place, according to a 2015 research by Lewis et al. (13) Patients prefer that avoidable adverse occurrences be communicated, regardless of the link between disclosure and RN burnout (14). Moreover, systematic measures are needed to encourage disclosure, which is a fundamental component of a patient safety culture. Patients were to be notified when accidental clinical consequences occur, according to a 2001 Joint Commission mandate; however, the mandate lacked precision, and there are significant differences in the ways that institutions have complied with the mandate (15). The National

Quality Forum (NQF) adopted disclosure standards that stipulate the necessity of a formal procedure that includes informing patients about the incident and educating staff on how to report it (13).

The 2017 study by Boamah et al. confirmed the correlations that were postulated between burnout, structural empowerment, interference with work-life balance, and short staffing. The study revealed several novel findings: empowerment was inversely correlated with short staffing and work-life interference, and that both of these work-life characteristics were linked to higher levels of burnout after a year. Additionally, there was a clear and substantial negative relationship between burnout and job satisfaction as well as a direct relationship between job satisfaction and quality of care (16).



**Figure 1** PRISMA consort chart of study selection

The results of a 2016 study by Basar et al. among nurses showed a positive correlation between burnout and intention to leave, meaning that burnout is one of the factors that precedes desire to quit. This result validates earlier research. Basar et al. also discovered that nurses who experience burnout tend to disregard their jobs. Finding the link between burnout and job neglect is essential because of the possible, unacceptable, and unjustified effects on patient care. Nurses who experience burnout and are unhappy with their demanding work environment may choose to resign. If, on the other hand, they are unwilling to leave, they must continue working there (17).

Health care providers' burnout is viewed as a significant problem that affects patient care. Medical mistakes and failures can have deadly results, particularly when related to disorders that pose a threat to health (18). Health care workers' burnout may endanger the wellbeing and safety of their patients. According to Baier et al.'s 2018 study, the proportion of individuals who had a high level of burnout in one of the burnout dimensions ranged from 19.9 to 40%, with the depersonalization dimension having the greatest number of participants. Baier et al.'s 2018 depersonalization results were greater than the introduction's data on the prevalence of burnout among nurses and surgeons. One possible explanation for this might be because, at 86%, men made up the bulk of participants in their study, and men are more susceptible to depersonalization than women (19).

**Table 1** Characteristics and main findings of the included studies

Citation	Method	Aim	Main findings
Lewis et al., 2015 (13)	cross-sectional survey	To investigate RN participation in avoidable adverse events, the relationship between burnout and RN and system features, and patient- and RN-focused treatments.	Using the conceptual model nurse experience of medical mistakes, this study discovered a connection between RN involvement in avoidable adverse events and two burnout domains: depersonalization and emotional weariness. Support for RNs involved in avoidable adverse occurrences was favorably correlated with personal achievement and negatively correlated with RN emotional weariness and depersonalization.
Cimiotti et al., 2012 (20)	Data data from a 2006 survey of 7,076 registered nurses employed by 161 hospitals were examined in this study.	An investigation was conducted on registered nurses' job-related burnout to see if it could fully or partially explain the correlation between hospital infections and nurse staffing.	Urinary tract and surgical site infections were significantly correlated with the patient-to-nurse ratio. The only variable that continued to be substantially correlated with urinary tract infection and surgical site infection was nurse burnout in a multivariate model that further controlled for patient severity, nurse, and facility characteristics. A 30% reduction in burnout was associated with 6,239 fewer infections overall in hospitals, resulting in up to \$68 million in cost savings annually.
Boamah et al., 2017 (16)	A time-lag investigation of recently graduated nurses in Canada	To test a theory that links structural empowerment, understaffing, interference with work-life balance, and new graduate nurses' evaluations of their manager's authentic leadership behaviors to burnout, job satisfaction, and the quality of patient care.	The results imply that work-life conflict and understaffing are significant contributors to burnout among recently graduated nurses. Reducing burnout, raising job satisfaction among nurses, and enhancing patient care quality may all be achieved by helping nurse supervisors adopt genuine leadership behaviors and collaborating with them to establish and maintain empowering work cultures.
Basar et al., 2016 (17)	Cross-sectional study utilizing questionnaires for self-report.	The study's objective was to determine if views of organizational politics had an impact on potential relationships between burnout among nurses and its outcomes, such as desire to leave and neglect of duty.	Burnout led to thoughts of giving up and neglect. Partially mediating the relationship between burnout and neglect was intention to stop. In nurses who perceived organizational politics more strongly, burnout led to a somewhat stronger inclination to resign.
Baier et al., 2018 (21)	German emergency medical services (EMS) publications,	This study is to investigate the association between burnout and perceived	In one of the burnout measures, 19.9% to 40% of the individuals had a high level of burnout. The outcome measure that had the largest percentage

	social media, and a professional association were used to obtain the participation of EMS professionals in an online survey.	safety results for EMS professionals in Germany, as well as the overall level of burnout among these workers and any potential unfavorable occurrences that might endanger patients.	of participants reporting a negative outcome was safety-compromising conduct. Injury and conduct that compromises safety were positively correlated with the aspects of emotional weariness and depersonalization. Furthermore, there was a strong correlation found between the outcome measures and experiences, work satisfaction, and desire to quit present position.
Aiken et al., 2012	Cross sectional study	To ascertain if nurse workforce stability and patient care might be impacted by well-organized hospitals in European nations. Create cross-sectional surveys for nurses and patients.	Higher treatment quality and patient satisfaction were linked to better work conditions and lower patient-to-nurse ratios. Better work conditions were associated with half as many nurses reporting poor or acceptable care quality and giving their hospitals bad or failing scores on patient safety in European hospitals, even after controlling for facility and nurse characteristics. The likelihood of nurses reporting subpar or fair-quality treatment as well as subpar or failing safety scores rose with each extra patient per nurse. Patients who felt that their hospitals had better work environments were more inclined to give them high ratings and suggest them, whereas patients who felt that their hospitals had greater patient-to-nurse ratios were less likely to do so. The US had comparable results. Patients and nurses concurred on which facilities offered quality treatment and could be recommended.

#### 4. Conclusion

The published research commonly links burnout among healthcare providers to worse quality of service.

#### Compliance with ethical standards

##### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

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