

EXPLORING THE EFFECT OF JOB DEMAND ON BURNOUT IN NURSES: SYSTEMATIZED REVIEW

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ABSTRACT

The health system is an important aspect in ensuring the quality of people's lives. This makes nurses play an important role in providing quality services to patients. Due to their central role in the health system, they are forced with high work demand. The Job Demands placed on nurses results in extraordinary emotional pressure. This high workload has caused some nurses to experience burnout, which includes emotional exhaustion, depersonalization, and decreased self-achievement. Burnout can threaten the well-being and productivity of nurses, and even encourage nurses to leave the profession. Therefore, the aim of this research is to identify the influence of job demands on burnout in nurses. This research uses the Systematized Review method based on the Preferred Reporting Items for s and Meta-Analyses (PRISMA). The function of creating this method is to provide insightful studies of the impact of Job Demand towards Burnout based on existing literature studies. The database used in this research consists of: Pubmed, and ScienceDirect. The results of this research resulted in twelve articles discussing the research topic, with a total of 10 articles saying that there is an influence, and two articles saying that job demand can be overcome by other factors, namely job satisfaction and job control. Furthermore, in the long term, this research may give insight on how to increase the effectiveness and quality of the health system.

Keywords: Job demand, burnout, nursing, systematized review

1. PREFACE

The success of the healthcare system is essential to ensure the well-being of individuals, communities, and society as a whole. Healthcare workers play an integral role in ensuring the success of the system by providing expertise and care, to improve the patient's health. Nurses are considered as the backbone of this system, by providing support for the doctors and giving direct care to the patients, from preventive care to acute care to end-of-life care (Potter & Perry, as cited from Anthonie et al., 2022).

Nurses are often faced with conditions as the front line in healing patients. Not infrequently, nurses are also faced with life-threatening conditions, especially for patients who are in the Intensive Care Unit. This condition requires nurses to have special attention, knowledge and skills to provide treatment to patients (Sari, 2019). Pressure coming from various parties, especially the patient's family, makes nurses experience high job demands.

The high job demands of nurses are often followed by exhaustion, high work-load, and psychological stress. The immense pressure of these demands may cause psychologically traumatic experiences that can lead to a nurse leaving their job (Oliveira et al., 2019). This is caused by the emotionally and physically taxing activity of providing healthcare service in unpredictable situations as well as the responsibility on a patient's recovery. A research by Xie et al. (2011) stated that nurses bear the risk of physical, mental, and emotional exhaustion, which is often referred to as burnout. Burnout is a syndrome that is marked by emotional exhaustion,

depersonalization, and low self-achievement (Maslach, 1981). Furthermore, another study by Heijden et al. (2019) supports this statement with the fact that as much as 75% nurses have many job demands which leads to exhaustion. Furthermore, nurses must handle many life-or-death decisions, responsibilities, and problems, so their performance is of the utmost importance.

Schaufeli et al. (2020) stated that burnout is a state of mind that consists of four dimensions: (a) exhaustion, shown from a rapid energy drain that impairs the ability to work and feeling tired by doing small amounts of effort at work; (b) emotional impairment, an intense emotional reaction (frustration and anger) and the feeling of helplessness on one's emotions; (c) cognitive impairment, a problem in memory, attention span, concentration, and poor cognitive performance; and (d) mental distance, shown by one's withdrawal from work, both mentally and physically. Several studies have shown that burnout among nurses frequently occurs as a consequence of high job demands (Heijden et al., 2019; Mealer et al., 2014).

In a study involving nurses from several countries as participants, as many as 43% of nurses in China, more than 50% of nurses in Sweden, and 37% of nurses in Turkey reported symptoms of burnout due to increasing work demands (Heijden et al., 2019). Similarly, a study by Queiros et al. (2019) also reports that 51% of nurses in Italy and 44% of nurses in Portugal experience burnout due to job demands. This is a clear sign that high job demand in nurses has been reported worldwide and poses a threat towards nurses' mental health and in effect, their ability to perform their responsibilities.

Job demand consists of many aspects such as: physical, psychological, social, and organization that requires work effort, psychological effort, and physical effort (Demerouti et al. 2001). Few examples of job demand are the following: (a) high job pressure, (b) emotional weight that appears from clients and other people, and (c) uncomfortable environment (Bakker & Demerouti, 2007). Schaufeli and Taris (2014) classified job demand under many different components such as (a) emotional condition linked to emotional demand from work, (b) high work pressure, (c) a condition from work that requires high cognitive demand, (d) perception disequilibrium between needs and role conflict, and (e) hassle.

The way job demand can cause burnout is explained by an effort-driven process. Effort-driven process happens when excessive job demand causes an individual to experience exhaustion (Bakker et al., in Schwartz Offer, 2009). According to Queiros et al. (2019), it is important to apply intervention and prevention towards burnout that is caused by job demand. Prevention of burnout can reduce negative emotions and develop a plan to create longer job hours. Longer job hours with reduced risk of burnout can boost productivity and help promote patient health.

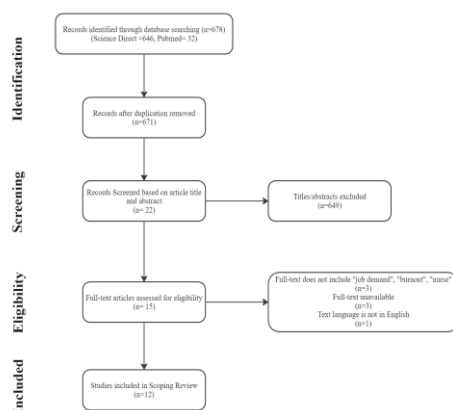
Despite the abundance of empirical studies on the effect of job demand on nurses' burnout, there are limited studies that have synthesized the findings of these studies to identify the most important job demand factors, preventive strategies to reduce the burnout among nurses, and highlight areas for future research. To address the gap in the literature, we use systematized review methods. This study would be a valuable contribution to the literature, as it would provide a comprehensive overview of the evidence base on this important topic and help to inform the development of effective interventions to prevent and reduce nurses' burnout.

2. RESEARCH METHOD

Research on the influence of job demands on burnout in nurses was carried out using the systematized review method. The procedures for this study refer to the Preferred Reporting Items

for Systematized Review and Meta-analysis (PRISMA) guidelines (Page et al., 2021). First, searching for data with the keywords "Job Demand" AND "Burnout" AND "Nurse" in the ScienceDirect and Pubmed databases. Next, filtering or selecting data by adjusting the topic or title, abstract and keywords according to the inclusion criteria. The inclusion criteria for this study consisted of: (a) journal articles from 2013 to 2023, (b) journal articles indexed by Scimago Journal and County Rank (SJR) with indexes Q1, Q2, Q3, Q4, and (c) journal articles will be reviewed are articles that have an abstract and full text. In this research, researchers also created research questions based on population, concept, and context. By creating questions based on Population, Context, Concept (PCC), the inclusion and exclusion criteria will be of higher quality in this systematized review method. Therefore, the questions in this research consist of two questions, namely: (a) Is there an influence of job demand on burnout in nurses, and (b) Are there strategies to reduce the impact of job demand on burnout?

Figure 1
Prisma Flowchart



Study Selection and Data Screening

Based on Figure 1 above, data filtering was carried out using the PRISMA approach. The following steps are: (a) Identification stage, a literature search based on two research databases, namely ScienceDirect and Pubmed will be carried out; (b) Selection Stage, conducted with the aid of Mendeley to remove duplicate and Rayyan.ai to adjust the screening inclusion criteria; (c) Eligibility, at this stage, articles will be filtered and then selected based on studies that would be used in the systematized review analysis; (d) Critical appraisal, developed by The Joanna Briggs Institute (JBI). Critical Appraisal aims to assess the methodological quality of research and determine the extent to which research has overcome possible biases regarding design, implementation, and analysis; and (e) Analysis stage, at this stage articles that have passed the four initial stages will be analyzed and reported.

3. RESULT AND DISCUSSION

Table 1

The Results of the Systematized Review Are in Accordance with the Effect of Job Demand on Burnout in Nurses

Author(s) and Title	Journal Reputation	Method	Sample	Participants	Result
Buja et al. (2013) Strain and health implications of nurses's shift work	Q3	Cross- Sectional Quantitative	806	Nurse	There is an influence of Job Demand on Burnout caused by working hours on the night shift.

					This pressure is due to high levels of stress and worsening physical health
Montgomery et al. (2015) Job demands, burnout, and engagement among nurses: A multi-level analysis of ORCAB data investigating the moderating effect of teamwork	Q1	Correlational Quantitative	1156	Nurse	All job demand variables influence burnout. But the most dominant is emotional demand as the most significant predictor.
Zwijssen et al. (2015) Coming to grips with challenging behaviour: A cluster randomised controlled trial on the effects of a new care programme for challenging behaviour on burnout, job satisfaction and job demands of care staff on dementia special care units	Q1	Experimental Randomised Control Trial	645	Nurse	The job demand experienced does not affect burnout due to job satisfaction, so burnout is reduced.
Elst et al. (2016) Job demands-resources predicting burnout and work engagement among Belgian home health care nurses: A cross-sectional study	Q1	Cross-sectional Quantitative	675	Nurse	Due to perception, if they experience job demand then they experience burnout. If it is a challenge, they can reduce burnout.
Pisanti et al. (2016) How changes in psychosocial job characteristics impact burnout in nurses: A longitudinal analysis	Q2	Longitudinal Quantitative	217	Nurse	Job demands can influence burnout, because nurses interact close to people who experience burnout. This is called transfer theory.
Garcia-Sierra et al. (2016) Relationship between job demand and burnout in nurses: does it depend on work engagement?	Q1	Descriptive Quantitative	100	Nurse	Job demand is the biggest influencing factor burnout. This influence occurs due to a lack of autonomy felt by the nurse.
Grace and VanHeuvelen (2019) Occupational Variation in Burnout among Medical Staff: Evidence for the Stress of Higher Status	Q1	Correlational Quantitative	155	Neonatal Nurse and Registered Nurse	The higher a position, the greater the burnout experience is also getting higher because of the height of work life conflict, irregular work hours, and pressure of higher work.
Hosseinabadi et al. (2019) The effects of amplitude and stability of circadian	Q1	Cross-sectional Quantitative	684	Nurse	Working hours can affect burnout and job demand which is getting

rhythm and occupational stress on burnout syndrome and job dissatisfaction among irregular shift working nurses

higher.

Song et al. (2021)

The effect of Emotional Labor on Presenteeism of Chinese Nurses in Tertiary-Level Hospitals: The mediating Role of Job Burnout

Q1

Cross-sectional
Quantitative

1038

Nurse

Work absenteeism correlates with burnout high due to workload.

Maglalang et al. (2021)

Job and Family Demands and Burnout among Healthcare workers: The moderating role of workplace flexibility

Q1

Correlational
Quantitative

745

Nurse

There is an influence of Job Demand on Burnout which is caused by the job strain which can increase working time.

Molero Jurado et al. (2022)

Job strain and burnout in Spanish nurses during the Covid-19: resilience as a protective factor in a cross-sectional study.

Q1

Descriptive
Quantitative

1013

Nurse

The influence of job demands that causes burnout occurs due to lack of job control and social support in work.

Rahnfeld et al. (2023)

Job demands and resources as drivers of exhaustion and leaving intentions: a prospective analysis with geriatric nurse

Q1

Longitudinal
Quantitative

584

Geriatric Nurse

Can occur due to time pressure that occurs in nursing work.

Based on Table 1, the research was conducted between 2013 and 2023 and the locations were spread throughout the world. The research methods used in this research consisted of: correlational quantitative (Grace & Van Heuvelen 2019 ; Maglalang et al., 2021; Montgomery et al., 2015), descriptive quantitative (Garcia-Sierra et al., 2016 ; Jurado et al., 2022), cross-sectional quantitative (Buja et al., 2013 ; Elst et al., 2016 ; Hosseinabadi et al., 2019; Song et al., 2015), longitudinal quantitative (Pisanti et al., 2016 ; Rahnfeld et al., 2023) and experimental-randomized control trial (Zwijnsen et al., 2015). The number of participants in the articles ranged from 100 to 1156 nurses.

The twelve journals can be used because they meet the critical assessment criteria. Questions of critical assessment include sample objectivity, validity and reliability of measurement, influencing external factors, standard conditions of measurement, and suitability of the topic to the research systematics. However, not all journals provide ways or strategies for dealing with external factors that cause burnout. Because, these researches only focus on identifying the influence of job demands on burnout in nurses.

The systematized review included 12 articles, 10 of which found a significant effect of job demand on burnout (Buja et al., 2013 ; Elst et al., 2016 ; Garcia-Sierra et al., 2016; Grace & Van Heuvelen 2019 ; Hosseinabadi et al., 2019 ; Maglalang et al., 2021; Montgomery et al., 2015; Pisanti et al., 2016; Rahnfeld et al., 2023; Song et al., 2021). The other two articles found that other factors

affect the relationship between job demand and burnout (Jurado et al., 2022 ; Zwijsen et al., 2015). Five of the 10 articles found that work hours and shifts can be a significant factor in job demand that leads to burnout. For example, a study by Grace and Vanheuverlen (2019) found that irregular work hours, high work pressure, and poor work-life balance are all examples of job demand that can lead to burnout. This supports Bakker and Demerouti (2007) previous statement about job demand factors. The study also found that these factors can lead to burnout because of the exhausting work and lack of work-life balance. Another study, by Hosseinabadi et al. (2019), linked long work hours to burnout. The study explained that this happens because long work hours can disrupt the circadian rhythm, a human biological clock that regulates bodily functions and can also cause physical illness.

Two articles discuss the social influence of job demand on burnout. Montgomery et al. (2015) and Pisanti et al. (2016) both discuss how the work environment may help in alleviating job demand and prevent burnout. Pisanti et al. (2016) also noted that working together may not always be helpful, as a phenomenon called stress transfer can occur. Stress transfer is a situation where a less strained individual who interacts deeply with a highly strained individual may become stressed themselves. However, both studies conclude that effective teamwork, strong social support, and psychological interventions can prevent burnout caused by job demand. The other three articles discuss the interplay between job resources, job autonomy, and job demand in burnout. Elst et al. (2016) found that job resources can help reduce job demand and, in turn, prevent burnout. Song et al. (2016) and Garcia-Sierra et al. (2016) concluded that a certain level of emotional freedom and job control can help reduce burnout. This can happen because emotional exhaustion can be alleviated and job control can prevent depersonalization, as suggested by Schaufeli and Taris (2014).

The last two articles suggest that job demand may not affect burnout due to other factors such as job satisfaction, personal perception of job demand and job control. Zwijsen et al. (2015) investigated the effect of job satisfaction on job demand and burnout. They found that job satisfaction can buffer the effects of job demand and prevent burnout. This may be because the intervention program they implemented increased nurses' knowledge and social skills. This is supported by Querios et al. (2019), who found that intervention programs can help reduce and prevent burnout. Jurado et al. (2022) found that personal perception can reduce the impact of job demand on burnout. This may be because some nurses see job demand as a challenge and are motivated to perform well and avoid burnout. Job control can also help nurses reduce strain from job demand.

The articles that have been collected contain many similar strategies. Five articles state that psychological intervention (in line with Querios et al. (2019)) is an efficient method of reducing burnout due to job demand. As an example, Montgomery et al. (2015) found that psychological intervention such as facilitating work engagement and promoting collaboration will help in alleviating burnout symptoms and reduce the negative effects of job demand. The other seven articles focus on some form of job redesign. First example is from Rahnfeld et al. (2023), where they proposed that redesigning the work environment to be a positive and supportive one can help in preventing burnout. Next is Hosseinabadi et al., (2019) Buja et al., (2013) and Grace and Vanheuverlen (2019) that proposed a job redesign on work shift and work time. A balanced work-life balance can reduce job demand and burnout. The other articles found that increasing wage, job control, and freedom of expression as viable strategies to reduce job demand and prevent burnout. The different research methods used in the studies may also be a factor in the different results. Most of the studies in this systematized review used quantitative methods, which found that job

demand can influence burnout in nurses. However, Zwijsen et al. (2015) used an experimental randomized controlled trial (RCT) method, which found that high job satisfaction can buffer the effects of job demand on burnout. Meanwhile, other studies found that job demand is a significant influence on burnout. Both quantitative and RCT methods are commonly used in research, and neither is inherently better or worse than the other. However, RCT methods can guarantee more ideal conditions than quantitative methods, as the researcher directly controls the conditions (White et al., 2014)

4. CONCLUSIONS AND RECOMMENDATIONS

In general, there are ample studies to support the effect of job demand on burnout among nurses. Ten of the 12 articles in this research concluded that job demand has an influence on burnout in nurses. The other two articles concluded that job demand can be overcome with job satisfaction and psychological intervention.

Theoretical Advice

This research has identified the effects of job demand towards burnout among nurses, exploring the different strategies to alleviate burnout from job demand, and highlighting different variables that might affect job demand towards burnout. However, there needs to be further study on the different methods of research on this particular topic as there were found different results on quantitative and experimental research. Furthermore, this systematized review study only identified the role of job demands in burnout among nurses, but not other workforces. Other workforce such as surgeons also suffer from high job demand and consequently, burnout (Galaiya et al., 2020). Therefore, more research is needed to examine the differential effects of job demands on burnout across different job roles.

Practical Advice

We suggest that the hospitals provide nurses with free time and adequate rest to mitigate the impact of high work demands on burnout. We hope that hospitals will use the strategies outlined in the discussion chapter of our systematized review as a reference to reduce the influence of job demand on burnout. Strategies such as job redesign and interventions, as discussed in the review, could help create a more dynamic and productive hospital environment.

It is suggested for hospitals to provide free time and adequate rest to nurses amidst high work demands. Researchers hope that the results of the discussion chapter in the systematized review which contains strategies can be used as a reference for hospitals to help reduce the influence of job demand on burnout. It is hoped that strategies such as job redesign and interventions in the discussion section can develop a new dynamic and productive life in the hospital environment.

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