The Mediating Effect of Job Burnout on the Relationship between Workload and Intention to Leave their Present Job among Nurses

Altanchimeg Zanabazar, Shurentsetseg Bira

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Abstract: Overwork is a prominent contributor to workplace stress, job burnout, and turnover in contemporary times. Additionally, it adversely affects workers' emotional and physical health, increasing the likelihood of burnout, accidents, lowered job satisfaction, and subpar job performance. The purpose of this study was to investigate how nurses' workloads in hospitals affect their feelings of burnout and their intentions to quit. Employing random sampling, the study was carried out among the staff of a private hospital in Ulaanbaatar. The NASA Task Load Index (NASA-TLX), created by NASA's Ames Research Centre in 2008, was used in the study to evaluate workload levels. The Bergen Burnout Inventory (BBI), created by Feldt et al. in 2014, was used by the researchers to quantify burnout. To capture participants' intents to leave their current jobs, the study also included a measure of intention to leave work created by Hasselhorn et al. in 2003. The statistical studies for the study included factor analysis, reliability analysis, correlation analysis, and structural equation models (SEMs), and data from 129 nurses were obtained. The study’s conclusions showed that nurses' workload had a favourable relationship with job burnout and a favourable effect on their intention to leave their current position. Furthermore, higher job burnout was a factor in nurses' increased intention to quit their jobs. The study also found that the association between workload and intention to leave was moderated by job burnout.

Keywords: Workload, job burnout, intention to quit, nurses.

I. INTRODUCTION

The shortage of health workers, including nurses, is indeed a significant challenge facing healthcare systems worldwide. The issue and its impact on healthcare services and quality have been acknowledged by the World Health Organization (WHO, 2020). The increasing demand for healthcare, coupled with rapid societal and economic changes and population concentration, has contributed to the shortage of nurses not only in our country but also globally. In order to secure the delivery of high-quality healthcare, addressing this personnel shortfall has emerged as a top concern, requiring strategic involvement and a focus on creative solutions. The nursing profession is the foundation of patient care delivery in healthcare systems all around the world. However, nurses typically deal with high levels of workplace expectations, such as lengthy workdays and excessive workloads, which can negatively affect their well-being and sense of fulfillment in their profession. In recent years, the issue of job burnout among nurses has gained increasing attention due to its adverse effects on both individual nurses and healthcare organizations.

In my country, there is a problem of insufficient human resources and vacant positions in general hospitals and health centers (Batbayar & et al, 2020). As of 2022, there is a shortage of over 2,000 doctors and medical staff in family hospitals alone (Tserenbadam, 2023). This shortage has resulted in an excessive workload and burden across all levels of medical institutions. The overwhelming workload often discourages nurses from continuing in their profession, leading them to leave their jobs. Also, the heavy workload can affect the quality of patient care and put additional strain on the remaining healthcare staff.

The purpose of this study is to investigate the relationship between workload, job burnout, and nurses' intention to leave.

II. LITERATURE REVIEW

Overworking has become a prevalent cause of workplace stress and burnout in contemporary times. Moreover, it has a detrimental impact on employees' mental and physical well-being, subsequently affecting their productivity, and performance, and leading to negative consequences such as burnout. Several factors that affect nurses' health, job satisfaction, and general well-being have been highlighted by prominent international organisations as the World Health Organisation, the International Council of Nurses, and the International Labour Organisation. These factors include heavy workloads, inadequate availability...
of necessary materials to perform their duties, and insecure employment conditions characterized by fixed-term contracts and low wages (Hellin Gil & al, 2022). Because of this, nurses are more likely to experience work overload, burnout, physical and mental exhaustion, and higher levels of professional stress. Due to the demanding nature of the work such as a large number of clients, significant workloads, shift work, and insufficient staffing levels the medical field is specifically categorised as a high-stress vocation (Chen & et al, 2019; Acea-López & et al, 2021). The medical profession is widely recognized as a high-stress work group, primarily due to the heavy workload and diverse demands placed on healthcare professionals. Factors such as a high number of clients, excessive workload, shift work, and inadequate staffing contribute to this classification (Caruso, 2014; Rostami & et al, 2021). Notably, Becker, et al (2005) have highlighted workload as one of the pivotal factors significantly influencing turnover rates.

Workload, defined as the amount of work an individual has to handle, can have various detrimental effects on individuals, including reduced engagement, poor psychological health, fatigue, tension, and a decreased intention to continue in their current position (Goldschmied & Spitznagel, 2021). Excessive mental load resulting from workload is considered a professional risk factor that can have a profound negative impact on job satisfaction. It can lead to job burnout, poor health, reduced performance and productivity, decreased job satisfaction and well-being, and even an intention to leave (Bianchi, 2018; Keser & Yılmaz, 2014; Liu & Lo, 2018; Rubio-Valdehita & et al, 2017). In recent years, a multitude of studies have delved into exploring the correlation between workload and job burnout.

A nurse's workload encompasses all the activities they undertake while fulfilling their nursing duties (Martinaningtyas & et al, 2020). It is well known that a nurse's workload has a substantial impact on their job happiness, productivity, and overall nursing care quality (Gaalan & et al, 2019). Nurses often face high workloads, which can have adverse effects on them both physiologically and psychologically, as well as emotionally (Andela & et al, 2016). The demanding nature of nursing work, including patient care, documentation, coordination with healthcare teams, and other responsibilities, contributes to the heavy workload nurses experience. The stress and feelings of overwhelm brought on by this burden may affect the well-being of nurses and their capacity to give patients the best treatment possible. In nurses, there is a direct link between workload and job burnout (Diehl & et al, 2021). When nurses are expected to handle high workloads and complete tasks within short timeframes, it can lead to chronic stress and feelings of exhaustion, which are key factors contributing to job burnout.

Job burnout is a prevalent mental health issue in the workplace and has increasingly become a pressing concern for organizations. Burnout is characterized by emotional exhaustion and is a result of prolonged and continuous stress (Lau & et al, 2005). It is a problem that can affect individuals in various professions. The primary symptoms of job burnout include emotional exhaustion, interpersonal or peer pressure, and a decrease in self-esteem (Kim & et al, 2007). Employees who suffer from burnout may exhibit reduced engagement, increased absenteeism, decreased job satisfaction, and even an inclination to leave their current positions. A high workload and workplace conflicts can contribute to job burnout, leading to feelings of distrust and negative emotions among colleagues. This burnout can intensify the negative impact of these symptoms. Additionally, a rise in workload directly impacts workers' levels of work-related stress, which can result in a rise in the rate of job burnout. Research conducted by Portoghese, et al (2014) substantiated the link between workload and job burnout. Their study provided evidence that job burnout escalates as workload intensifies.

The global shortage of healthcare workers and the significant migration of health professionals pose significant challenges that adversely affect health systems worldwide. An employee's intention to leave their current position and look for alternative work in the near future is referred to as their intention to leave. It signifies their readiness to leave their current work and look into potential new ones. The final phase in the decision-making process before taking the actual step of quitting is having the intention to depart, which expresses a person's behavioural intention (Bester & et al, 2015). Numerous studies have repeatedly shown a strong correlation between workload and the desire to leave one's employment (Applebaum & et al, 2010; Jensen & et al, 2011; Arshad & et al, 2020). Lindqvist et al. (2014) have specifically recommended that policymakers and administrators consider workload as a crucial factor in increasing nurse retention rates. Job strain, which encompasses workload, has been found to directly influence employees' intention to leave their current positions (Jones & et al, 2007; Suarthana & Riana, 2016; Junaida & et al, 2020). The adverse effects of excessive workload on workers' health often lead to a decision to seek employment elsewhere (Arshad & et al, 2020).

Job burnout is indeed a significant factor influencing the intention to leave, and multiple studies have established a strong relationship between burnout and the intention to leave (Mat Rifin & Danaee, 2022). As job burnout increases, job satisfaction tends to decrease, and the intention to leave the current position increases (Alkhraish & et al, 2023). Burnout at work and the desire to leave are positively correlated (Chen & et al., 2019). Employee performance, productivity, and job satisfaction are all negatively impacted by job burnout (Lin & et al., 2013), which increases the desire to leave. A key factor in lowering turnover rates for medical professionals is reducing job burnout (Willard-Grace et al., 2019). Job burnout is a psychological reaction to ongoing workplace pressures and is characterised by depersonalization, emotional tiredness, and a
A diminished sense of self-accomplishment. High degrees of burnout can cause workers to feel worn out, jaded, and alienated from their employment, which may make them want to quit. Moreover, the workload is closely linked to the intention to leave. As workload increases, job burnout intensifies, leading to a higher intention to leave (Fauzi & Adi, 2020). The excessive demands of workload can contribute to feelings of overwhelm and stress, ultimately exacerbating job burnout and increasing the likelihood of individuals seeking alternative employment opportunities.

A) Research model:
The following model for the research and study hypothesis is developed on the basis of a survey of theoretical notions.

![Job Burnout](image)

**Figure 1: Research model**

B) Model hypothesis:
Based on earlier studies on the connection between workload, job burnout, and intention to leave, the following hypothesis was developed:

- **H1**: Workload and job burnout are significantly correlated.
- **H2**: Workload and inclination to depart are significantly correlated.
- **H3**: Burnout at work and purpose to leave are significantly correlated.
- **H4**: Significantly mediating the link between workload and intention to leave is job burnout.

The variables addressed in this study are as follows:
- **Independent variable**: Workload
- **Dependent variable**: Intention to leave.
- **Mediating variable**: Job burnout

### III. METHODOLOGY

#### A. Data Collection and Sample Size

The demographic characteristics of the participants are as follows: 8.5% of the participants were male, while 91.5% were female. Regarding age distribution, 27.1% were under 30 years old, 41.9% were aged 31-40, 21.7% were aged 41-50, and 9.3% were over 51 years old. In terms of years of work experience, 16.3% had worked for up to 1 year, 27.1% for 1-5 years, 17.8% for 6-10 years, 13.2% for 11-15 years, 14.7% for 16-20 years, and 10.9% for more than 21 years. Regarding the department distribution of the research participants, 8.5% were from the Department of Diagnostic Radiology, 17.1% from the Department of Anesthesia and Intensive Care, 21.7% from the Combined Surgical Department, 32.6% from the Department of Polyclinic, 15.5% from the Emergency Department, and 4.7% from other departments.

#### B. Instruments and Data Analysis

The study utilized the NASA Task Load Index (NASA-TLX) method, which was developed by NASA's Ames Research Center in 1980, to assess workload (Hart, 1980). The NASA-TLX is a recognized tool for measuring workload in various domains. The study utilized the Bergen Burnout Inventory (BBI), developed by Feldt et al (2014), was employed to evaluate burnout among the participants. To assess the intention to leave, the study utilized developed by Hasselhorn et al (2003). A measure is a tool made up of 4 items that is designed to gauge someone's desire to quit their current work or medical facility. Responses were scored using a 5-point Likert scale that ranged from 1 (strongly disagree) to 5 (strongly agree). The study's questionnaire had a total of 19 items on it. Workload was assessed using six questions, job burnout was assessed using nine questions, and intention to leave the workplace was assessed using four questions. The researchers used analyses like reliability analysis, correlation analysis, and structural equation models (SEMs) to make sure the measurement variables were reliable and valid.
IV. RESULTS AND DISCUSSION

A. Reliability Analysis of Variable

In any study, before conducting analysis there is a need to ensure the reliability and validity of variables. To test the reliability, Cronbach’s alpha value is tested for validating the reliability of variables and the minimum cut-off points showed 0.7 (Nunnally, 1978) which proved that the data is acceptable for further measurements. Subsequently, composite reliability (CR) is employed to assess internal consistency. According to Hair et al. (2014), a CR value above 0.7 indicates satisfactory internal consistency. Consequently, all constructs in this study meet the criteria for the internal consistency test. Moreover, the validity of the questions demonstrated above of 0.3. AVE (Average Variance Extracted) coefficient is also shown for 0.5 for composites (Fornell & Bookstein, 1982) which means it is acceptable for measurement. Table 1 provides a summary of the analysis results.

Table 1: Results of Factor Reliability Analysis

<table>
<thead>
<tr>
<th>Factors</th>
<th>No. Items</th>
<th>Factor loadings</th>
<th>Cronbach's α</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workload-WL</td>
<td>6</td>
<td>0.839-0.911</td>
<td>0.941</td>
<td>0.953</td>
<td>0.773</td>
</tr>
<tr>
<td>Job Burnout-JB</td>
<td>9</td>
<td>0.795-0.888</td>
<td>0.951</td>
<td>0.959</td>
<td>0.722</td>
</tr>
<tr>
<td>Intention to leave -IL</td>
<td>4</td>
<td>0.798-0.944</td>
<td>0.923</td>
<td>0.945</td>
<td>0.812</td>
</tr>
</tbody>
</table>

Note: CR, the square of the summation of the factor loadings; AVE, the summation of the square of the factor loadings

B. Pearson Correlation Analysis

The statistical correlation is used to determine how strong or weak the relationships between the independent and dependent variables are. Additionally, it is employed for multivariate data analysis. It depicts the relationship between two or more variables so that the impact of changing one on the others can be examined. Table 2 displays the findings of the correlation analysis.

Table 2. Results of Pearson Correlation Analysis

<table>
<thead>
<tr>
<th>Correlations</th>
<th>WL</th>
<th>JS</th>
<th>ITL</th>
</tr>
</thead>
<tbody>
<tr>
<td>WL</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JB Pearson Correlation</td>
<td>.798**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IL Pearson Correlation</td>
<td>.311**</td>
<td>.596***</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
Variable definition: WL, Workload; JB, Job burnout; JS, IL, Intention to leave;

According to the analysis workload of nurses has a strong correlation with job burnout \( r=.798, p<0.01 \) and has a weak correlation with an intention to leave \( r =.311, p<0.01 \). Also, according to analysis, job burnout has a significant correlation with an intention to leave \( r=596, p<0.01 \).

C. Structural Equation Modeling (SEM)

R-Square is estimated for PLS analysis to test the importance of the structural model and variables. During the analysis, the correlation between the independent and dependent variables was examined. All six assumptions were supported by the analysis' findings, and all of the regression weight values were significant and positive (p <0.01). Table 3 displays the survey's findings.

Table 3. Result of PLS-SEM

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Standardize Beta</th>
<th>t value</th>
<th>P value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>WL→JB</td>
<td>0.786</td>
<td>14.295</td>
<td>.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>WL→IL</td>
<td>0.298</td>
<td>11.312</td>
<td>.001</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>JB→IL</td>
<td>0.581</td>
<td>10.284</td>
<td>.000</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Variable definition: WL, Workload; JB, Job burnout; JS, IL, Intention to leave;

After confirming the measurement model's validity and dependability, the PLS algorithm and Bootstrapping technique from PLS 4.0 were then used to test the relationship that had been hypothesised.
As indicated in Fig. 2 and Table 3, all the hypotheses H1, H2, and H3 were supported by the findings of the study. According to the survey results, the workload has a strongly positive impact on job burnout ($\beta=0.786$). The determination coefficient (R square) of 0.772 presents that these factors can be explained by 77.2% and the remaining factors can be explained by other factors that are not included in the equation. Also, the workload has a slight impact on the intention to leave ($\beta=0.298$, p<0.01). The determination coefficient (R square) of 0.410 presents that these factors can be explained by 41.0% and the remaining factors can be explained by other factors that are not included in the equation. From the analysis, as the workload of nurses increases, job burnout and an intention to leave increase. Moreover, job burnout is a strong positive impact on the intention to leave ($\beta=0.581$, p<0.01). In other words, as job burnout increases, the intention to leave increases.

In order to examine the extent to which job burnout mediates the impact of intention to leave, this study utilized the methodology integrated into Smart PLS.

The findings, as presented in Table 4, indicate that job burnout serves as a complete mediator in this relationship, accounting for 21.8% of the effect of perceived workload, as measured by Variance Accounted for (VAF). These results provide confirmation of the mediating role of job burnout in intensifying workload-induced intentions to leave. Thus, supporting H4.

All of the connected regulator variable effects (Beta coefficients) are positive and statistically significant (p <0.01), supporting the predictions.

### D. Discussion of Findings

The purpose of the study was to look at the connection between burnout, workload, and intention to leave among nurses. The researchers conducted an online survey over a period of one month, with a sample size of 129 nurses from Achtan Hospital. The workload in the study was evaluated using the workload scale developed by NASA’s Ames Research Center in 1980. Burnout was assessed using the Bergen Burnout Inventory (BBI) developed by Feldt et al. in 2014. Furthermore, the participant’s intention to leave was measured using the Intention to Leave Scale developed by Hasselhorn et al. in 2003. These established measurement tools were utilized to capture and evaluate the respective variables in the study.
The correlation coefficients between the constructs were determined by factor loading analysis, and the resulting factor loading values for the items varied from 0.795 to 0.944. Cronbach’s alpha reliability, which we utilised to evaluate internal consistency, varied from 0.923 to 0.951, suggesting good dependability for all components (>0.70). The composite reliability (CR) values were higher than the advised minimum value of 0.70, ranging from 0.945 to 0.951. Values for the average variance extracted (AVE) construct were in the range of 0.722 to 0.812, exceeding the ideal cutoff point of 0.50, suggesting outstanding findings.

This study's analysis produced significant findings that add to the body of knowledge already known about the connection between workload, job burnout, and the intention to leave. The results offer strong support for the hypotheses and are in line with a sizable number of other investigations, further demonstrating the validity of the study.

- The high correlation between workload and job burnout, which supports hypothesis 1 and reinforces the whole research, is one of the study’s important findings. These results are consistent with previous research conducted by Bianchi (2018), Diehl & et al. (2021), Fauzi & Adi (2020), Keser & Yılmaz (2014), Liu & Lo (2018), and Rubio-Valdehita & et al. (2017), who showed that a positive influence of workload on job burnout.
- Additionally, the data supported H2 by demonstrating a slight link between workload and the desire to quit. These findings align with previous studies conducted by Applebaum & et al. (2010), Arshad & et al. (2020), Jensen & et al. (2011), Jones & et al. (2007), Junaidia & et al. (2020), Saurthana & Riana (2016), suggesting that workload positive influence on the intention to leave.
- The study also revealed a substantial link between job burnout and the desire to leave, supporting hypothesis H3. These findings are consistent with prior studies conducted by Alkhraish, Eivazzadeh, & Yeşiltaş (2023), Chen et al. (2019), Fauzi & Adi (2020), and Mat Rifin & Danaee (2022), all of which emphasize a positive correlation between job burnout and the intention to leave.
- The analysis also provided support for H4 by demonstrating that job burnout plays a moderating role in the relationship between the workload of nurses and their intention to leave. These results are in line with earlier research by Xiaoming & et al. (2014) and Nal & et al. (2022). According to the mediation effect of job burnout found in this study, as workload rises, both burnout and the desire to leave also tend to rise. This conclusion emphasises the need of taking job burnout into account as a key element in evaluating the association between workload and nurses’ intention to leave.

Overall, by presenting empirical data that supports the link between workload, job burnout, and the intention to leave, this study adds to the body of literature already in existence. The dependability and generalizability of the research’s conclusions are improved by the consistent results of multiple earlier studies. These findings have important ramifications for businesses and decision-makers as they create plans for addressing workload-related problems, preventing job burnout, and lowering nurse turnover intentions.

IV. CONCLUSION

This study examined the relationship between nurses’ workload, burnout, and intention to leave. The findings of our study revealed significant associations among these variables. The workload demonstrated a strong positive impact on job burnout, indicating that as the workload increases, burnout among nurses also increases. Additionally, the workload had a negligible effect on the desire to quit, indicating that nurses’ intentions to leave their current jobs may be influenced by levels of workload. Additionally, it was discovered that job burnout had a significant positive influence on the desire to leave, suggesting that as burnout levels rise, so do leaving intentions.

Importantly, our study also found that the association between workload and the intention to leave is moderated by job burnout. This mediation effect implies that increased workload not only directly influences the intention to leave but also indirectly affects it through the development of burnout. These findings emphasize the importance of considering burnout as a crucial factor through which workload impacts nurses’ intentions to leave. The implications of these findings are significant for healthcare organizations and policymakers. The results emphasize the need for proactive measures to manage workload levels among nurses, as a high workload can lead to increased burnout and ultimately higher turnover intentions. By addressing workload issues and implementing strategies to mitigate burnout, hospitals can improve nurses' well-being, job satisfaction, and retention.

A) Limitations and Future Research

It is crucial to recognise the limits of this study, though. First off, an online survey was used to obtain the data, which has the potential to introduce biases owing to self-reporting. Second, the study was restricted to one private clinic, making it difficult to extrapolate the results to other settings or organisations.

In order to establish comprehensive methods for increasing nurse well-being and retention, future research should investigate additional factors that may have an impact on the link between workload, burnout, and turnover intentions.
Acknowledgments
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Interest Conflicts
There are no declared competing interests of the authors that are pertinent to the subject matter of this study.

Informed Consent
In accordance with the study protocol endorsed by the institutional research board, all study participants gave informed consent prior to enrollment.

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V. REFERENCES


