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The effect of perceived organizational and supervisor support on nurses' turnover intention in Bangladesh: Does work-family conflict play a role?

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ABSTRACT

This study examined whether work-family conflict mediates the effects of perceived organizational support and perceived supervisor support on turnover intention among nurses in the healthcare sector in Bangladesh. Data collected from 383 participants were analyzed using structural equation modelling. Both perceived supervisor support and perceived organizational support were found to have a significant negative association with nurses' intention to leave. The study further revealed that the connection between perceived support and turnover intention among nurses in Bangladesh was positively mediated by work-family conflict; it was shown that work-family conflict increases turnover intention. This study recommended that, hospitals should focus on creating a socially interactive environment and addressing work-family conflicts, as selected variables can as these factors can mitigate nurses' turnover intentions through job satisfaction and increase overall well-being among nurses. An increase in job satisfaction may ultimately improve patient care within healthcare organizations. This study aimed to provide support to human resource managers in the development of strategies that can effectively reduce nurse turnover, which is a critical issue in Bangladesh and other countries facing similar challenges.

1. Introduction

Nurses are the foundation of the national healthcare sector (Al-Ha-roon & Al-Qahtani, 2020). Nurses comprise the majority of the occupational group responsible for providing high-quality patient care. However, on a global scale, hospital operations are negatively affected by nurse turnover (Huang et al., 2021). As a result, lowering nurse turnover is a top priority. Nurses' turnover has a significant impact on both patient outcomes and organizational performance (Labrague, 2020). An elevated nurse-to-patient ratio has been linked to heightened effort and reduced patient care due to excessive nurse turnover (Shin et al., 2019). Determining the elements that lead to nurse turnover and motivate nurses to resign is critical (Huang et al., 2019). As employees are less likely to provide truthful justifications for leaving their organization, studies should focus on turnover intention (TI) rather than actual turnover (Ilyas et al., 2020). Therefore, it is appropriate to use the

concept of TI to describe real turnover (Rawashdeh & Tamimi, 2020). Previous research conducted by Wong and Wong (2017) revealed that the vast majority of studies exploring the relationships between turnover intention, perceived supervisor support (PSS), and perceived organizational support (POS) were predominantly confined to Western countries. Therefore, thorough research of these factors (POS, PSS, and TI) is required to determine whether the conclusions can be applied to other contexts, particularly Bangladesh.

The relationship between TI and POS and PSS remains unclear. Yildiz et al. (2021) revealed that research on work-family conflict (WFC) is relatively limited in the health sector. Nurses experience high levels of WFC as the profession is predominantly governed by women. In Bangladesh, most nurses are female, as reported by Akter et al. (2019). However, female nurses in Bangladesh often experience a significant disparity between their professional and personal lives due to factors such as heavy workloads, staff shortages, high turnover rates, poor

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working conditions, inadequate management practices, and lack of organizational resources (Rony et al., 2023). Grzywacz et al. (2006) calculated that 50% of nurses encounter WFC while at work. WFC is a major concern for nurses, as it affects both their work efficiency and overall well-being. Struggling to balance work and familial responsibilities often leads to greater stress, burnout, and suboptimal performance among nurses. The demanding nature of nursing jobs, characterized by long hours, irregular schedules, and emotionally challenging patient care, can worsen WFC. Nurses often find it challenging to balance their family responsibilities, such as caring for children or elderly family members, attending family events, and nurturing personal relationships alongside the demands of their jobs.

WFC reduces nurses' work efficiency for various reasons. First, it causes physical and mental exhaustion, which can make nurses less focused, less able to make decisions, and less able to complete their tasks efficiently. Second, constant juggling of work and family obligations can cause feelings of guilt, distractedness, and dissatisfaction, which can negatively impact job performance. Third, WFCs can adversely affect workplace relationships, leading to negative consequences in teamwork, communication, and overall morale. Nurses with high conflict levels may be less involved in their work, which can lead to lower productivity, absenteeism, and higher turnover rates. In order to alleviate the "toxic" effects of WFC on nurses' efficiency in the workplace, healthcare organizations are advised to implement supportive policies and practices. Providing flexible arrangement options, offering family friendly benefits such as childcare support or parental leave, and developing a culture of understanding and support can help nurses manage their work-family responsibilities more effectively. Addressing WFC can lead to increased job satisfaction and well-being among nurses, which, in turn, can improve the quality of patient care in healthcare organizations. Previous researchers have used WFC as a mediator in several contexts. They chose to ignore WFC's mediating role of WFC in the connection between POS, PSS, and TI. This study posits WFC as a mediator in the relationship between POS, PSS, and TI. Specifically, it demonstrated that WFC plays a critical role in facilitating communication and understanding between these variables.

The medical science department has undergone extensive changes and modernization, but the nursing department has remained deprived and neglected. Millions of healthcare workers tirelessly work day and night, often at the expense of their dignity and well-being. They work closely with the sick and dying, yet their efforts go unnoticed. Vulnerable nursing situations exist in all government and non-government sectors in Bangladesh (Kabir et al., 2022; Xerri et al., 2019). The treatment of nurses in government-run private hospitals and clinics is undesirable. Nurses are often unjustly blamed and held accountable in a formal manner. Despite their importance, they are not given the respect that they deserve. It is necessary to acknowledge the responsibility of the authorities to improve their working conditions. The nurses' constant presence among patients and relatives makes them easily accessible. Their vulnerable work environment also influences their decision to leave their profession (Chowdhury et al., 2022).

According to the Bangladesh Nursing and Midwifery Council (2023), the total number of registered nurses in Bangladesh is 77,838. Tajmim (2023) found a shortage of 324,000 nurses in Bangladesh, with only 24% of the nurses available. Bangladesh has a shortage of nurses with only 4.11 per 10,000 people, as reported by Joarder et al. (2021). This is further compounded by the higher ratio of doctors to nurses and an inadequate number of nurses in hospitals. Joarder et al. (2021) suggested that a favorable policy environment is necessary to attract and retain nurses to meet the population's needs. Nurses' turnover rate (15–18%) will lead to significant financial and service quality losses (Dewanto & Wardhani, 2018). Kabir et al. (2022) reported a 17% female nurse turnover rate in Bangladesh. Thus, this study emphasizes nurses' TI to mitigate genuine turnover in the Bangladeshi healthcare sector.

2. Literature review and hypotheses development

2.1. Turnover intention (TI)

Dwivedi (2015) defined TI as "the aim of employees to search for alternative jobs or leave the organization in the future" (p.453). Individuals who experience TI have mentally departed from the organization while still physically present (Rasheed et al., 2018). The significance of TI studies extends beyond administrative and organizational behaviors (Kim et al., 2017), as it directly leads to actual turnover, resulting in increased organizational expenses for recruiting, selecting, and training new employees (Jabeen et al., 2020). Thus, TI is a crucial and extensively researched topic in human resource management (Li et al., 2020). Nurses' commitment to the hospital is influenced by the perceived support they receive, motivating them to contribute to the organization's growth. Liu and Liu (2016) suggested that nurses are less likely to seek alternative employment and prefer to remain with their current employer. De Clercq et al. (2020) indicated that supervisor support reduces TI by alleviating stress related to organizational functioning. Additionally, Zhang et al. (2019) emphasized that WFC is a significant factor contributing to TI among professional nurses. Thus, this study focused on the mediating role of WFC.

2.2. Turnover intention and perceived organisational support

Eisenberger et al. (1986) coined the term "Perceived Organisational Support" and the researchers defined POS as "the employees' belief that organizations value their continued contributions and genuinely care for their well-being" (p.501). Research suggests that individuals with high report stronger emotional connections and confidence in their organization (Loi et al., 2006; Jones-Carmack, 2019). POS also influences employees' attitudes and behaviors at work (Eisenberger et al., 1986). Consequently, organizations that prioritize employee care and support foster greater dedication among employees (Engelbrecht & Samuel, 2019). By contrast, neglecting employee well-being can lead to increased turnover intention (TI), as workers seek alternative employment. According to Li et al. (2020), nurses are motivated to put their all into their profession and care about the growth of the organization because they consider the hospital to support them organizationally. Liu and Liu (2016) suggested that nurses are more inclined to remain with their current organization rather than pursue alternative career options. Consequently, this study considered POS to be a predictor of TI.

According to researchers, POS theory is rooted in SET and refers to the social interactions between employees and their organizations. When employees' basic needs are fulfilled by the organization, they may feel willing to stay. Fair and supportive treatment is key to retaining employees and fostering loyalty (Huang et al., 2019; Eisenberger et al., 1986; Blau, 1964). Eisenberger et al. (2019) revealed that nurses, as employees, often exert high effort to achieve organizational goals in return for significant support. Rhoades et al., 2001 and Eisenberger (2002) further emphasized that organizations with supportive and caring members are more likely to witness positive attitudes and TI from their employees. This, in turn, fosters favorable employee outcomes (Manningo-Salinas, 2010). Researchers also agree that reciprocity can develop feelings of obligation, enhance positive outcomes (Kim & Qu, 2020), and reduce TIs (Gupta, 2019).

Although some studies have shown an inverse relationship between POS and TI, others have suggested that POS has a direct effect on TI. However, Ghosh et al. (2019) found that POS has an indirect effect on TI, mediated by affective obligation. The research suggests that if employees' contributions are greater than inducement, they are more likely to leave the organization, including seeking support at work. However, Buhari et al. (2020) and Herachwati et al. (2018) revealed that POS had no impact on TI. Thus, the relationship between PSS and TI has shown inconsistent findings, preventing definitive conclusions or broad generalizations regarding their associations. Consequently, the following

hypothesis is proposed based on these considerations.

H1. Perceived organizational support has a significant effect on TI.

2.3. Turnover intention and supervisor support

Eisenberger et al. (2002) characterized PSS as the degree of assistance and encouragement employees receive from their supervisors. PSS is one of the significant factors influencing employee outcomes in organizational behavior studies. There is an association among positive supervisory performance, intention to stay, and job satisfaction (McGilton et al. 2007). Consequently, adverse outcomes, such as TI and work stress, are reduced when employees think they are supported by their supervisors (Karakas, 2019). Moreover, researchers have claimed that immediate supervisors play an essential role in employee turnover decisions (Issac & Issac, 2019). A strong emotional connection is evident in the interactions between both parties, which may lead to a feeling of belonging among employees, thereby reducing their intention to leave the organization (Kaur & Randhawa, 2020). Supportive supervisors help nurses engage more in the organization (Othman & Nasurdin, 2013) and reduce TI (Haaland et al., 2020). Moreover, little attention has been paid to the association between supervisor support and healthcare outcomes in the research literature (Ogbonnaya and Babalola 2020). Therefore, this study uses PSS as a construct to reduce the TI of nurses in Bangladesh.

Afzal et al. (2019) and Yeosock (2020) emphasize that PSS is influenced by social interactions between an individual and their supervisor, leading to the development of deeper exchange ties. Positive attitudes and behaviors are often reciprocated as a result of favorable treatment by supervisors, contributing to a supportive workplace environment. According to Blau's (1964) SET, mutual support can reduce stress, enhance job satisfaction, and improve task performance, leading individuals to stay in their jobs for longer periods. These findings suggest that PSS can have a significant impact on employee retention. Ibrahim et al. (2019) applied social exchange theory to examine the relationship between PSS and intention to leave. The study showed that when employees perceive their work environment as supportive, they feel a sense of reciprocity towards their employers. Arici (2018) found a significant inverse relationship between PSS and TI, suggesting that hospitality facilities should train their supervisors to be more supportive, leading to enhanced POS and reduced TI.

Previous research, including Haaland et al. (2020) and Kaur and Randhawa (2020), reached the same conclusion regarding the direct relationship between PSS and TI. However, Afzal et al. (2019) found no significant correlation. Furthermore, Ibrahim et al. (2019) revealed an indirect relationship between the two, mediated by work engagement. Supervisors play a crucial role in assisting employees in managing difficult service encounters (Ibrahim et al., 2019). Consequently, empirical evidence on the relationship between PSS and TI is inconsistent, making it difficult to draw broad conclusions or generalizations about their association. To investigate this issue comprehensively, the following hypotheses were formulated:

H2. PSS has a significant effect on TI.

2.4. Work-family conflict (WFC) as a mediator

Kahn et al. (1964) initially introduced the concept of WFC, which Greenhaus and Beutell (1985) categorized as an instance of interrole conflict resulting from incompatible role demands between work and family domains. Ghislieri et al. (2017) noted that changing working conditions and gender roles contribute to the growing WFC, and individuals, particularly women, face it to fulfill various roles such as spouse, daughter-in-law, employee, and mother. Rasheed et al. (2018) found that women in the South Asian subcontinent meet economic and social needs by working, but nursing professionals often quit due to family responsibilities as reported by Nooney et al. (2010). Chen et al.

(2015) emphasized the relevance of WFC in the nursing profession, and suggests that it influences TI, performance, and nurses' health and welfare. Labrague (2020) noted the scarcity of research on WFC and nurse manager TI.

Several researchers have identified WFC as a key factor contributing to job stress among professional nurses (Williams et al., 2016; Zhang et al., 2019). High levels of WFC have been shown to increase turnover rates, highlighting the need for further research. Studies have also found a positive and significant relationship between WFC and job stress among Iranian nurses (Nikkhah-Farkhani & Piotrowski, 2020), whereas no relationship was found for Polish nurses. The absence of such studies underscores the need for further research into the role of WFC in job stress. The current study aimed to fill this gap by examining the mediating effect of WFC.

According to Hobfoll's (1989) conservation of resources (COR) theory, individuals typically aim to preserve their resources, and potential threats to critical resources can cause psychological stress. Grandey and Cropanzano (1999) applied the COR theory to work-family conflict (WFC) relationships. Zhang et al. (2019) defined WFC as a stressor. Hobfoll's (1998) COR theory suggests that occupational stress leads to WFC by threatening and depleting valuable resources. Hobfoll (1989) also categorized WFC as a type of stress in the COR theory. Employees may experience loss of resources such as time and energy when trying to balance work and family demands, resulting in one type of WFC (Grandey & Cropanzano, 1999). The COR theory is suitable for understanding the relationship between organizational and supervisor support and WFC (Karatepe and Uludag, 2008). This suggests that managerial support helps employees balance work and family responsibilities and reduce WFC (Jansen et al., 2003). According to the COR hypothesis, a supportive manager satisfies employees' family needs, thereby relieving their WFC (Glavelia et al., 2013).

According to Zhang et al. (2019), boss help or asset gain can mitigate the negative effects of resource loss for medical professionals managing WFC. The COR theory suggests that inter-role conflict can result in negative outcomes, such as turnover and loss of valuable resources (Singh et al., 2018). The depletion of primary resources can lead to a loss spiral (Hobfoll and Shirom, 1993), and it is necessary to restore resources to prevent additional losses. According to Singh et al. (2018), employees may need to take drastic measures, such as changing careers, to protect against additional resource loss. Those who lack resources to address WFC may experience negative outcomes, such as family and workplace disputes, poor job performance, and a desire to leave their job (Karatepe and Uludag, 2008). According to the COR theory, resource depletion, which can lead to unfavorable consequences, is the primary cause of employee stress. Zhang et al. (2019) found that WFC presents a significant challenge for nurses, resulting in the depletion of their psychological resources, causing them to leave their profession. The authors suggested that nurses should consider quitting their current jobs to better manage WFC. Furthermore, WFC threatens nurses' positive resources, such as their physical and psychological health, and positive TI tends to protect their well-being (Yildiz et al., 2021). Based on the foregoing analysis, it can be inferred that THE CORtheory may serve as a means of connecting POS and PSS with WFC and WFC with TI. Consequently, it is reasonable to suggest that WFC mediates the relationship between POS, PSS, and TI. Considering the aforementioned points, the following hypothesis was proposed:

H3. WFC mediates the effect of perceived organisational support on TI.

H4. WFC mediates the effect of PSS on TI.

2.5. Research framework

The research model presented in Fig. 1 posits a relationship among POS, PSS, and TI. Furthermore, this study examined the moderating effect of WFC on the link between TI, POS, PSS, employee satisfaction, and counterproductive work behavior. Both the model and examination

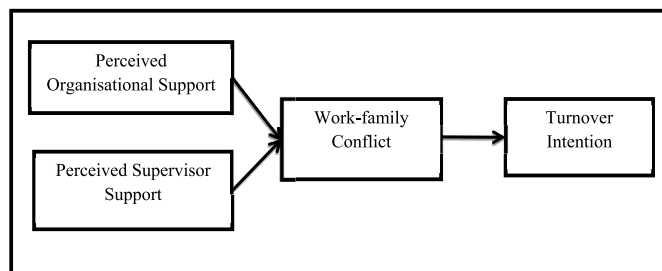


Fig. 1. Relationship between POS, PSS and TI, mediated by WFC.

of WFC lend support to the proposed framework.

3. Methods

3.1. Sample size

This study utilized a cross-sectional survey to gather data from 383 participants selected through simple random sampling. Data were collected using a standardized measurement instrument, and a self-reported questionnaire was administered using a drop-off/pick-up method. This study aimed to validate a structural model based on a review of the existing literature. Data were gathered from four hospitals: “Dhaka Medical College Hospital, Mugda Medical College and Hospital, Cumilla Medical College Hospital, and Mymensingh Medical College.” Based on the findings of Rozario et al. (2018), this study assumed that nurses constitute a monolithic group. Data analysis was conducted using SmartPLS software.

Table 1 presents the demographic profile of the respondents, including gender, age, highest education level, length of service, employment status, religion, and marital status. The data showed that female respondents comprised the majority (86.3%), while male respondents accounted for 13.7%. The largest age group was under 30 years (47.67%), followed by 31–40 years (25.65%), 41–50 years (18.13%), and over 50 years (8.55%) of age. Most respondents held a diploma in nursing (66.84%), followed by a bachelor’s degree (15.28%) and a master’s degree (12.95%). Approximately half of the nurses had more than five years of hospital experience. Regarding current hospital tenure, 30.57% had worked for more than three months but less than

Table 1
Profile of respondents.

		Frequency	Percent
Gender	Male	53	13.7
	Female	333	86.3
Age	30 and below	184	47.67
	31–40 years	99	25.65
	41–50 years	70	18.13
	Above 50 years	33	8.55
Highest Education	Secondary School Certificate	8	2.07
	Higher Secondary Certificate	11	2.85
	Diploma in Nursing	258	66.84
	Bachelor in Nursing	59	15.28
	Master in Nursing	50	12.95
Length of Service	More than three months but less than two years	118	30.57
	2–3 years	60	15.54
	4–5 years	57	14.77
	More than five years	151	39.12
Employment	Public sector	286	74.1
	Private Sector	100	25.9
Religion	Islam	317	82.12
	Hindu	52	13.47
	Others	17	4.4
Marital Status	Married	275	71.24
	Unmarried	111	28.76

two years, 15.54% for 2–3 years, and 14.77% for 4–5 years. In terms of employment, 74.1% worked in the public sector and 25.9% in the private sector. The majority of respondents were Muslim (82.12%), followed by Hindus (13.47%), and other religions (4.4%). Most respondents were married (71.24%) and 28.76% were unmarried.

3.2. Measures

The measurement employed a 5-point Likert scale ranging from “Strongly Disagree = 1” to “Strongly Agree = 5”. Each construct was assessed using five items. This study explored several important aspects of the workplace environment and their impact on employees’ intentions and well-being. PSS is assessed through questions, such as whether supervisors consider employees’ goals and well-being, offer assistance when needed, and take pride in their accomplishments. POS gauges the hospital’s concern for employees, their well-being, and contributions as well as the belief that help is available when facing difficulties. The POS was assessed using a questionnaire developed by Eisenberger et al. (2001) and validated by Rubel et al. (2020). WFC examines how job demands affect family life, such as by interfering with family responsibilities or causing strain. Nurses’ WFC perceptions were evaluated using a questionnaire adapted from Netemeyer et al. (1996). Additionally, Technostress measures employees’ experiences with technology-related workloads, learning challenges, job security concerns, and technological advancements. TI is evaluated through employees’ consideration of leaving for another job, feeling compelled to quit, or intending to seek new employment within a specific timeframe based on worsening conditions or other factors. These measures provide insights into the factors that influence workplace satisfaction and employees’ decisions regarding job continuity. The details of these items are presented in Appendix Table 1.

3.3. Data collection and ethical approval

This study was approved by the Ethical Review Committee (ERC) of Dhaka Medical College, Bangladesh. Based on this approval, the “Director General of Directorate General of Nursing and Midwifery, Ministry of Health, Bangladesh” granted permission to conduct surveys in the designated hospitals. Administrative approval was obtained from the “Director General of the Directorate General of Health Services, Ministry of Health, Bangladesh.” The researchers sought authorization from the hospital directors before conducting the survey. The directors communicated the research objectives and significance to the nurses who provided informed consent to participate. The participants were informed that they could withdraw from the study at any time. The cover letter included a clause to ensure nurses’ anonymity and confidentiality. To further protect participants’ privacy, they were not required to reveal their names or hospital affiliations.

3.4. Data analysis strategy

Data analysis was performed using SmartPLS to validate the proposed structural model. The analysis explored the relationships between POS, WFC, and other variables identified in the literature review. Statistical methods, such as path and mediation analyses, were employed to examine the hypothesized relationships and test the study’s research objectives. The study used Cronbach’s alpha and composite reliability (CR) to assess internal consistency and outer loadings and average variance extracted (AVE) for convergent validity.

4. Results

This study assessed the common method variance using Kock’s (2015) method. All VIF values for the lateral and vertical relationships of the structural model fell below Kock’s suggested value of 3.3. The mean and standard deviation of each study variable were moderate. The mean

TI score was 2.62. Guo, Yi, and Sun (2021) classified the average TI scores of nurses into the following categories: very low (1.5), low (between 1.5 and 2), high (between 2 and 3), and very high (above 3). Based on this classification, it can be inferred that a considerable proportion of Bangladeshi nurses intend to leave their current position. Furthermore, data were normally distributed.

4.1. Hypothesis testing and analysis

Cronbach’s alpha and CR are commonly used to determine internal consistency, while outer loadings and AVE are often used to assess convergent validity. In Table 2, Cronbach’s Alpha is utilized to gauge the reliability of a set of indicators. According to Hair et al. (2019a), an acceptable Cronbach’s Alpha value is 0.708; however, a higher threshold, such as 0.8 or 0.9, is more desirable. Owing to their high reliability, items POS3 and PSS1_1 were excluded from the study. In Table 2, Cronbach’s alpha values for all constructs surpassed the recommended threshold, indicating good internal consistency. Hair et al. (2019a) established that composite reliability should be above 0.708. All the composite dependability values in this study were greater than 0.708, suggesting a satisfactory level. The convergent validity is assessed through AVE and outer loadings. Hair et al. (2019a) stated that loading values should be above 0.708, indicating that the variables account for more than 50% of the indicator’s variance and thus provide reliable item reliability. All outer loadings in Table 2 exceed 0.708. To verify the convergent validity, Ringle et al. (2018) recommended that all AVE values be higher than the acceptable threshold of 0.50. In Table 2, the AVE values range from 0.76 to 0.84, which is higher than 0.50. Therefore, this study confirms no convergent validity issue.

Bootstrapping procedures were employed to evaluate the constructs’ path coefficients. The path coefficient value ranges between -1 and +1, with stronger predictive relationships corresponding to higher absolute values. According to Hair et al. (2011), a significant T-statistic value is 1.96 for a two-tailed test and a P-value less than 0.05, indicating a significant association. According to Table 3, the T-statistics for POS and TI exceed the significance threshold of 1.96 by 6.017, indicating a significant relationship between POS and TI. The P-value for POS and TI is 0.000, which is less than 0.05, confirming the significance of the association. Similarly, the P-value for PSS and TI was 0.002, indicating a significant relationship between the two constructs.

Table 4 demonstrates the connection between the exogenous and endogenous variables. Hair, Black, et al. (2019) stated that ranges from 0 to 1, where 0 signifies no relationship, and 1 represents a perfect

Table 2 Test of convergent validity and internal consistency.

Constructs	Items	Loadings	AVE	Cronbach’s Alpha	CR
POS	POS1_1	0.92	0.84	0.95	0.95
	POS2_1	0.91			
	POS4	0.89			
	POS5	0.92			
	POS6_1	0.93			
	PSS	PSS2			
PSS3	0.93				
PSS4_1	0.91				
PSS5R	0.80				
PSS6	0.91				
WFC	WFC1	0.89	0.81	0.94	0.95
	WFC2	0.92			
	WFC3	0.91			
	WFC4_1	0.90			
	WFC5	0.86			
	TI	TI1			
TI2		0.83			
TI3_1		0.89			
TI4		0.86			
TI5_1		0.86			

Table 3 Results of HTMT

	POS	PSS	TI	WFC
POS				
PSS	0.781			
TI	0.626	0.577		
WFC	0.616	0.596	0.448	

relationship. A high prediction accuracy is achieved when is 0.26; 0.13 indicates a moderate relationship, and 0.02 suggests a weak one (Cohen, 1988).

Table 5 indicates a moderate level of accuracy for the model (endogenous variable value > 0.13). In this study, the confidence interval test (Table 6) was also conducted using a 95% confidence interval and the lower (5%) and upper limits (95%) of the confidence interval. Table 7 reveals the mediating effect of WFC on the POS-TI relationship. To assess the mediation model, a bootstrapping test was conducted using PLS-SEM (two-tailed, t-value >1.96, p-value <0.05). Tables 7 and 8 indicate that WFC plays a significant role in the relationship between POS and TI, and between PSS and POS, respectively. Furthermore, WFC has a significant mediating effect on the association between PSS and TI, as determined by the bootstrapping method with a t-value >1.96 and a p-value <0.05.

5. Discussion

Worldwide nursing staff turnover rate poses a significant challenge for healthcare organizations, resulting in increased costs, reduced patient satisfaction, and inadequate patient care. A primary reason for nurses leaving was perceived insufficient POS. This section examines the significance of POS in lowering nursing turnover intention, focusing on various strategies and their consequences. POS encompasses different types of aid provided by an organization, such as emotional, instrumental, and informational support. The concept of POS in nursing involves the level of priority and value placed on the well-being, professional development, and job satisfaction of nursing staff by healthcare organizations.

In line with our findings, several studies have found a significant negative correlation between POS and TI in nursing (Liu et al., 2018). A supportive work environment that promotes trust, effective communication, and teamwork can enhance nurses’ job satisfaction and motivation to continue in their profession. Providing training and development opportunities is one of the most effective ways for employers to demonstrate their support to nursing staff. These opportunities include educational programs, certifications, and professional progression pathways. Implementing these measures not only increases job satisfaction, but also fosters loyalty and commitment among nurses, reducing the likelihood of turnover. POS includes policies and practices that promote work-life balance and employee well-being, such as flexible schedule alternatives, adequate staffing levels, and supportive leadership. These factors contribute to nurses’ overall job satisfaction, reduce the risk of burnout and turnover, and increase their commitment to their jobs when they feel valued by their organizations.

Effective communication channels, including regular feedback sessions, performance assessments, and opportunities for nurses to express their concerns and make suggestions, are essential for fostering a sense of community and empowerment, which can lead to lower turnover intention. Employers can create a strong sense of belonging and loyalty by acknowledging and respecting nurses. In line with Suárez-Albanchez et al. (2022), we argue that POS is crucial in lowering nursing turnover by creating a healthy work environment and promoting growth, work-life balance, and open communication. To retain nursing talent and offer top-notch care, healthcare businesses must prioritize improving POS. By investing in their nursing staff and nurturing a positive work culture, organizations can reduce turnover rates and

Table 4
Results of path Co-efficient (direct effect).

Hypothesis	Path	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T Statistics	P values	Decision
H ₁	POS - > TI	-0.421	-0.423	0.07	6.017	0.000	Supported
H ₂	PSS - > TI	-0.228	-0.229	0.074	3.072	0.002	Supported

Table 5
Results of Coefficient of determination (R²).

	R-square	R-square adjusted
TI	0.177	0.175
WFC	0.385	0.382

Table 6
Results of the confidence interval test.

Path	Original sample (O)	Sample mean (M)	5%	95%
POS - > TI	-0.380	-0.379	-0.531	-0.219
PSS - > TI	-0.234	-0.234	-0.380	-0.077
POS - > WFC	-0.326	-0.326	-0.454	-0.189
PSS - > WFC	-0.328	-0.330	-0.461	-0.202
WFC - > TI	0.411	0.413	0.316	0.506

ensure long-term success in healthcare delivery.

Similar to Rubel et al.'s (2020) findings, this study found a negative relationship between POS and TI. According to SET, POS depends on the level of support from the organization (Liu et al., 2018). SET indicates that employees who receive support from their organization exhibit positive behaviors and reduce turnover (Zhu et al., 2023). Nurses often experience increased motivation in interactions with colleagues because of their desire for recognition and achievement. When nurses believe that their contributions are valued by hospitals, and that their personal welfare and career growth are a priority, they are less likely to leave their positions (Liu et al., 2018). This study revealed a significant negative correlation between PSS and TI, which is consistent with the findings of previous studies such as Arici (2018) and Haaland et al. (2020) and Kaur and Randhawa (2020). This hypothesis is based on the SET theory. Eisenberger et al. (2001) argued that social exchange, rather than purely economic exchange, fosters feelings of personal obligation, gratitude, and trust.

Ghosh et al. (2019) found that when workers receive equal treatment and emotional support from their managers, they are more likely to contribute to achieving organizational goals and show greater dedication to the organization. This sense of obligation may also result in lower intention to leave the organization. However, research on the role of WFC in the relationship between POS and TI is lacking. This study aims to fill this gap in literature. This study revealed that the unexpected impact of WFC on the relationship between POS and was significant. Specifically, the nursing workforce is predominantly composed of women and leaves due to family responsibilities such as marriage, children, or elderly relatives requiring additional care (Nooney et al., 2010). Despite the findings of Yildiz and Elibol (2020), this study is

Table 7
Results of mediating effect of WFC in the relationship between POS and TI.

Hypothesis	Path	Original sample (O)	Sample mean (M)	Standard deviation	T statistics	P values	Decision
H ₃	POS - > WFC - > TI	-0.158	-0.16	0.037	4.32	0.000	Supported

Table 8
Results of mediating effect of WFC in the relationship between PSS and TI.

Hypothesis	Path	Original sample (O)	Sample mean (M)	Standard deviation	T statistics	P values	Decision
H ₄	PSS - > WFC - > TI	-0.121	-0.123	0.033	3.669	0.000	Supported

consistent with the COR theory (Hobfoll, 1989).

According to the COR hypothesis, family related conflicts lead to reduced resources and WFC, causing mental exhaustion and stress in healthcare workers. This stress may have caused them to leave their jobs, as reported by Hobfoll et al. (2018). However, Yucel et al. (2023) suggested that employees who feel supported by their organization and supervisor may be more engaged and committed even if they experience WFC. Moreover, there is a lack of research on the connection between WFC, PSS, and TI. This study addresses this gap in literature. Healthcare staff must remain vigilant while working because of high job demands, such as long hours and night shifts, which could lead to poor performance and burnout. According to the COR hypothesis, organizations and managers can motivate and retain personnel by supporting them in fulfilling their family commitments. Supervisor support can reduce the negative impact of resource loss for nurses experiencing work-family conflict. However, workers with high work-family conflict spend more time juggling their responsibilities, leading to stress and a desire to leave their jobs, as stated by Tsen et al. (2022).

5.1. Implications of study

5.1.1. Theoretical implications

This study sheds light on the underexplored impact of POS on TI and confirms the link between POS and traditional TI. Previous research has paid little attention to this relationship. Although some scholars have acknowledged the importance of supervisory support in healthcare (Ogbonnaya & Babalola, 2020), this issue has not been directly addressed. However, this study highlights the significance of supportive supervisors in reducing nurses' turnover intentions. This adds to the existing knowledge of supervisor support and attrition intentions, particularly in non-Western contexts.

This study enhances the theoretical understanding of WFC and its impact on nursing professionals. This demonstrates that perceived support from supervisors has a direct effect on reducing the intention of nursing staff to leave their profession, while WFC serves as a moderator in this relationship. This study builds upon previous research that has investigated the relationship between WFC and TI, and the influence of POS and PSS on this intention (Labrague, 2020; Zhao et al., 2020). While studies have been conducted on these topics, there has not been a comprehensive investigation among nurses working in both private and public hospitals in Bangladesh. This study contributes to the healthcare labor market and organizational management by exploring WFC as a tool in the healthcare sector. This study utilized the COR theory approach to comprehend the factors influencing the work environment and to reduce family obligations through a decrease in WFC (Gull et al., 2023).

5.1.2. Practical implications

The results of this study have several practical implications. The media in Bangladesh often highlights the shortage of healthcare professionals, equipment, medications, and hygiene, but overlooks the importance of nurses. Consequently, they are not included in public discussions or policy decisions. In practical terms, this study provides a structure for policymakers to understand how the turnover expectations of medical nurses are influenced by perceived organizational and supervisory support. Previous studies have revealed turnover goals as a concern for the nursing workforce in Bangladesh (Kabir et al., 2022). These findings provide valuable examples for healthcare administrators attempting to understand the causes of nurse turnover. Furthermore, this study contributes to the nursing labor market and helps human resource managers improve human resource management methods for retaining nurses, which is particularly important in Bangladesh and, more broadly, in any country facing similar challenges. This study expands our understanding of the challenges faced by healthcare professionals and proposes a feasible solution that can be implemented with the support of their organizations and supervisors.

This study showed that WFC plays a mediating role in the relationship between POS, PSS, and TI. Insufficient nursing knowledge among clinic directors may lead to increased WFC and TI. Strong managerial actions and POS are essential to reduce these negative effects (Zhang et al., 2019). Increasing nurses' autonomy, offering individualized training, and implementing strategies to improve their performance can help reduce family conflicts at the individual level. Additionally, training unit managers in counseling, coaching, and fostering a work-family friendly environment can help reduce conflicts at both the unit and organizational levels (Labrague et al., 2020).

5.2. Conclusion and recommendations

This research examined the workplace dynamics of social exchanges and assessed how employees' perceptions of organizational and supervisory support influenced their intent to leave the organization, mediated by WFC. This study consolidated existing knowledge among Bangladeshi nurses and health workers and advanced cross-cultural understanding by filling a gap in the literature. Research has shown that workplace support strengthens the employee-organization bond, affecting the likelihood of leaving through both direct and indirect means, such as WFC. To establish a preventative and supportive work environment, it is crucial to appreciate the significance of Workload, Fatigue, and Control (WFC) in nursing. However, no substantial research has been conducted in Bangladesh to explore the relationship between perceived supervisory support and WFC. Prior research has focused primarily on various samples and contexts.

It is important to further investigate certain findings while prioritizing the protection and promotion of public health. To achieve this, the government should increase funding in this area. The healthcare industry is expanding with the growing number of hospitals, beds, and doctors, and a rising demand for skilled nurses. However, there is currently a shortage of highly qualified nurses from reputable colleges to meet the demand. The limited resources available for creating knowledgeable nurse practitioners, competent instructors, and a fair, current syllabus and practice are sources of concern. The lack of centralized governance in nursing education has led to a growing demand for nurse educators, administrators, and managers. To address this, it is essential to enhance public health nursing knowledge and promote higher education. Introducing nursing honors and master's, PhD, and MPhil degrees would be beneficial. Establishing a top-quality international nursing university is critical for providing comprehensive education and

training for nurses. This would result in more facilities and more competent nurses, ultimately reducing turnover.

During the survey, most nurses agreed to separate the nursing department from the health department. They believed that it is essential to create a distinct nursing department and organogram. Nurses work around the clock, making it crucial to protect their dignity and respect to reduce TI.

This study aimed to address these gaps in previous research by examining the relationship between social support, WFC, and burnout in the nursing profession. This study found that WFC mediated the relationship between social support and burnout. Higher levels of supervisor and coworker support were associated with lower levels of WFC. The study also found that the Social Environment Theory and the COR hypothesis were supported by the data. These findings suggest that hospitals should focus on creating a supportive work environment that facilitates social exchange, and reducing WFC among nursing staff should be a priority. This study argues that these results can help clinics and policymakers create solutions for limiting WFC and supporting a fair work plan. Overall, the study concludes that higher levels of positive social and psychological support are associated with a more positive attitude among nurses and better job performance.

5.3. Limitations and future research

Future research should examine and contrast the viewpoints of various healthcare professionals, including physicians, management, and support staff, and both current and former employees. Gathering insights from stakeholders can provide a more comprehensive understanding of work-related stress and its effects on burnout and job satisfaction. This study used a cross-sectional design, focusing on POS and PSS as the independent variables. However, future research can expand this model to include other social and economic factors as well as other employee outcomes such as absenteeism and job attitude, and desirable outcomes such as job satisfaction, motivation, self-efficacy, and organizational loyalty.

Ethical statement

This study was approved by the Ethical Review Committee (of Dhaka Medical College, Bangladesh (Approval Reference Number: ERC-DMC/ECC/2022/411).

Approval Reference Number: March 45, 0000.001.99.001.21-3311) by the "Director General of Directorate General of Nursing and Midwifery, Ministry of Health, Bangladesh" to conduct surveys in the designated hospitals.

CRediT authorship contribution statement

Kazi Omar Siddiqi: Writing – original draft, Methodology, Formal analysis, Data curation. **Md Hasanur Rahman:** Writing – review & editing, Validation, Conceptualization. **Miguel Angel Esquivias:** Writing – review & editing, Validation, Funding acquisition, Conceptualization. **Lyna M.N. Hutapea:** Writing – review & editing, Validation, Formal analysis.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix

Appendix Table 1
Variables Details

Construct	Item Code	Survey Items
Perceived Supervisor Support	PSS1	My supervisor strongly considers my goals and values
	PSS2	My supervisor cares about my well-being
	PSS3	My supervisor is willing to help me when I need a special favour
	PSS4	My supervisor shows very little concern for me. (R)
	PSS5	My supervisor takes pride in my accomplishments at work
Perceived Organizational Support	POS1	I feel my hospital demonstrates significant concern for me
	POS2	I feel my hospital cares about my well-being
	POS3	When I have difficulty, I believe I can get help
	POS4	I feel my hospital takes pride in my success at work
	POS5	I think my hospital values my contributions to its well-being
	POS6	I feel my hospital strongly considers my goals and values
Work-family Conflict	WFC1	The demands of my work interfere with my home and family life
	WFC2	The amount of time my job takes up makes it difficult to fulfil family responsibilities
	WFC3	Things I want to do at home do not get done because of the demands my job puts on me
	WFC4	My job produces strain that makes it difficult to fulfil family duties
	WFC5	Due to work-related duties, I have to make changes to my plans for family activities
Technostress	TS1	I have a higher workload because of increased technology complexity
	TS2	I often find it too much trouble for me to learn to use new technologies
	TS3	I feel a threat to my job security due to new technologies
	TS4	There are frequent new developments in the technologies we use in our hospital
Turnover Intention	TI1	I am seriously considering leaving my current job to work at another job
	TI2	I sometimes feel compelled to quit my job in my current workplace
	TI3	I will probably look for a new job in the next year
	TI4	Within the next six months, I would rate the likelihood of leaving my present job as high
	TI5	I will quit this hospital if the condition gets even worse than now

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