

Research Article

The Influence of Self-Compassion and Mindfulness on Nurses' Caring Behavior

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Abstract. Caring behavior is the core of high-quality nursing services. In practice, it is influenced by various psychological factors and work-related stress. Self-compassion and mindfulness are believed to help nurses maintain emotional balance in delivering empathetic and humane nursing care. This study aims to analyze the effect of self-compassion and mindfulness on nurses' caring behavior, with work stress as a mediating variable. A quantitative approach with a cross-sectional design was used. Descriptive analysis employed the Three Box Method, while inferential analysis used SEM-PLS. The study population consisted of all nurses at Cilincing District General Hospital (N = 113), using total sampling. The results of the study indicate that the proposed model is considered fit ($p = 0.133$) and appropriate for testing the influence of self-compassion and mindfulness on caring behavior, with work stress as a mediating variable. Self-compassion has a significant positive effect on caring behavior ($p = 0.000$), while mindfulness does not have a direct effect ($p = 0.891$), but shows a significant indirect effect through the reduction of work stress ($p = 0.044$). Both self-compassion ($p = 0.029$) and mindfulness ($p = 0.000$) negatively affect work stress. Interestingly, work stress positively influences caring behavior ($p = 0.030$). To enhance the influence of self-compassion and mindfulness on caring behavior, hospitals should develop psychological intervention programs based on self-compassion and mindfulness to help nurses manage stress and strengthen caring practices. A systemic approach that considers organizational factors is also necessary to support the consistent implementation of caring behavior.

Keywords: Caring Behavior; Mindfulness; Nurses; Self-Compassion; Work Stress.

1. Introduction

Hospitals serve as the primary healthcare referral institutions in Indonesia, with nurses representing the largest proportion of healthcare professionals. According to the 2023 Indonesian Health Profile, nurses account for 44.3% of the total healthcare workforce, highlighting their strategic role in maintaining the quality of healthcare services. One of the most essential aspects of nurses' professional responsibilities is caring behavior. According to Watson's Human Caring Theory, caring behavior is an interpersonal process characterized by emotional support, respectful interaction, and therapeutic presence between nurses and patients (Watson, 2008). However, previous studies indicate that the level of caring behavior among nurses varies considerably and may be influenced by both internal psychological factors and external work-related conditions.

Among the psychological factors that have received increasing research attention are self-compassion and mindfulness. Self-compassion refers to the ability to treat oneself with kindness and understanding when facing difficulties or suffering (K. D. Neff, 2003). Meanwhile, mindfulness is defined as a non-judgmental awareness of the present moment that allows individuals to respond to experiences with greater emotional regulation and clarity (Kabat-Zinn, 1990). These psychological resources are believed to enhance emotional resilience and support nurses in maintaining compassionate interactions with patients.

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Despite their potential benefits, the positive influence of self-compassion and mindfulness may be hindered by high levels of work stress. Nursing professionals frequently experience demanding workloads, emotional pressures, and limited organizational resources, which may lead to psychological distress and negatively affect caring performance. In the context of RSUD Cilincing, this issue is reflected in the increasing number of patient complaints and preliminary observations indicating moderate levels of self-compassion and mindfulness among nurses alongside relatively high levels of work stress.

Previous studies have demonstrated that self-compassion and mindfulness are associated with improved emotional well-being and professional performance among healthcare workers. For example, (Duarte et al., 2016) and (Alquwez et al., 2021) reported that self-compassion positively contributes to nurses' caring behavior and compassion competence. Similarly, (King et al., 2019) found that mindfulness practices in healthcare settings can enhance perceptions of caring behavior. However, limited studies have examined the integrated relationship between self-compassion, mindfulness, and work stress in influencing nurses' caring behavior, particularly within hospital settings in developing countries.

Therefore, this study aims to analyze the influence of self-compassion and mindfulness on nurses' caring behavior, with work stress acting as a mediating variable. This study integrates several theoretical perspectives, including Watson's Human Caring Theory (Watson, 2008), the concept of self-compassion (K. D. Neff, 2003), mindfulness theory (Kabat-Zinn, 1990), and the transactional model of stress and coping (Lazarus & Folkman, 1984). By examining these relationships simultaneously, this research contributes to a better understanding of the psychological mechanisms that influence caring behavior among nurses.

2. Preliminaries or Related Work or Literature Review

This study is grounded in Gibson's theory of individual behavior in organizations. According to (Gibson, 2011), behavior is an observable response resulting from the interaction between internal factors, such as individual needs and perceptions, and external influences including social norms and environmental conditions. This perspective suggests that human behavior is shaped not only by personal characteristics but also by the surrounding social and organizational context. In nursing practice, this theoretical framework helps explain how nurses' caring behavior emerges because of both psychological attributes and workplace conditions.

According to Watson's Human Caring Theory, caring is the essence of nursing practice and constitutes the most central and unifying focus of the nursing profession (Watson, 2008). Watson emphasizes that caring in nursing is a humanistic and transpersonal process that goes beyond technical clinical actions, encompassing empathy, authentic presence, compassion, and respect for the dignity of patients as whole human beings. Through this transpersonal relationship, caring becomes a healing force that integrates human values, spirituality, and meaningful interpersonal connections between nurses and patients.

Complementing Watson's perspective, Swanson (Swanson, 1993) further conceptualizes caring as a nurturing way of relating to a valued other toward whom one feels a personal sense of commitment and responsibility. Swanson developed the Theory of Caring by building upon the concept of human caring proposed by Watson. In her work, she introduced the Structure of Caring Model, which reflects the philosophy underlying nurses' caring behavior in clinical practice. This model emphasizes several essential caring actions, including consistently providing information, understanding patients' experiences, communicating empathetically, performing therapeutic interventions, and maintaining hope for positive outcomes.

Self-compassion, as defined by (K. Neff, 2003), refers to an open and compassionate attitude toward one's own suffering, failures, or personal shortcomings. It involves responding to these experiences with kindness, understanding, and a nonjudgmental perspective while recognizing that such difficulties are part of the shared human experience. (K. Neff, 2003) explains that self-compassion consists of three main components: self-kindness, common humanity, and mindfulness. Through these elements, individuals are encouraged to accept their imperfections with understanding rather than self-criticism.

According to (Kabat-Zinn, 1990), mindfulness refers to the ability to pay attention deliberately to present-moment experiences with awareness and without judgment. (Raab, 2014) identifies mindfulness as an important strategy for reducing stress, enhancing empathy, and strengthening healthcare professionals' ability to cope with high emotional demands.

(Baer et al., 2006) define mindfulness as a conscious process of directing attention to present experiences with acceptance and without judgment. They further conceptualized mindfulness as a multidimensional construct through the development of the Five Facet Mindfulness Questionnaire (FFMQ), based on Kabat-Zinn's theoretical framework.

According to (Lazarus & Folkman, 1984), work stress is defined as the relationship between an individual and the environment that is appraised as taxing or exceeding one's resources and threatening well-being. Their Transactional Model of Stress and Coping emphasize that individuals actively evaluate both the potential threat of stressors and their ability to cope with them.

(French et al., 2000) define nurses' work stress as a psychological and emotional response to job demands perceived as disruptive or exceeding an individual's coping capacity, arising from factors such as role conflict, administrative pressure, limited workplace support, and challenges in caring for patients with severe or chronic conditions.

Building on this perspective, internal factors in nursing practice may include psychological resources such as self-compassion and mindfulness, which enable nurses to regulate emotions and maintain empathy when facing demanding clinical situations. Meanwhile, external factors are often reflected in workplace conditions, including work stress arising from workload, time pressure, and organizational demands. The interaction between these internal and external factors ultimately influences how nurses demonstrate caring behavior in their professional practice. Therefore, examining the roles of self-compassion, mindfulness, and work stress is essential to better understand the psychological and organizational dynamics that shape nurses' caring behavior in healthcare settings.

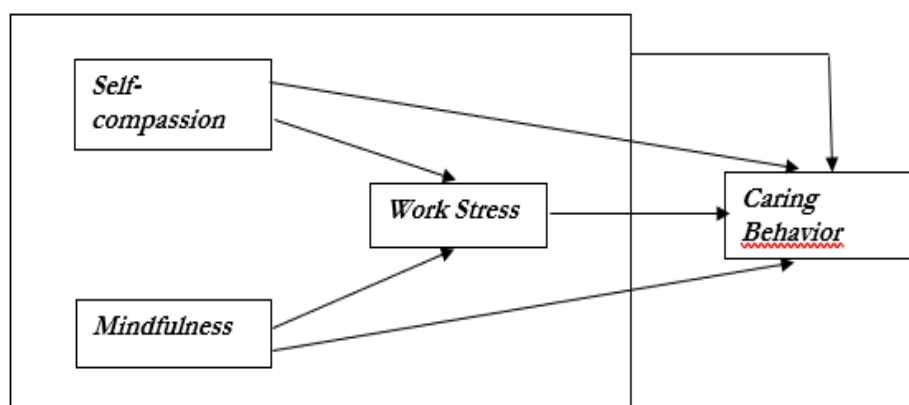


Figure 1. Conceptual Framework.

3. Proposed Method

This study adopted a quantitative research design with a survey approach to investigate the relationships between self-compassion (X1), mindfulness (X2), work stress (Z) as a mediating variable, and nurses' caring behavior (Y). The research was conducted at RSUD Cilincing and involved nurses working across different service units. The study population comprised 113 nurses, all of whom were included as respondents through a total sampling technique to ensure full representation of nurses from various clinical areas within the hospital.

Data were gathered using structured questionnaires administered to nurses who fulfilled the inclusion criteria, such as having at least six months of work experience and being directly involved in nursing care. The questionnaire items were developed based on validated indicators derived from established measurement instruments for each research variable. A survey method was chosen because it enables standardized data collection and facilitates the efficient gathering of information from a relatively large group of respondents within a limited time frame. To promote honest responses and minimize response bias, respondent anonymity and

confidentiality were strictly maintained. The collected quantitative data were subsequently analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS) to evaluate both direct and indirect relationships among the study variables. This analytical technique also allowed the examination of the mediating role of work stress in the relationship between self-compassion, mindfulness, and nurses' caring behavior, providing empirical insights into psychological factors that influence caring practices in nursing services.

4. Results and Discussion

Validity Test

Discriminant validity was assessed by comparing the square root of the Average Variance Extracted (AVE) for each construct with the correlations between constructs. A construct is considered to demonstrate adequate discriminant validity when the square root of its AVE exceeds its correlations with other constructs in the model. The square root values of AVE for each variable are presented in the following section.

Tabel 1. Average Variance Extracted Result.

Variabel	AVE	Description
Caring Behavior	0,610	Valid
Mindfulness	0,660	Valid
Self-Compassion	0,656	Valid
Work stress	0,609	Valid

Source: Results of Primary Data Analysis, 2025

Based on the table above, it can be seen that all three variables used in this study are valid, as they produce AVE values greater than 0.5.

Reliability Test

Reliability testing was conducted to assess the internal consistency of the measurement instruments for each construct. The constructs are considered reliable when the values of Cronbach's Alpha and Composite Reliability exceed the recommended threshold of 0.70 (Hair et al., 2021).

Tabel 2. Reliability Test.

	Cronbacch's Alpha	Rho_A	Composite Reliability	Description
CB	0,908	0,909	0,926	Reliabel
M	0,933	0,940	0,945	Reliabel
SC	0,942	0,948	0,952	Reliabel
WS	0,954	0,963	0,959	Reliabel

Source: Results of Primary Data Analysis, 2025

The results presented in Table 2 indicate that all constructs exhibit Cronbach's Alpha and Composite Reliability values above 0.90, reflecting a very high level of internal consistency.

The caring behavior variable shows a Cronbach's Alpha value of 0.908 and a Composite Reliability value of 0.926, indicating that the indicators used are highly consistent in measuring the caring behavior construct.

The mindfulness variable also demonstrates strong reliability, with a Cronbach's Alpha value of 0.933 and a Composite Reliability value of 0.945, reflecting the stability and consistency of the measurement items in representing the mindfulness construct. Similarly, the self-compassion variable presents a Cronbach's Alpha value of 0.942 and a Composite Reliability value of 0.952, suggesting that the indicators reliably capture the concept of self-compassion.

Meanwhile, the work stress variable shows the highest reliability values, with a Cronbach's Alpha of 0.954 and a Composite Reliability of 0.959, indicating very strong internal consistency among its measurement items. Overall, all variables exceed the recommended

reliability threshold of 0.70, confirming that the measurement instruments used in this study are highly reliable. These findings indicate that the indicators employed are capable of consistently measuring their respective constructs and are therefore suitable for further analysis within the Structural Equation Modeling–Partial Least Squares (SEM-PLS) framework.

Hypotesis Test

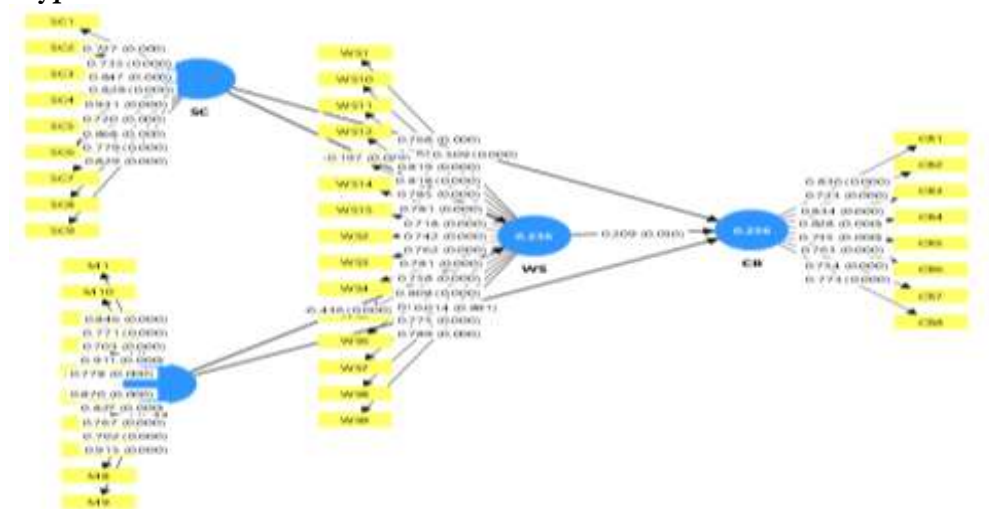


Figure 2. Bootstrapping Analysis Results.

Based on Figure 2, the evaluation of the path coefficient quality using the T-statistic and p-value shows that the direct effects of self-compassion on caring behavior, work stress on caring behavior, self-compassion on work stress, and mindfulness on work stress are statistically significant, with T-statistic values greater than 1.96 and p-values less than 0.05. However, the direct effect of mindfulness on caring behavior is not statistically significant, as indicated by a T-statistic value less than 1.96 and a p-value greater than 0.05

Simultaneous Test

Minimum was achieved.
Chi-square = 780,808
Degrees of freedom = 738
Probability level = 0,133 (p > 0,05)

Based on the analysis the probability level was found to be 0.133 (p > 0.05), indicating that the Chi-square value is not statistically significant. This suggests that the proposed model does not differ significantly from the empirical data, And therefore can be considered a good fit. Consequently, the research model is deemed appropriate for examining the influence of self-compassion and mindfulness on caring behavior, with work stress as a mediating variable among nurses at RSUD Cilincing.

Direct Effect test

Tabel 3. Partial Hypotesis Test.

	Original Sample (O)	T Statistics (O/STDEV)	P Values	Description
SC → CB	0,506	5,805	0,000	Hypotesis Accepted
M → CB	0,014	0,137	0,891	Hypotesis Rejected
WS → CB	0,209	2,175	0,030	Hypotesis Accepted
SC → WS	-0,197	2,188	0,029	Hypotesis Accepted
M → WS	-0,436	6,110	0,000	Hypotesis Accepted

Based on Table 3 above, the direct effects of self-compassion on caring behavior, work stress on caring behavior, self-compassion on work stress, and mindfulness on work stress are statistically significant, as indicated by T-statistic values greater than 1.96 and p-values less than 0.05. In contrast, the direct effect of mindfulness on caring behavior is not statistically significant, with a T-statistic value less than 1.96 and a p-value greater than 0.05.

Indirect Effect

The indirect hypothesis testing was conducted to examine the effect of each independent variable (self-compassion and mindfulness) on the dependent variable (caring behavior) through the mediating variable.

Tabel 4. Indirect Effect Test Result.

	Original Sample (O)	T Statistics (O/STDEV)	P Values	Description
SC -> WS -> CB	-0,041	1,428	0,153	Partial Mediation
M -> WS -> CB	-0,091	2,014	0,044	Full Mediation

Based on Table 4, work stress as a mediating variable explains only part of the effect of self-compassion on caring behavior, indicating a partial mediation effect. Meanwhile, work stress fully explains the effect of mindfulness on caring behavior, indicating a full mediation effect.

Discussion

The Simultaneous Influence of Self-Compassion, Mindfulness, and Work Stress on Nurses' Caring Behavior

The findings of this study indicate that self-compassion, mindfulness, and work stress do not simultaneously exert a significant influence on nurses' caring behavior. This result supports the perspective of (Gibson, 2011), who argues that individual performance cannot be adequately explained by a single factor alone, but rather results from the interaction of multiple factors, including individual characteristics, psychological conditions, and organizational environments. Therefore, caring behavior in nursing practice may emerge from a complex interaction between personal psychological resources and contextual workplace factors.

Despite the non-significant simultaneous effect, the path analysis revealed several important relationships among the variables. Self-compassion demonstrated a significant positive influence on nurses' caring behavior, while work stress also showed a significant relationship with caring behavior. In contrast, mindfulness did not exhibit a direct significant effect on caring behavior but showed an indirect influence through its role in reducing work stress. This finding suggests that mindfulness primarily functions as an internal regulatory mechanism that enables nurses to manage emotional pressure before caring behavior can be expressed optimally in clinical interactions.

These results are consistent with the Theory of Human Caring proposed by (Watson, 2008), which emphasizes that caring is the core of nursing practice and involves deep interpersonal, emotional, and spiritual dimensions. Within Watson's ten Caritas Processes, caring requires nurses to be fully present, maintain emotional balance, and demonstrate genuine compassion in their interactions with patients. Consequently, high levels of work stress may become a significant barrier to the realization of authentic caring practices.

The findings of this study are also supported by previous research. (Durkin et al., 2016) suggest that self-compassion enhances interpersonal empathy and strengthens nurse-patient relationships while reducing emotional exhaustion. Similarly, (Gerace, 2022) indicates that self-compassion enables nurses to maintain caring behavior even under stressful working conditions. Furthermore, (Shapiro et al., 2005) demonstrate that mindfulness primarily acts as an emotional protective factor by improving self-regulation and reducing stress rather than directly influencing caring behavior. This finding is further supported by (Beach et al., 2013), who report that mindfulness contributes to warmer and more responsive interpersonal relationships through effective emotional regulation and stress management.

Overall, this study highlights that nurses' caring behavior is influenced by the interaction between internal psychological resources and workplace conditions. Strengthening self-compassion and promoting mindfulness-based stress management strategies may therefore

support nurses' emotional resilience and sustain high-quality caring practices in clinical settings.

The Effect of Self-Compassion on Nurses' Caring Behavior

The findings of this study highlight the important role of self-compassion in supporting nurses' caring behavior. According to (K. Neff, 2011), self-compassion comprises three key components—self-kindness, common humanity, and mindfulness—which enable individuals to maintain emotional balance when facing difficulties. In the context of nursing practice, these elements allow nurses to approach patients with greater empathy, emotional stability, and understanding, thereby strengthening the quality of care delivered in clinical interactions.

These findings are consistent with the theoretical framework proposed by Jean Watson through the Theory of Human Caring, which emphasizes that caring represents the fundamental essence of nursing practice. Watson argues that caring is expressed through compassionate interpersonal relationships grounded in empathy, humanity, and spiritual awareness. Nurses who possess higher levels of self-compassion are more capable of recognizing their own emotional needs, maintaining psychological equilibrium, and managing work-related pressures. As a result, they are better prepared to sustain meaningful therapeutic relationships with patients.

From an organizational behavior perspective, (Gibson, 2011) explains that individual characteristics play a crucial role in shaping work behavior. Self-compassion, as an internal psychological resource, contributes to emotional regulation and self-awareness, which in turn influence professional conduct, including caring behavior in nursing practice.

The present findings are further supported by previous studies. Research by (Özparlak et al., 2024) and (Abbasi et al., 2024) reported a significant positive association between self-compassion and caring practices among nurses. Similarly, studies conducted by (Durkin et al., 2016) and (Gerace, 2022) demonstrate that self-compassion not only enhances caring behavior but also reduces emotional exhaustion and promotes healthier nurse–patient relationships.

Overall, these findings suggest that strengthening self-compassion may represent a valuable strategy for improving nurses' caring behavior and sustaining the quality of nursing care in clinical settings.

The Effect of Mindfulness on Nurses' Caring Behavior

The findings of this study indicate that mindfulness does not directly influence nurses' caring behavior. This result aligns with the theoretical framework proposed by Jon Kabat-Zinn through the concept of Mindfulness-Based Stress Reduction, as described in *Full Catastrophe Living*. Mindfulness is defined as the ability to pay attention to present-moment experiences with full awareness and without judgment. Its primary aim is to help individuals cope with stress, pain, and life pressures in a healthier and more adaptive manner rather than directly altering interpersonal behavior.

In nursing practice, mindfulness can be understood as a psychological skill that helps nurses remain fully present with patients, minimize distractions, and respond to clinical situations calmly and thoughtfully. However, caring behavior represents an external expression of empathy and concern toward others. Such behavior may not automatically emerge from mindfulness alone, particularly when external challenges such as high workload, team conflict, or administrative demands remain dominant in the work environment.

These findings are supported by previous studies. Research by (Shapiro et al., 2006) explains that mindfulness operates through a cognitive process called *reperceiving*, which shifts how individuals observe and interpret internal experiences. This process enhances self-regulation, including the ability to manage stress and emotional reactions. Similarly, research by (Beach et al., 2013) suggests that mindfulness influences interpersonal outcomes indirectly through improved emotional regulation, reduced work stress, and greater affective stability, which can eventually support the development of caring behavior in nursing practice.

The Effect of Work Stress on Nurses' Caring Behavior

The findings of this study reveal that work stress has a positive and significant influence on nurses' caring behavior. Although this result contrasts with many nursing studies that view stress primarily as a barrier to performance, it aligns with research suggesting that certain types of stress can enhance motivation and work outcomes. According to (Cavanaugh et al., 2000), work stress can be categorized into *challenge stressors* and *hindrance stressors*. Challenge-

related stress, such as high responsibility, complex tasks, and demanding goals, can stimulate motivation and improve job performance.

Similarly, the meta-analysis conducted by (Lepine et al., 2005) demonstrates that challenge stressors are positively associated with job performance. In the context of nursing, pressures such as caring for critically ill patients, maintaining patient safety, and delivering high-quality care may be perceived as professional challenges rather than obstacles. As a result, these pressures can strengthen nurses' intrinsic motivation and commitment, which may manifest in stronger caring behavior toward patients.

This phenomenon can also be explained using the Transactional Model of Stress and Coping proposed by (Lazarus & Folkman, 1984). According to this model, individuals cognitively appraise stressful situations as either threats or challenges. When nurses perceive work pressure as a meaningful professional challenge and believe they have sufficient coping resources, stress may encourage adaptive responses and greater professional dedication.

Furthermore, sources of nursing stress identified by (Gray-Toft & Anderson, 1981) such as patient death, workload, and interpersonal conflicts may, in certain contexts, activate nurses' professional values and empathy. Consequently, despite experiencing high emotional demands, nurses may still demonstrate strong caring behavior as an expression of professional responsibility and moral commitment to patient care.

The Effect of Self-Compassion on Nurses' Work Stress

The findings of this study indicate that self-compassion plays an important role in reducing work stress among nurses. According to (K. Neff, 2003), self-compassion refers to the ability to treat oneself with empathy, understanding, and non-judgment, particularly when facing failure or suffering. In the context of nursing, this ability is essential because nurses are frequently exposed to high emotional demands and significant professional responsibilities. Self-compassion allows nurses to respond to stressful experiences with kindness toward themselves rather than self-criticism, thereby reducing emotional strain.

From the perspective of organizational behavior theory proposed by (Gibson, 2011), psychological factors such as self-compassion are considered individual characteristics that influence how individuals perceive and respond to their work environment. Nurses with higher levels of self-compassion are more likely to evaluate stressful situations more objectively and recover more quickly from emotional pressure. This capacity supports healthier coping mechanisms and helps maintain psychological balance in demanding clinical settings.

These findings are supported by previous research. A study conducted by (Raab, 2014) found that healthcare professionals with higher levels of self-compassion tend to experience lower levels of burnout and demonstrate more adaptive coping strategies. Similarly, research by (Duarte et al., 2016) reported a negative correlation between self-compassion and emotional exhaustion, indicating that self-compassion contributes to improved professional quality of life among nurses.

Overall, the results suggest that self-compassion functions as a psychological protective factor that helps nurses manage work-related stress and maintain emotional well-being in demanding healthcare environments.

The Effect of Mindfulness on Nurses' Work Stress

This study aligns with Jon Kabat-Zinn's theoretical foundation in Mindfulness-Based Stress Reduction (MBSR), as presented in *Full Catastrophe Living* (1990/2013). Kabat-Zinn defines mindfulness as the ability to attend to present experiences with full awareness and without judgment, aiming to help individuals cope with stress, pain, and life pressures in a healthier and more adaptive way, rather than directly altering social or interpersonal behavior. In nursing, mindfulness is an essential skill that enables nurses to remain fully present with patients, manage emotions, reduce psychological stress, and respond calmly and wisely in challenging situations.

Consistent with (Guillaumie et al., 2017), nurses with high mindfulness are better able to handle stressful work situations with greater awareness and acceptance, avoiding harmful emotional reactions such as fatigue, frustration, or burnout. Mindfulness also serves as a protective mechanism in navigating complex work dynamics, making it an important strategy for professional development and mental well-being among nursing staff. Therefore, workplace health promotion programs that incorporate mindfulness-based interventions are strongly recommended as a preventive approach to nurse work stress. Supporting these findings,

(Ghawadra et al., 2019) reported that higher levels of mindfulness in nurses are associated with lower perceived work stress, as mindful nurses are more capable of recognizing work pressures without becoming entangled in detrimental emotional responses, demonstrating greater acceptance and psychological balance in demanding work environments.

The influence of self-compassion on nurses' caring behavior through work stress as an intervening variable.

Research by (K. D. Neff & Pommier, 2013) indicates that self-compassion directly contributes to improved social relationships and prosocial behaviors, including empathy and caring for others. In nursing, caring behavior is closely linked to emotional presence and empathy, which are core components of self-compassion. Their study found no significant mediation of work stress between self-compassion and other interpersonal outcomes.

Similarly, (Dev et al., 2018) showed that while mindfulness and self-compassion can reduce work stress, their influence on patient relationships is stronger through a direct pathway. Emotional competencies fostered by self-compassion are sufficient to promote caring behavior without relying on work stress as a mediator. Interaction analyses further revealed that at high burnout levels, nurses with high self-compassion are more aware of barriers to compassion, suggesting that self-compassion serves better as a direct predictor rather than a full mediator.

Although the indirect pathway via work stress was not statistically significant, the negative direction of the effect aligns with theoretical and empirical patterns: self-compassion can reduce work stress, and lower stress potentially supports the emergence of caring behavior. This is consistent with Gibson's behavioral theory (Gibson, 2011) which states that work behavior is influenced by the interaction of individual factors (e.g., self-compassion) and work environment factors (e.g., stress levels).

Additional studies (K. Neff, 2003); (Raab, 2014) reinforce that self-compassion plays a key role in maintaining emotional balance and reducing stress, which contributes to prosocial behaviors including caring behavior. However, in this study, the effect was not strong enough to statistically mediate the relationship between the variables

The influence of mindfulness on nurses' caring behavior through work stress as an intervening variable.

Mindfulness is the psychological capacity to remain fully present in the moment without judgment. According to (Kabat-Zinn, 1990), mindfulness enables individuals to face stress, pain, and life pressures in a healthier and more adaptive way, rather than directly altering social or interpersonal behavior. In nursing, mindfulness helps nurses stay calm, focused, and non-reactive under work pressure, supporting their ability to maintain empathetic and attentive caring behaviors. By reducing perceived work stress, nurses can provide full emotional presence in patient care.

This aligns with Gibson's behavioral theory (Gibson, 2011) which posits that work behavior results from the interaction between individual characteristics and the work environment. Mindfulness, as a personal trait, regulates responses to external stress, positively impacting interpersonal behavior such as caring. Research by (Chen et al., 2023) and (Lu et al., 2019) shows that mindfulness lowers perceived stress, buffers negative emotional effects, and enhances resilience, ultimately supporting caring behavior. Acting with awareness, a core aspect of mindfulness, is particularly effective in reducing the impact of stress on burnout, depression, and anxiety.

Prior studies ((Shapiro et al., 2005); (Beach et al., 2013); (Khoury et al., 2015) confirm that mindfulness interventions reduce stress, improve emotional regulation, and enhance patient-nurse relationships. The present findings support that mindfulness indirectly enhances nurses' caring behavior through reduced work stress, serving as a psychological protective strategy that strengthens emotional resilience in high-pressure healthcare setting.

5. Comparasion

Previous studies have extensively explored the relationship between psychological factors and nurses' caring behavior. Several researchers have examined the influence of self-compassion on nurses' emotional well-being and professional competence. For example, (Duarte et al., 2016) reported that self-compassion contributes positively to compassion competence and reduces emotional exhaustion among nurses. Similarly, (Alquwez et al., 2021)

found that nurses with higher levels of self-compassion tend to demonstrate stronger caring attitudes toward patients.

In addition to self-compassion, mindfulness has also been widely studied in the context of nursing practice. Mindfulness has been shown to improve emotional regulation, attention, and interpersonal sensitivity, which are essential elements of caring behavior. (King et al., 2019) demonstrated that mindfulness practices in clinical environments can enhance nurses' awareness and empathy, thereby supporting more compassionate patient care.

However, most previous studies have primarily examined the direct relationship between individual psychological factors and caring behavior. Limited research has attempted to integrate these psychological variables into a comprehensive model that simultaneously explains their influence on caring behavior. Moreover, the potential role of work stress as a mediating variable has not been sufficiently explored in many empirical studies.

The present study extends the existing literature by integrating self-compassion, mindfulness, and work stress into a unified structural model to explain their effects on nurses' caring behavior. Unlike earlier studies that focused on bivariate relationships, this research investigates both direct and indirect relationships, particularly examining how work stress mediates the influence of self-compassion and mindfulness on caring behavior.

Another distinguishing aspect of this study lies in its methodological approach. By applying Structural Equation Modeling based on Partial Least Squares (SEM-PLS), this research is able to simultaneously analyze complex causal relationships among variables and evaluate mediating effects more comprehensively. Additionally, the study focuses on nurses working in Cilincing Regional Public Hospital, providing empirical evidence from a specific healthcare setting that may enrich the current body of knowledge in nursing management and healthcare psychology.

Therefore, compared with previous studies, this research provides a more integrative perspective on how psychological resources and workplace stress interact to shape nurses' caring behavior, thereby contributing to a deeper understanding of factors that influence the quality of nursing care. Furthermore, the significant role of work discipline in influencing and mediating compliance strengthens work discipline theory (Terry) and Reinforcement Theory (Skinner), highlighting discipline as the mechanism through which organizational policies are internalized into consistent work behavior. The study therefore emphasizes that Clinical Pathway compliance is the result of the interaction between structural factors (remuneration systems), psychological-organizational factors (organizational support), and behavioral factors (work discipline), enriching the conceptual model of clinical compliance in hospital management.

6. Conclusion

This study demonstrated that self-compassion has a direct and significant influence on nurses' caring behavior, whereas mindfulness does not exert a direct effect but operates indirectly through the reduction of work stress. Work stress was found to significantly mediate the relationship between mindfulness and caring behavior, but it did not serve as a strong mediator in the relationship between self-compassion and caring behavior. These findings highlight the importance of strengthening individual psychological capacities—particularly self-compassion in maintaining the quality of nurses' caring behavior under work pressure. Therefore, interventions based on self-compassion and mindfulness are recommended as strategic approaches to enhance emotional regulation, empathy, and nurses' full presence in therapeutic relationships.

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