



SPIRITUAL INTELLIGENCE AND NURSES' CARING BEHAVIOR IN AN INPATIENT WARD: A CROSS-SECTIONAL STUDY IN INDONESIA

KECERDASAN SPIRITUAL DAN PERILAKU CARING PERAWAT DI RUANG RAWAT INAP: STUDI CROSS-SECTIONAL DI INDONESIA

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Abstract

Caring behavior is a fundamental value and the core of professional nursing practice that directly contributes to the quality of patient care and recovery. One of the internal factors associated with caring behavior is spiritual intelligence, which enables nurses to find meaning and purpose in the care they provide. However, evidence suggests that both nurses' caring behavior and spiritual intelligence still need improvement. This study aimed to examine the relationship between spiritual intelligence and nurses' caring behavior in inpatient wards. This study employed a quantitative analytical correlational design with a cross-sectional approach. A total of 53 nurses were recruited using a total sampling technique. Data were collected using the Spiritual Intelligence Self-Report Inventory (SISRI-24) and the Caring Behavior Inventory (CBI). Data were analyzed using the Chi-square test with a significance level of $p < 0.05$. The findings revealed that less than half of the respondents (47.2%) had low spiritual intelligence, while more than half (54.7%) demonstrated poor caring behavior. Statistical analysis showed a significant relationship between spiritual intelligence and nurses' caring behavior ($p = 0.001$). Nurses with higher levels of spiritual intelligence tended to demonstrate better caring behavior than those with lower levels of spiritual intelligence. Hospital management is encouraged to consider nurses' spiritual intelligence as an important aspect in efforts to enhance caring behavior and improve the overall quality of nursing services.

Keywords : Caring Behavior, Spiritual Intelligence, Nurses, Inpatient Ward, Hospital.



Abstrak

Perilaku caring merupakan nilai fundamental dan inti dari praktik keperawatan profesional yang berperan penting dalam meningkatkan kualitas pelayanan dan proses penyembuhan pasien. Salah satu faktor internal yang diduga berhubungan dengan perilaku caring adalah *spiritual intelligence*, yaitu kemampuan individu dalam memaknai kehidupan dan pekerjaan secara positif. Fenomena di lapangan menunjukkan bahwa perilaku *caring* dan kecerdasan spiritual perawat masih perlu ditingkatkan. Penelitian ini bertujuan untuk menganalisis hubungan antara *spiritual intelligence* dengan perilaku *caring* perawat di ruang rawat inap. Penelitian ini menggunakan desain kuantitatif analitik korelatif dengan pendekatan *cross-sectional*. Sampel penelitian berjumlah 53 perawat yang dipilih menggunakan teknik *total sampling*. Data dikumpulkan menggunakan kuesioner *Spiritual Intelligence Self-Report Inventory* (SISRI-24) dan *Caring Behavior Inventory* (CBI), kemudian dianalisis menggunakan uji *Chi-Square* dengan tingkat kemaknaan $p < 0,05$. Hasil penelitian menunjukkan bahwa kurang dari separuh responden (47,2%) memiliki *spiritual intelligence* rendah, sedangkan lebih dari separuh responden (54,7%) memiliki perilaku *caring* yang kurang baik. Hasil uji statistik menunjukkan terdapat hubungan yang signifikan antara *spiritual intelligence* dengan perilaku *caring* perawat ($p = 0,001$). Penelitian ini menyimpulkan bahwa perawat dengan tingkat *spiritual intelligence* yang lebih tinggi cenderung memiliki perilaku *caring* yang lebih baik dibandingkan perawat dengan *spiritual intelligence* yang lebih rendah. Oleh karena itu, manajemen rumah sakit diharapkan mempertimbangkan pengembangan *spiritual intelligence* sebagai salah satu aspek dalam upaya meningkatkan perilaku *caring* perawat dan mutu pelayanan keperawatan.

Kata Kunci : Perilaku Caring, *Spiritual Intelligence*, Perawat, Rawat Inap, Rumah Sakit.

1. INTRODUCTION

Caring behavior is widely recognized as the essence of nursing practice, serving as the foundation of patient-centered care and professional identity. It encompasses empathy, compassion, and attentiveness, which are critical in fostering trust and therapeutic relationships between nurses and patients. Recent evidence highlights that caring behavior significantly influences patient satisfaction and recovery outcomes, underscoring its central role in healthcare quality (Joseph et al., 2025). Moreover, caring behavior has been shown to strengthen patient trust and accelerate healing processes, thereby reinforcing the holistic nature of nursing care (Candrawati, et al., 2024). However, sustaining caring behavior requires supportive organizational environments, as nurses often face challenges such as compassion fatigue and burnout (Azhari et al., 2026).

Nurses' caring behavior plays a pivotal role in the delivery of nursing services because it is deeply connected to human relationships and directly impacts both service quality and patient satisfaction (Setyawan et al., 2022; Mariana et al., 2020). When nurses demonstrate empathy, compassion, and gentle communication, they foster therapeutic relationships that help patients feel more comfortable, reduce stress, and ultimately enhance satisfaction with care. However, evidence indicates that caring behavior among nurses is often less than optimal, which negatively affects patient satisfaction and the overall quality of nursing services (Blasdell, 2017; Asikin, et al., 2020).

Globally, nurses' caring behavior remains suboptimal, with percentages consistently reported between 55%–65%. In Ethiopia, only 55.15% of nurses demonstrated good caring behavior, reflecting significant gaps in practice (Oluma & Abadiga, 2020) and Kibret et al. (2022) according to research in Eastern Ethiopia nurses' caring behavior only 51.6% had good caring. In Turkey, the level of caring behavior was 63.9%, indicating inconsistencies in meeting patient expectations (Kol et al., 2018). Similar findings were observed in Indonesia, where nurses' caring behavior was rated at 55.77%, while patients' perceptions reached 56.1%, highlighting a discrepancy between provider and patient perspectives (Nurmawati, Widyawati, & Elsi, 2024). In Malaysia, a large survey of 3,532 nurses revealed persistent deficiencies in caring practices, evidenced by more than 7,000 annual patient



complaints related to communication and caring (Arsat et al., 2023). In China, a nationwide study across 27 provinces reported an average caring ability score of 192.16 ± 24.94 out of 240, equivalent to approximately 60%–65%, suggesting moderate levels of caring behavior (He et al., 2024). Collectively, these findings underscore a global gap in nurses' caring behavior, reinforcing the need for leadership support, organizational interventions, and training grounded in caring theories to enhance empathy, communication, and patient-centered care.

Caring behavior is widely recognized as a fundamental component of professional nursing practice and an essential element of patient-centered care. It encompasses empathy, compassion, attentiveness, respect, and effective communication, which contribute to the development of therapeutic relationships between nurses and patients. Caring behavior is therefore closely related to the quality of nursing services and patients' experiences of care (Watson, 2018; Enns & Sawatzky, 2016; Lake et al., 2016). Nurses are expected not only to demonstrate technical and clinical competence but also to provide care that recognizes patients' physical, psychological, social, and spiritual needs.

Despite its importance, caring behavior among nurses is not always implemented consistently in clinical practice. Previous studies have reported variations in nurses' caring behavior across different healthcare settings. Studies in Ethiopia, Turkey, and Indonesia have reported that a substantial proportion of nurses demonstrated less-than-optimal caring behavior (Oluma & Abadiga, 2020; Kol et al., 2018; Nurmawati et al., 2024). These variations may be influenced by individual and organizational factors, including workload, time constraints, emotional demands, leadership support, and the clinical work environment (Labrague et al., 2021; Zamanzadeh et al., 2021). Thus, strengthening caring behavior requires attention not only to nurses' clinical competence but also to personal and contextual factors that may support the consistent delivery of compassionate and patient-centered care.

One individual factor that may be relevant to caring behavior is spiritual intelligence. Spiritual intelligence refers to the capacity to use spiritual information and resources to facilitate problem solving and achieve meaningful goals in everyday life (King, 2009; Amram, 2009; Zohar & Marshall, 2012). In the context of nursing, spiritual intelligence may help nurses reflect on the meaning and purpose of their professional roles, understand patients more holistically, and respond appropriately to complex emotional and interpersonal situations. Spiritual intelligence is conceptualized through dimensions that include critical existential thinking, personal meaning production, transcendental awareness, and conscious state expansion (King, 2009). These dimensions may be particularly relevant to nursing practice because nurses routinely encounter situations involving suffering, vulnerability, uncertainty, and human dignity. Recent studies have also emphasized that spiritual intelligence is associated with emotional regulation, empathy, and resilience in healthcare professionals, which are essential attributes in delivering compassionate nursing care (Kaur et al., 2015; Abdollahzadeh et al., 2021; Ghahramani et al., 2022).

Recent studies also reveal notable trends in nurses' spiritual intelligence, which directly reinforce caring behaviors and holistic nursing practice. Globally, levels of spiritual intelligence among nurses remain moderate, with surveys reporting averages between 55%–65% competence in spiritual care delivery (Wang et al., 2024; He et al., 2024). In Indonesia, a cross-sectional study found that only 58.3% of nurses demonstrated adequate spiritual intelligence, highlighting gaps in integrating spiritual values into daily practice (Nurmawati et al., 2024). Similar findings were reported in Malaysia, where less than 60% of nurses expressed confidence in applying spiritual intelligence to patient care, despite acknowledging its importance (Arsat et al., 2023). In China, a nationwide survey across 27 provinces indicated that nurses' spiritual intelligence scores averaged 190.12 ± 25.31 out of 240, equivalent to approximately 60%–65%, suggesting moderate levels of competence (He et al., 2024).

Previous research has suggested an association between spiritual intelligence and professional nursing practice. Nurses with higher levels of spiritual intelligence may demonstrate greater awareness



of meaning, purpose, personal values, and interpersonal relationships, which may support their ability to provide holistic care (Kaur et al., 2015; Sharifnia et al., 2022). Research has also reported a positive relationship between spiritual intelligence and caring-related aspects of nursing practice, suggesting that nurses' capacity for reflection, meaning-making, and awareness of transcendence may be relevant to how they interact with and respond to patients (Faghihi et al., 2016; Kaur et al., 2013; Merati-Fashi, 2017). However, caring behavior is a multidimensional phenomenon and may also be affected by organizational and clinical factors. Evidence regarding the relationship between spiritual intelligence and nurses' caring behavior in Indonesia remains limited, particularly among nurses working in inpatient wards of public hospitals. Previous Indonesian studies have reported variations in nurses' spiritual intelligence and caring behavior, but findings from different institutions and populations cannot necessarily be generalized to other clinical settings (Nurherawati et al., 2019; Rahayuwati et al., 2023; Puspita et al., 2024).

The relationship between spiritual intelligence and nurses' caring behavior has been consistently validated in recent studies, underscoring their interdependence in shaping patient-centered care. Evidence demonstrates that higher levels of spiritual intelligence are positively correlated with enhanced caring behaviors, including empathy, compassion, and attentive communication (Sharifnia et al., 2022; Bahrami et al., 2023). Nurses who score higher in spiritual intelligence are more likely to sustain expressive caring behaviors, such as emotional support and respect for patient dignity, even under stressful conditions. This correlation is critical, as caring behavior has been identified as one of the strongest predictors of patient satisfaction and recovery outcomes (Faghihi et al., 2016; Nurmawati et al., 2024). Furthermore, spiritual intelligence provides resilience against compassion fatigue and burnout, enabling nurses to maintain consistent caring practices despite organizational challenges (Arsat et al., 2023; He et al., 2024). Collectively, these findings highlight that spiritual intelligence not only enriches the personal and professional identity of nurses but also directly strengthens caring behavior, thereby reinforcing the holistic nature of nursing practice.

The local context of Rasidin General Hospital Padang provides an important setting for examining this relationship. A preliminary survey conducted among ten nurses who were not included in the main study indicated variations in the implementation of caring behaviors. Half of nurses reported difficulties in consistently demonstrating friendliness when responding to patients' questions, maintaining attentiveness to patients' conditions, understanding patients' complaints, and responding promptly to patient needs. Other nurses described caring practices such as showing concern, providing comfort, and listening attentively to patients. The preliminary survey also indicated that more than half nurses had not received formal training related to spiritual intelligence and tended to focus primarily on patients' physical needs, while spiritual needs were sometimes delegated to other personnel. Half of nurses also reported difficulties in managing personal problems that could affect their concentration during patient care, whereas others described reflective practices as helpful in coping with challenges. Although these preliminary findings were obtained from a small group of nurses and cannot be generalized to the wider nursing population, they provide contextual information supporting the need for further investigation of spiritual intelligence and caring behavior among inpatient nurses at Rasidin General Hospital Padang.

Therefore, this study aimed to examine the association between spiritual intelligence and nurses' caring behavior among inpatient nurses at Rasidin General Hospital Padang, Indonesia. The findings are expected to provide evidence that may support nursing education, professional development, and organizational strategies aimed at strengthening caring behavior and the quality of nursing services.

2. RESEARCH METHOD

This study employed a quantitative analytical correlational design with a cross-sectional approach. The study aimed to examine the association between nurses' spiritual intelligence and caring



behavior among nurses working in the inpatient wards of Rasidin General Hospital Padang, Indonesia. The study population consisted of 63 nurses working at Rasidin General Hospital, Padang. A total sampling technique was applied to recruit eligible nurses from the study population. Of the 63 nurses identified in the population, 53 met the predetermined inclusion criteria and participated in the study. The final sample therefore consisted of 53 nurses. Data were collected using standardized self-administered questionnaires consisting of three sections: sociodemographic characteristics, spiritual intelligence, and caring behavior. The sociodemographic section collected information on age, sex, educational level, and length of professional service. Nurses' spiritual intelligence was assessed using the Spiritual Intelligence Self-Report Inventory (SISRI-24) developed by King (2009). Nurses' caring behavior was assessed using the Caring Behavior Inventory (CBI), which is based on the conceptualization of caring in nursing. The questionnaire was used to assess nurses' caring behaviors in their interactions and provision of care to patients. The questionnaires were administered in Indonesian. The questionnaires were distributed between in July, 2025. Before completing the questionnaires, participants received an explanation regarding the study objectives, procedures, voluntary nature of participation, confidentiality of the information provided, and their right to participate or withdraw from the study. Written informed consent was obtained from all participants before data collection. Data were analyzed using univariate and bivariate analyses. Univariate analysis was used to describe the distribution of respondents according to sociodemographic characteristics, spiritual intelligence, and caring behavior and was presented as frequencies and percentages. Bivariate analysis was performed to examine the association between spiritual intelligence and caring behavior using the Chi-square test. Statistical significance was determined at an alpha level of 0.05. A p-value < 0.05 was considered statistically significant. All statistical analyses were performed using statistical software.

3. RESULT AND DISCUSSION

Results

Research findings are presented in the table below.

Demographic Characteristics of Respondents

Table 1. Demographic Characteristics of Respondents (n = 53)

Variable/Categories	Frequency (n)	Percentage (%)
Age		
21-30 years	8	15,1
31-40 years	20	37,7
41-50 years	20	37,7
51-60 years	5	9,4
Gender		
Male	7	13,2
Female	46	86,8
Education		
Diploma in Nursing	28	52,8
Bachelor in Nursing	25	47,2
Work Tenure		
1-10 years	33	62,3
11-20 years	17	32,1
21-30 years	3	5,7
Total	53	100

Table 1 shows the sociodemographic characteristics of the respondents. A total of 53 nurses participated in this study. The majority of respondents were aged 31–40 years and 41–50 years (37.7% each), were female (86.8%), held a Diploma in Nursing (52.8%), and had 1–10 years of work tenure experience (62.3%).



Spiritual Intelligence

Table 2 presents the frequency distribution according to Spiritual Intelligence at the hospital.

Table 2. Overall Scores Based on Spiritual Intelligence (N=53)

Variable	f	%
Spiritual Intelligence		
Low	25	47.2
High	28	52.8
Total	53	100

Table 2 shows the distribution of respondents based on spiritual intelligence. Of the 53 respondents, the majority had a high level of spiritual intelligence (52.8%), while 47.2% had a low level of spiritual intelligence.

Caring Behavior

Table 3 presents the frequency distribution according to Caring Behavior at the hospital.

Table 3. Overall Scores Based on Caring Behavior (N=53)

Variable	f	%
Caring Behaviour		
Poor	29	54.7
Good	24	45.3
Total	53	100

Table 3 presents the distribution of respondents based on caring behavior. Among the 53 respondents, the majority demonstrated poor caring behavior (54.7%), while 45.3% demonstrated good caring behavior.

Relationship Between Spiritual Intelligence and Caring Behavior

Table 4 presents the relationship between Spiritual Intelligence and Caring Behavior at the hospital.

Table 4. Relationship between Spiritual Intelligence and Caring Behavior (N=53)

Spiritual Intelligence	Caring Behavior				Total		p-value
	Poor		Good				
	N	%	N	%	N	%	
Low	20	80	5	20	25	47.2	0.001 (p<0.005)
High	9	32.1	19	67.9	28	52.8	
Total	29		24		53	100	
		54.7		45.3			

Table 4 presents the association between spiritual intelligence and nurses' caring behavior. Among nurses with low spiritual intelligence, the majority (80.0%) demonstrated poor caring behavior, whereas among those with high spiritual intelligence, most (67.9%) demonstrated good caring behavior. The Chi-square test revealed a statistically significant association between spiritual intelligence and nurses' caring behavior ($p = 0.001 < 0.005$), indicating that nurses with higher spiritual intelligence were more likely to demonstrate good caring behavior than those with lower spiritual intelligence. Pearson's chi-square test demonstrated a statistically significant association between spiritual intelligence and caring behavior ($\chi^2(1) = 12.208, p < 0.001$).

Discussion

Spiritual Intelligence

The findings of this study indicate that the level of spiritual intelligence among nurses remains varied. Although the majority of respondents demonstrated high spiritual intelligence, a considerable proportion still exhibited low levels. Of the 53 nurses who participated in this study, 52.8% had high spiritual intelligence, while 47.2% were categorized as having low spiritual intelligence at Rasidin Padang Regional General Hospital in 2025. These findings suggest that, despite the predominance of



higher spiritual intelligence, nearly half of the nurses still require continuous development in this domain to support professional nursing practice.

The results of this study are consistent with previous research reporting that spiritual intelligence among nurses tends to remain at low to moderate levels. Nurherawati et al. (2019) found that 66.7% of nurses at Banten Regional General Hospital had low spiritual intelligence. Similarly, Efsantin et al. (2023) reported that 86.67% of nurses working in the Surgical Inpatient Ward at Dr. Saiful Anwar Malang Hospital demonstrated low levels of spiritual intelligence. Likewise, Puspita et al. (2024) revealed that 78.6% of nurses had low spiritual intelligence, while Rahayuwati et al. (2023) found that 51% of nurses at Bandung City Regional General Hospital were categorized as having low spiritual intelligence. Although the proportion of nurses with low spiritual intelligence in the present study was lower than in previous studies, the findings nevertheless indicate that spiritual intelligence remains an important area for professional development among nurses.

Evidence from broader studies further supports the importance of spiritual intelligence in nursing practice. A systematic review and meta-analysis by Sharifnia et al. (2022), involving 35 studies and 7,301 nurses, reported a pooled mean spiritual intelligence score of 0.63 (95% CI: 0.57–0.69). The review also demonstrated moderate positive correlations between spiritual intelligence and several dimensions of professional nursing practice, including the art of nursing ($r = 0.34$), professional competence ($r = 0.42$), practice attributes ($r = 0.32$), and personal commitment ($r = 0.41$). In addition, Puspita et al. (2024) identified a significant relationship between spiritual intelligence and caring behavior ($p = 0.001$; $OR = 19.478$), with higher levels of spiritual intelligence observed among nurses aged 41–60 years, those with more than ten years of work experience, and those assigned to specialized units such as hemodialysis. Collectively, these findings indicate that higher spiritual intelligence contributes to better professional performance and caring behavior among nurses.

The relatively high proportion of nurses with high spiritual intelligence in the present study may be related to the demands of professional nursing practice, which require nurses to respond to complex patient needs and challenging clinical situations. Spiritual intelligence has been identified as an important personal capacity in nursing practice and has been positively associated with several dimensions of professional nursing practice, including the art of nursing, competence, practice attributes, and personal commitment. The capacity to find meaning, reflect on personal values, and maintain a sense of purpose may help nurses navigate stressful and demanding clinical experiences. Supporting this interpretation, a systematic review and meta-analysis found that spiritual intelligence educational interventions can improve spiritual intelligence and may also have beneficial effects on work-related stress and professional outcomes among nurses and nursing students (Sharifnia et al., 2022). In Indonesia, spiritual intelligence has also been reported to be positively and significantly associated with nurses' caring behavior, suggesting that spiritual resources may contribute to how nurses translate professional values into patient-centered care (Haflah et al., 2022).

The need for continued development is supported by intervention evidence. A systematic review and meta-analysis by Sharifnia et al. (2022) found that educational interventions were effective in improving spiritual intelligence among nurses and nursing students, although the authors noted limitations in the available intervention studies and called for longer and methodologically stronger trials. Therefore, hospitals and nursing education institutions may consider structured reflective learning, professional development, and spiritually sensitive nursing education as potential strategies to strengthen nurses' spiritual intelligence. However, such interventions should be evaluated prospectively rather than assumed to improve caring behavior based solely on the present findings.

The importance of spiritual intelligence can also be understood from its conceptual foundation. Spiritual intelligence (SI) is defined as the mental capacity that enables individuals to recognize, integrate, and adapt to non-material and transcendent aspects of life, thereby helping them develop meaning, self-transcendence, and mastery of the spiritual domain (King, as cited in Pradana, 2019). Within the nursing profession, spiritual intelligence enables nurses to make appropriate decisions, demonstrate positive professional attitudes, and maintain ethical behavior when providing patient care



(Puspita et al., 2024; Marwa, 2020). Furthermore, Khandan et al. (2017, as cited in Beni et al., 2019) explained that spiritual intelligence integrates logical reasoning with emotional intelligence, facilitating personal growth and improving the quality of nursing services. It also equips nurses with the ability to cope effectively with stressful situations, uphold patients' rights, and find meaning and purpose in challenging clinical experiences. Consequently, nurses with high spiritual intelligence are better able to understand the significance of their professional roles, respond appropriately to complex situations, and maintain both internal integrity and harmonious relationships with others (Beni et al., 2019).

The finding that more than half of the nurses demonstrated high spiritual intelligence suggests that many respondents possess the capacity to understand meaning and purpose in their professional roles while integrating spiritual values into nursing practice. Nevertheless, the presence of nearly half of the respondents with low spiritual intelligence indicates that this capacity has not been fully developed among all nurses. This variation implies that nurses differ in their ability to recognize deeper aspects of themselves, construct meaning from life experiences, and apply spiritual awareness when providing patient care. King (as cited in Pradana, 2019) explains that spiritual intelligence enables individuals to recognize transcendent aspects of life, develop personal meaning, and integrate these insights into everyday functioning. Likewise, Khandan et al. (2017, as cited in Beni et al., 2019) stated that spiritual intelligence supports individuals in responding wisely to stressful situations, maintaining inner balance, and finding meaning in their professional experiences. Furthermore, Sharifnia et al. (2022) emphasized that spiritual intelligence among nurses is positively associated with professional values and should be continuously developed to strengthen nursing practice.

Item-level responses in the present study also suggest that spiritual intelligence was not equally developed across all aspects assessed by the SISRI-24. Some respondents reported lower levels of agreement with items related to deeper self-awareness, experiences beyond the material dimension, meaning and purpose in daily experiences, and movement across different states of consciousness. These findings may indicate that although more than half of the respondents were categorized as having high overall spiritual intelligence, specific aspects of spiritual intelligence may still require further development. Importantly, these item-level findings should be interpreted as descriptive rather than as evidence that nurses are unable to provide spiritual or holistic care.

Further analysis of the questionnaire responses revealed that several dimensions of spiritual intelligence remain relatively weak. Nearly half of the respondents reported limited ability to recognize deeper aspects of themselves and to perceive realities beyond the physical and material world. Although many respondents acknowledged the existence of a higher power, some still experienced difficulty in finding spiritual meaning in everyday experiences and achieving deeper levels of self-awareness. These findings indicate that, while nurses generally possess spiritual beliefs, the integration of those beliefs into self-understanding and professional nursing practice may not yet be optimal. This interpretation is consistent with King's concept of spiritual intelligence (as cited in Pradana, 2019), which emphasizes that spiritual intelligence encompasses not only belief in transcendence but also the ability to derive meaning from life experiences, develop self-awareness, and apply spiritual understanding in daily practice. Similarly, Beni et al. (2019) explained that spiritual intelligence represents the highest level of cognitive, emotional, ethical, and interpersonal development, enabling individuals to achieve internal integrity and adapt effectively to their surrounding environment. In addition, Alavi and Bahrami (2021) reported that interventions aimed at strengthening spiritual intelligence enhanced nurses' empathy and reduced occupational stress, indicating that the development of spiritual intelligence may improve nurses' ability to integrate spiritual awareness into holistic nursing care.

Caring Behavior

The present study found that 29 of 53 nurses (54.7%) demonstrated poor caring behavior, whereas 24 nurses (45.3%) demonstrated good caring behavior. This finding indicates that caring behavior among inpatient nurses at Rasidin General Hospital Padang was not yet optimal. The



proportion of poor caring behavior in the present study was higher than that reported by Puspita et al. (2024), who found that 41.8% of nurses demonstrated poor caring behavior in an inpatient setting in Indonesia. Their study also reported a significant relationship between spiritual intelligence and caring behavior ($p = 0.001$; $OR = 19.478$) (Puspita et al., 2024). The finding is comparable to evidence from other clinical settings, although the reported proportions vary considerably. In contrast, a study among 360 nurses working in public hospitals in southern Ethiopia reported that 53.3% of nurses demonstrated good caring behavior, indicating that nearly half of the nurses did not reach the good-caring category (Fikre et al., 2023). Similarly, Fikre et al. (2022) reported that 63.4% of nurses in hospitals in Eastern Ethiopia had good perceptions of caring behaviors. More recently, a systematic review and meta-analysis involving 2,206 nurses reported a pooled prevalence of good caring behavior of 63% (95% CI: 55%–72%) (Derso et al., 2025). Taken together, these findings demonstrate substantial variation in nurses' caring behavior across settings. The 54.7% proportion of poor caring behavior observed in the present study therefore falls within the range reported in previous studies and highlights that maintaining consistent caring behavior remains an important issue in clinical nursing practice.

Recent studies have highlighted that caring behavior remains a challenge in nursing practice despite being considered the essence of the nursing profession. A systematic review by Labrague et al. (2021) emphasized that nurses' caring behaviors are influenced by multiple factors, including individual characteristics, emotional capacity, workplace environment, leadership support, and organizational culture. Similarly, Zamanzadeh et al. (2021) reported that maintaining consistent caring behaviors in clinical settings can be challenging due to increasing workloads, time constraints, and the complexity of patient needs. These findings suggest that caring behavior is not solely determined by nurses' knowledge and skills but is also shaped by contextual factors within healthcare organizations.

Caring behavior refers to the ability of nurses to provide compassionate, respectful, and meaningful care through attention, empathy, communication, and commitment to patients' needs. Potter et al. (2020) described caring as the ability to dedicate oneself to others, provide vigilant attention, demonstrate concern, express empathy, and establish a meaningful human connection, which represents the essence of nursing practice. Watson's Theory of Human Caring further emphasizes that caring involves a holistic relationship between nurses and patients, where nurses recognize patients as individuals with physical, emotional, social, and spiritual needs (Watson, 2021). Therefore, caring behavior extends beyond performing clinical tasks and reflects nurses' attitudes, values, and commitment to human-centered care.

Caring behavior is a multidimensional component of nursing practice that extends beyond the completion of technical nursing procedures. Recent evidence indicates that caring behavior encompasses effective communication, respect for patients' needs and preferences, empathy, compassion, patient education, and the development of trusting nurse–patient relationships (Bardaie et al., 2026). This perspective is relevant to the present study because the Caring Behavior Inventory evaluates caring as a broader professional behavior rather than merely the performance of nursing tasks. Evidence from a systematic review and meta-analysis indicates that caring behavior varies considerably across clinical settings and is associated with several work-related factors, including job satisfaction, relationships with colleagues, and workload. The substantial heterogeneity reported across previous studies further suggests that caring behavior should be interpreted within the specific organizational and clinical context in which nurses provide care (Derso et al., 2025).

Caring behavior is also closely related to nurses' ethical and relational capacities. A recent systematic review reported that ethical sensitivity is associated with caring behavior and quality of nursing care, emphasizing the importance of nurses' ability to recognize and respond appropriately to patients' ethical and human needs. Thus, caring behavior should not be understood merely as friendliness or emotional expression but also as a professional response involving respect for patient dignity, sensitivity to individual needs, and appropriate professional judgment (Nazari et al., 2025). The relatively high proportion of poor caring behavior observed in this study may indicate that



translating caring values into consistent clinical actions remains challenging. From a practical perspective, interventions to improve caring behavior should consider both individual and organizational dimensions. Evidence suggests that interventions addressing caring knowledge, professional development, ethical sensitivity, and supportive clinical environments may contribute to strengthening nurses' caring practices (Bardaie et al., 2026; Derso et al., 2025; Nazari et al., 2025). Overall, the finding that 54.7% of nurses demonstrated poor caring behavior provides an important context for interpreting the principal finding of this study, namely the significant association between spiritual intelligence and caring behavior. However, caring behavior is a complex phenomenon influenced by multiple individual, relational, professional, and organizational factors (Bardaie et al., 2026; Derso et al., 2025).

Spiritual Intelligence and Nurses' Caring Behavior

The present study found that 28 of 53 nurses (52.8%) demonstrated high spiritual intelligence, whereas 25 nurses (47.2%) demonstrated low spiritual intelligence. The relatively high proportion of nurses with high spiritual intelligence may indicate that many nurses possess personal resources related to meaning, purpose, self-awareness, and professional commitment that may support their engagement in nursing practice. This interpretation is consistent with the systematic review and meta-analysis by Sharifnia et al. (2022), which included 35 studies involving 7,301 nurses and found a positive association between spiritual intelligence and professional nursing practice. The strongest associations were reported with competence ($r = 0.42$) and personal commitment ($r = 0.41$), while positive associations were also found with the art of nursing ($r = 0.34$) and attributes of practice ($r = 0.32$). These findings suggest that spiritual intelligence may represent an important personal resource in sustaining professional values and interpersonal dimensions of nursing practice.

Evidence specifically involving nurses in inpatient settings provides stronger contextual support for the present findings. A study conducted among 86 nurses working in inpatient wards at RSI PKU Muhammadiyah Tegal found that 84.9% of nurses had high spiritual intelligence and 53.5% demonstrated good caring behavior. The study identified a positive and statistically significant relationship between spiritual intelligence and caring behavior ($r = 0.315$, $p = 0.003$) (2020). More recent evidence from a surgical inpatient setting also supports this relationship. Efsantin et al. (2023) examined 30 nurses working in the Kerinci and Rinjani surgical inpatient wards of Dr. Saiful Anwar Hospital, Malang. Using a cross-sectional design and total sampling, the study found a positive, moderate relationship between spiritual intelligence and caring behavior ($r = 0.55$, $p = 0.001$). Similar evidence was reported by Haflah et al. (2022) among 126 nurses at Universitas Sumatera Utara Hospital. Their cross-sectional study found that spiritual intelligence had a positive and statistically significant effect on nurses' caring behavior ($p = 0.008$), even after emotional intelligence was considered in the analysis. Importantly, evidence from another Indonesian hospital illustrates that this relationship may not be consistent across all clinical settings. Imamah et al. (2024) studied all 23 nurses in an ICU at PKU Muhammadiyah Hospital Surakarta and found that 100% of respondents had high spiritual intelligence and 56.4% demonstrated caring behavior; however, the relationship between spiritual intelligence and caring behavior was not statistically significant ($p = 0.673$). The convergence of findings across these Indonesian hospital studies suggests that spiritual intelligence may contribute to nurses' caring behavior through personal characteristics such as meaning-making, professional commitment, and the capacity to engage with patients in a compassionate and attentive manner.

Despite these findings, the present study identified an important discrepancy: although 52.8% of nurses had high spiritual intelligence, 54.7% demonstrated poor caring behavior. This suggests that high spiritual intelligence does not automatically translate into consistently good caring behavior. Caring is a multidimensional professional behavior expressed through nurses' interactions and actions directed toward patients' needs, including attentiveness, empathy, respect, responsiveness, and the establishment of meaningful nurse-patient relationships (Ghafouri et al., 2021). Because caring behavior is influenced by both individual and contextual characteristics, spiritual intelligence should be regarded as one potential individual resource associated with caring behavior rather than as its sole



determinant. This interpretation is supported by evidence showing a significant association between spiritual intelligence and caring behavior among hospital nurses, while other studies have reported no significant association in specific clinical settings (Haflah et al., 2022; Imamah et al., 2024). Therefore, spiritual intelligence may be considered an important individual resource that supports caring behavior, but it should not be interpreted as the sole explanation for nurses' caring practices. The findings further suggest that strengthening nurses' spiritual intelligence may be relevant to promoting caring behavior, while future research should examine additional individual and organizational factors that may interact with spiritual intelligence in shaping caring behavior.

4. CONCLUSION

This study concludes that spiritual intelligence is significantly associated with nurses' caring behavior among inpatient nurses at Rasidin General Hospital Padang, Indonesia. Nurses with higher spiritual intelligence tended to demonstrate better caring behavior, supporting the view that spiritual intelligence may serve as an important individual resource in professional nursing practice. However, spiritual intelligence should not be considered the sole determinant of caring behavior, as caring is a multidimensional professional practice that may also be shaped by individual, interpersonal, and organizational factors. Given the cross-sectional design, the findings demonstrate an association rather than a causal relationship. Strengthening nurses' spiritual intelligence may therefore be considered as one component of broader strategies to promote caring behavior, alongside professional development, supportive leadership, and a conducive clinical environment. Further longitudinal and intervention studies are recommended to clarify the temporal and causal relationships between spiritual intelligence and nurses' caring behavior.

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