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# Emotional Intelligence and Nursing Care Quality in Emergency Departments: A Study in Kermanshah Hospitals, Iran, 2024

**Aliakbar Vaisi-Raygani**
Kermanshah University of Medical Sciences
**Zakariya Fattahi**
Medical University of Ilam
**Mojgan Moradi**
Kermanshah University of Medical Sciences
**Nader Salari**
Kermanshah University of Medical Sciences
**Fateme Hadadian**
daneshjoo.610@gmail.com
Kermanshah University of Medical Sciences

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# Abstract

**Background:** Emergency department (ED) nurses operate in highly demanding clinical environments where the delivery of timely, safe, and effective care is essential. The quality of nursing care in EDs plays a critical role in shaping patient outcomes, satisfaction, and overall healthcare performance. Emotional intelligence (EI), defined as the capacity to perceive, understand, regulate, and appropriately use emotions, has been recognized as an important factor influencing nurses' professional performance. In high-stress settings such as emergency departments, greater emotional intelligence may facilitate effective communication, better stress management, and improved quality of patient care.

**Aim:** This study aimed to investigate the relationship between emotional intelligence and nursing care quality among ED nurses working in educational hospitals in Kermanshah, Iran, during 2023–2024.

**Methods:** This descriptive–analytical cross-sectional study was conducted among 228 emergency department nurses working in teaching hospitals affiliated with Kermanshah University of Medical Sciences. Data were collected using a demographic information form, the Brief Emotional Intelligence Scale (BEIS-10), and the Quality of Nursing Care (QUALPAC) questionnaire. Data analysis was performed using SPSS version 25. The Kolmogorov–Smirnov test was applied to assess the normality of data distribution. Given the distribution of the study variables, Spearman's rank correlation coefficient was used to examine the associations between emotional intelligence and nursing care quality dimensions. Multiple linear regression analysis was also performed to determine the demographic predictors of emotional intelligence.

**Results:** Out of the 256 nurses invited to participate, 228 completed valid questionnaires, yielding a response rate of 89%. The mean age of the participants was 29.5 ± 5.4 years. The mean score for nursing care quality was 96.1 ± 17.01, indicating a moderate level of care quality among emergency nurses. The mean total emotional intelligence score was 37.03 ± 6.2, reflecting a relatively high level of emotional intelligence.

Spearman's correlation analysis demonstrated significant positive associations between total emotional intelligence and the psychosocial dimension of nursing care quality ($r = 0.227$, $p = 0.001$), the communication dimension ($r = 0.281$, $p = 0.001$), and the overall nursing care quality score ($r = 0.257$, $p = 0.001$). Among the emotional intelligence components, self-emotion appraisal and self-emotion regulation showed the strongest positive correlations with nursing care quality, whereas appraisal of others' emotions was not significantly associated with care quality ($p > 0.05$).

Multiple linear regression analysis indicated that gender ($\beta = 0.21$, $p = 0.003$), age ($\beta = 0.24$, $p = 0.002$), and employment status ($\beta = 0.18$, $p = 0.028$) were significant predictors of emotional intelligence, while marital status was not a significant predictor ($p = 0.392$).

**Conclusion:** The findings revealed a significant positive association between emotional intelligence and nursing care quality among emergency department nurses. In particular, nurses with higher abilities in recognizing and regulating their own emotions demonstrated better performance in the psychosocial and

communication dimensions of care. These results highlight the potential role of emotional intelligence as a modifiable professional competency that may contribute to improved care quality in emergency settings. Accordingly, integrating emotional intelligence training into nursing education and continuing professional development programs may enhance nurses' clinical performance, patient-centered communication, and overall quality of healthcare services.

# Introduction

Nursing care quality refers to the extent to which patients' needs are effectively met through the provision of accurate and safe clinical care, accompanied by empathy, effective communication, and a respectful and patient-centered approach. (1). Improving the quality of healthcare, which represents a fundamental priority in nursing practice, can enhance patient satisfaction, increase the efficiency of care delivery, and contribute to the reduction of hospital-related costs(2, 3). Quality improvement is often closely associated with patients' perspectives(4). Furthermore, patient outcomes serve as a critical determinant of patient satisfaction and function as a key indicator of the quality of nursing care (5). In clinical settings, nurses are required to make critical decisions informed by patients' emotional states. Effective critical decision-making can substantially influence patient outcomes and enhance the quality of care(6). Extant literature suggests a significant association between nurses' emotional intelligence and the quality of care provided (7, 8).

Emotional Intelligence (EI) constitutes a pivotal determinant of personal and professional efficacy, manifesting through the core dimensions of self-awareness, self-regulation, social awareness, and relationship management (9, 10). This cognitive construct facilitates enhanced performance across diverse personal, social, occupational, and financial domains. Its practical applications encompass critical competencies such as time management, strategic decision-making, customer service excellence, accountability, empathy, and stress resilience, as well as proficiency in communication, trust-building, and relationship management(11, 12). Within multidisciplinary healthcare teams, effective communication is fundamental to accurate diagnosis, patient care, and therapeutic intervention. Consequently, the identification and cultivation of Emotional Intelligence (EI) are imperative for optimizing clinical outcomes and enhancing overall health services (13, 14). Effective communication is a cornerstone of diagnostic accuracy and patient management within multidisciplinary healthcare teams. Therefore, fostering Emotional Intelligence (EI) is essential for optimizing clinical outcomes. In particular, integrating EI skills into clinical practice is critical for disciplines involving high-touch patient care, such as nursing, where interpersonal dynamics directly influence therapeutic success (15–17). While some nursing and medical personnel may lack explicit awareness of the multifaceted dimensions of Emotional Intelligence (EI), they may nonetheless acquire and implement these competencies through spontaneous experiential learning (18). Nevertheless, these competencies must be systematically reinforced and structured to optimize efficiency and effectiveness. Moreover, the development of Emotional Intelligence (EI) may improve the quality of care by strengthening communication skills, stress resilience, time management, and decision-making (19). In the workplace, intra-professional and inter-professional communication among nurses is essential; thus, possessing adequate EI skills can help nurses better understand the emotional climate of

their work environment(20). In general, robust EI competencies are associated with increased patient satisfaction and enhanced quality of nursing care. Furthermore, nurses can serve as reliable indicators for assessing the overall quality of hospital care (21). While previous studies have extensively examined the quality of nursing care, there is a paucity of research comparing the perspectives of nurses and patients, or investigating how Emotional Intelligence (EI) influences these divergent viewpoints (22). Furthermore, numerous challenges persist regarding the dimensions of care quality from the perspectives of both nurses and patients. In this regard, Jamshidi et al. (2020) observed that nurse and patient perspectives on nursing care quality diverge across all psychosocial, physical, and communication domains. Conversely, Asgari et al. (2020) identified significant differences exclusively within the psychosocial dimension(23, 24). Furthermore, several challenges remain regarding the quality of care and its dimensions from the perspectives of both nurses and patients. In this regard, Jamshidi et al. (2020) reported that nurses' and patients' views on nursing care quality differ across psychosocial, physical, and communication domains, whereas Asgari et al. (2020) found significant differences only in the psychosocial dimension. Moreover, there are challenges related to the effects of factors such as age, gender, education, and work experience, which may influence both nursing care quality and emotional intelligence (24, 25) Studies by Dedrick, Rao, and Ranjbar demonstrated that emotional intelligence exerts a positive influence on service quality and performance enhancement (26). In contrast, Najafipour et al. (2020) investigated the impact of EI on nursing care quality from patients' perspectives and found no significant relationship between nurses' emotional intelligence and hospital service quality(20). In contrast, Jang et al. (2016) investigated the relationship between emotional intelligence, job satisfaction, and nursing service quality to provide a foundation for service and management improvement. Their findings indicated that nursing service quality could be enhanced through the positive correlation between EI and job satisfaction in both tertiary and general hospitals (26) Prior research emphasizes the necessity of prioritizing internal protective factors, including self-efficacy, optimism, emotional intelligence, self-management, and resilience. (27). Nurses constitute an essential component of the healthcare workforce and play a pivotal role in promoting community health. Accordingly, safeguarding the health and well-being of nursing professionals is a fundamental prerequisite for ensuring the health of society as a whole(28, 29). A primary determinant of nursing well-being is the occupational environment. Extensive research indicates that nursing professionals experience diminished levels of occupational health compared to other disciplines, characterized by consistent exposure to high levels of job-related stress. This phenomenon is particularly pronounced among nurses practicing in emergency departments, who may endure intensified psychological and physiological strain due to the unique environmental exigencies and the acute nature of patient presentations(29). Emergency department stressors encompass the requirement for specialized clinical expertise, substantial workloads, the imperative for rapid response to critical incidents, and the significant professional liability inherent in acute patient care(30). The chronic stressors inherent in emergency departments significantly exacerbate absenteeism and professional attrition. High turnover rates and a diminishing commitment to the nursing profession represent critical challenges that profoundly undermine the efficacy of healthcare systems. In this context, resilience emerges as a pivotal psychological construct that facilitates nurses' adaptation to increasingly demanding work environments(29).

# Methods

## Study Design, Settings, and Participants

This cross-sectional descriptive–analytical study was undertaken from 2023 to 2024 in the emergency departments of six teaching hospitals affiliated with Kermanshah University of Medical Sciences, Iran. Eligible participants were nurses who were working in the emergency departments of these hospitals at the time of data collection. The initial sampling plan was based on proportional stratified sampling according to the number of emergency department nurses in each hospital. The required sample size was calculated using the formula for estimating a qualitative attribute, with a 95% confidence level and estimates obtained from a previous similar investigation. This calculation indicated that 147 participants were needed. After allowing for an expected 10% non-response or attrition rate, the sample size was increased to 162. Because the number of eligible nurses across the selected hospitals was manageable, the research team invited the entire accessible population to take part in the study rather than selecting only the minimum calculated sample. Accordingly, 256 emergency department nurses were approached. Of these, 228 fulfilled the inclusion criteria and returned complete questionnaires suitable for analysis, corresponding to a response rate of about 89%. Twenty-eight questionnaires were removed before analysis because they were incomplete. This recruitment method provided coverage of all participating hospitals and supported proportional representation of nurses across the study settings.

# Eligibility criteria

The study included nurses who were currently working in the emergency departments of the participating hospitals and met the following conditions: at least one year of professional nursing experience, a minimum of three months of recent experience in the emergency department, a bachelor’s degree or higher in nursing, and willingness to participate in the research. Nurses who self-reported a history of clinically diagnosed psychological or psychiatric disorders, including major depression, anxiety disorders, bipolar disorder, schizophrenia, or other mental health conditions, were not eligible. Questionnaires that were returned with incomplete information were also excluded from the analysis.

Data Collection Tools

## Data Collection:

Data were gathered through paper-based questionnaires that were handed to eligible nurses across morning, evening, and night shifts. The distribution and retrieval of the questionnaires were arranged at times that were convenient for participants in order to avoid interference with routine clinical duties. All procedures were carried out with coordination from the research team to facilitate smooth implementation within the emergency department setting.

Demographic information and study instruments

Participants first completed a demographic form that recorded age, gender, marital status, and employment status. The main study variables were then measured using two standardized instruments. The validity and reliability of these questionnaires had been previously confirmed in Iranian populations, and the tools have been used in related studies.

The questionnaire set included [exact number] items in total. The selected instruments were used because they provided broad coverage of the constructs under investigation and had acceptable psychometric properties. Considering the complex and multidimensional nature of emergency nursing care, comprehensive measurement was required. To limit participant burden, data collection was arranged in coordination with nurses and scheduled at times that interfered as little as possible with their clinical duties.

Emotional Intelligence Questionnaire

Emotional intelligence was assessed using the Brief Emotional Intelligence Scale (BEIS-10). This concise instrument was developed drawing on the Schutte Self-Report Emotional Intelligence Inventory (SSREI) and the emotional intelligence framework proposed by Salovey and Mayer, and is intended to provide an efficient assessment of emotional intelligence in research and applied settings.

The BEIS-10 comprises 10 items, rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). It evaluates five dimensions of emotional intelligence: appraisal of one's own emotions, regulation of one's own emotions, appraisal of others' emotions, regulation of others' emotions, and utilization of emotions. Each dimension is represented by two items; therefore, subscale scores range from 2 to 10, and the total score ranges from 10 to 50, with higher scores indicating higher emotional intelligence(31).

The psychometric properties of the Persian version of the BEIS-10 were examined by Haddadian et al. in a methodological cross-sectional study involving 201 Persian-speaking participants. The instrument was translated using a forward–backward translation procedure. Construct validity was assessed via confirmatory factor analysis (CFA), internal consistency via Cronbach's alpha, and test–retest reliability via the intraclass correlation coefficient (ICC). In that study, the Cronbach's alpha for the total scale was 0.748, and the ICC was 0.612 (95% CI: 0.384–0.769). CFA findings supported the five-factor structure, with model fit indices falling within acceptable ranges. Collectively, these results indicate that the Persian BEIS-10 demonstrates acceptable reliability and validity for assessing emotional intelligence in the Iranian population(32).

## Quality of Nursing Care (QUALPAC) Questionnaire

The quality of nursing care was assessed using the Quality of Nursing Care Questionnaire (QUALPAC), developed by Wandelt and Ager in 1972. The questionnaire comprises 41 items in two dimensions: psychosocial care (28 items) and communication (13 items). Each item is rated on a three-point Likert scale (rarely, sometimes, often), resulting in a total score ranging from 41 to 123. Higher scores indicate

better quality of nursing care. For interpretation, mean item scores were categorized as undesirable (< 1.5), relatively desirable (1.5–2.49), and desirable (2.5–3). The Persian version of QUALPAC has previously undergone translation, cultural adaptation, and psychometric evaluation in Iran, and prior studies have confirmed its acceptable validity and reliability. Accordingly, the Persian version of this questionnaire was used in the present study(28, 33–35).

## Ethical Considerations

The study protocol was reviewed and approved by the Ethics Committee of Kermanshah University of Medical Sciences (IR.KUMS.REC.1401.520). Participation was voluntary, and written informed consent was obtained from every participant after they were provided with clear explanations regarding the aims of the study, the procedures involved, and their right to decline or discontinue participation without penalty. The study followed the ethical standards outlined in the Declaration of Helsinki. Anonymity and confidentiality were ensured by assigning codes to the questionnaires instead of recording identifying information. All data were kept securely and were only accessible to the research team. Ethical principles concerning autonomy, confidentiality, and protection of participants' rights were observed at all times during the research process.(36).

# Data Analysis

Data were analyzed using SPSS version 25. Descriptive statistics were used to summarize the characteristics of the participants and the study variables. Quantitative variables were expressed as mean and standard deviation, while qualitative variables were presented as frequency and percentage.

The Kolmogorov–Smirnov test was used to evaluate the distribution of nursing care quality and resilience scores. As these variables were not normally distributed ($p < 0.05$)($p < 0.05$)($p < 0.05$), non-parametric tests were employed for group comparisons. The Mann–Whitney U test was used for comparisons between two groups, and the Kruskal–Wallis test was applied for comparisons among more than two groups. Spearman's rank correlation coefficient was used to assess the relationships between nursing care quality and the main study variables. To determine the predictors of nursing care quality, stepwise multiple linear regression analysis was performed. Demographic variables, including years of work experience, were entered into the model as potential confounders to control for their possible effects while examining the predictive roles of resilience and emotional regulation skills. A p-value of less than 0.05 was considered statistically significant.

## Results

Demographic characteristics and main study variables

Among the 256 emergency department nurses who were invited to take part in the study, 28 questionnaires were excluded because they were not completed adequately. Consequently, the analysis was performed on data from 228 nurses, corresponding to an 89% response rate. The participants' mean

age was 29.5 ± 5.4 years, and their ages ranged from 23 to 51 years. Further demographic details are provided in Table 1.

The mean score for quality of nursing care was 96.1 ± 17.01. Given the possible total score range of 41 to 123 on the QUALPAC questionnaire, this result indicates a relatively desirable level of nursing care quality among the participating nurses(35).

The mean resilience score was 66.7 ± 15.1, with observed values ranging from 10 to 100.

Table 1
Demographic Characteristics of ED Nurses Participating in the Study (n = 228)

| **Variable** | | **Frequency** | **Percentage** |
|---|---|---|---|
| Gender | Female | 133 | 58.6 |
| | Male | 95 | 41.4 |
| Marital status | Single | 88 | 54.3 |
| | Married | 74 | 45.7 |
| Employment status | Nursing scheme employment | 56 | 34.6 |
| | Contractual employment | 19 | 11.7 |
| | Official trial recruitment | 28 | 17.3 |
| | Definite official employment | 59 | 36.4 |

Table 2. presents the descriptive statistics and distributional characteristics of emotional intelligence and its dimensions among emergency nurses.

Table 2
Descriptive Statistics and Distributional Characteristics of Emotional Intelligence Among Emergency Nurses

| Variable | Mean | SD | minimum | Maximum | Skewness | Kurtosis | Kolmogrov smirnov statistic | p-value |
|---|---|---|---|---|---|---|---|---|
| Self emotion apprisal | 7.2 | 1.6 | 2 | 10 | 0.71 | 0.22 | 0.137 | 0.001 |
| Self emotion regulation | 7.7 | 1.6 | 2 | 10 | 0.37 | 0.39 | 0.175 | 0.001 |
| Others emotion appraisal | 6.5 | 1.5 | 2 | 10 | 0.25 | 1 | 0.239 | 0.001 |
| Others emotion regulation | 7.6 | 1.6 | 2 | 10 | 0.48 | 0.38 | 0.173 | 0.001 |
| Use of emotion | 7.9 | 1.7 | 2 | 10 | 0.48 | 0.85 | 0.173 | 0.001 |
| Total emotional intelligence | 37.03 | 6.2 | 10 | 50 | 0.29 | 0.34 | 0.057 | 0.067 |

As presented in Table 2, descriptive statistics are reported as means and standard deviations (SD), along with observed score ranges and distributional indices. The total emotional intelligence score demonstrated an approximately normal distribution, thereby supporting the use of parametric statistical analyses. The mean total emotional intelligence score was 37.03 (SD = 6.2). Considering that the possible score range of the BEIS-10 instrument is 10 to 50, this finding indicates a relatively high level of self-perceived emotional intelligence among emergency nurses. In practical terms, participants demonstrated a favorable capacity for perceiving, regulating, and utilizing emotions.

Among the subscales, *use of emotion* yielded the highest mean score, whereas *others' emotion appraisal* showed the lowest mean score. Although the Kolmogorov–Smirnov test reached statistical significance for several subscales, skewness and kurtosis values were within acceptable limits. Moreover, the total emotional intelligence score did not significantly deviate from normality.

Emotional intelligence scores and quality of nursing care scores were not normally distributed ($P < 0.05$). Therefore, Spearman's correlation test was used to assess the relationship between emotional intelligence and quality of nursing care dimensions. The results are presented in Table 3.

Table 3
Correlation between quality of nursing care dimensions and emotional intelligence among emergency department nurses

| Emotional intelligence dimension | Psycho-social (r / p) | | Communication (r / p) | | Total quality of nursing care (r / p) | | Interpretation |
|---|---|---|---|---|---|---|---|
| | Correlation coefficient | p-value | Correlation coefficient | p-value | Correlation coefficient | p-value | |
| Self-emotion appraisal | 0.218 | 0.001 | 0.305 | 0.001 | 0.258 | 0.001 | Small to moderate positive correlation |
| Self-emotion regulation | 0.294 | 0.001 | 0.312 | 0.001 | 0.318 | 0.001 | Moderate positive correlation |
| Others' emotion appraisal | 0.056 | 0.398 | 0.098 | 0.141 | 0.076 | 0.255 | Negligible correlation (very small effect) |
| Others' emotion regulation | 0.133 | 0.045 | 0.154 | 0.020 | 0.150 | 0.023 | Small positive correlation |
| Use of emotion | 0.158 | 0.017 | 0.242 | 0.001 | 0.194 | 0.003 | Small positive correlation |
| Emotional intelligence (total score) | 0.227 | 0.001 | 0.281 | 0.001 | 0.257 | 0.001 | Small to moderate positive correlation |

Based on the results presented in Table 3 and the findings of Spearman's correlation test, a significant positive relationship was observed between nurses' emotional intelligence and the different dimensions of nursing care quality. Specifically, a significant positive correlation was found between the total score of emotional intelligence and the psychosocial dimension of nursing care quality ($r = 0.227$, $p = 0.001$). A significant positive relationship was also identified between emotional intelligence and the communication dimension of nursing care quality ($r = 0.281$, $p = 0.001$). Furthermore, the results indicated a significant positive correlation between the total emotional intelligence score and the overall score of nursing care quality ($r = 0.257$, $p = 0.001$).

Regarding the dimensions of emotional intelligence, the findings showed that self-emotion appraisal had a significant positive relationship with the psychosocial dimension ($r = 0.218$, $p = 0.001$), the communication dimension ($r = 0.305$, $p = 0.001$), and the total score of nursing care quality ($r = 0.258$, $p = 0.001$). Similarly, regulation of one's own emotions demonstrated significant positive correlations with the psychosocial dimension ($r = 0.294$, $p = 0.001$), the communication dimension ($r = 0.320$, $p = 0.001$), and the overall nursing care quality score ($r = 0.318$, $p = 0.001$).

In contrast, no significant relationship was found between appraisal of others' emotions and any of the dimensions of nursing care quality ($p > 0.05$). However, regulation of others' emotions showed significant positive correlations with the psychosocial dimension ($r = 0.133$, $p = 0.045$), the communication dimension ($r = 0.154$, $p = 0.020$), and the total nursing care quality score ($r = 0.150$, $p = 0.023$). In addition, use of emotions was significantly and positively correlated with the psychosocial dimension ($r = 0.158$, $p = 0.017$), the communication dimension ($r = 0.242$, $p = 0.001$), and the overall nursing care quality score ($r = 0.194$, $p = 0.003$).

the findings indicate that higher levels of emotional intelligence and several of its components among nurses are associated with improved quality of nursing care, particularly in the communication and psychosocial dimensions. Overall, the results indicate that most correlations between emotional intelligence and the dimensions of nursing care quality were small to moderate. Stronger relationships were observed for self-emotion appraisal and self-emotion regulation, while appraisal of others' emotions showed negligible and non-significant associations. These findings suggest that higher emotional intelligence, particularly self-related emotional skills, is associated with better quality of nursing care.

*Table 4. Multiple linear regression analysis of demographic predictors for emotional intelligence among ED nurses*

| Predictor | Unstandardized Coefficient (B) | SE | 95% CI for B | Beta standardized Coefficient (β) | Beta t-test Statistic (t) | p-value |
|---|---|---|---|---|---|---|
| (Constant) | 42.15 | 3.24 | 35.80-48.50 | - | 13.01 | 0.001 |
| Gender — Female vs. Male | 2.85 | 0.095 | 0.99-4.71 | 0.21 | 3.00 | 0.003 |
| Age — ≥30 years vs. <30 years | 3.42 | 1.12 | 1.23-5.62 | 0.24 | 3.05 | 0.002 |
| Marital status — Married vs. Single | 0.84 | 0.98 | -1.08-2.76 | 0.06 | 0.86 | 0.392 |
| Employment status — Permanent/Contract vs. Scheme | 1.95 | 0.88 | 0.23-3.67 | 0.18 | 2.21 | 0.028 |

**Abbreviations:**B: unstandardized regression coefficient; SE: standard error; β: standardized regression coefficient; CI: confidence interval.

**Note.** Reference categories were male gender, age <30 years, single marital status, and scheme employment status.

Based on the results presented in Table 4, a multiple linear regression analysis was conducted to determine the demographic predictors of emotional intelligence among emergency department nurses.

The findings showed that gender, age, and employment status were significant predictors of emotional intelligence. Compared with male nurses, female nurses had significantly higher emotional intelligence scores (B = 2.85, β = 0.21, p = 0.003). Similarly, nurses aged 30 years and older reported significantly higher emotional intelligence scores compared with those younger than 30 years (B = 3.42, β = 0.24, p = 0.002). Employment status was also a significant predictor, indicating that nurses with non-scheme employment status had higher emotional intelligence scores than scheme nurses (B = 1.95, β = 0.18, p = 0.028).

However, marital status was not a significant predictor of emotional intelligence (B = 0.84, β = 0.06, p = 0.392). Among the significant predictors, age had the strongest standardized effect on emotional intelligence (β = 0.24), followed by gender (β = 0.21) and employment status (β = 0.18).

Overall, the findings suggest that certain demographic characteristics, particularly age, gender, and employment status, may play an important role in explaining variations in emotional intelligence among emergency department nurses.

## Discussion

The findings of the present study indicated that there is a direct and significant relationship between nurses' emotional intelligence and the quality of nursing care. This finding is consistent with the results reported by Rahmanian et al. (2023), who also identified a significant positive association between emotional intelligence and the quality of nursing care(37). Similarly, Amiri et al. (2019) demonstrated that higher levels of emotional intelligence can contribute to improvements in the quality of nursing care, which is in line with the findings of the current study(38). In explaining this finding, it can be argued that emotional intelligence, through enhancing nurses' ability to recognize, regulate, and manage their own emotions as well as those of others, can improve their professional performance in complex and stressful clinical environments. Emergency departments are characterized by unpredictable conditions, high patient volumes, critical clinical situations, and continuous psychological pressure. In such environments, emotional regulation, rapid decision-making, effective communication, and the maintenance of professional composure are essential. In this regard, Soltanabadi and Beikmoradi (2020) reported that prolonged occupational stress can negatively affect nurses' performance and work quality, and that attention to components such as emotional intelligence may play a significant role in improving nurses' performance(39). Furthermore, other studies have shown that enhancing emotional intelligence skills among nurses can lead to better nursing care and increased patient satisfaction(40, 41).

The study by Adams et al. (2014) also confirmed the existence of a direct relationship between emotional intelligence and the quality of nursing care, indicating that increased emotional intelligence is associated with improved quality of care and better patient recovery outcomes(34). In addition, Castillejos et al. (2020) reported that nurses' emotional intelligence is significantly related to the quality of care they provide, and that nurses' mental health plays an important role in improving nursing care quality(42). Accordingly, it can be suggested that nurses with higher emotional intelligence are better able to maintain

optimal performance when confronted with stressful situations, interpersonal conflicts, and complex patient needs.

Nevertheless, the results of some studies have differed from those of the present research. For instance, Najafipour et al. (2020) reported no significant relationship between emotional intelligence and the quality of nursing care. Such discrepancies may be attributed to differences in study populations, measurement tools, organizational conditions, types of hospital wards, and even the sources used to assess nursing care quality. In some studies, care quality has been evaluated from the patients' perspective, whereas in others it has been self-reported by nurses. Moreover, in the study conducted by Najafipour et al., both nurses and patients were included in the evaluation, which may have contributed to differences in findings(20). Therefore, variations in study design and sample characteristics should be taken into account when interpreting these results.

Overall, emotional intelligence can be considered one of the key factors influencing nurses' professional performance. The ability to understand and manage emotions can play a crucial role in nurses' professional success and in improving the quality of healthcare services. Evidence also suggests that emotional intelligence and the quality of hospital services may have a direct impact on patient satisfaction(20, 43). The results of the present study indicated that the participating nurses possessed a relatively desirable level of emotional intelligence, although improvement in some dimensions is still possible. The findings of Ebrahimi et al. also showed that the level of emotional intelligence among nurses is relatively high(44). Furthermore, the study conducted by Masoudi and Alavi revealed that the mean emotional intelligence score among nurses was above the average level, and that nurses achieved the highest scores in the self-awareness dimension(45). Similarly, other studies have demonstrated that nurses possess an appropriate level of certain components of emotional intelligence, such as self-awareness and social awareness(46). In addition, the study conducted by Ghaderi and Shamsi reported that the mean emotional intelligence score among nurses was higher than the reported average(47). However, some studies have reported different findings. For example, the study by Vahidi et al. showed that the level of emotional intelligence among nurses was low(48). Likewise, studies conducted by Bakr and Safaan, Saeed, and Codier also reported relatively low levels of emotional intelligence among nurses(49, 50). These inconsistencies may be attributed to cultural differences, variations in educational systems, differences in working environments, and the measurement tools used in various studies.

Emotional intelligence is considered an important factor in nurses' clinical performance because it enables them to make more appropriate decisions in complex clinical environments and to perform more effectively when dealing with patients' problems(51). Moreover, emotional intelligence skills help nurses manage their emotional responses when interacting with patients, patients' families, physicians, and other healthcare professionals, thereby facilitating more effective professional relationships(52). The results of the present study demonstrated that there is a significant positive relationship between nurses' emotional intelligence and the overall score of nursing care quality. Furthermore, a significant association was observed between emotional intelligence and the psychosocial dimension of nursing care quality. This finding is consistent with previous studies indicating that emotional intelligence plays an important role in improving nursing care quality and patient satisfaction(37, 38).

Enhancing emotional intelligence skills may help nurses manage occupational stress more effectively and regulate their emotional responses in challenging clinical situations. Therefore, education and development of emotional intelligence skills may lead to improvements in nursing care quality and the overall professional performance of nurses(53). The results of the present study revealed a statistically significant difference between nurses' gender and the quality of nursing care. In this study, the mean score of nursing care quality was higher among male nurses than female nurses. The findings of some studies have also reported a significant relationship between gender and nursing care quality(28). In addition, the results indicated that there was a significant difference between nurses' age and the quality of nursing care. Rahmanian et al. (2023) also reported a significant association between age and nursing care quality, suggesting that as nurses' age and professional experience increase, their ability to provide higher-quality care improves(53).

# Abbreviations

ED
Emergency Department
QUALPAC
Quality of Nursing Care
BEIS-10
Brief Emotional Intelligence Scale

# Declarations

### Ethics approval and consent to participate

This study was approved by the Ethics Committee of Kermanshah University of Medical Sciences (ethical code IR.KUMS.REC.1401.520). All procedures were performed in accordance with the Declaration of Helsinki. Participants were fully informed about the objectives and procedures of the study and provided written informed consent prior to participation.

### Clinical trial: not applicable

### Consent for publication

Not applicable. No individual personal data or identifiable images are included in this manuscript.

### Availability of data and materials

The datasets generated or analyzed during the current study are available from the corresponding author on reasonable request.

### Competing interests

The authors declare that they have no competing interests.

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**Authors' contributions**

- Aliakbar Vaisi-Raygani: Conceptualization, Methodology, Writing – Review & Editing

- Zakariya Fattahi: Writing, review& editing

-Mojgan Moradi: Data collection, Writing, Original Draft

- Nader Salari: Statistical analysis

- Fateme Hadadian: (Corresponding author): Study design, Supervision, Writing – Review & Editing, Correspondence

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