



Investigating the Relationship between Family Needs and Nurses' Empathy in Inpatient Emergency Departments: A Cross-Sectional Study

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Abstract

Background: The mission of the emergency department involves addressing the needs of patients and their families. Empathy between nurses and patients' families plays a crucial role in managing anxiety. Therefore, this study aimed to determine the needs of patients' families and their relationship with the empathy of nurses working in inpatient emergency departments of Kurdistan University of Medical Sciences hospitals.

Methods: This cross-sectional study was conducted in the year 2023, utilizing convenience sampling. The study sample consisted of 427 hospitalized patients from inpatient emergency departments at Kurdistan University of Medical Sciences hospitals. Data collection was carried out through the administration of two questionnaires: CCFNI-ED¹ and BLRI². To explore the relationships between variables, linear or logistic regression analysis was employed. The data analysis was performed using STATA version 16 software, and a significance level of 0.05 was considered to determine statistical significance.

Results: The results of this study showed a relatively high average score of 114.42 for the needs of patients' families. Furthermore, the findings indicated a moderate level of empathy (mean \pm SD = 4.73 \pm 0.54) among nurses. There was a significant statistical relationship between the score of patients' family needs and some demographic variables such as age and gender ($P > 0.05$). Additionally, there was a significant statistical relationship between levels of empathy and the gender of the accompanying person, duration of care by the companion, and history of

¹: The Critical Care Family Needs Inventory in emergency Department

²: Barrett-Lennard Relationship Inventory

care ($P>0.05$). However, no significant statistical relationship was found between levels of empathy and levels of family needs ($P<0.05$).

Conclusion: The results of this study revealed high levels of patients' family needs and a moderate level of empathy among nurses. Therefore, in order to enhance the quality of care in the emergency department, nurses should address the needs of patients' families and improve their empathy levels with them in inpatient emergency settings.

Keywords: Empathy, Nurses, Emergency Department.

Introduction

Family, as the most significant and fundamental social institution, profoundly influences its members, fostering a strong sense of commitment (1). When a family member is hospitalized, especially in the emergency department, it can generate anxiety and psychological difficulties for other family members (2). The stressors associated with hospitalization in the emergency department encompass emotional, cognitive, and social factors (3), creating a critical phase for both patients and their families (4, 5). In the initial days of hospitalization, family members of patients frequently experience a range of emotional crises and confront diverse challenges (6, 7).

The mission of the emergency department is not only to save the lives of patients (9) but also to provide services in a manner that ensures the satisfaction of patients and their families (2), considering the emergency department as an essential and indispensable component of hospitals (8). However, the emergency department is recognized as one of the most critical and high-risk areas in hospitals (8), posing significant challenges for patients and their families and potentially leading to anxiety and psychological difficulties (10). In addition to the impact on patients and their families, the complexity, high workload, and challenging environment of the emergency department can significantly affect the performance and efficiency of nurses (11).



Emergency department nurses witness the detrimental and devastating effects of illness on other family members (4). In addition to patients, emergency department nurses must also pay attention to their families. Therefore, identifying the needs of patients' families is an essential and indispensable responsibility for them (12). Nurses should possess the ability to assess and prioritize these needs, as well as determine appropriate interventions to fulfill them (13). The manner in which nurses engage and communicate with patients and their companions can play a vital role in managing anxiety, meeting their informational needs, and ultimately enhancing treatment management (2). Furthermore, nurses can contribute significantly to meeting a substantial portion of their primary needs (14).

Nurses should establish positive communication with patients and their families and instill hope in them. In this regard, therapeutic alliance and creating empathy with patients are of utmost importance (15). Understanding the needs, emotions, and circumstances of patients is among the primary responsibilities of nurses, and empathy lies at the core of such understanding (16). Nurses' empathy with patients is the most influential aspect of their relationship with patients, playing a significant and facilitating role in establishing connections with patients and improving the quality of the relationship (17).

Empathy is considered an important emotional ability and influential dimension related to the families of patients (18). Empathy is a complex and multidimensional concept that includes emotional components (the ability to experience and identify emotions), moral components (intrinsic motivation for empathizing), cognitive components (the ability to identify and understand the patient's experience), and behavioral components (the ability to convey empathetic understanding to the patient) (19). In initial definitions, empathy has been



conceptualized as "internalizing the emotions of another person, as inferred from observation or imagination" (8). In another definition, empathy is primarily described as the ability to see the world without judgment from the perspective of others, understand their feelings, and share them with individuals (16). Empathy is one of the core skills of healthcare professionals (8) and is considered a fundamental component of the quality of healthcare (19).

Cosper and colleagues (2020) demonstrated in a study that nurses' empathy towards patients' families significantly impacts their satisfaction with nursing care (20). Wang and Shan (2021), in their study on " Effects of empathy nursing on the quality of life and treatment compliance of elderly patients with cerebral infarction," showed that the application of empathy-based nursing care in elderly patients with cerebral infarction leads to a reduction in depression and anxiety, improvement in quality of life, treatment compliance, patients' sleep quality, and enhanced satisfaction of primary family caregivers (21). Antonio R. Moreno-Poyato and Óscar Rodríguez-Nogueira (2021), in their examination of the relationship between empathy and therapeutic alliance, stated that nurses who acknowledge their patients' perspectives and concerns will establish a stronger therapeutic alliance with them (22). Although empathy between nurses and patients and their families seems essential, there may be circumstances where this empathy is not adequately achieved. Factors such as time constraints, lack of sufficient opportunity for communication, anxiety, lack of support for nurses, and multiple nursing roles can diminish empathy (23). Additionally, establishing empathetic communication with patients in high-stress work environments may pose challenges for nurses (16). Findings from the study by Seyyed Seyedoshohadaee et al. (2019), regarding the anxiety of family members of patients visiting emergency departments regarding the communication skills of emergency nurses, indicated a

perceived weakness in the communication skills of emergency nurses from the perspective of family members, highlighting the need for special attention to this issue (2).

The objective of this study was to investigate the needs of patients' families and their correlation with nurses' empathy in the inpatient emergency departments of Kurdistan University of Medical Sciences hospitals. This research aimed to address the existing research gap in understanding the relationship between the needs of patients' families and the empathy displayed by nurses within the care loop. Furthermore, it aimed to fill the gap in research specifically examining the variable of nurses' empathy towards families of hospitalized patients in emergency departments.

Methods

The current study employed a descriptive-analytical cross-sectional design. The participants consisted of families of patients who were admitted to the inpatient emergency departments of Sanandaj Teaching Hospitals in 2022. A sample was selected from this population based on specific criteria, including an age range of 18 to 60 years, having a first-degree familial relationship with the patient (parent, spouse, sibling, or child), patient's hospitalization for a minimum of 6 hours in the department, accompanying the patient for at least 6 hours, ability to correctly identify the nurse from other healthcare staff, and willingness to participate in the study. The convenience sampling method was utilized to select the participants. The only exclusion criterion was incomplete responses on the questionnaire.

The sample size was determined using the formula
$$N = \frac{Z_{1-\frac{\alpha}{2}}^2 * P(1-P)}{d^2}$$
. In this study, the primary

outcome was the frequency of patients' families' needs. Referring to the study by Moghaddasian



et al. (24), the estimated sample sizes for the different categories, with a 95% confidence level and a 5% margin of error, were 114, 384, 197, and 296 individuals, respectively. Accounting for a potential 10% dropout rate and aiming to enhance the study's power and generalizability, the final sample size was determined to be 427 participants. Stratified random sampling was employed as the sampling method. To achieve the desired sample size, the total number of hospitalized patients in the emergency departments of Kosar, Towhid, and Besat hospitals was obtained. Subsequently, 60% of that number was randomly selected from Kosar Hospital, 20% from Towhid Hospital, and another 20% from Besat Hospital using the Toss-a-coin method.

The data collection tools in this study included demographic profile forms for both the patients and their families, a questionnaire assessing the needs of the families of hospitalized patients in the emergency departments, and a questionnaire on nurses' empathy. The demographic profile form for patients included questions about age, gender, marital status, hospitalization history, duration of hospitalization, level of independence in self-care, and patient's condition. The demographic profile form for the patients' families included questions about age, gender, relationship to the patient, duration of caregiving, and previous caregiving experience.

The questionnaire for assessing the needs of families of hospitalized patients in the emergency departments was used to examine the needs of these families. This questionnaire was originally designed in Australia and psychometrically validated in Turkey. It consists of 40 items and is scored on a 4-point Likert scale, ranging from "Not important" (1) to "Very important" (4). The scores related to the fulfillment of needs by nurses were calculated using a weighted sum by applying the importance weight coefficients. In this estimation, the minimum score for a need was 1 and the maximum was 4. Therefore, the possible range of scores was from 40 to 160, with



a midpoint of 100. If the obtained score exceeds 100, it indicates a high level of importance for the needs in this group and implies that important needs of families of hospitalized patients in the emergency department are not being met. The reliability and validity of the Family Needs Assessment Questionnaire have been previously reported by Bandari et al. with a Cronbach's alpha coefficient of 0.92 and by Moghaddasian et al. with a Cronbach's alpha coefficient of 0.94.

The Empathy of Nurses Questionnaire, also known as the Barrett-Lennard Relationship Inventory (BLRI) empathy scale, was used to assess the empathy of nurses towards the families of hospitalized patients. It was first used by Ganley in 1989 and consists of 16 items scored on a 6-point Likert scale, ranging from "No, I strongly feel it is not true" (1) to "Yes, I strongly feel it is true" (6). The scores are assigned based on priority, with a score of 6 for the highest priority and scores of 1, 2, 3, 4, and 5 for subsequent priorities. The total score of the empathy scale is calculated by summing the assigned ranks for each question. The possible range of scores in this questionnaire is from 16 to 96, with a midpoint of 56. A score significantly higher than 56 indicates a higher level of empathy exhibited by nurses towards families of hospitalized patients. The research results categorized the levels of empathy as very weak (16-29/4), weak (29/5-42/7), moderate (42/8-56), good (57-69/3), very good (69/4-82/6), and excellent (82/7-96). The reliability and validity of the Barrett-Lennard Relationship Inventory (BLRI) empathy scale have been reported by Moghaddasian et al. with a Cronbach's alpha coefficient of 0.76.

After obtaining ethical approval and acquiring the necessary permissions, the researcher visited the designated hospitals with an introduction letter from the university to conduct the study. After providing necessary explanations and obtaining participants' consent, the sampling process was carried out. The researcher visited the Koosar, Besat, and Towhid hospitals during the morning

and afternoon shifts, specifically during the hours when the highest number of patients were present in the emergency and inpatient departments. After introducing themselves to the department officials, the researcher selected the families of hospitalized patients who met the inclusion criteria for the study. Once the families were selected, the researcher provided them with the Family Needs Assessment Questionnaire to complete in the emergency departments, followed by the Empathy of Nurses Questionnaire. In the case of individuals who were unable to read or write, the researcher took responsibility for asking the questions. The sampling process continued until the predetermined sample size was reached.

The data analysis was performed using STATA version 16. After entering the data into the software and cleaning it, descriptive tests such as mean, standard deviation, and frequency counts (in percentages) were used for quantitative and qualitative variables, respectively. In order to examine the relationships between variables and the dependent variable, linear or logistic regression analysis was employed, depending on the nature of the dependent variable. A significance level of 5% was considered for determining statistical significance

Ethical Concentration:

The research ethics committee of Kurdistan University of Medical Sciences has approved this study (IR.MUK.REC.1401.256). After obtaining the ethical approval and presenting it to the heads of Koosar, Towhid, and Besat educational hospitals, the first author obtained permission to conduct the research in the study environment and initiated the sampling process. After selecting the families of hospitalized patients, the researcher introduced themselves and explained the voluntary nature of participation in the study, as well as the confidentiality of information. After

obtaining consent from the families, the questionnaires were provided for completion. The researchers obtained written informed consent from all participants in the study.

Results

In the present study, 427 family members of hospitalized patients in the emergency departments of hospitals completed the questionnaires. The demographic characteristics of the patients and their families are provided in Table 1.

Table 1. Demographic Characteristics of studied patients and Patients Families, Sanandaj, Iran (n=427)

The results of the present study showed that the average score of family needs in this study was 66.9 ± 42.114 , which was higher than the median. This indicates a high level of important needs among the families of hospitalized patients in the emergency department that have unfortunately been unmet. Furthermore, the analytical results based on t-test and ANOVA indicated a statistically significant relationship between the scores of family needs of patients and demographic variables such as age and gender of the accompanying patient ($p < 0.05$). This means that family members who were female and older felt higher levels of needs. There was a statistically significant difference in the scores of family needs between independent and semi-independent patients ($p = 0.022$) (Table 2). Additionally, the results of the Spearman correlation test showed a positive correlation between the age of the patient and the age of the accompanying patient with the scores of family needs in the present study. As the age of the



patient or the age of the accompanying patient increased, the scores of family needs also increased (Table 2).

Table 2. Scores of patient family needs and its association with demographic characteristics, Sanandaj, Iran (n=427)

The results of the present study indicated a moderate level of empathy in nurses, with a mean score of 73.4 ± 4.54 for the empathy of nurses towards the family members of hospitalized patients in the emergency departments. This suggests that the level of empathy demonstrated by nurses working in the emergency departments towards the families of hospitalized patients is at a moderate level. Furthermore, the study results showed a statistically significant relationship between levels of empathy and the gender of the accompanying patient, the duration of care provided by the accompanying person, and the history of care (Table 3).

Table 3. Nurse empathy level and its relationship with demographic Characteristics, Sanandaj, Iran (n=427)

The results of the present study, based on the Fisher exact test, showed no statistically significant relationship between empathy levels and levels of family needs. This means that it is unclear whether increasing the levels of empathy in nurses towards the families of hospitalized patients leads to an increase in their level of needs (Table 4).



Table 4. The relationship between nurses' empathy levels and the levels of needs of patients' families using Fisher Exact Test

Discussion

The present study was conducted to examine the needs of patients' families and their relationship with empathy among nurses working in inpatient emergency departments of Kurdistan University of Medical Sciences Hospitals in the year 1401 (2022). The study included a sample of 427 participants.

The results of the present study indicated that the average score of patients' families' needs in inpatient emergency departments was higher than the median. This suggests that the needs of patients' families in inpatient emergency departments are significant but unfortunately not adequately met. In a study conducted by Aminipour et al. (2022) on the assessment of the caregiving needs of families of hospitalized patients in intensive care units, participants' caregiving needs were reported to be in the high range (27). Furthermore, in a study by Ping Ru Hsiao et al. (2017) on the assessment of the needs of patients' families in emergency departments in Taiwan, the average score of family needs was reported to be in the high range (28). Additionally, in a study conducted by Hassandoost et al. (2018) on the assessment of the caregiving needs of families of hospitalized patients in intensive care units, similar to the reviewed studies, the findings reported that the needs were in the high range (29). The results of the present study align with the reviewed studies, and the main reason for this similarity may be attributed to the time of the COVID-19 pandemic. Following the COVID-19 pandemic and the significant pressures and stresses on inpatient emergency departments, the focus on patients was prioritized, and the needs of patients' families were to a large extent overlooked. It is evident that



more time is needed for inpatient emergency departments to refocus on the needs of patients' families similar to before and address their needs accordingly.

The findings of the present study indicated a moderate level of empathy among nurses towards hospitalized patients' families in inpatient emergency departments. A review of existing studies in this area demonstrates that Sharifabad et al. (2019) reported a higher-than-average score of empathy among nurses towards patients (30) in their study. Additionally, Mohammad Jafari et al. (2019) showed in a similar study that the average empathy of nurses towards substance-dependent patients in the internal department of hospitals was high (31). Ghaedi et al. (2020) also reported a high level of empathy among nurses towards patients' families in the emergency department in their cross-sectional study conducted in Isfahan hospitals (32). Similarly, comparable studies have presented varying results regarding the level of empathy exhibited by nurses towards patients' families, which aligns with the primary focus of the current research. The empathy of nurses towards patients' families necessitates a sense of mental tranquility and a lack of fear related to disease transmission. The main reason for this difference may be attributed to the fear and concerns that arose during the COVID-19 pandemic in emergency departments. This study was conducted shortly after the COVID-19 pandemic, and the lack of empathy towards patients' families may be related to these fears and concerns.

The findings of the present study indicate a significant correlation between the scores of patients' family needs and certain demographic variables such as the age of the accompanying patient ($p < 0.05$). This means that as the age of patients' families increases, their needs in the emergency department also increase. Interestingly, in non-concordant studies such as Aminipour et al.'s (2022) cross-sectional study on the assessment of the needs of hospitalized patients' families in

intensive care units and Hassandoost et al.'s (2018) study on the needs of hospitalized patients' families in specialized care units, no significant relationship between age and family needs was reported (27, 29). In fact, the significant correlation between the age of the accompanying patient and the family needs in the present study supports the notion that as both patients and their families grow older, their need for comfort items and emergency equipment undoubtedly increases.

Furthermore, the findings of the present study indicate a significant correlation between the scores of patients' family needs and the gender of the accompanying patient ($p < 0.05$). In this study, the scores of family needs were higher among female companions compared to male companions. This aligns with the study conducted by Padilla Fortunatti et al. (2014), which reported that female gender influences the higher level of care needs (33). Moreover, studies conducted in Norway (34) and South Africa (35) also found gender to be a predictive factor for the level of needs, with women who were family members of hospitalized patients in intensive care units expressing a higher level of care needs compared to men. In contrast to the present study, Alsharari et al. (2019) found no significant impact of gender on the level of care needs in their study, but an increase in educational level was significantly associated with higher needs for reassurance, information, and proximity (36). In the study conducted by Aminipour et al. (2022), there was a statistically significant difference between the mean scores of care needs and gender, marital status, and having children. The average scores of care needs were higher among women, married individuals, and those with children. Based on the results of the reviewed studies, gender appears to be an important factor in determining the level of care needs for patients' families.



Therefore, paying attention to the care needs of patients' families, taking into account the gender of the accompanying patient, is highly important when providing services to them.

The results of the present study demonstrated a significant correlation between levels of empathy and the gender of the accompanying patient, the duration of care by the companion, and the history of caregiving. Empathy levels were found to be higher among nurses caring for female patients compared to male patients, and the level of empathy showed an inverse relationship with the duration of care by the patient's family and their caregiving history. However, Robinson Roger et al. (2022) demonstrated in their study in Pakistan that levels of empathy among nurses had no significant relationship with variables such as marital status, educational level, educational institution, and job experience. In fact, their findings indicated that these demographic factors had no impact on the levels of empathy among nurses (37).

In the study conducted by Rafiee et al. (2016), which examined the empathy perspectives of medical students, it was found in line with the present study that there was a significant relationship between the students' gender and empathy (38). In the present study, the average empathy score among nurses was higher for female companions compared to male companions. Although Gloria Lastre-Amell et al. (39) did not observe any differences in empathy levels between genders in their study. However, in the studies by Rafiee et al. (2016) and Mohammadreza Hojat et al. (2023) (38, 40), consistent with the present study, the level of empathy among female students was higher than that among male students. This difference may be attributed to cultural variations, as the Iranian culture places special respect for female members of the family, and nurses make more efforts to empathize with this group of family members due to greater societal constraints (38).



The present study did not show a significant statistical relationship between levels of empathy and levels of family needs. However, Moghaddasian et al. demonstrated in their study that there is a significant statistical relationship between nurses' empathy and the needs of patients' families, such that as nurses' empathy levels increase, the needs of patients' families are met (24). Loghmani et al. (1393) showed in their study titled " Determination of the content of communication between the care team and family members of patients in the intensive care unit: The experience of nurses and patients' families " that families feel comfortable when the care team establishes a relationship with them using communication techniques and skills, and closer relationships between nurses and patients' families lead to increased empathy and effective communication (41). Based on this, improving the level of empathy can contribute to fulfilling some of the communication and support needs of patients' families. This is supported by Mahmoodi et al. (1396), who conducted a study on the relationship between empathy, spiritual intelligence, and nurses' attitudes towards patient rights, and found a positive and meaningful relationship between empathy in nurses and their attitudes towards patient rights (42). Furthermore, families of hospitalized patients seek empathy and comfort from healthcare professionals (41). In fact, closer relationships between nurses and patients' families can lead to increased empathy and improved communication, helping to fulfill some of the communication and support needs of patients' families. The observed discrepancy in the present study with the aforementioned studies (41, 42) may be due to differences in study conditions and environments.

Conclusion

Despite the facilities and resources available to emergency departments during the post-COVID era, the findings of the present study still indicate high and significant needs of patients' families.



Therefore, conducting training courses and quality improvement workshops in the emergency department to address the needs of patients' families and enhance the quality of services may be necessary. Additionally, considering the identified significant statistical relationship between the scores of patients' family needs and certain demographic variables, as well as the relationship between patients' family needs and the patient's condition and care history in the present study, there is a basis for taking actions to meet the needs of patients' families. Furthermore, appropriate planning by health policymakers and decision-makers to investigate the causes of unmet needs and the low levels of nurses' empathy, as well as designing strategies to reduce these needs and enhance empathetic care, can be highly effective.

Conflict of Interest

No conflicts of interest have been reported by the authors.

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References

1. Wiliyanarti PF, Asri A, Putra KWR. Developing Holistic Care Model: the Physical Wellbeing of Elderly Based on Social Support and Characteristic. Public Health of Indonesia. 2018;4(3):108-15.
2. Seyedoshohadaee M, Ahmadi M, Haghani H. The Correlation between the Anxiety of the Family Members of the Patients Referring to the Emergency Department and Their Views on the Communication Skills of Nurses. Iran Journal of Nursing. 2019;32(119):87-98.
3. Bahrami F, Islami M, Moshtagh Eshgh Z, Fesharaki M. Effects of programmed education on stress of family careers with a relative in an intensive care unit of Isfahan University of Medical Sciences hospitals during 2009. Community Health Journal. 2017;3(4):18-24.
4. Chatzaki M, Klimathianaki M, Anastasaki M, Chatzakis G, Apostolakou E, Georgopoulos D. Defining the needs of ICU patient families in a suburban/rural Greek population: a prospective cohort study. Journal of clinical nursing. 2012;21(13-14):1831-9.
5. Casarini KA, Gorayeb R, Basile Filho A. Coping by relatives of critical care patients. Heart Lung. 2009;38(3):217-27.
6. Fitzian L. Does Social Self-Efficacy moderate the Relationship between Social Support and Anxiety among young Family Members of former ICU Patients? A Survey Study: University of Twente; 2021.
7. Maruiti MR, Galdeano LE, Farah OGD. Anxiety and depressions in relatives of patients admitted in intensive care units. Acta Paulista de Enfermagem. 2008;21:636-42.
8. Mirzabeigi M, Mahdi E, Mirmehrabi A, Mirzabeigi A. Evaluation of effectiveness educational based on inter-professional approach on rate of empathy and inter-professional collaboration among nurses and physicians in emergency department during the Covid-19 pandemic. Quarterly Journal of Nursing Management. 2022;11(2):24-41.
9. Bozorgzad P, Najafi Ghezalje T, Haghani H, Fallah B. The productivity and quality of work life in emergency nurses. Iran Journal of Nursing. 2021;34(130):73-90.
10. Lukmanulhakim S, Anna A. The relationship between communication of nurses and level of anxiety of patient's family in emergency room dr. Dradjat Prawiranegara hospital, Serang Banten, Indonesia. Int J Res Med Sci. 2016;4(12):5456-62.
11. Akbari M, Taheri L, Momeniyan S, Yosefi Zf. Relationship Of Nurses' mental Workload With Patient Safety Condition In Emergency Departments Of Qom University Of Medical Sciences Hospitals, 2017
12. Hayatinia A, Heravi-Karimooi M, Rejeh N, Montazeri A. Translation and initial validation n of the Persian version of the Family Satisfaction in the Intensive Care Units (FS-ICU-24). Journal of the Iranian Institute for Health Sciences Research. 2021;20(4).
13. Ning J, Cope V. Open visiting in adult intensive care units—a structured literature review. Intensive and Critical Care Nursing. 2020;56:102763.
14. Nural N, Alkan S. Identifying the factors affecting comfort and the comfort levels of patients hospitalized in the coronary care unit. Holistic Nursing Practice. 2018;32(1):35-42.
15. Rohani C, Mohtashami J, Nasiri M. Cognitive or Affective Empathy in Oncology Nurses: A Cross-Sectional Study. Iranian Journal of Nursing Research. 2017;12(4):9-18.
16. Ghaedi F, Ashouri E, Soheili M, Sahragerd M. Nurses' empathy in different wards: A cross-sectional study. Iranian journal of nursing and midwifery research. 2020;25(2):117.

17. El-Masri MM, Fox-Wasylyshyn SM. Nurses' roles with families: perceptions of ICU nurses. *Intensive and Critical Care Nursing*. 2007;23(1):43-50.
18. Azad Manjiri M, Namani E. The Moderating Effect of Empathy on the Relation Psychological Capital with Depression and Anxiety Among Nurses. *Journal of Sabzevar University of Medical Sciences*. 2020;27(3):463-73.
19. Breyer T, Storms A. Empathy as a Desideratum in Health Care—Normative Claim or Professional Competence? *Interdisciplinary Journal for Religion and Transformation in Contemporary Society*. 2021;7(2):359-75.
20. Cospier P, Kaplow R, Moss J. The impact of patient and family advisors on critical care nurses' empathy. *JONA: The Journal of Nursing Administration*. 2018;48(12):622-8.
21. Wang L, Shan M. Effects of empathy nursing on the quality of life and treatment compliance of elderly patients with cerebral infarction. *American Journal of Translational Research*. 2021;13(10):12051.
22. Moreno-Poyato AR, Rodríguez-Nogueira Ó, Group MCW. The association between empathy and the nurse-patient therapeutic relationship in mental health units: a cross-sectional study. *Journal of Psychiatric and Mental Health Nursing*. 2021;28(3):335-43.
23. Mardani-Hamoooleh M, Ahmadi M, Seyedfatemi N, Haghani H. Relationship between Empathy and Spiritual Attitude among Nursing Students in Tehran. *Iranian Journal of Medical Ethics and History of Medicine*. 2018;11(1):176-88.
24. Moghaddasian S, Dizaji SL, Mahmoudi M. Nurses empathy and family needs in the intensive care units. *Journal of caring sciences*. 2013;2(3):197-201.
25. Dağ GS, Dicle A, Firat MZ. Psychometric properties of the critical care family needs inventory-emergency department. *Applied Nursing Research*. 2017;33:113-20.
26. Bandari R, Rejeh N, Heravi-Karimooi M. Translation and validation of the critical care family needs inventory. =پایش *Journal of the Iranian Institute for Health Sciences Research*. 2013;1(12).
27. Aminipour T, Abdi A, Moradi K, Salari N. Investigation of Critical Care Family Needs of Patients Hospitalized in Intensive Care Units: A Cross-Sectional Study. *Critical Care Nursing*. 2022;15(4):41-50.
28. Hsiao P-R, Redley B, Hsiao Y-C, Lin C-C, Han C-Y, Lin H-R. Family needs of critically ill patients in the emergency department. *International Emergency Nursing*. 2017;30:3-8.
29. Hasandoost F, Momeni M, Dehghankar L, Norouzi Parashkoush N, Rezaei Looyeh H, Emamgholian F. Family needs of patients admitted to the intensive care units. *Epidemiology and Health System Journal*. 2018;5(4):128-32.
30. Barkhordari-Sharifabad M. The Relationship between Spiritual Intelligence with Caring Behavior and Empathy in Nurses Working in Hospitals affiliated to the University of Medical Sciences of Kashan. 2020;8:1-10.
31. Jafari M, Ghodousi A, Sadeghi N, Mohammadpour M. Nursing Staff' Empathy with Drug-Dependent Patients: Is Empathy More with Patients Referred to Drug Abuse Treatment Centers or Hospitalized Patients? *Iranian Journal of Medical Ethics and History of Medicine*. 2019;12(0):1-13.
32. Ghaedi F, Ashouri E, Soheili M, Sahragerd M. Nurses' Empathy in Different Wards: A Cross-Sectional Study. *Iran J Nurs Midwifery Res*. 2020;25(2):117-21.
33. Padilla Fortunatti CF. Most important needs of family members of critical patients in light of the critical care family needs inventory. *Invest Educ Enferm*. 2014;32(2):306-16.



34. Høghaug G, Fagermoen MS, Lerdal A. The visitor's regard of their need for support, comfort, information proximity and assurance in the intensive care unit. *Intensive Crit Care Nurs.* 2012;28(5):263-8.
35. Brysiewicz P, Chipps J. A survey of next of kin needs of trauma patients admitted to Intensive Care Units in South Africa. *Intensive and Critical Care Nursing.* 2017;43.
36. Alsharari AF. The needs of family members of patients admitted to the intensive care unit. *Patient Prefer Adherence.* 2019;13:465-73.
37. Roger R, Sarwar H, Afzal M. Associated Factors of Empathy Level Among Nurses in Tertiary Care Hospital Lahore: Factors Associated with Empathy Level in Nurses. *Pakistan Journal of Health Sciences.* 2022;3(07):209-14.
38. Shiva R, Nahid R, Ali D, Fatemeh F. Empathic Attitudes in Medical Students: using of the Jefferson Scale of Empathy. *European Journal of Emergency Medicine.* 2016;10:25-34.
39. Lastre-Amell G, Alejandra-Orostegui M, Gaviria-García G, Calzadilla-Núñez A, Martínez PT, Díaz-Narváez V. Empathy, components of empathy, empathy decline and gender in nursing students. A cross-sectional study. *Revista Mexicana de Enfermería Cardiológica.* 2020;44-51.
40. Hojat M, Maio V, Pohl CA, Gonnella JS. Clinical empathy: definition, measurement, correlates, group differences, erosion, enhancement, and healthcare outcomes. *Discover Health Systems.* 2023;2(1):8.
41. Loghmani L, Borhani F, Abbasszadeh A. Determination of the content of communication between the care team and family members of patients in the intensive care unit: The experience of nurses and patients' families. *Journal of Qualitative Research in Health Sciences.* 2020;3(3):257-68.
42. Mahmoodi A, khani I, Ghaffari M. The Relationship of empathy and Spiritual Intelligence with nurses Attitude toward Patient's Right: The mediating role of social responsibility. *2 Journal of Nursing Education.* 2017;6(2):49-56.



Tables:

Table 1. Demographic Characteristics of studied patients and Patients Families, Sanandaj, Iran (n=427)		
Demographic characteristics		Mean \pm (SD) or Number (%)
Age of patient family	0-30	178 (41.7 %)
	31-50	229 (53.6 %)
	>51	20 (4.7)
	Mean \pm SD	34.11 \pm 8.83
Age of patient	0-30	234 (54.8%)
	31-50	100 (23.4%)
	>51	93 (21.8%)
	Mean \pm SD	34.52 \pm 20.73
Gender of patient family	Male	147 (34.4)
	Female	280 (65.6 %)
Gender of patient	Male	233 (54.6%)
	Female	194 (45.4%)
Marital status of patient	Married	183 (42.9%)
	Single	207 (48.5%)
	Divorced	9 (2.1%)
	Widowed /Widower	28 (6.6%)
Admission history of patient	Yes	305 (71.4%)
	No	122 (28.6%)
Independency Level of patient	Completely independent	105 (24.6%)
	Partially independent	193 (45.2%)
	Dependent	129 (30.2)
Patient status	Stable	357 (83.6%)



	Critical	70 (16.4%)
Familial relationship of patient family	Parents	94 (22%)
	spouse	68 (15.9%)
	Offspring	73 (17.1%)
	Others	192 (45%)
Caregiving duration of patient family (Hours)	>6	4 (0.9 %)
	6-11	125 (29.3%)
	<11	298 (69.8 %)
Caregiving History of patient family	Yes	363 (58%)
	No	64 (15%)

Table 2. Scores of patient family needs and its association with demographic characteristics, Sanandaj, Iran (n=427)

Patient family needs score		Mean Need Score ± (SD)	P-value
Demographic characteristics			
Scores of patient family needs		114.42 ± 9.66	
Age of patient family	0-30	111.69 ± 9.58	0.0001
	31-50	115.96 ± 9.35	
	>51	121.05 ± 6.71	
Age of patient	0-30	113.24 ± 9.57	0.0001
	31-50	113.87 ± 9.54	
	>51	117.97 ± 9.25	
Gender of patient family	Male	112.22 ± 9.74	0.001
	Female	115.57 ± 9.43	
Gender of patient	Male	113.86 ± 9.89	0.189
	Female	115.09 ± 9.35	
Marital status of patient	Married	114.87 ± 9.55	0.142
	Single	113.51 ± 9.78	
	Divorced	117.55 ± 7.43	
	Widowed /Widower	117.17 ± 9.69	
Admission history of patient	Yes	114.58 ± 10.08	0.598
	No	114.03 ± 8.55	
Independency Level of patient	Completely independent	112.17 ± 9.02	0.022



	Partially independent	115.20 ± 9.48	
	Dependent	115.09 ± 10.21	
Patient status	Stable	114.6 ± 9.52	0.258
	Critical	113.22 ± 10.35	
Familial relationship of patient family	Parents	115.53 ± 9.29	0.066
	spouse	113.88 ± 8.97	
	Offspring	116.43 ± 9.90	
	Others	113.30 ± 9.87	
Caregiving duration of patient family (Hours)	>6	123.75 ± 6.84	0.150
	6-11	114.2 ± 10.08	
	<11	114.39 ± 9.48	
Caregiving History of patient family	Yes	114.15 ± 9.47	0.166
	No	115.96 ± 10.65	
Age of patient family		34.11 ± 8.83	0.0001
Age of patient		34.52 ± 20.73	0.006



Table 3. Nurse empathy level and its relationship with demographic Characteristics, Sanandaj, Iran (n=427)

Nurse empathy level Demographic characteristics	Mean Need Score \pm (SD)					P-value
		Weak n (%)	Average n (%)	Good n (%)	Very good n (%)	
Nurse empathy level		2 (0.5%)	295 (69.1%)	127 (29.7%)	3 (0.7%)	
Age of patient family	0-30	2 (100%)	130 (44.1%)	45 (35.4%)	1 (33.3%)	0.315
	31-50	0 (0%)	153 (51.9%)	74 (58.3%)	2 (66.7%)	
	>51	0 (0%)	12 (4.1%)	8 (6.3%)	0 (0%)	
Age of patient	0-30	1 (50%)	170 (57.6%)	63 (49.6%)	0 (0%)	0.138
	31-50	1 (50%)	64 (21.7%)	34 (26.8%)	1 (33.3%)	
	>51	0 (0%)	61 (20.7%)	30 (23.6%)	2 (66.7%)	
Gender of patient family	Male	1 (50%)	113 (38.3%)	33 (26%)	0 (0%)	0.051
	Female	1 (50%)	182 (61.7%)	94 (74%)	3 (100%)	
Gender of patient	Male	1 (50%)	168 (56.9%)	64 (50.4%)	0 (0%)	0.159
	Female	1 (50%)	127 (43.1%)	63 (49.6%)	3 (100%)	
Marital status of patient	Married	1 (50%)	130 (44.1%)	49 (38.6%)	3 (100%)	0.098

	Single	1 (50%)	143 (48.5%)	63 (49. 6%)	0 (0%)	
	Divorced	0 (0%)	2 (0.7%)	7 (5.5%)	0 (0%)	
	Widowed / Widower	0 (0%)	20 (6.8%)	8 (6.3%)	0 (0%)	
Admission history of patient	Yes	0 (0%)	213 (72.2%)	89 (70.1%)	3 (100%)	0.094
	No	2 (100%)	82 (27.8%)	38 (29.9%)	0 (0%)	
Independency Level of patient	Completely independent	0 (0%)	73 (24.7%)	30 (23.6%)	2 (66.7%)	0.086
	Partially independent	1 (50%)	144 (48.8%)	48 (37.8%)	0 (0%)	
	Dependent	1 (50%)	78 (26.4%)	49 (38.6%)	1 (33.3%)	
Patient status	Stable	1 (50%)	247 (83.7%)	106 (83.5%)	3 (100%)	0.524
	Critical	1 (50%)	48 (16.3%)	21 (16.5%)	0 (0%)	
Familial relationship of patient family	Parents	0 (0%)	64 (21.7%)	30 (23.6%)	0 (0%)	0.757
	spouse	0 (0%)	46 (15.6%)	22 (17.3%)	0 (0%)	
	Offspring	0 (0%)	51 (17.3%)	20 (15.7%)	2 (66.7%)	
	Others	2 (100%)	134 (45.4%)	55 (43.3%)	1 (33.3%)	
Caregiving duration of patient family (Hours)	>6	0 (0%)	3 (1%)	0 (0%)	1 (33.3%)	0.031
	6-11	1 (50%)	1 (50%)	43 (33.9%)	1 (33.3%)	
	<11	1 (50%)	1 (50%)	84 (66.1%)	1 (33.3%)	
Caregiving History of patient family	Yes	1 (50%)	257 (87.1%)	104 (81.9%)	1 (33.3%)	0.019
	No	1 (50%)	38 (12.9%)	23 (18.1%)	2 (66.7%)	

Table 4. The relationship between nurses' empathy levels and the levels of needs of patients' families using Fisher Exact Test

levels of patients' families' needs nurses' empathy levels	Low n (%)	High n (%)	P-value
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Weak	0 (0%)	2 (0.5%)	0.883
Average	19 (65.5%)	276 (69.3%)	
Good	10 (34.5%)	117 (29.4%)	
Very good	0 (0%)	3 (0.8%)	