Chronic Diseases Journal

DOI: 10.22122/cdj.v12i4.864 Published by Vesnu Publications

Investigating the relationship between family needs and nurses' empathy in inpatient emergency departments: A Cross-sectional study

Negin Ahmadvand[1], Salam Vatandost[2], Yousef Moradi[3], Mokhtar Mahmoudi[2]

1 Department of Nursing, School of Nursing and Midwifery, Kurdistan University of Medical Sciences, Sanandaj, Iran
2 Clinical Care Research Center, Research Institute for Health Development, Kurdistan University of Medical Sciences, Sanandaj, Iran
3 Social Determinants of Health Research Center, Research Institute for Health Development, Kurdistan University of Medical Sciences, Sanandaj, Iran

Original Article

Abstract

BACKGROUND: The mission of the emergency department involves addressing the needs of patients and their families. 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 hospitals affiliated with Kurdistan University of Medical Sciences, Iran.

METHODS: This cross-sectional study was conducted from January to September 2022, utilizing convenience sampling, with 427 hospitalized patients from the emergency departments of Kowsar, Towhid, and Besat hospitals. Data collection was carried out through the administration of two questionnaires: the Critical Care Family Needs Inventory (CCFNI-ED) and the Barrett-Lennard Relationship Inventory (BLRI). To explore the relationships between variables, statistical tests, including Fisher's exact test, t-test, one-way ANOVA, and chi-square test, were employed based on the nature of the dependent variable. Data analysis was performed using STATA software.

RESULTS: The results of this study revealed high patient family needs (average score: 114.42) and moderate nurse empathy levels (mean ± SD = 4.73 ± 0.54). Significant associations were observed between the needs of patients' families and certain demographic variables (e.g., age, gender) ($P > 0.05$). Additionally, empathy levels correlated significantly with the gender, care duration, and history of the patients' family ($P > 0.05$). However, no significant relationship was found between empathy levels and family needs ($P < 0.05$).

CONCLUSION: The results of this study revealed high levels of needs of patients' families and a moderate level of empathy among nurses. Therefore, 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

Date of submission: 27 Aug. 2023, ***Date of acceptance:*** 17 Oct. 2023

Citation: Ahmadvand N, Vatandost S, Moradi Y, Mahmoudi M. **Investigating the relationship between family needs and nurses' empathy in inpatient emergency departments: A Cross-sectional study.** Chron Dis J 2024; 12(4): 213-24.

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

Corresponding Author:
Mokhtar Mahmoudi; Clinical Care Research Center, Research Institute for Health Development, Kurdistan University of Medical Sciences, Sanandaj, Iran
Email: mahmodimokhtar85@gmail.com

hospitalization in the emergency department encompass emotional, cognitive, and social factors, creating a critical phase for both patients and their families.[3] In the initial days of hospitalization, family members of patients frequently experience a range of emotional crises and confront diverse challenges.[4]

The mission of the emergency department is not only to save the lives of patients,[5] 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.[6] However, the emergency department is recognized as one of the most critical and high-risk areas in hospitals,[6] posing significant challenges for patients and their families and potentially leading to anxiety and psychological difficulties.[7] 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.[8]

Emergency department nurses witness the detrimental and devastating effects of illness on the family members of patients.[2] 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.[9] Nurses should possess the ability to assess and prioritize these needs, as well as determine appropriate interventions to fulfill them.[10] How 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.[11]

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.[12] Understanding the needs, emotions, and circumstances of patients is among the primary responsibilities of nurses, and empathy lies at the core of such an understanding.[13] 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.[6]

Empathy is considered an important emotional ability and influential dimension related to the families of patients.[14] 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).[15] In initial definitions, empathy has been conceptualized as "internalizing the emotions of another person, as inferred from observation or imagination".[6] 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.[13] Empathy is one of the core skills of healthcare professionals[6] and is considered a fundamental component of the quality of healthcare.[15]

Cosper et al. demonstrated in a study that nurses' empathy toward patients' families significantly impacts their satisfaction with nursing care.[16] Wang and Shan, in their study "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 (QOL), treatment compliance, patients' sleep quality,

and enhanced satisfaction of primary family caregivers.[17] Moreno-Poyato and Rodríguez-Nogueira, 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.[18] 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.[19] Additionally, establishing empathetic communication with patients in high-stress work environments may pose challenges for nurses.[13] Seyedoshohadaee et al. assessed the anxiety of family members of patients visiting emergency departments regarding the communication skills of emergency nurses; they reported a perceived weakness in the communication skills of emergency nurses from the perspective of family members, highlighting the need for greater attention to this issue.[2]

This research was conducted 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. Thus, this study aimed to determine the needs of patients' families and their relationship with the empathy of nurses working in inpatient emergency departments of hospitals affiliated to Kurdistan University of Medical Sciences, Iran.

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 teaching hospitals of Sanandaj, Iran, from January to September 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, the 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.,[20] the estimated sample sizes for the different categories, with a 95% confidence interval (CI) 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 Kowsar, Towhid, and Besat hospitals was obtained. Subsequently, 60% of that number was randomly selected from Kowsar Hospital, 20% from Towhid Hospital, and another 20% from Besat Hospital using the coin tossing method.

The data collection tools in this study included demographic profile forms for both the patients and their families, the Critical Care Family Needs Inventory (CCFNI-ED-EDn), and the Barrett-Lennard Relationship Inventory (BLRI). 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 CCFNI-ED 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 which are 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 are calculated using a weighted sum by applying the importance weight coefficients. In this estimation, the minimum score for a need is 1 and the maximum is 4. Therefore, the possible range of scores is 40-160, 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 the important needs of families of hospitalized patients in the emergency department are not being met. The reliability and validity of the CCFNI-ED have been previously reported by Bandari et al.[21] with a Cronbach's alpha coefficient of 0.92 and by Moghaddasian et al.[20] with a Cronbach's alpha coefficient of 0.94.

The BLRI 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".[4] 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 16-96, with a midpoint of 56. A score significantly higher than 56 indicates a higher level of empathy exhibited by nurses toward 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 BLRI have been reported by Moghaddasian et al. with a Cronbach's alpha coefficient of 0.76.[20]

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 the necessary explanations and obtaining participants' consent, the sampling process was carried out. The researcher visited the Kowsar, 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 CCFNI-ED to complete in the emergency departments, followed by the BLRI. In the case of individuals who were unable to read or write, the researcher completed the questionnaire through an interview. The sampling process continued until the predetermined sample size was reached.

The data analysis was performed using STATA software (version 16; StataCorp LLC, College Station, TX, USA). 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. To examine the relationships between variables and the dependent variable,

Fisher's exact test, t-test, one-way ANOVA, and chi-square test were employed, depending on the nature of the dependent variable. A significance level of 5% was considered for determining statistical significance.

The research ethics committee of Kurdistan University of Medical Sciences, Iran, has approved this study (IR.MUK.REC.1401.256). After obtaining ethical approval and presenting it to the heads of Kowsar, 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 researchers 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' companions, Sanandaj, Iran (n = 427)

Demographic characteristics		Mean ± SD or n (%)
Age of the patient's family	0-30	178 (41.7)
	31-50	229 (53.6)
	> 51	20 (4.7)
	Mean ± SD	34.11 ± 8.83
Age of patient	0-30	234 (54.8)
	31-50	100 (23.4)
	> 51	93 (21.8)
	Mean ± SD	34.52 ± 20.73
Gender of the patient's 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 the patient	Yes	305 (71.4)
	No	122 (28.6)
Independence level of the 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 the patient's family	Parents	94 (22)
	spouse	68 (15.9)
	Offspring	73 (17.1)
	Others	192 (45)
Caregiving duration of patient's family (Hours)	> 6	4 (0.9)
	6-11	125 (29.3)
	< 11	298 (69.8)
Caregiving History of Patients' family	Yes	363 (58)
	No	64 (15)

SD: Standard deviation

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 < 0.050). This means that family members who were female and older felt higher levels of need. 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 Critical Care Family Needs Inventory and its association with demographic characteristics, Sanandaj, Iran (n = 427)

CCFNI-ED score/Demographic characteristics		Mean need score ± SD	P
CCFNI-ED scores		114.42 ± 9.66	-
Age of the patient's family (year)	0-30	111.69 ± 9.58	0.001
	31-50	115.96 ± 9.35	
	> 51	121.05 ± 6.71	
Age of patient (year)	0-30	113.24 ± 9.57	0.001
	31-50	113.87 ± 9.54	
	> 51	117.97 ± 9.25	
Gender of the patient's 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 the patient	Yes	114.58 ± 10.08	0.598
	No	114.03 ± 8.55	
Independence level of the patient	Completely independent	112.17 ± 9.02	0.022
	Partially independent	115.20 ± 9.48	
	Dependent	115.09 ± 10.21	
Patient's status	Stable	114.6 ± 9.52	0.258
	Critical	113.22 ± 10.35	
Familial relationship of the patient's 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's family (Hours)	> 6	123.75 ± 6.84	0.150
	6-11	114.2 ± 10.08	
	< 11	114.39 ± 9.48	
Caregiving history of patient's family	Yes	114.15 ± 9.47	0.166
	No	115.96 ± 10.65	
Age of the patient's family		34.11 ± 8.83	0.001
Age of patient		34.52 ± 20.73	0.006

CCFNI-ED: CCFNI-ED: Critical care family needs inventory emergency department

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 family members 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 patients family, the duration of care provided by the accompanying person, and the history of care (Table 3).

The results of the present study, based on the Fisher's 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 need (Table 4).

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 hospitals affiliated to Kurdistan University of Medical Sciences in the year 2022. The study included a sample of 427 participants.

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

Nurse empathy level		n (%)				P
Demographic characteristics		Weak	Average	Good	Very good	
Nurse empathy rank		2 (0.5)	295 (69.1)	127 (29.7)	3 (0.7)	
Age of the patient's companion (year)	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 (year)	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 the patient's companion	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 the 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)	
Independence level of the 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's 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 the patient's 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's 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's 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 Critical Care Family Needs Inventory score using the Fisher's Exact Test

CCFNI-ED Nurses' empathy levels	Low [n (%)]	High [n (%)]	P
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)	

CCFNI-ED: Critical Care Family Needs Inventory Emergency Department

The results of the present study indicated that the average CCFNI-ED score in inpatient emergency departments was higher than the median. This suggests that the needs of patients' families in inpatient emergency departments are significant, but are not adequately met. In a study conducted by Aminipour et al. on the assessment of the caregiving needs of families of hospitalized patients in intensive care units (ICUs), participants' caregiving needs were reported to be in the high range.[22] Furthermore, in a study by Hsiao et al. on the needs of patients' families in emergency departments in Taiwan, the average score of family needs was reported to be in the high range.[23] Additionally, in a study conducted by Hasandoost et al. on the caregiving needs of families of hospitalized patients in ICUs, similar to the reviewed studies, the findings reported that the needs were in the high range.[24] The results of our study are consistent with previous research, and this similarity can be attributed to the unique circumstances of the post-COVID-19 era in which our study was conducted. The findings may reflect the influence of the pandemic on the shifting priorities and challenges faced by inpatient emergency departments. Following the COVID-19 pandemic, inpatient emergency departments experienced significant pressures and stresses, which led to a greater emphasis on patient care and, to some extent, a reduced focus on addressing the needs of patients' families. Therefore, it is conceivable that more time and effort are needed for these departments to realign with their previous practices of prioritizing and addressing the needs of both patients and their families.

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 Ghaedi et al. (2020) reported a high level of empathy among nurses toward patients' families in the emergency department in their cross-sectional study conducted in hospitals in Isfahan, Iran.[13] 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 the fear and concerns that arose during the COVID-19 pandemic in emergency departments. The increased empathy scores observed in the study by Ghaedi et al. may be associated with the unique circumstances of the pandemic.[13]

The findings of the present study indicate a significant correlation between the CCFNI-ED scores and certain demographic variables such as the age of the patient family ($P < 0.05$). This means that as the age of patients' family members increases, their needs in the emergency department also increase. However, in the studies by Aminipour et al., a cross-sectional study on the needs of hospitalized patients' families in ICUs, and Hasandoost et al., on the needs of hospitalized patients' families in specialized care units, no significant relationship between age and family needs was reported.[22,24] In fact, the significant correlation between the age of the patient family 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 CCFNI-ED scores and the gender of the patient family ($P < 0.05$). In this study, the CCFNI-ED scores were higher among female companions compared to male companions. This is in line with the study conducted by Padilla Fortunatti, which reported that the female gender has a direct relationship with the higher level of care needs.[25] Moreover, one study conducted in South Africa also found gender to be a predictive factor for the level of needs,[26] with women who were family members of hospitalized patients in ICUs expressing a higher level of care needs compared to men. In contrast to the present study, Alsharari found that gender did not have a significant impact on the level of care needs, but an increase in educational level was significantly associated with higher needs for reassurance, information, and proximity.[27] In the study conducted by Aminipour et al., the mean scores of care needs had a statistically significant relationship with gender, marital status, and having children[22]. 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 patient family, 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 patient family, 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, Roger et al. 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.[29] Their findings indicated that these demographic factors had no impact on the levels of empathy among nurses.[28]

The findings of the study conducted by Rafiee et al., which examined the empathy perspectives of medical students, were in line with the present study that found a significant relationship between the student's gender and empathy.[29] In the present study, the average empathy score among nurses was higher for female companions compared to male companions. Lastre-Amell et al. did not observe any differences in empathy levels between genders in their study.[30] However, in the studies by Rafiee et al.[29] and Hojat et al.,[31] 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 holds 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.[29]

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; with increase in nurses' empathy levels, the needs of patients' families are met.[20] Loghmani et al. showed in their study 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.[32] 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 the findings of Mahmoodi et al., who conducted a study on the relationship between empathy, spiritual intelligence, and nurses' attitudes toward patient rights, and found a positive and meaningful relationship between empathy in nurses and their attitudes towards patient rights.[33] Furthermore, families of hospitalized patients seek empathy and comfort from healthcare professionals.[32] 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,[32,33] may be due to differences in study conditions and environments.

Although we acknowledge the valuable insights gained from this study, it is crucial to provide a more comprehensive discussion of the study's limitations. The primary limitation of this research pertains to the utilization of measurement tools. Specifically, self-report instruments were employed, which inherently entail limitations, including the potential for measurement errors. Consequently, the findings obtained through this measurement approach may not be readily applicable to alternative measurement methods. Therefore, future investigations in this domain could greatly benefit from exploring alternative measurement techniques for evaluating nurses' empathy towards patients' families in inpatient emergency departments. This exploration may encompass the incorporation of more objective measures in conjunction with self-report instruments.

Conclusion

The findings of the present study indicate the high and significant needs of patients' families. As well as the relationship between the needs of patients' family members and the patient's condition and care history in the present study, there is a basis for taking action 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 Interests

Authors have no conflict of interests.

Acknowledgments

We would like to extend our sincere gratitude to Kurdistan University of Medical Sciences for their support in conducting this study, which was based on a student thesis. We would also like to express our appreciation to the dedicated research team, as well as the esteemed staff and officials of Kowsar, Towhid, and Besat Teaching Hospitals, which are affiliated with Kurdistan University of Medical Sciences. Additionally, we are grateful to the participating families of the patients for their invaluable cooperation, as this study would not have been possible without their involvement.

Financials support and sponsorship

This study results from a thesis conducted at Kurdistan University of Medical Sciences and is funded and financially supported by this center.

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 J Nurs. 2019; 32(119): 80-90.

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. 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 [BSC Thesis]. Enschede, Netherlands: University of Twente; 2021.
5. Karimi M, Bozorgzad P, Najafi Ghezeljeh T, Haghani H, Fallah B. The productivity and quality of work life in emergency nurses. Iran J Nurs. 2021; 34(130): 73-90.
6. 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. Journal of Nursing Management. 2022; 11(2): 24-41.
7. Lukmanulhakim L, Suryani 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.
8. Akbari M, taheri l, momenyan s, yousefi f. Relationship of nurses' mental workload with patient safety condition in emergency departments of Qom University of Medical Sciences Hospitals, 2017. Iranian Journal of Emergency Care. 2017; 1(2): 67-79.
9. 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). Payesh. 2021; 20(4): 461-9.
10. Ning J, Cope V. Open visiting in adult intensive care units - A structured literature review. Intensive Crit Care Nurs. 2020; 56: 102763.
11. Nural N, Alkan S. Identifying the factors affecting comfort and the comfort levels of patients hospitalized in the coronary care unit. Holist Nurs Pract. 2018; 32(1): 35-42.
12. Sedaghati kasbakhi M, 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.
13. 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.
14. Azad Manjiri M, Namani E. The moderating effect of empathy on the relation psychological capital with depression and anxiety among nurses. J Sabzevar Univ Med Sci. 2020; 27(3): 463-73.
15. Janhsen A, Breyer T. Empathy as a desideratum in health carenormative claim or professional competence? Interdisciplinary Journal for Religion and Transformation in Contemporary Society. 2021; 7(2): 359-75.
16. Cosper P, Kaplow R, Moss J. The Impact of patient and family advisors on critical care nurses' empathy. J Nurs Adm. 2018; 48(12): 622-8.
17. Wang L, Shan M. Effects of empathy nursing on the quality of life and treatment compliance of elderly patients with cerebral infarction. Am J Transl Res. 2021; 13(10): 12051-7.
18. Moreno-Poyato AR, Rodriguez-Nogueira O. The association between empathy and the nurse-patient therapeutic relationship in mental health units: A cross-sectional study. J Psychiatr Ment Health Nurs. 2021; 28(3): 335-43.
19. Hamooleh M, Ahmadi M, Seyedfatemi N, Haghani H. Relationship between empathy and spiritual attitude among nursing students in Tehran. Iran J Med Ethics Hist Med. 2018; 11(0): 176-88.
20. Moghaddasian S, Lak DS, Mahmoudi M. Nurses empathy and family needs in the intensive care units. J Caring Sci. 2013; 2(3): 197-201.
21. Razieh B, Majideh H, Nahid R, Farid Z, Majid M, Ali M. Translation and validation of the Critical Care Family Needs Inventory. Payesh. 2013; 12(1): 89-97.
22. 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. Iran J Crit Care Nurs. 2022; 15(4): 40-9.
23. Hsiao PR, Redley B, Hsiao YC, Lin CC, Han CY, Lin HR. Family needs of critically ill patients in the emergency department. Int Emerg Nurs. 2017; 30: 3-8.
24. Hasandoost F, Momeni M, Dehghankar L, Norouzi Parashkouh N, Rezaei Looyeh H, Emamgholian F. Family needs of patients admitted to the intensive care units. Int J Epidemiol Res. 2018; 5(4): 128-32.
25. 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.
26. Brysiewicz P, Chipps J. A survey of next of kin needs of trauma patients admitted to Intensive Care Units in South Africa. Intensive Crit Care Nurs. 2017; 43: 136-42.
27. Alsharari AF. The needs of family members of patients admitted to the intensive care unit. Patient Prefer Adherence. 2019; 13: 465-73.
28. 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. PJHS-Lahore. 2022; 3(07): 209-14.
29. Rafati S, Rejeh N, Davati A, Foroutani F. Empathic attitudes in medical students: using of the Jefferson Scale of Empathy. Med Ethics J. 2016; 10(36): 25-34.
30. 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. Rev Mex Enferm Cardiol. 2020; 2: 44-51.
31. 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.
32. 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. J Qual Res Health Sci. 2014; 3(3): 257-68.
33. Mahmoodi A, Khani L, Ghaffari M. The relationship of empathy and Spiritual Intelligence with nurses Attitude toward Patient's Right: The mediating role of social responsibility. J Nurs Edu 2017; 6(2): 49-56.