

Identification of needs of family members of surgical intensive care unit patients: a cross-sectional study

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ABSTRACT

Objectives: It is aimed to determine the needs of family members whose patients are hospitalized in surgical intensive care unit.

Methods: Data were collected from 150 family members hospitalized in the surgical intensive care unit of a large university hospital. Data were collected using the Patient Relative Introduction Form and the Patient Relatives' Needs Scale in Intensive Care Units (CCFNI=Critical Care Family Need Inventory).

Results: Of the participants, 25.3% are female, while 68.7% are married. While 71.3% of the participants stated that they received information from their patients in the days following admission, only 4% of the participants were informed about intensive care; all participants stated that they were not given any pamphlets or brochures about intensive care. Among the healthcare professionals, doctors were identified as the individuals who establish solid and reliable communication, with 53% of the participants.

Conclusions: It has been determined that the needs of patient relatives are very important, with the most crucial need being to know the patient's chances of recovery. Meeting all the physical, mental, and psychosocial needs of patients and their relatives receiving treatment in intensive care units can only be achieved through assessments and taking necessary precautions. This approach aligns with a family-centered care approach and establishes a quality healthcare service infrastructure. This research provides data on patient experiences and the needs of patient relatives.

Keywords: Surgical intensive care, nursing care, family requirements, family members' needs

Intensive Care Units (ICU), where intensive treatment/care practices are provided to critically ill patients and are isolated areas, differ from other care settings in hospitals [1, 2]. Consequently, with the admission of a patient to the intensive care unit, different crises arise for the patient and their family [3]. Factors contributing to the emergence of crises include restricted interaction with the patient and family, the patient's critical condition and risk of mortality,

changes in the family's routine life, increased need for information about the patient's health status, rules of the institution or ICU that family members must adhere to, and the family's financial difficulties [4]. Planning and providing care in the intensive care unit may lead to neglecting or overlooking details of the patient's condition, despite aiming to alleviate the physical and psychological stress experienced by the patient [5].

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The survival of the patient as a loved one, along with physical changes and adverse effects within the family, is noteworthy. Before the occurrence of family events, only a 1.2% rate of health problems was experienced, but after the patient's illness, this rate increased to 17.9%; common health issues frequently reported among family members include the onset of insomnia, changes in eating and drinking habits, and disturbances in bowel habits [6].

In Molter's study, "hope needs" were identified as universal components of the patient's relatives. In addition, other significant circumstances such as access to adequate and reliable information and the hospital staff's attitude towards patient information are given as consequential outcomes. Despite the provision of alternative resources for meeting family needs, patient families desire these services to be addressed by healthcare providers supported by physicians and nurses [7].

In other studies, the needs of family members during the intensive care period are ranked as information, trust, and closeness [8-10]. Family members express the desire to know that their loved ones are being well cared for and indicate that they want to receive information on this at least once a day [11].

There are studies conducted using different methods to determine the needs of patient families [4, 12-15]. Through identifying these needs, quality counseling and education will be provided to families based on their priority needs, ensuring continuity of nursing care and comprehensive care, assisting in reducing recurrent admissions, and preventing complications. It is believed that early detection will lead to an increase in the quality of life for intensive care patients and their families. However, in our country, especially in surgical intensive care, the number of studies aimed at determining the needs of patient families is limited [6, 13, 16]. The conducted studies mostly focus on general intensive care family needs. In this context, this study aims to determine the needs of family members of patients admitted to surgical intensive care.

METHODS

Population and Sample of the Research

This study is a descriptive and cross-sectional study.

In the study, data on patients and family members who met the sampling criteria for Determination of Family Needs of Surgical Intensive Care Unit Patients were collected. Research data were collected after Ethics Committee approval (2021/037), approval of the institution where the research would be conducted, and consent of the volunteer family members.

Interviews were conducted with the relatives of the patients who volunteered to participate in the study by face-to-face interviews inside or outside the hospital.

Data Collection Forms and Explanations

Patient Relative Introduction Form

In the study, a 35-question form prepared by the researchers by reviewing the literature, including demographic characteristics, degree of closeness, duration of stay in surgical intensive care, number of hospitalizations in surgical intensive care, days of hospitalization in surgical intensive care, and questions about surgical intensive care and hospital was used [6, 13, 17].

Patient Relatives' Needs Scale in Intensive Care Units

In order to determine the needs of family members of patients hospitalized in the intensive care unit, the Critical Care Family Need Inventory (CCFNI=Critical Care Family Need Inventory) developed by Molter [7] in 1979 will be used. The scale was developed as a clinical tool to emphasize the importance of the needs of families with patients in intensive care and to measure family needs.

Reliability and validity studies have been conducted in many languages and cultures. A validity-reliability study was conducted by Büyükçoban *et al.* [13] to adapt the scale to the Turkish population. The Cronbach's alpha value of the original scale was found to be 0.93.

The NMMRS consists of 40 questions and is graded from 1 to 4 (1=Unimportant, 2=Slightly important, 3=Important, 4=Very important). There are five need sub-dimensions in the scale: "Trust", "Information", "Proximity", "Support", "Comfort". The questions belonging to the "Information" sub-dimension in the scale; 2-3-9-11-13-14-17-33-34, questions belonging to the "Trust" sub-dimension; 4-12-15-38-39, questions belonging to the "Proximity" sub-dimension; 8-26-32-35-36-37-40, questions belonging to the "Support" sub-dimension; 1-5-7-10-16-21-22-23-24-

Table 1. Information about the participants

| | mean±SD | Median (min-max) |
|--|-------------|------------------|
| Age (year) | 40.11±13.04 | 40 (18-69) |
| Patient's intensive care stay (days) | 10.35±12.83 | 6 (1-77) |
| Time spent in hospital per day (hours) | 5.52±3.26 | 5 (1-18) |
| | n | % |
| Gender | | |
| Female | 38 | 25.3 |
| Male | 112 | 74.7 |
| Marital status | | |
| Married | 103 | 68.7 |
| Single | 47 | 31.3 |
| Social health insurance | | |
| Yes | 106 | 70.7 |
| No | 44 | 29.3 |
| Education status | | |
| Literate | 15 | 10.0 |
| Primary education | 23 | 15.3 |
| High School | 54 | 36.0 |
| Bachelor's degree or higher | 58 | 38.7 |
| Occupation status | | |
| Self-employment | 36 | 24.0 |
| Public employee | 64 | 42.7 |
| Housewife | 9 | 6.0 |
| Retired | 12 | 8.0 |
| Unemployed | 29 | 19.3 |
| Place of residence | | |
| Province center | 111 | 74.0 |
| Village | 8 | 5.3 |
| District | 17 | 11.3 |
| In another province | 14 | 9.3 |
| Income status | | |
| Income more than expenditure | 15 | 10.0 |
| Income equal to expenditure | 60 | 40.0 |
| Income less than expenditure | 75 | 50.0 |
| Relationship with your patient 1st degree relative | | |
| Child | 11 | 7.3 |
| Wife | 22 | 14.7 |
| Mom and dad | 65 | 43.3 |
| Brother | 30 | 20.0 |
| 2nd degree relative | | |
| Uncle | 7 | 4.7 |
| Uncle | 3 | 2.0 |
| Still | 2 | 1.3 |
| Auntie | 10 | 6.7 |
| Place of accommodation for family members during the surgical intensive care unit | | |
| Hospital garden | 95 | 63.3 |
| Own house | 102 | 68.0 |
| Hotel | 11 | 7.3 |
| Hospital canteen | 10 | 6.7 |
| Next of kin | 30 | 20.0 |
| Hospital waiting room | 92 | 61.3 |
| Relatives' homes | 10 | 6.7 |
| Where do you meet your basic needs such as eating and drinking? (You can select more than one option) | | |
| Hospital canteen | 105 | 70 |
| Own home or a relative's home | 121 | 80.7 |
| Restaurant inside the hospital | 35 | 23.3 |
| Nearest restaurant | 55 | 36.7 |

Min=minimum, Max=maximum, SD=standard deviation

27-28-30-31, questions belonging to the "Comfort" sub-dimension; 6-18-19-20-25-29 [13]. The relatives of the patients were asked to rate each item between 1-4 points, and each need expression in the scale was evaluated with "Unimportant" 1 point, "Less Important" 2 points, "Important" 3 points, and "Very Important" 4 points. In the scoring of the data, each need item is collected within the need sub-dimensions to which it belongs.

However, the "Trust, Information, Proximity, Support, Comfort" sub-dimensions of the scale are evaluated separately. Lower scale sub-dimension mean scores indicate that the needs are decreasing, while higher mean scores indicate that the needs are increasing. Permission for the use of the CCFNI was obtained from the author via e-mail.

Statistical Analysis

R vers. 2.15.3 program (R Core Team, 2013) was used. Minimum, maximum, mean, standard deviation, median, first quartile, third quartile, frequency and percentage were used to report the study data. The conformity of quantitative data to normal distribution was evaluated by Shapiro-Wilk test and graphical analysis. Independent groups t test was used in the evaluations of the variables showing normal distribu-

tion between two groups. Mann-Whitney U test was used in the evaluations of variables that did not show normal distribution between two groups, Kruskal-Wallis test and Dunn-Bonferroni test were used in the evaluations between more than two groups. Pearson correlation analysis was used to determine the level of relationship between quantitative data. Cronbach's alpha coefficient was used to determine the internal consistency of the scale items. Statistical significance was accepted as $P < 0.05$.

RESULTS

The ages of the participants ranged between 18 and 69 years and the duration of the patients' stay in intensive care unit ranged between 1 and 77 days. The daily time spent by the patient's relatives in the hospital varied between 1 and 18 hours. While 25.3% of the participants were female; 68.7% were married. While 10% of the participants were literate, the rest were distributed as primary, high school and higher education; 24% were self-employed, 42.7% were public employees, 6% were housewives, 8% were retired, 19.3% were unemployed and only 10% of them had an income higher than their expenses. 26% of the partici-

Table 2. Table Family members' information and communication status with intensive care unit staff (N=150)

| | n | % |
|---|-----|------|
| Family members' access to information and communication with intensive care unit staff | 6 | 4 |
| Obtaining information about the patient's condition on the first day of admission | | |
| Yes | 111 | 74 |
| Receiving information about the patient's condition in the following days | | |
| Yes | 107 | 71.3 |
| Obtaining information about the intensive care environment on admission of the patient | | |
| Yes | 6 | 4 |
| Getting information about the intensive care environment and procedures with a booklet/brochure | | |
| Yes | 0 | 0 |
| Communicate with care and treatment providers | | |
| Yes | 107 | 71.3 |
| Feeling in a decision-making role as a family member | | |
| Yes | 55 | 36.7 |

pants live far away from the hospital and 95 of them live in their own homes. 70% of the participants used the hospital canteen to meet their basic needs (Table 1).

While 71.3% of the participants stated that they received information from their patients in the days following hospitalization, only 4% of the participants were informed about intensive care and all of the participants stated that they were not given booklets or brochures about intensive care. 65.3% of the participants stated that the care of other family members was disrupted due to the needs and care of their relatives in intensive care, 56% stated that their responsibilities at home, 70.7% stated that their family relationships and 91.3% stated that their social life was affected. 57.3% of the participants stated that there was an increase in their current health problems; 71.3% stated that they could communicate with caregivers and treat-

ment providers (Table 2).

When the distribution of healthcare professionals from whom family members received information about the condition of their patients was examined, it was determined that 64.7% and 56% of the healthcare professionals were doctors in the first and the following days after hospitalization, respectively; again, among the healthcare professionals, doctors were the ones with whom the participants established strong and reliable communication with 53% (Table 3).

The number of items, possible score ranges, minimum-maximum, medians, means, standard deviations and internal consistency values of the scale sub-dimensions of the Patient Relatives' Needs Scale in Intensive Care Units, which are comfort, closeness, trust, information and support, are given in Table 4.

There was no statistically significant difference

Table 3. Distribution of healthcare professionals from whom family members received information about the condition of their patients (n=150)

| Health worker received information | n | % |
|---|-----|------|
| Health worker received information on the first day of hospitalization | | |
| Doctor | 97 | 64.7 |
| Nurse | 2 | 1.3 |
| Other health personnel | 12 | 8 |
| None | 39 | 26 |
| Health worker received information in the following days of hospitalization | | |
| Doctor | 84 | 56 |
| Nurse | 7 | 4.7 |
| Other health personnel | 43 | 28.7 |
| None | | |
| Healthcare worker receiving any information about the hospital and intensive care environment | | |
| Doctor | 1 | 0.7 |
| Nurse | 1 | 0.7 |
| Other health personnel | 4 | 2.6 |
| None | 144 | 96 |
| Healthcare worker establishing a solid and reliable communication with the persons caring for and treating the patient | | |
| Doctor | 80 | 53.3 |
| Nurse | 16 | 10.6 |
| Other health personnel | 4 | 2.7 |
| None | 50 | 33.4 |

($P>0.05$) between the total score and sub-dimensional scores of the CCFNI and the duration of daily stay in the hospital and gender of the participants. There was a statistically significant difference ($P<0.05$) between the total score and sub-dimensions of the CCFNI and the participants' age, length of stay in the intensive care unit, marital status, social security, occupation, proximity to the patient, place where basic needs are met - hospital canteen, presence of other dependent person, affecting home responsibilities, and history of health problems. It was determined that there was a statistically significant correlation only between the total score and sub-dimensions of the CCFNI and the participants' place of residence; support, comfort sub-dimensions and accommodation-hospital canteen; trust, CCFNI total score and restriction of social life; trust, closeness, CCFNI total score and affecting responsibilities at home; knowledge, trust, comfort, CCFNI total score ($P<0.05$) (Table 5).

It was found that there was a statistically significant positive correlation between the participants' CCFNI Knowledge scores and Trust ($r=0.913$, $P<0.001$), Proximity ($r=0.827$, $P<0.001$), Support ($r=0.851$, $P<0.001$), Comfort ($r=0.812$, $P<0.001$) sub-dimension and total ($r=0.949$, $P<0.001$) scores. It was found that there was a statistically significant positive relationship between the participants' CCFNI Trust scores and closeness ($r=0.849$, $P<0.001$), support ($r=0.733$, $P<0.001$), comfort ($r=0.772$, $P<0.001$) sub-dimension and total ($r=0.886$, $P<0.001$) scores. It was found that there was a statistically significant positive correlation between the participants' CCFNI Intimacy scores and Support ($r=0.810$, $P<0.001$), Comfort

($r=0.812$, $P<0.001$) sub-dimension and total ($r=0.910$, $P<0.001$) scores. It was found that there was a statistically significant positive relationship between the participants' CCFNI Support scores and Comfort ($r=0.822$, $P<0.001$) sub-dimension and total ($r=0.950$, $P<0.001$) scores. It was found that there was a statistically significant positive correlation between the participants' CCFNI Comfort scores and total ($r=0.902$, $P<0.001$) scores (Table 6).

DISCUSSION

Since the hospitalization of the patient in the intensive care unit is usually the result of an acute situation, a stressful and difficult process begins for the family members, for which they are not prepared and will face unknown things [18, 19]. They feel hopeless and helpless if there is no one to give them information and meet their needs. Therefore, it is necessary to know what family members need in order to successfully complete this process [20]. In recent years, many studies have been conducted to determine the concerns and needs of family members with patients in intensive care, and interventions to increase the well-being of both patients and family members have come to the agenda. In this context, it is generally recommended to improve communication, support systems and provide a relaxing/appropriate physical environment [20].

In a study conducted in our country to determine the needs of 201 relatives of patients with patients in the intensive care unit, it was found that seven of the 10 needs perceived as the most important by family

Table 4. Mean scores of the sub-dimension of the patient relatives' needs scale in intensive care units

| Scale sub-dimensions | Number of items | Possible score range | Min-Max (Median) | Mean±SD | Internal consistency |
|----------------------|-----------------|----------------------|------------------|--------------|----------------------|
| Comfort | 6 | 6-24 | 12-24 (22) | 21.05±2.88 | 0.900 |
| Closeness | 7 | 7-28 | 18-28 (26) | 25.13±2.97 | 0.861 |
| Confidence | 5 | 5-20 | 14-20 (19) | 18.26±1.93 | 0.865 |
| Information | 9 | 9-36 | 21-36 (33) | 31.22±4.59 | 0.919 |
| Support | 13 | 13-52 | 27-52 (41) | 43.27±7.30 | 0.948 |
| Total | 40 | 40-160 | 97-160 (138.5) | 138.93±18.30 | 0.977 |

Min=minimum, Max=maximum, SD=standard deviation

Table 5. Comparison of the participants' scores on the CCFNI according to their descriptive characteristics

| Features | Information | Confidence | Closeness | Support | Comfort | CCFNI total score |
|--|-------------|---------------|---------------|---------------|---------------|-------------------|
| Age | r | 0.403 | 0.423 | 0.440 | 0.378 | 0.449 |
| | P value | <0.001* | <0.001* | <0.001* | <0.001* | <0.001* |
| Patient's length of stay in intensive care | r | 0.212 | 0.179 | 0.149 | 0.057 | 0.168 |
| | P value | 0.009* | 0.046* | 0.070 | 0.491 | 0.040* |
| Daily time spent in hospital | r | 0.106 | 0.084 | -0.133 | 0.022 | -0.014 |
| | P value | 0.196 | 0.307 | 0.105 | 0.792 | 0.861 |
| Gender | | | | | | |
| Female | 38 | 31.58±4.82 | 25.18±3.16 | 44.32±6.49 | 20.92±3.06 | 140.21±18.31 |
| Male | 112 | 31.1±4.52 | 25.11±2.92 | 42.92±7.55 | 21.09±2.82 | 138.49±18.36 |
| *Test value (t) | | 0.557 | 0.138 | 1.019 | -0.311 | 0.499 |
| P value | | 0.578 | 0.891 | 0.310 | 0.757 | 0.618 |
| Marital status | | | | | | |
| Single | 47 | 28.49±4.5 | 23.47±2.84 | 38.89±6.21 | 19.47±2.89 | 127.38±16.47 |
| Married | 103 | 32.47±4.07 | 25.88±2.73 | 45.27±6.9 | 21.77±2.58 | 144.19±16.66 |
| *Test value (t) | | -5.366 | -4.965 | -5.631 | -4.875 | -5.753 |
| P value | | <0.001* | <0.001* | <0.001* | <0.001* | <0.001* |
| Social security | | | | | | |
| There is | 106 | 31.89±4.46 | 25.58±2.88 | 44.44±7.12 | 21.58±2.76 | 142.05±17.78 |
| No | 44 | 29.61±4.54 | 24.05±2.96 | 40.45±7.02 | 19.75±2.75 | 131.41±17.52 |
| *Test value (t) | | 2.828 | 2.941 | 3.136 | 3.706 | 3.351 |
| P value | | 0.005* | 0.004* | 0.002* | <0.001* | 0.001* |
| Profession | | | | | | |
| Self-employment | 36 | 29 (26, 35) | 18 (16.5, 20) | 39.5 (36, 46) | 20 (18, 24) | 130 (119, 150) |
| Public employee | 64 | 33 (27, 36) | 19.5 (17, 20) | 42 (39, 52) | 22 (18, 24) | 140 (127, 160) |
| Housewife | 9 | 36 (29, 36) | 20 (16, 20) | 50 (39, 52) | 24 (18, 24) | 158 (122, 160) |
| Retired | 12 | 36 (36, 36) | 20 (20, 20) | 52 (51, 52) | 24 (24, 24) | 160 (159, 160) |
| Unemployed | 29 | 29 (28, 34) | 18 (16, 20) | 39 (36, 47) | 19 (18, 23) | 129 (119, 149) |
| *Test value (χ ²) | | 13.416 | 9.556 | 17.156 | 14.357 | 16.471 |
| P value | | 0.009* | 0.049* | 0.002* | 0.006* | 0.002* |
| Place of residence | | | | | | |
| Province center | 111 | 33 (27, 36) | 19 (17, 20) | 43 (38, 52) | 22 (18, 24) | 139 (123, 160) |
| Village | 8 | 28 (26, 31.5) | 18 (17.5, 19) | 34 (31, 41) | 18 (17, 19.5) | 119 (115, 133.5) |
| District | 17 | 35 (28, 36) | 19 (17, 20) | 27 (24, 28) | 41 (39, 52) | 148 (118, 160) |
| In another province | 14 | 31.5 (28, 36) | 19.5 (17, 20) | 40 (38, 51) | 22 (18, 24) | 134.5 (123, 158) |
| *Test value (χ ²) | | 3.677 | 0.346 | 3.592 | 11.988 | 7.206 |
| P value | | 0.299 | 0.951 | 0.309 | 0.007* | 0.066 |
| Proximity | | | | | | |
| First degree | 128 | 33.5 (28, 36) | 20 (17, 20) | 43.5 (39, 52) | 22 (18, 24) | 142 (124, 160) |
| Second degree | 22 | 27 (25, 35) | 16.5 (15, 19) | 38 (35, 51) | 18.5 (18, 24) | 120.5 (116, 156) |
| *Test value (z) | | -3.090 | -3.372 | -2.373 | -2.075 | -2.805 |
| P value | | 0.002* | 0.001* | 0.018* | 0.038* | 0.005* |
| Accommodation - Hospital canteen | | | | | | |
| No. | 140 | 33 (27, 36) | 19 (17, 20) | 42 (38, 52) | 22 (18, 24) | 140.5 (123, 160) |
| Yes | 10 | 28.5 (28, 29) | 17 (15, 18) | 39 (34, 40) | 18.5 (18, 24) | 120 (119, 129) |
| *Test value (z) | | -0.809 | -2.073 | -1.963 | -1.370 | -2.084 |

Table 5 Continued. Comparison of the participants' scores on the CCFNI according to their descriptive characteristics

| P value | 0.419 | 0.038* | 0.051 | 0.051 | 0.171 | 0.037* | |
|---|-------|---------------|---------------|---------------|---------------|-------------|--------------------|
| Where basic needs are met - Hospital canteen | | | | | | | |
| No | 45 | 33.33±3.62 | 19.04±1.64 | 25.98±2.9 | 46.22±6.22 | 21.87±2.57 | 146.44±15.75 |
| Yes | 105 | 30.31±4.67 | 17.92±1.95 | 24.76±2.94 | 42.01±7.39 | 20.7±2.94 | 135.7±18.44 |
| ^a Test value (t) | | 4.275 | 3.618 | 2.328 | 3.348 | 2.319 | 3.630 |
| P value | | <0.001* | <0.001* | 0.021* | 0.001* | 0.022* | <0.001* |
| Presence of other dependent person | | | | | | | |
| Yes | 103 | 32.2±4.21 | 18.77±1.65 | 26.08±2.35 | 44.55±7.33 | 21.66±2.72 | 143.26±16.9 |
| No. | | 29.06±4.67 | 17.15±2.05 | 23.04±3.16 | 40.47±6.47 | 19.7±2.78 | 129.43±17.81 |
| ^a Test value (t) | 47 | 4.090 | 4.750 | 5.883 | 3.437 | 4.064 | 4.573 |
| P value | | <0.001* | <0.001* | <0.001* | 0.001* | <0.001* | <0.001* |
| Influencing responsibilities at home | | | | | | | |
| Yes | 84 | 34 (29, 36) | 20 (17, 20) | 27 (24, 28) | 45 (39, 52) | 22 (18, 24) | 147.5 (124, 160) |
| No | 12 | 27 (25.5, 31) | 16 (15, 18.5) | 21.5 (21, 23) | 38 (36.5, 39) | 18 (18, 19) | 120.5 (116, 129.5) |
| Partially | 54 | 29 (27, 36) | 18 (17, 20) | 25.5 (23, 28) | 40 (38, 52) | 22 (18, 24) | 134.5 (123, 160) |
| ^b Test value (z) | | 8.272 | 8.404 | 10.716 | 4.851 | 7.231 | 6.976 |
| P value | | 0.016* | 0.015* | 0.005* | 0.088 | 0.027* | 0.031* |
| Social life constraints | | | | | | | |
| Yes | 137 | 33 (28, 36) | 20 (17, 20) | 26 (23, 28) | 41 (38, 52) | 22 (18, 24) | 140 (123, 160) |
| No. | | 27 (26, 35) | 16 (15, 19) | 21 (21, 27) | 38 (36, 51) | 18 (18, 24) | 120 (116, 156) |
| ^c Test value (z) | 13 | -1.881 | -2.728 | -2.742 | -1.424 | -2.010 | -2.189 |
| P value | | 0.060 | 0.006* | 0.006* | 0.154 | 0.044* | 0.029* |
| History of health problems | | | | | | | |
| Yes | 89 | 31.88±4.54 | 18.55±1.8 | 25.75±2.75 | 44.92±6.97 | 21.6±2.78 | 142.7±17.73 |
| No. | 61 | 30.26±4.52 | 17.84±2.05 | 24.21±3.08 | 40.87±7.16 | 20.25±2.85 | 133.43±17.85 |
| ^a Test value (t) | | 2.143 | 2.258 | 3.209 | 3.460 | 2.892 | 3.137 |
| P value | | 0.034* | 0.025* | 0.002* | 0.001* | 0.004* | 0.002* |
| Feeling decision-making about the patient | | | | | | | |
| Yes | 55 | 32.6±4.28 | 18.75±1.82 | 26.09±2.58 | 44.45±8.15 | 21.89±2.86 | 143.78±18.4 |
| No. | 95 | 30.42±4.59 | 17.98±1.95 | 24.57±3.06 | 42.59±6.71 | 20.56±2.79 | 136.12±17.74 |
| ^a Test value (t) | | 2.872 | 2.381 | 3.107 | 1.438 | 2.797 | 2.516 |
| P value | | 0.005* | 0.019* | 0.002* | 0.154 | 0.006* | 0.013* |

t=Pearson correlation analysis

^aIndependent samples t test, results are presented as mean ± standard deviation.

^bCruskal-Wallis test, results are presented as median (first quartile, third quartile).

^cMann-Whitney U test, results are presented as median (first quartile, third quartile).

*P<0.05

Table 6. Levels of correlation between the scores of the CCFNI

| | | Information | Trust | Proximity | Support | Comfort | Total |
|--------------------|----------------|-------------|---------|-----------|---------|---------|-------|
| Information | r | 1.000 | | | | | |
| | P value | - | | | | | |
| Trust | r | 0.913 | 1.000 | | | | |
| | P value | <0.001* | - | | | | |
| Proximity | r | 0.827 | 0.849 | 1.000 | | | |
| | P value | <0.001* | <0.001* | - | | | |
| Support | r | 0.851 | 0.733 | 0.810 | 1.000 | | |
| | P value | <0.001* | <0.001* | <0.001* | - | | |
| Comfort | r | 0.812 | 0.772 | 0.812 | 0.822 | 1.000 | |
| | P value | <0.001* | <0.001* | <0.001* | <0.001* | - | |
| Total | r | 0.949 | 0.886 | 0.910 | 0.950 | 0.902 | 1.000 |
| | P value | <0.001* | <0.001* | <0.001* | <0.001* | <0.001* | - |

r=Pearson correlation analysis

*P<0.05

members were related to information, and the top three were the need to be informed about the patient's condition once a day, to make explanations in an understandable language and to inform the patient's home about changes in the patient's condition by telephone, followed by the need to "make sure that the patient is given the best care" and "to answer questions honestly" [20]. Similarly, in the study conducted by Sucu *et al.* [21] with 353 relatives of patients in order to determine the needs defined by family members with critically ill patients in the emergency department and the status of meeting these needs; it was found that nine of the ten most important needs were related to information; eight of the needs stated as important by the relatives of the patients were met by health professionals, although not one hundred percent, and these needs were mostly met by physicians.

Eroğlu *et al.* [22] conducted a study to determine the satisfaction levels of 152 patients and their relatives hospitalized in the intensive care unit of a university hospital and found that the relationship between nurses, patients and their relatives directly affected the patient's degree of well-being and satisfaction with the service provided. In addition to saving life and maintaining vital activities, supporting the patient and his/her family is among the main duties of the intensive care team [23, 24].

In the study conducted by Öztürk and Cerit [25],

the average age of the patients' relatives was between 18 and 80, while in our study, the ages of the participants ranged between 18 and 69. In the same study, it was determined that 60% of the patients' relatives were female and 48% were primary and secondary school graduates; in the study conducted by Aykin [26], the ages of the patients' relatives ranged between 18 and 35 years and above, 54% of them were female and 28% were primary school graduates; in our study, 10% of the participants were literate, while the rest were distributed as primary, high school and higher education. In the study conducted by Boyraz [27], it was seen that the total scores of the needs were higher in those who graduated from primary school than those who graduated from higher education.

Accordingly, when the arithmetic score values of the sub-dimensions of the met needs inventory of the patients' relatives are analyzed, it is seen that the highest score is obtained from meeting the need for trust (2.55±0.54) and the lowest score is obtained from the sub-dimension of meeting the need for comfort (1.60±0.37) [25]. In our study, when the arithmetic score values of the sub-dimensions of the met needs inventory of the patient's relatives were examined, it was seen that they received the highest score from the sub-dimension of meeting the support needs (43.27±7.30) and the lowest score from the sub-dimension of meeting the trust needs (18.26±1.93).

In the study conducted by Öztürk and Cerit [25], 46% spent the night in hospital gardens, on benches, 54% spent the night in their homes because they wanted to be with the patient at all times, 91% wanted to have a place where they could spend the night nearby, while in our study, 26% of the participants lived far from the hospital and 95 of them stayed in their own homes.

In the study conducted by Aykin [26], it was observed that 65% of the patients' relatives stated that staying with the patient in the hospital affected their responsibilities at home, while 35% stated that it did not. 65.3% of the participants indicated that the care and needs of their relatives in the intensive care unit disrupted the care of other family members, and 56% stated that their household responsibilities; 70.7% mentioned their family relationships, and 91.3% mentioned their social life were affected. In a study by Öner *et al.* [28], 20% of the participants stated that being a companion next to the patient affected their work life, 4.6% mentioned their school life, 45.3% mentioned their family life, and 50% reported experiencing various health problems. In our study, 57.3% of the participants stated an increase in existing health problems.

CONCLUSION

It was found that the needs of patients' relatives are very important and the most important need is to know the patient's chance of recovery. Meeting all physical, psychological and psychosocial needs of patients and their relatives treated in intensive care units can only be achieved by making evaluations and taking necessary measures. This approach overlaps with the family-centered service approach and creates the infrastructure for quality health care. This study provides data on patient experiences and the needs of patient relatives. We recommend that similar studies be conducted as indicators of improvement and that institutional or individual efforts be made to address these problems identified in clinical settings.

Authors' Contribution

Study Conception: İÖ, AY, AK; Study Design: İÖ, AY, AK; Supervision: İÖ, AY, SK; Funding: İÖ, AY, SK, AK; Materials: İÖ, AY, SK; Data Collection

and/or Processing: İÖ, AY, AK, SK; Statistical Analysis and/or Data Interpretation: İÖ, AY, AK; Literature Review: İÖ, AY, AK, SK; Manuscript Preparation: İÖ, AY, AK, SK and Critical Review: İÖ, AY, AK, SK.

Conflict of interest

The authors disclosed no conflict of interest during the preparation or publication of this manuscript.

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