Original Article

Families' Needs of Critically Ill Patients in Critical Care Units at Three Main Teaching Hospitals in Al-Hilla City, Iraq

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Abstract

Background: One of the most unexpected events that cause anxiety and fear is admitting one of the family members or relatives to the critical care unit. It is not only the patient who suffers from the impact of the crisis but also his family members. **Objective:** The main aim of this research is to explore families' needs of critically ill patients in critical care units as well as determine a relationship between these needs and sociodemographic characteristics. **Materials and Methods:** A descriptive cross-sectional study with a purposive sample of (N = 120) family members of critically ill patients was conducted in the period between September 1, 2022 to May 5, 2023 in three teaching hospitals in Alhilla City. A tool was used for the study consisting of two parts: the first represented the sociodemographic variables of the participants, and the second part included 45 items describing the needs of the patients' families, divided into five subscales, and data were collected from the participants by interview. **Results:** The results of the study showed that the most important needs are assurance (3.46) and information (3.38), followed by comfort (3.09), proximity (3.06), and support (2.53). There were statistically significant relationships between the sociodemographic variables (educational level, relationship with the patient, the patient's stay in CCU, and previous admission to the critical care unit) and needs subscales. **Conclusion:** Assurance and information are the most important needs of families. Sociodemographic variables play a role in the different needs.

Keywords: Assurance, critical care units, family needs, information, support

Introduction

One of the most unexpected events that cause anxiety and fear is admitting a loved one of the family members or relatives to the critical care units (CCUs). It is not only the patient who suffers from the impact of the crisis but also his family members.[1]

Due to the severity of disease conditions and the focus of healthcare providers' efforts on saving the patient's life, this often leads to neglecting the role of the family as a primary partner in decision-making and providing care to the patient. Therefore, the need began to change the direction of importance from "patient-centered care (PCC) to family-centered care (FCC)." FCC is a participatory approach that allows the family to play many roles and participate in decision-making.[2]

Negative feelings like stress, anxiety, depression, concern, guilt, wrath, insecurity, pain, acute stress disorder, and post-traumatic stress disorder are frequently experienced by patients' critical care units' relatives. Poor sleep quality results in high levels of physical and emotional exhaustion in addition to these issues. The difficulty of fully committing to being with a loved one, the unfamiliar surroundings, advanced technology used in critical care facilities, the severity of the patient's conditions, the lack of answers to questions, and poor communication are some of the factors that contribute to these feelings.[3]

Furthermore, because the majority of these patients are unable to communicate due to sedation, mechanical ventilation, confusion, or coma, their families are expected to make medical decisions on their behalf. When the patient's family has complete control over medical decisions, processes such as tracheotomies, operation consent, and transfer to the other service can become sources of conflict with the health care provider.[4]

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Several factors affect the family's experience, their needs in the CCU, the quality of communication with the medical staff, and participation in decision-making. These factors include education and cultural background, religious beliefs, and social habits. Healthcare providers try to provide high-quality health care to the patient and his family and increase their satisfaction.[5]

Families in the Middle East are typically large and characterized by close bonds amongst those who visit the patient, fill the waiting areas, and wish to assist with care for the critically ill patient in the CCU. The personal obligations and responsibilities of the extended family towards relatives are highly valued. Therefore, providing support to families is encouraged when a family member is ill. Visiting relatives in the hospital are seen as a positive social action. However, it is encouraged socially and religiously and thus becomes a family necessity and obligation, especially with acute and sudden/unexpected acceptance. The research describing families' experiences in CCU is limited. Nurses may need to consider what patients' family members consider important.[6]

The main aim of this study is to update knowledge regarding this field while also clarifying the needs and perspectives of family members.

Materials and Methods

Design

To explore the important families' needs of patients in critical care units, a descriptive cross-sectional study was carried out using questionnaire questions for the periods of September 1, 2022 to May 25, 2023.

Setting

The study is conducted in critical care units at the three main teaching hospitals in Al-Hilla City. The hospitals are Al-Imam Al-Sadiq Teaching Hospital, Al-Hilla Teaching Hospital, and Marjan Teaching Hospital.

Sample

The approach chooses a nonprobability (purposive) sample of 120 family members. The study sample was divided among three teaching hospitals in Al-Hilla City. The following criteria were used to select the following:

1. Adult (aged above 18 years) family members of the patient.
2. The patients must have been admitted to the CCU for at least 48 h.
3. The participant should have visited the patient at least once during their stay in the CCU.
4. First-degree relatives included spouses, children, parents, and siblings; second-degree relatives are uncles, grandparents, aunts' grandchildren, nephews, and nieces.

Questionnaire

The research data were collected using a questionnaire form that included two parts.

Part I: Sociodemographic characteristics of family members of patients include age, gender, level of education, occupation, residency, relation to the patient, length of patient stays in the CCU, number of visits per day, and previous admission to the critical care unit.

Part II: Critical Care Family Needs Inventory (CCFNI), the original version developed by Jane Stover Leske in cooperation with Nancy C. Molter. The CCFNI consists of 45 items scored based on the Likert scale of four levels, ranging from not important (1 point), slightly important (2 points), important (3 points), and very important (4 points). The items of the tool are divided into five subscales, including support (15 items), proximity (9 items), information (8 items), assurance (7 items), and comfort (6 items). The Arabic version of the tool was back-to-back translated and adopted in a previous study.[7] Permission to use the CCFNI was obtained from the original translating authors.

Questionnaire validity

The study tools English and Arabic versions were tested for face validity. Face validity aimed to determine whether the tool measured what it was supposed to measure. It was measured by a jury of 11 experts, five professors, and six assistant professors of medical–surgical nursing at the nursing faculties at Babylon, Baghdad, AL-Kufa, and Karbala universities. The experts reviewed the tool for clarity, relevance, accuracy, comprehensiveness, simplicity, and applicability and made minor modifications.

Reliability of questionnaire

To assess the internal consistency of the adapted tool, Cronbach's α was used. The tool's reliability was evaluated in order to determine how closely the questionnaire items are related to one another. Cronbach's α reliability coefficient was $r = 0.81$.

Ethical considerations

The family members were told their voluntary involvement in the study did not interfere with the participants' visitation time. At the end of the visit, on-site interviews were done outside the critical care units' area. The researcher explained the purpose and benefits of the study. Approvals were also obtained from the Babylon Health Directorate, development, and training center to visit the hospitals formally (No. 17) on February 20, 2023. After they were approved to participate in the study for this reason, a formal consent form was applied for each participant, and an unnamed questionnaire was used to ensure complete confidentiality.

Data collection method

After getting all the required permissions and conducting a pilot study, data were collected from the beginning of February 12, 2023 to March 13, 2023. The investigator visited the critical care units twice weekly during morning shifts. The family members were chosen based on inclusion criteria. Gathered data by interviewing family members and filling out a data collection tool. The study's purpose was explained to family members, and oral consent was obtained at the interview's start after introducing myself. Completed and filled out the study tool in an average of 15–20 min, as follows: structured interview using the Arabic version of the questionnaire for gathering data on family members' sociodemographics and CCFNI.

Approach of statistic

After completing the data collection procedures, the statistical software SPSS, version 26, was used to analyze the data and present the results for nominal and ordinal qualitative data; frequency and percentages were calculated. In quantitative data, percentages and frequencies were found after dividing them into categories, and the mean and standard deviation were also calculated. In order to find significant relationships and differences between the mean needs of the participants, inferential statistics were used parametric tests including (*t*-test and one-way ANOVA). Furthermore, the level of significance was chosen. If *P*-value ≥0.05 is considered no significant relationship, and *P*-value <0.05 is considered significant.

Results

Table 1 represents the sociodemographic characteristics of family members. Out of 120 participants, the age group 40–49 made up (26.7%) of the total study sample, with a mean age of 41.16 years. Regarding gender, males comprised more than half (59.2%) compared to females. In terms of education, primary school (28.3%). Free work, which composed (43.3%) of the occupations of the sample,

Table 1: Distribution of family members related to their sociodemographic data

Sociodemographic data		Frequency	Percentage
Age mean ± SD = 41.16 ± 12.434	20–29	27	22.5
	30–39	28	23.3
	40–49	32	26.7
	50–59	24	20.0
	≥60	9	7.5
Gender	Male	71	59.2
	Female	49	40.8
Level of education	Not read and write	15	12.5
	Read and write	9	7.5
	Primary school	34	28.3
	Secondary school	30	25.0
	Institute	12	10.0
	College	14	11.7
	Postgraduate	6	5.0
Occupation	Student	5	4.2
	Free work	52	43.3
	Officeholder	27	22.5
	Housewife	28	23.3
	Retired	8	6.7
Residency	Urban	55	45.8
	Rural	65	54.2
Relation to the patient	Father/mother	12	10.0
	Spouse	21	17.5
	Son/daughter	35	29.2
	Brother/sister	36	30.0
	Second-degree relative	16	13.3
Length of patient stay in the CCU mean ± SD = 7.75 ± 4.137	>5	23	19.2
	5–10	77	64.2
	<10	20	16.7
Number of visits per day	1–3	105	87.5
	<3	15	12.5
Previous admission to the critical care unit	Yes	45	37.5
	No	75	62.5

and residences in rural areas (54.2%), in relation to patient brothers and sisters, composed (30%) of the total members. 5–10 days (64.2%) is most of the length of patients' stay in CCU, with a mean of 7.75 days. One to three visits per day were predominant (87.5%), and (62.5%) of participants had never been admitted to the critical care unit before.

Table 2 shows that the most important needs are assurance (3.46) and information (3.38), followed by comfort (3.09), proximity (3.06), and support (2.53).

Table 3A finds no significant association between sociodemographic data (gender, residency, number of visits, previous admission) and CCFNI subscales, except for one significant relationship between support needs and previous admission to the critical care unit.

Table 3B finds a significant association between the level of education and proximity subscale. Support, comfort needs, and relation to the patient; it also finds a significant relationship between the length of patient stay in the CCU and proximity needs.

Table 2: Ranking of CCFNI subscales

Domain	Mean	Std. deviation
Assurance	3.46	0.22
Information	3.38	0.25
Comfort	3.09	0.47
Proximity	3.06	0.31
Support	2.53	0.27

Discussion

Study shows the sociodemographic data of family members. Aged 40–49, who comprised 26.7% of the research sample out of 120 individuals, had a mean age of 41.16 years. Males comprised more than half (59.2%) of the sample compared to females. These results agree with the study conducted in Iran by Hasandoost *et al.*,[8] where they found that the average age of the participants was 47.5 years, and the percentage of males (59.8%) represented more than half as well.

Concerning level of education, the primary education level comprised (28.3%) of the total members. These results are similar to the study carried out by Salameh *et al.*,[9] who found that the primary education level composed (27.92%) of the study sample. Free work constituted (43.3%) of the participants' occupations, and (54.2%) resided in rural areas. These findings are supported by the results of a study conducted by Elsayed *et al.*,[10] where they found that (56.7%) of the participants work privately and (55%) reside in rural areas.

Regarding relationships between family members and patients, brothers/sisters made up (30%) of total members, these results coinciding with.[11] They found siblings consist (28.3%). The mean period of stay of the patient in critical care was 7.75 days. This result agrees to some extent with a study conducted in Turkey by Liew *et al.*,[12] which found (62%) of the length of stay was 1 week. This also corresponds to an analytical study that included 3925 patients and found an average patient stay in the ICU of 10 days.[13]

In addition, (87.5%) of family members visited their patients one to three visits per day, and (62.5%) of the participating

Table 3A: Independent sample *t* test comparison of mean scores of the CCFNI domains according to gender, residency, number of visits per day, and previous admission to the critical care unit

Variables	Domains	*t* Test	*P*-value	Sig
Gender	Support	0.893	*0.374*	NS
	Proximity	1.125	*0.301*	NS
	Assurances	0.521	*0.603*	NS
	Information	0.479	*0.633*	NS
	Comfort	0.634	*0.527*	NS
Residency	Support	0.037	*0.970*	NS
	Proximity	0.435	*0.664*	NS
	Assurances	1.286	*0.201*	NS
	Information	0.193	*0.847*	NS
	Comfort	0.445	*0.657*	NS
Number of visits per day	Support	1.117	*0.266*	NS
	Proximity	0.359	*0.720*	NS
	Assurances	0.119	*0.905*	NS
	Information	0.650	*0.517*	NS
	Comfort	0.679	*0.499*	NS
Previous admission to the critical care unit	Support	3.054	0.003	S
	Proximity	1.579	0.117	NS
	Assurances	1.182	0.240	NS
	Information	1.717	0.089	NS
	Comfort	0.227	0.821	NS

*NS: not significant, S: significant, significant *P*-value <0.05

* Independent sample *t*-test used with independent variables consisting of two categories

Table 3B: One-way ANOVA comparison of mean scores of the CCFNI domains according to age, level of education, occupation, relation to the patient, and length of patient stay in the ICU

Variables	Domains	ANOVA	*P*-value	Sig
Age	Support	0.951	*0.438*	NS
	Proximity	0.703	*0.592*	NS
	Assurances	0.724	*0.524*	NS
	Information	0.302	*0.876*	NS
	Comfort	1.277	*0.283*	NS
Level of education	Support	1.300	*0.263*	NS
	Proximity	2.433	*0.030*	S
	Assurances	0.734	*0.623*	NS
	Information	0.734	*0.624*	NS
	Comfort	0.843	*0.539*	NS
Occupation	Support	0.196	*0.940*	NS
	Proximity	1.043	*0.388*	NS
	Assurances	1.042	*0.389*	NS
	Information	0.372	*0.828*	NS
	Comfort	1.194	*0.317*	NS
Relation to patient	Support	8.530	*<0.001*	HS
	Proximity	1.180	*0.323*	NS
	Assurances	1.338	*0.260*	NS
	Information	0.201	*0.937*	NS
	Comfort	2.448	*0.050*	S
Length of patient stay in the CCU	Support	0.666	*0.516*	NS
	Proximity	3.889	*0.023*	S
	Assurances	1.538	*0.219*	NS
	Information	2.224	*0.113*	NS
	Comfort	0.672	*0.513*	NS

*ANOVA: analysis of variance, HS: highly significant, NS: not significant, S: significant. Significant *P*-value <0.05 *A One-way ANOVA test was used with independent variables consisting of three categories or more

individuals had no previous admission to critical care units. This finding corresponds to the study conducted by Dharmalingam *et al.*,[1] which found that (65%) of the participants also had no previous experience in critical care units.

In the current study, the assurance subscale had the highest score; assurance helps family members deal with the crisis situation they face when a loved one is in a life-threatening condition. The most important needs in terms of assurance were knowing the expected outcome for the patient, obtaining facts about the progress of the patient's health condition, obtaining answers to the questions of family members, ensuring that the patient has received the best medical care, and assurance that there is hope for the patient's recovery these findings supported by Shdaifat *et al.*,[14] also finding assurance needs take priority among families with relative in CCU.

The second most important subscale of needs was information; this is consistent with a study conducted in Saudi Arabia by Al-Mutair *et al.*,[15] where information was also second in importance. The urgent desire of families to obtain continuous information about the patient's medical condition is due to the fact that critical care patients are going through a serious health crisis that threatens their lives, and they are constantly changing, and sometimes their health condition worsens, or they have serious complications, and with the presence of the family in a waiting room complicates matters and increases their desire to obtain information permanently and continuously.[16]

The results indicate that there are significant differences between the educational levels of the participants with the mean of proximity needs (*P*-value = 0.03), where the family members whose primary educational level (mean = 3.18) and those who do not read or write (mean = 3.15) more needed to be close to patients.

These findings are supported by a study conducted in Palestine by Salameh *et al.*[9] as well, which found that educational level was one of the variables with a significant relationship with the subscales of needs.

Significant differences exist between the relationship with the patient and the mean of support needs (*P*-value <0.001). The siblings (2.68) and children (2.54) needed more emotional, spiritual, and social support. This is due to the strong family bond and the extent to which close family members of the first degree are affected by the admission of a loved one into the CCU. The unexpected situation affects the family system's stability, which increases psychological and physical stress.[17]

These findings are supported by a study conducted in Chile by Padilla-Fortunatti *et al.*,[18] where it was also found that

siblings and children are more likely to receive emotional, spiritual, social, and financial support resources as well.

Regarding the duration of the patient's stay in the CCU. The family of patients admitted to the ICU in less than 5 days has a significant relationship (*P*-value = 0.023) with the need to be close to the patient (2.59). The family's need for closeness increases in the first few days of admission to visit the patient frequently, spend time at the bedside, and obtain immediate information about the condition.

According to Hirshberg *et al.*,[5] the most likely explanation is that during the initial days after admission to CCUs, other family members went through a difficult time, which heightened their demand for close proximity. However, over time, the families came to terms with the circumstances and tried to adapt. Families experience stress and increased requirements during the initial days after admission since they are unfamiliar with the hospital, wards, patients' status, and other factors. The patient's health state remaining stable or the family's acceptance of the situation can be another factor.

Concerning the family's previous experiences in the ICU, there was a significant relationship with the need for support (*P*-value = 0.003). Family members who did not have previous admission to the CCU needed more support (2.59). This finding is consistent with a study[11] where they also found that individuals who have not had previous experiences need support and information more.

The new and unfamiliar surroundings, the severity of patients' conditions, the lack of communication, and the new experience make families more in need of receiving support to obtain clarifications about the nature of critical care and what can be done at the patient's bedside in addition to that they need the presence of other friends near them to help also need to obtain spiritual support.[19]

In addition, previous experiences make people adapt quickly to unexpected situations, as they have coping mechanisms to deal with the hospitalization of a loved one in the CFCU. Understanding the relationship between past experiences, emotional and psychological responses, and long-term outcomes leads to targeted interventions to meet support needs and increase family satisfaction.[20,21]

Conclusion

Assurance and information are the most important needs of families. There is a statistically significant relationship between some sociodemographic characteristics of family members and needs subscales.

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Conflicts of interest

There are no conflicts of interest.

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