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Original Article

Family Needs of Patients Admitted to the Intensive Care Units

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Abstract

Background and aims: Organizational support of family members of the patients admitted to intensive care units (ICUs) potentially reduces mental stresses and enables them to better comply with and support the patients. The current study aimed at evaluating the needs of families of the patients admitted to ICUs in teaching hospitals of Iran.

Methods: This cross-sectional study was conducted in 2015 using convenience sampling method. The Critical Care Family Needs Inventory (CCFNI) in 5 factors was used as a main data collection tool. The study population included 235 family members of the patients.

Results: Total score of CCFNI was 132.32±18.46. Needs of family members of ICU patients decreased 0.428 times following the increase of length of stay in ICU ($P<0.001$). Moreover, the need for supportive cares was significantly 9.273 times lower among illiterate families, compared with the ones with higher education level ($P<0.018$).

Conclusion: Considering that the highest need was in the area of support and the predictors of the family needs of the patients were the duration of hospitalization and the educational status of their families, the main focus of nurses should be on the support of family members of the patients admitted to the ICU and supporting and paying attention to their needs, who experience stressful conditions, to satisfy them and even to encourage them to give better care to the patient and help health care staff.

Keywords: Intensive care unit; Family support; Family needs

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Introduction

Health is based on a patient-centered and family-centered system. Open visiting policy is considered as a need for patients and their families in intensive care units (ICUs). Clinical guidelines in many countries recommend open visiting policies for ICUs, according to family-centered care theory.[1]

Organizational support of family members of the patients admitted to ICUs potentially reduces mental stresses and enables them to better comply with and support the patients.[2] Incidence of a physical illness or occurrence of an event usually causes problems for the patient and his/her families. Admission to the hospital and ICU intensifies the crisis since admission to ICU is potentially stressful and is associated with pain, complication in physiological and emotional performances, sleep deprivation, movement and visit limitation.[3]

On the other hand, anger, distrust, feelings of helplessness and hopelessness along with lack of knowledge about the disease, fear, concern for the future, fear of losing a family member, and changes in familial roles cause severe stress in the family system and loss of family integrity.[4]

Therefore, patients would directly benefit from any intervention that can reduce such stresses and tensions in the family, since lower stress improves health care and emotional supports of the patients by their families.[5]

Family-centered care is defined as a creative approach in programing, implementation, and assessment of critically ill patients in health care systems and the mutual and helpful interaction among patients, their families, and health care providers. Patient-centered and family-centered care is applicable in all age groups and medical environments.[6] Although patient-centered care is a part of nursing care since 1970, role of the family in providing support, help and care for the critically ill patients has been highlighted in recent years.[7] Since 1960, by the rapid development of technology,

ICU has been considered as a place to provide intensive cares for the critically ill patients[8] and the families deal with emotional, cognitive, and social stressors such as ambitious information, unclear prognosis, fear of patient's death, financial needs, and disruption of daily living programs.[9]

Nurses learn to look at medical affairs professionally, which has limited their thoughts, judges, and even their performances. For an optimum performance, it is necessary to consider medical affairs from the viewpoint of clients. This point is very important in nursing education, since educating the nurses based on the viewpoint of clients may empower them to meet clients' needs and provide client-centered cares.[10] But some studies confirm family-centered cares especially in ICUs. Mitchell et al mention that family-centered care is the main caring attitude in ICUs during the first 48 hours of admission.[7] To provide comprehensive and high quality nursing cares, nurses in the ICUs should also consider social and mental needs of both patients and their families. This point indicates their inevitable and unchangeable role in identifying and meeting the needs of patients' families as the clients.[11-13]

Sarhadi et al believes providing more opportunities for meeting and also giving more information to the family members about the patients' treatment procedure help satisfy the psycho-social needs of the family members and reduce mental reactions caused by them in critical care units.[14]

Undoubtedly, to prevent such negligence and inattentions to the needs of patients' families, results of meticulous and scientific assessment of such needs should be considered by the authorities, managers, and health care providers. Such assessments are always a challenge and doubt to nurses and health care professionals. Considering that few studies have been carried out in this regard, and no research has been carried out on the needs of the families of patients in Iran, the current study aimed at evaluating the needs of the families of patients admitted to ICUs in Qazvin teaching hospitals, Iran.

Methods

The current cross-sectional study was conducted in teaching hospitals of Qazvin, Iran, in 2015. The study population included families of all the patients admitted to ICUs at teaching hospitals of Qazvin. Based on a study by Bandari et al[11] and the mean ± standard deviation (SD) of support factor in the Critical Care Family Needs Inventory (CCFNI) as 41.24±7.83, accuracy of 1, and 95% CI, 235 families were selected.

In the current study, samples were recruited using the convenience sampling method; the researcher referred to 4 teaching hospitals equipped with ICUs. To achieve research goals, the main inclusion criterion was determined the companionship of one of the family members (such as spouse, child, grandchild, parents, brother, sister, sister-in-law, or brother-in-law) as the main care giver during the study. Other inclusion criteria were age ≥18 years, speaking Farsi and willing to participate in the study. The exclusion criteria were having sensory impairments such as deafness, blindness, and/or motor disabilities and also giving simultaneous care to other family members with mental or physical diseases at home or hospital.

Data were collected using demographic data form (including age, gender, level of education, marital status, interfamilial marriage, patient's health status, number of family members, duration of admission to ICU, duration of hospitalization in wards, history of hospitalization in wards, and economic status) and the CCFNI. As cited by Sheaffer, Molter developed a 45-item family needs inventory in 1979 and 7 years later, the CCFNI was developed by Leske, in collaboration with Molter, which has been widely used by the researchers so far.[14,15] The CCFNI includes 45 items, scored based on the Likert scale of 1-4, with 4 being very important and 1 not important. The questionnaire has 5 factors and the total scores range from 45 to 180. The aspects are support (15 items), comfort (6 items), information (8 items), proximity (9 items), and assurance (7 items). In the study by Bandari et al, the Cronbach alpha coefficient was 0.926 for the total scale, and >0.7 for 3 factors of support, comfort, and proximity; it was also 0.6-0.7 for the 2 factors of information and assurance. Results of the current study also indicated face, structural, and differential validities, in addition to internal consistency of the questionnaire. The use of CCFNI has been recommended in the studies.[11] To consider ethical standards, the aim and procedure of the study were described to the participants and accordingly, they singed the informed consent forms. They were also assured about the confidentiality of data and they were free to withdraw from the study at any time, and that they were informed about the results of the study if interested. Data were analyzed using descriptive and analytical statistical tests including chi-square, *t* test, ANOVA, and regression analysis.

Results

Out of 235 samples in the current study, 215 samples filled the questionnaires out completely; 59.8% of main care givers were male and 40.2% were female. Mean (SD) age of the care givers was 47.58 ± 17.24 years. Moreover, for the patients admitted to the ICU, days of admission ranged from 11 to 23, and the mean (SD) conscious state of the patients was 8.47 ± 3.60, based on Glasgow Coma Scale. The summary of demographic data of the cases is shown in Tables 1 and 2. Total score of the questionnaire was 132.32 ± 18.46. The highest need observed was the support factor, followed by information, proximity, assurance, and comfort. The mean ± SD of CCFNI factors is illustrated in Table 3. Regarding the evaluation of CCFNI factors using ANOVA, significant relationships were observed between demographic information, employment status, and assurance factor ($P = 0.025$), comfort factor and income status ($P = 0.044$), type of disease and support factor ($P = 0.039$), assurance factor and level of education ($P = 0.022$), and level of education and support factor ($P = 0.025$). The regression analysis showed that the needs of families of patients admitted to ICUs were reduced and became significant 0.428 times as increasing the days of

Table 1. Sociodemographic Information of Family Members

Parameters	No. (%)
Gender	
Male	125 (59.8)
Female	84 (40.2)
Employment status	
Housekeeper	68 (32.2)
Employed	62 (29.4)
Unemployed	19 (9)
Student	14(6.5)
Retired	48 (22.7)
Age[a] (y)	47.85 ± 17.24
Family relationship	
Spouse	34 (17.3)
Child	71 (36)
Parents	29 (14.7)
Other	62 (31.6)
Marital status	
Single	29 (13.5)
Married	153 (71.2)
Divorced	2 (0.9)
Widow	31 (14.4)
Education level	
Uneducated	50 (23.7)
High school	40 (19)
Diploma	39 (18.6)
Higher education	81 (38.6)
Monthly income (Rial)	
Less than 5 million	47 (22.7)
5000000-10000000	83 (40.1)
10000000-20000000	55 (26.6)
More than 20 million	22 (10.7)
Number of family members[a]	4.73±2.1

[a]Quantitative data are reported as mean and standard deviation.

Table 2. Sociodemographic Information of Patients Admitted to the Intensive Care Units

Parameters	No. (%)
ICU length of stay[a] (days)	11.02 ± 12.46
Hospital length of stay (h)	
<48	69 (53.9)
48-72	59 (46.1)
Experience of admission to ward	
Yes	116 (58.3)
No	80 (41.7)
Glasgow Coma Scale (GCS)[a]	8.47 ± 3.6
Kind of disease	
Multiple trauma	18 9.2)
Respiratory and cardiac problems	73 (37.2)
Metabolic disorders (diabetes, poisoning)	36 (18.4)
Brain problems (cerebrovascular accident)	69 (35.2)

[a]Quantitative data are reported as mean and standard deviation.

admission (Table 4). Furthermore, the needs of illiterate families were significantly 9.273 times lower than those of families with higher education level ($P<0.018$). Results of the current study indicated a positive significant relationship between all the factors ($P<0.001$). The highest correlation coefficient was between support and comfort factors (r= 0.747) and the lowest correlation coefficient was between support and assurance (r=0.188).

Discussion

The necessity of identifying and meeting the mental and social needs of families of critically ill patients and the ones admitted to ICUs is increasingly considered as an inevitable priority for ICU nurses. Results of the present study showed that support was the main need of families, followed by information, proximity, assurance, and comfort. According to the study by Bandari et al, support and comfort were the most and the least important needs of patients' families,[11] which were consistent with those of Lee et al.[16] The study of Al-Mutair et al showed that the most important needs of families of patients were assurance, information, and cultural and spiritual needs, respectively, while support and proximity were the least important ones.[17] Contrary to our results, the results of studies by Obringer et al[18] and Hashim & Hussin[19] showed that assurance was the main need of families, and in the study by Bailey et al, information factor was introduced as the main need among the families.[2] In another study by Sarhadi et al, assurance and information factors had the highest priority among other factors.[14] Omari reported that assurance factor constituted the needs with the highest priority, followed by information factor.[13] Results of the current study indicated that families of the patients admitted to ICUs mostly needed support, which confirm the necessity of increasing the supportive systems to support the patients admitted to ICUs and their families. It is worth to note that according to the findings of the current study, comfort factor was the lowest need among families. The reason possibly is that comfort facilities for patients' companions are provided in the hospitals, or due to the emotional atmosphere ruling over the Iranian families, they think less about their own comfort while one of the family members is under critical conditions, and so they usually think about the comfort and recovery of their beloved ones.

It seems that in the first days of admission to ICUs, the families need information about the health status of their patients and their comfort, and related needs are of little importance.[20] More interpersonal contact with medical staff can help meet the information needs of patients' families. Nurses may aid in families' adjustment, by fostering a sense of optimism about family members and encouraging them to participate in the patients' care.[21] Results of a study by Naderi et al[21] also indicated that the lowest need of families was comfort, which was consistent with the results of the current study; but the highest need was the information, which was inconsistent with the results of the studies by Naderi et al[22] and Bahrami et al.[23]

The difference in the results may probably is due to the differences between the communities and the areas under study. In this regard, and in line with the findings of the

Table 3. Critical Care Family Needs Inventory (CCFNI) Scores

Factors	Mean ± Standard Deviation
Proximity	23.60±5.17
Assurance	21.53±2.52
Information	30.90±3.91
Comfort	17.86±3.77
Support	37.82±8.94
Total	132.32±18.46

Table 4. Linear Regression Analysis of Factors Associated With Family Needs of Critical Care Units

Parameter	B	SE	95% CI			*P* value
			Lower	Upper	Wald	
ICU length of stay (day)	-0.428	0.0909	-0.606	-0.250	22.139	0.000
Education level						
Uneducated	-9.273	3.9308	-16.978	-1.569	5.566	0.018
High school	-3.859	4.0833	-11.862	4.144	0.893	0.345
Diploma	3.108	4.0952	-4.918	11.135	0.576	0.448
Higher education	Reference					

current study, Seyedamini[24] evaluated the concerns and needs of mothers while their children were hospitalized, and also provided supports by nurses and the lowest needs of the families; the findings of his study showed that the needs of the ill child and the needs of other family members had the highest and the lowest importance, respectively. Moreover, the study of Abedi et al[25] aimed at understanding and interpreting the needs experienced by the companions of the elderly patients; their results were similar to those of the current study, since comfort was the lowest need of patients' families. The results of the study by Shorofi et al[20] were consistent with those of the current study on the lowest need of families of hospitalized patients.

The study of Karlsson et al[26] aimed at describing the satisfaction of families of patients admitted to ICUs in Sweden. Accordingly, families showed high satisfaction in all need factors; comfort and information were the first needs of families. The difference between the results of their study and those of the current study can be justified by cultural differences, different priorities and facilities between Iran and Sweden.

Results of the present study indicated a certain relationship between demographic data of family members and their needs; for example, by increasing the length of stay in hospital, needs of families reduced. Probably the reason is that during the first days of admission to ICUs, other family members experienced a critical period, which increased their needs; but over time, the families gradually accepted the situation and tried to adapt with. During the first days of admission, the families are unfamiliar with the hospital, wards, patients' status, and so on, which cause stress and more needs in the family. The other reason can be the stability of patient's health status or the acceptance of the status by the families.

The results of the current study showed that the level of needs in the illiterate families was significantly lower than that of the families with higher level of education; possibly because families with lower education level are not well aware of their legal rights and have lower expectations, compared with the families with higher level of education who attempt to achieve information and adapt with the new conditions. However, according to the findings of Divdar, no significant difference was observed between the scores of socio-mental needs and demographic variables.[27] From the limitations of the current study, critical conditions of companions and lack of cooperation in some cases can be noted; such limitations prolonged the sampling procedure. Although some of the family members, appreciation to the attention paid to the issue, asked for changes in the supportive structure of medical centers.

Conclusion

Considering that the highest need was in the area of support and then information, proximity, assurance, and comfort, and that the predictors of the needs of patients' families were the duration of hospitalization and the educational status of their families, the main focus of nurses should be on the support of family members of patients admitted to the ICU. Nurses as the key members of treatment teams should help the companions in the transition of the crisis through proper dealing and communication and providing support and paying attention to the needs of patients` families, who experience stressful conditions. They can satisfy them and even encourage them to give better care to the patient and help health care staff. Besides the health care system needs to provide suitable conditions for the families by creating essential facilities and prosperity. And doctors, as much as possible, may reduce the length of stay in ICU, considering the limitation of visits to patients by family members, to speed up recovery and patient health.

Ethical Approval

The Ethics Committee of the Qazvin University of Medical Sciences approved the study (code No. IR.QUMS.REC.1394.65).

Conflict of Interest Disclosures

None.

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