

Information and support needs of adult family members of patients in intensive care units: an Iranian perspective

Abstract

Nurses are required to be knowledgeable about the needs of family members of patients hospitalized in the intensive care unit. The identification of the importance and priority of family members needs enable nurses to provide appropriate information and support for family members. The aim of this study was to describe the needs of family members of patients hospitalized in the intensive care unit. A descriptive cross-sectional study using survey methods was conducted. Family members of patients hospitalised for **24-72 hours** in the intensive care units of 27 public and teaching hospitals in an urban area of Iran were chosen using the **random sampling method**. The 45-item Persian version of the Critical Care Family Need Inventory (CCFNI) was used to collect numerical data. Four hundred and fifty family members participated. Mean score for each of the 45 items ranged from 2.45-3.72. Ten items were rated by responders as very important with 93.13 % of the sample rating 'Giving an honest answer to questions' as having the highest level of importance. 'To have the pastor visit' was reported to be the least important need. Age, family relations, marital status, and level of education related to the importance level of some of the perceived needs. It is concluded that the most important needs were comprised of five items relating to the "assurance dimension" while the least important ones were related to the "support dimension". The incorporation of the needs of family members into the nursing education programme is suggested. The findings will help with the preparation of nurses as future healthcare policy makers to plan for meeting these needs and also reduce the psychological burden on family members of patients hospitalised in the intensive care unit.

Key words: critical care, critical care family need inventory, family needs, nurses

Introduction

A main responsibility of health care teams in intensive care units (ICU) is to acknowledge the needs of patients' families (Chatzaki et al. 2012). In particular, there is recognition of the importance of ICU nurses' engaging with patients' families (Chien et al. 2005; Takman and Severinsson, 2005). ICU nurses have close, prolonged engagement with patients and their families and are ideally placed to acknowledge patients' families' needs (Kinard et al. 2009). Patients are admitted to ICU with life threatening conditions and with little warning. This gives patients' families little time to prepare emotionally that may lead to acute distress and emotional disturbances in family members. Added to this, is the likelihood that family members will understand the crucial nature of ICU admittance. The mortality rate in patients in the ICU is between 12 and 17% (Al-Hassan and Hweidi, 2004; Horn and Tesh, 2000; Leske, 1986; Obringer et al. 2012; Pochard et al. 2000). In such demanding circumstances, the family members of patients need to benefit from physical and emotional support given by nurses working in the ICU (El-Masri and Fox-Wasylyshyn, 2007; Leung et al. 2000; Verhaeghe et al. 2005). **For instance, one of the main duties of nurses is to provide clear and appropriate information and compassionate care to family members enabling them to make informed decisions about their relatives who are unable to speak for themselves** (Azoulay et al. 2001).

Families constantly adapt themselves to the situation and their greatest need is the need for support (Astedt-Kurki et al. 1999; Curtis et al. 2012; Delva et al. 2002; Johansson et al. 2002; Lee and Lau, 2003; Mendonca and Warren, 1998; Verhaeghe et al. 2010). Support is considered to be an important activity in nursing and may include practical, emotional, informational and instrumental support for both patients and their families. Patients' families may require information and education support, emotional support, participation in decision-making, and being provided with appropriate amenities and facilities (Astedt-Kurki et al. 1997; Astedt-Kurki et al. 1999).

There is a need to consider the shortcomings and deficiencies in caring for patients' family members and to pay special attention to this issue in nursing education and practice (Mass et al. 2001; Cheung and Hocking, 2005). It is essential to support family members and provide physical comfort for them and pay attention to their basic as well as psycho-social needs (Christensen & Kockrow, 2006).

Background

Earlier work by Molter (1979) generated a list of 45 needs of family members of patients in the ICU. Subsequently, Leske (1986) developed the family needs inventory for critical care units, CCFNI. The CCFNI consists of 45 multiple choice (four-point) items and includes five dimensions labelled as support (15 items), comfort (6 items), information (8 items), proximity (9 items), and assurance (7 items) (Kinard et al. 2009). The CCFNI scale has both face and content validity and its psychometric properties have been studied and confirmed with a high internal consistency of 0.92 (Leske, 1991). The CCFNI has been used in different contexts and cultures to study the perceived needs of family members (Kleinpell and Powers, 1992; Wong, 1995; Mendonca and Warren, 1998; Lee et al. 2000; Lee and Lau, 2003; Omari, 2009; Chatzaki et al. 2012; Obringer et al. 2012; Noor Siah et al. 2012). A summary of the studies have been presented in Table 1.

The CCFNI has been used in different countries and translated into French, Belgian, and Chinese. All these versions have been confirmed to be valid with Cronbach's alpha scores ranging from 0.62 to 0.92 (Bijttebier et al. 2000; Chien et al. 2005; Coutu-Wakulczyk and Chartier, 1990).

Study aim

In Iran, nursing care is complemented by strong family support embedded in cultural values. Cultural religious doctrines advocate for close family relationships in addition to committed social ties within the wider community. Iranian traditions such as visiting relatives, neighbours, friends and respecting each other are emphasised and practiced in times of illness or death. Dependence on family members has always been considered to be a value within the cultural patterns of the Iranian society. Family support is expected at times of illness and reflects values which show that Iranian families are fully involved in each other's misfortunes.

Moreover, Iranian nurses' education prepares them to deal with critically ill patients' physiologic rather than their psychological and social needs. The education of intensive care unit mostly is related to complementary courses are presented in the fourth year of the program. In the post-graduate education, the Master of Science in Nursing in the field of Adult Intensive Care Nursing aims to prepare nurses to help with meeting patients and their families' needs.

It is known that the needs of family members may vary according to their perception of the situation, level of support and also their cultural backgrounds. **In this respect, dependence on**

family has always been considered to be a value within the cultural patterns of Iranian society; it and has been recognised by those travelling to Iran. Pollock who worked as a physician at the Qajar court noted that Iranian values are deeply rooted in the family with members fully involved in support, honour and shame of any of his/her relations. An Iranian proudly says 'I have kin and clan' (Pollock 1989, p. 160). Thus, in order to meet family members' needs appropriately, it is essential to identify and understand the importance and priority of needs within particular sociocultural contexts.

However, there is little information about the support needs of patients' families in ICUs in Iran. So as to address this deficit and inform both nursing education and practice, this study aimed to describe the needs of family members of patients hospitalized in the intensive care unit using the Persian version of the CCFNI (Bandari et al. 2013a). The information gained will also contribute at a wider level to nurses' knowledge about caring for patients' families' in ICUs over the world.

Methods

Study design

This was a descriptive cross-sectional survey study. The study was conducted from January to July 2012 with the aim of determining the most important and least important needs of family members of patients hospitalised in the ICU in an urban area of Iran.

Sample

The sample size was based on a general rule of instrument development and psychometric validation. Therefore, the sample size was the result of the number of items of the data gathering questionnaire (45 items) multiplied by 10, which was estimated to be 450 family members of ICU patients (Knapp and Brown, 1995; Sapanas and Zeller, 2002; Shojima and Toyoda, 2002). The sample was recruited from 27 public teaching hospitals with ICUs in Tehran, Iran. The hospitals were randomly selected for inclusion in this study using a two stage stratified cluster random sampling method. First, all hospitals in areas of Tehran (north, south, east, west and centre of the city) were stratified according to the areas. Then of each stratum between three and seven hospitals randomly were selected for data collection. Each selected hospital was viewed as a a cluster. Data was gathered from eligible participants of each cluster during 2-4 days to reach a predetermined sample size using the afore mentioned random sampling method. The patients hospitalised in each ICU were selected randomly and their family members were invited for participation. Using hospital admission data, one family member of each patient who was present on a certain day in each hospital were

selected. Daily admission lists were used to identify eligible persons. All patients for participation in the study were enrolled on a day to day basis. The enrolment process was continued until the desired sample size was obtained. To achieve the research objectives, the main inclusion criterion for the selection of participants were:

- family member of a patient hospitalised for 24-72 hours in ICU. This could be a spouse, parents, or children;
- being an adult (18 years of age or over);
- being able to read and write in Persian;
- willingness to participate in the study.

The exclusion criteria were physical disabilities such as deafness, blindness, motor disabilities, and caring for another member of the family affected by physical or mental illness in the hospital or at home.

Ethical considerations

The study proposal was approved by the research council affiliated to Shahed University. The study was approved by the Committee of Graduate Education and the Research Ethics (Decree number: 1389/1). The questionnaire was translated with the written permission of Mrs. Leskeh, the original developer of the scale. The research was conducted at selected hospitals after making application to the relevant authorities and obtaining authorized written permissions. The aim and the study method were described to all participants. Participants were assured that their responses would remain confidential and anonymous, and if willing they would be notified about the results of research. They also were ensured that withdrawal from the study process would not have any impact on their patient's care and treatment plan. Those who willingly agreed to participate in the study signed the informed consent form.

Data collection

Permission was gained for access to the patients' families and the data were collected from five public teaching hospitals in an urban area of Iran, equipped with ICUs, and randomly selected from 27 hospitals. The first author attended the selected hospitals based on a predetermined schedule arranged with patients families though ICU clinicians. The data were collected in a hospital waiting room. The average time required to complete the questionnaire was approximately 15 minutes for each participant.

The questionnaire: The CCFNI

A self-administered anonymous questionnaire was used for data collection. The first part of the questionnaire was developed by the researchers to gain demographic data (Table 2) of patients and their family members. The second part of the questionnaire was the Persian version of the CCFNI (Bandari et al. 2013b). The validity and reliability of the CCFNI had been confirmed in a previous study with a Cronbach Alpha 0.89 (Bandari et al. 2013a). As with the original version (Leske, 1991), the Persian version of this questionnaire contained 45 items ranked according to a 4 –item Likert scale: (1) not important, (2) a little important, (3) important, and (4) very important.

The CCFNI comprised of five sub-scales or dimensions: the "support dimension" with 15 items referred to family needs for support systems, such as "To have directions as to what to do at the bedside" and "To talk about negative feelings such as guilt and anger" while they witnessed the illness of their loved one; The "comfort dimension" with 6 items assessed the personal comfort needs of the family members and referred to access to waiting room, phone, restroom, and good food. These comfort items referred to family needs for comfort so as to moderate grief and hopelessness. The "information dimension" contained 8 items and assessed the family needs for gaining authentic information about caring for the patient and contacting hospital staff. The "proximity dimension" had 9 items which included continuous visits, getting regular information, having phone calls to be informed about patient's condition and being transferred to nursing wards. These items engaged with the families need to have personal contact with clinicians and emotional and physical proximity to their ill relatives. The "assurance dimension" with 7 items was related to trust, confidentiality and hope. It related to the family need for a trusting, honest relationship with clinicians and faith in the health care system

Data analysis

The data was analysed via SPSS software (Chicago, Illinois, version 11 for Windows) using descriptive and inferential statistics. The significance level for all tests was set at $p = 0.05$ and 95% confidence limits for mean scores. To illustrate to what extent families' needs were met, the average score for each item (from 1 to 4) and its score in term of percentage were calculated and reported. Higher numbers and percentages showed the higher levels of the importance of needs perceived by family members of patients. **Descriptive and inferential statistics using Kruskal-Wallis H test, and Mann- Whitney U test were applied for data analysis.**

Results

Demographic characteristics

A total number of 450 family members of patients hospitalised in the 27 ICUs participated in this study. The mean (\pm SD) age of the participants was 41.10 (\pm 9.52), and 241 patients (53.6%) were in the age group 41 to 60 years (Table 2). The sample comprised of n=251,(55.8%) female participants. Concerning their relationship to the patient, n = (42.4) of the sample were the children of the hospitalized patients. Moreover, out of 450 patients' family members in the ICU, 250 people (55.6%) had relatives who had been admitted to the ICU for less than 24 hours. Of the sample, 80.7% of the family members were married and most (62.2%) had an academic degree.

The mean age of patients in the ICU was 50.66 (\pm 20.79) and 164 patients (36.4%) were in the age group of less than 40 years; 54.2% of them were male and 64.5% were admitted to the ICU for surgery. Further information about the demographic characteristics of the participants is provided in Table 2.

Demographic characteristics and needs

No significant relationship was found between most of the items of perceived needs and the demographic characteristics. However, 12 items showed significant differences in relation to demographic characteristics. Table 3, illustrates significant differences between patients in the three age groups and five items. These items were: 'To talk to the doctor every day' (P=0.04), 'To have a specific person to call at the hospital when unable to visit' (P=0.02), 'To have visiting hours changed for special conditions' (P=0.01), 'To know exactly what is being done for the patient' (P=0.04), and 'To feel that hospital personnel care about patient' (P=0.02).

Significant associations were reported between the participant's relationship to the patient and two items in the assurance scale: 'To have question answered honestly' (P=0.04), and 'To have directions as to what to do at the bedside' (P=0.00) (Table 3).

Educational level of patients' family members and three items were significantly related as shown in Table 3: 'To talk to the same nurse every day' (P=0.04), 'To be told about transfer plans while they are being made' (P=0.01) and 'To receive information about the patient at least once a day' (P=0.04).

Finally, marital status and two items were shown to have statistically significant relationships: 'To have a telephone near the waiting room' ($P=0.01$), and 'To have explanations given which are understandable' ($P= 0.04$) (Table 3).

CCFNI Scores

Table 4 shows the mean scores and confidence interval of 45 items by gender as a total score. The mean score for all family members ranged from 2.45 to 3.72, indicating intermediate to high levels of importance, with the item "To have questions answered honestly" having the highest mean score (3.72) for 93.13 % of participants.

Table 5 shows, the most important needs comprised of five items from the Assurance dimension including: "To have questions answered honestly" but also "To be assured the best possible care is being given to patient", "To feel there is hope", "To have explanations given that are understandable", "To know specific facts concerning patient's progress". Among the least important needs, most of items were from the support dimension including: 'To have the pastor', 'To be told about chaplain services', 'To be encouraged to cry', 'To be alone at any time', 'To have another person with you when visiting critical care unit', 'To have a place to be alone while in the hospital', 'To talk about the possibility of the patient's death', 'To be told about someone to help with family problems', 'To have someone to help with financial problems'.

Gender

There were no significant difference between male and female responses at the $P < 0.05$ level. However, Tables 6 and 7 show the most and the least important needs perceived by male and female family members. The most important need for male family members (93.13%) were related to the assurance dimension: "To be assured the best possible care is being given to patient". The least important need perceived by males was related to "financial support" (78.83%).

Table 7 lists the most and the least important needs perceived by female family members. The female family members reported that "honest answers to questions" were the most important need (93.13%). The least important item (78.69%) referred to the item of having comfortable conditions in the waiting room related to the support dimension.

Discussion

This is the first study to investigate family members' support needs using the CCFNI in Iran. A substantial amount of data was collected from 450 patients' family members. Despite the

data being collected in busy ICU waiting rooms and obvious anxiety, patients' families were keen to impart their views. The discussion begins by comparing the results with previous studies followed by discussing the implications of these results.

In the present study, the item "To have questions answered honestly" was shown to be the most important perceived need. This item has also been ranked as one of the ten most important needs in a variety of countries (Chatzaki et al. 2012; Lee and Lau, 2003; Leske, 1986; Molter, 1979; Norris and Grove, 1986; Obringer et al. 2012; Omari, 2009). These results suggest that honesty from clinicians has undeniable importance for the Iranian family members, but is also important across cultures. The agreement of our result with previous studies shows that this item is less affected by socio-cultural differences and is a commonly held need. In the above mentioned studies, the following needs were also found to be among the top 10 primary needs: "To know the expected outcome"; "To be called at home about changes in the condition"; and "To know specific facts concerning patient's progress". According to these studies, many of the needs ranked as the 10 least important needs were related to the dimensions of support and comfort (Kleinpell and Powers, 1992; Mendonca and Warren, 1998; Wong, 1995). However, according to the result of our study, 5 items out of 10 were important needs related to the assurance dimension. Additionally, four most important needs are belonged to assurance dimension including "To have questions answered honestly", "To be assured the best possible care is being given to patient", "To feel there is hope", and "To have explanations given that are understandable". These items must be paid more attention by nurses.

Of particular note is the strong similarity between the results of our study and those of Lee and Lau's (2003) study conducted with a Chinese population in Hong Kong. Five out of the top 10 needs items were the same as our results, including "To have questions answered honestly", "To be assured the best possible care is being given to patient", "To have explanations given that are understandable", "To know specific facts concerning patient's progress", "To know how patient is being treated medically". These commonalities indicate that regardless of culture understandable explanations and regular progress reports are required by families.

In our study, significant differences were found in relation to demographic characteristics. Leung et al. (2000) compared the needs of family members of patients hospitalised in the ICU in Hong-Kong with nurses' perceptions of need. The study included a sample of 37 Chinese families and 45 nurses who filled in a self-administered CCFNI questionnaire. There

were significant differences in the perceived needs between family members on the basis of gender, experiences of admission to the ICU, religious backgrounds, and patients' features. The results indicated that for the patient's family members "being ensured about patient's condition" and "timely access to information" were the most important and essential needs that must be met by ICU nurses. Similarly, a Brazilian study investigating the needs of family members in public hospitals were identified using the CCFNI. This study involved 47 family members of critically ill patients. "Being ensured" and "Receiving information" were their most important needs (Lucchese et al. 2008). These results can be compared with our study which showed that the participants wanted to be reassured and receive honest information about their relative. Also, Omari (2009) used the Arabic version of the CCFNI with 139 family members in Jordan. It was found that "ensuring families that the best care services were provided to their patients" was among their strongest need. Seven of ten needs reported in Omari's study are similar to the needs recognised by our study participants including 'To have questions answered honestly', 'To be assured the best possible care is being given to patient', 'To feel there is hope', 'To have explanations given that are understandable', 'To know exactly what is being done for patient', 'To know how patient is being treated medically', 'To know specific facts concerning patient's progress'. The similar religion may explain this finding partly. Probably religious similarities between Jordan and Iran, has led to such similarities.

The present study also supports the findings of an American based study which investigated the needs of 111 family members of patients admitted to the ICU in neurology wards with the CCFNI English version. Again, the need of "to know about patient's condition" was stated to be the most important need. In this study, families reported that they preferred to communicate with nurses rather than physicians (Prachar et al. 2010). A similar Norwegian study found that the young family members of patients in ICU expressed the need for comfort, information, proximity and assurance as their most important needs. The need for comfort was emphasized by more women than men, and those with lower education levels expressed the need for support and comfort as the most important needs (Hoghaug et al. 2012). In our study, there was no significant relationship between gender and family members' needs, but there were associations between age group and education and needs. These results may be compared with those of a Malaysian study where the CCFNI was used to identify the needs of 200 family members of patients in ICU. The results also showed no difference in needs based on gender; however, there were differences in need for assurance

and for information based on age and educational level (Noor Siah et al. 2003). Similarities are also found between the present study and Chantzaki et al.'s study (2012). This was undertaken in Greece, with five out of top 14 needs in common with our study, including “To have questions answered honestly”, “To have explanations given that are understandable”, “to be assured the best possible care is being given to patient”, “To feel there is hope” and “To know exactly what is being done for patient”.

The most important need perceived by Iranian families that is “To have questions answered honestly” was in the first, second, and fourth rank in the Chantzaki et al., Lee and Lau, and Omari studies, respectively. This finding is also in agreement with Obringer et al.'s findings that the need of “to have questions answered honestly” is the most important need for American adult family members (Obringer et al. 2012).

Nevertheless, our results are dissimilar to the findings of a study conducted by Lee et al. (2000) in Hong Kong. In Lee and colleagues' study, the honesty item is not among the top 10 needs, while five other items were identical, including “To feel there is hope”. “To be assured the best possible care is being given to patient”, “To have explanations given that are understandable”, “To know specific facts concerning patient's progress” and “To know how patient is being treated medically”. Such differences between our results and aforesaid studies may be related to some extent by cultural and religious differences.

Compared to Lee and Lau's study (2003), which had a great deal of similarity to the results of our study, the need of “To feel there is hope” was among the top 10 needs of Iranian families, which is concordant with research in Greece, China and Jordan (Chantzaki et al. 2012; Lee et al. 2000; Omari, 2009). However, it was not among the list of needs reported by Lee and Lau (2003). Moreover, the need of “To talk to the doctor every day” was ranked 10th in the Lee's study, while in our study it was ranked 14th (Lee and Lau, 2003). In our study, most family members were willing “To have directions as to what to do at the bedside” and also it was of particular importance to them “To know exactly what is being done for patient”, whereas in the Lee study, these two items were not mentioned in the list of top 10 needs.

The need of “To be assured the best possible care is being given to patient” was the second important need of Iranian families; in many similar studies this item has also been reported as an important need (Chantzaki et al. 2012; Lee et al. 2000; Lee and Lau, 2003, Obringer et al. 2012; Omari, 2009).

Comparing the least and most important needs perceived by male and female Iranian family members in our study, they are similar on seven and nine items, respectively. It is notable that

in the list of the most important needs perceived by male family members, contrary to the needs perceived by female family members, the three items of “To have visiting hours changed for special conditions”, “To be told about transfer plans while they are being made”, and “To have the waiting room near the patient” which all refer to the proximity dimension are ranked among the most important items, whereas for women, unlike men, the three items of “to know how patient is being treated medically”, “To receive information about patient once a day”, and “To feel that hospital personnel care about patient” are considered to be among the top 10 important needs

In our study, the need “to feel that hospital personnel care about patient” is of great importance to female relatives. This finding is consistent with that of the Lee and Lau's study (2003). In our study the need “To have the waiting room near the patient” was among the most important needs, while it had been considered one of the least important needs in the Lee and Lau's study (2003).

Concerning the 10 least important needs, this study was very similar to the findings of the Lee and Lau's study (2003). Among the list of the least important needs found in our study, eight items are listed in the same order as they are in the Lee et al.'s study (2000). What were they however, of the least important needs found in the Lee and Lau's study (2003), only six items are the same including: “To be assured the best possible care is being given to patient”, “To know how patient is being treated medically”, “To know specific facts concerning patient's progress”, “To have explanations given that are understandable”, “To know the expected outcome”, and “To be called at home about changes in the condition”.

In comparison with the findings of the Obringer et al.'s study (2012), our study has five items in common with that study “To be told about someone to help with family problems”, “To be told about chaplain services”, “To be alone at any time”, “To be encouraged to cry”, and “To have the pastor visit”.

In our study, the need “To have another person with you when visiting critical care unit” is ranked as one of the least important needs, while it is classified in the list of the most important needs in the Lee and Lau's study (2003). Also, the need of “To have comfortable furniture in the waiting room” was identified as one of the least important needs by female family members, which is in agreement with the findings of the Lee and Lau's study.

In our study, of the top 10 important needs, five items were related to the assurance dimension. Similarly, the assurance and proximity dimensions have been previously identified as more important dimensions than other dimensions. Similar studies have shown

that reassurance is an important need that is beyond cultural differences and should be of major concern to ICU nurses (Chatzaki et al. 2012; Lee et al. 2000; Lee and Lau, 2003; Noor Siah et al. 2012; Obringer et al. 2012; Omari, 2009).

Some of the important needs in our study were related to the support dimension. The items that are identified in this dimension are related to hospital facilities. Considering the great deal of similarity between our results and the results of previous studies (Chatzaki et al. 2012; Lee et al. 2000; Lee and Lau, 2003; Noor Siah et al. 2012; Obringer et al. 2012; Omari, 2009), it can be concluded that there is not much difference between our country and other countries regarding these items. Studies have shown that waiting rooms with comfortable furniture must be provided near the patient's room, since it is extremely important to have a supportive environment for family members (Brickhill, 1995; Pardavila Belio and Vivar, 2012; Halm et al. 1993; Pryzby, 2005; Raffensberger, 1988; Ramsey et al. 2000). Sleep deprivation and fatigue are common problems, which may lead to physical illness, violent behaviour, and faulty decisions. Lesek (1986) emphasizes that being close to patient helps family members to cope with the bad conditions of their patients.

Based on a traditional view, managers and nurses believe that visiting patients leads to delay in providing care and disturbs the order of services delivered to patients (Hopping et al. 1992). However, many studies have shown that visiting patients can help to improve the patient's condition and reduces his/her stress (Messner, 1996). The results of our study showed that although Iranian families had not expected to visit their patients freely the need of "To have visiting hours changed for special conditions" was proposed as an important need for male family members.

There were no significant differences between males' and females' mean scores, while in the Chatzaki et al.'s study males and females held different views regarding the needs of "To visit at any time" and "to be told about chaplain services". In the Lee's study, men and women were different on four needs. Based on the results of our study, the need of "To have visiting hours changed for special conditions" was more important for people aged 41 to 60 years than any other age group.

The needs "To have specific person to call at the hospital", "To know exactly what is being done for patient", and "To feel that hospital personnel care about patient" were more important for those aged less than 40 years than other age groups. The need of "To talk to the doctor every day" was very important for people aged more than 60 years. Compared to the Chatzaki et al.'s study, those of our participants between 35 to 59 years stressed the need "To

help with the patient's physical care” as an important need. This is an important point and should be discussed in relation to culture.

In Lee and Lau's study (2003), the need of “To know the expected outcome” was known as an important need for the age group 18 to 38 years old. To have some form of control in this situation appears to be universal and expressed in different ways according to age and culture.

Based on the results of this study, the needs “To have questions answered honestly” and “To have directions as to what to do at the bedside” were of great importance to the children of patients. The needs of “To talk to the same nurse every day” and “To receive information about patient once a day” were more important for people with an academic degree than those who were less educated. On the contrary, the need “To be told about transfer plans, while they are being made” was more important for those without an academic education. In the Chatzakieta's study (2012), educational status had led to differences in four items and the need “To be told about chaplain services” was of particular importance to the group with academic education. In our study, the need “To have a telephone near the waiting room” was very important to single persons, while the need “To have explanations given that are understandable” was reported by married people as an important need.

Conclusions

The need “To receive honest answers”, was reported as the most important need by Iranian family members and supports previous studies. Participants' age, family relations, marital status, and level of education were related to support, assurance, comfort, proximity and information dimensions. The study highlights a requirement for incorporating the care of family members of ICU patients into the nursing curriculum. As future healthcare policy makers, student nurses will need to learn about how to plan for meeting these needs. Moreover, increased support of families is recommended through follow-up of patients and their family member after discharge. Enhanced recognition of the needs of the family members of patients hospitalized in the intensive care unit can improve the quality of care and support offered by nurses. **This study is through a snap shot approach and hasn't been able to identify changing needs over time. Therefore, future studies with the consideration of both changing needs over time and cultural- contextual aspects of family members of patients hospitalized in the ICU are suggested.**

Key points for policy, practice and/or research

- A main responsibility of health care teams in intensive care units (ICU) is to acknowledge the needs of patients' families;
- It is essential to identify and understand the importance and priority of the needs within particular sociocultural contexts;
- Enhanced recognition of the needs of the family members of patients hospitalized in the intensive care unit can improve the quality of care and support offered by nurses;
- Honesty from clinicians has undeniable importance for the family members of patients hospitalised in the ICU;
- There is a requirement for incorporating the care of family members of ICU patients into the nursing curriculum.

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Table 1: A review of studies

Author name	Country(year)	Population of interest	Most important need(dimension)
Chatzaki et al.	Greece(2012)	ICU	To have questions answered honestly(A)
NoorSiah et al.	Malaysia(2012)	ICU	To have questions answered honestly (A)
Obringer et al.	Midwest, USA (2012)	ICU	To have questions answered honestly (A)
Omari and et al.	Jordan(2009)	ICU	To be assured that the best care possible is being given to the patient(A)

Kinard and et al.	Australia(2009)	ICU	To know the expected outcome(A)
Lucchese et al	Brazil (2008)	ICU	Knowing what the patient's chances of improvement are(A)
Lee et al.	Chin(2003)	ICU	To know the expected outcome(A)
Leung et al.	Chin(2000)	ICU	To have questions answered honestly (A)

Table 2: Demographics characteristics of the samples

Demographics/characteristics		Count (%)
Family Members		
Gender	Male	199(44.2)
	Female	251(55.8)
Age group (year)	≤40	207(46.0)
	41-60	241(53.6)
	>60	2(0.4)
Relationship	Wife/Husband	124(27.6)
	Daughter/Son	191(42.4)
	Daughter/Son-in-law	13(2.9)
	Mother/Father	72(16.0)
	Sister/Brother	50(11.1)
Education level	Diploma or lower	170(37.8)
	Higher than diploma	280(62.2)
Marital status	Married	363(80.7)

Patient		Single	78(19.3)
	Gender	Male	244(54.2)
		Female	206(45.8)
	Age group (year)	≤40	164(36.4)
		41-60	124(27.6)
		61-80	125(27.8)
		>80	37(8.2)
	Main cause of admission	Surgical interventions	290(64.5)
		Non-surgical	160(35.5)
	Duration of stay in ICU	Up to 24 hours	250(55.6)
48 to 72 hours		200(44.4)	
Experience of visiting the ICU	Yes	177(39.1)	
	No	274(60.9)	

ICU, Intensive Care Unit

Table 3: Significant differences between mean scores of need items and demographic characteristics

	Nee: Mean			Test	p	
	Age group					
	<40	41-60	>60			
To have visiting hours changed for special conditions	3.61	3.70	3.00	Kruskal-Wallis H test	0.01	
To talk to the doctor every day	3.54	3.44	4.00		0.04	
To know exactly what is being done for the patient	3.73	3.66	3.00		0.04	
To have a specific person to call at the hospital when unable to visit	3.04	2.85	3.00		0.02	
To feel that hospital personnel care about patient	3.72	3.59	3.50		0.02	
	Relationship					
	Wife /Husband	Daughter /Son	Daughter /Son-in-law	Mother /Father	Sister /Brother	Kruskal-Wallis H test
To have question answered	3.39	3.87	3.28	3.34	3.38	9.91 0.04

honestly							
To have directions as to what to do at the bedside	3.16	3.87	3.20	3.39	3.14	15.12	0.004
	Education level						
	Diploma or lower	Higher diploma				Mann-Whitney U test	
To receive information about the patient at least once a day	3.03	3.17				2.02	0.04
To talk to the same nurse every day	3.38	3.48				2.08	0.04
To be told about transfer plans while they are being made	3.71	3.61				2.46	0.01
	Marital status						
	Married	Single				Mann-Whitney U test	
To have a telephone near the waiting room	3.25	3.48				2.44	0.01
To have explanations given which are understandable	3.71	3.60				2.09	0.04

Table 4: Mean scores of the 45 need items in total and separately by family members' gender

Need item (dimension)	Mean score of importance (95% CI*)		
	Males (n=199)	Females (n=251)	Total (n=450)
1(A) To have questions answered honestly	3.71(3.65,3.78)	3.72(3.67,3.78)	3.72(3.68,3.76)
2(A) To be assured the best possible care is being given to patient	3.72(3.66,3.79)	3.69(3.63,3.75)	3.70(3.66,3.75)
3(A) To feel there is hope	3.69(3.62,3.75)	3.70(3.64,3.76)	3.69(3.65,3.74)
4(A) To have explanations given that are understandable	3.66(3.59,3.72)	3.72(3.66,3.77)	3.69(3.65,3.73)
5(P) To have the waiting room near the patient	3.70(3.63,3.76)	3.65(3.59,3.71)	3.67(3.63,3.72)
6(I) To know exactly what is being done for patient	3.64(3.58,3.71)	3.69(3.62,3.74)	3.67(3.62,3.71)
7(S) To have directions as to	3.65(3.58,3.72)	3.67(3.61,3.73)	3.66(3.62,3.71)

	what to do at the bedside			
8(C)	To have visiting hours changed for special conditions	3.68(3.62,3.75)	3.64(3.58,3.70)	3.66(3.62,3.70)
9(I)	To know how patient is being treated medically	3.61(3.54,3.69)	3.70(3.64,3.75)	3.66(3.61,3.71)
10(A)	To know specific facts concerning patient's progress	3.64(3.57,3.71)	3.68(3.61,3.74)	3.66(3.61,3.71)
11(A)	To feel that hospital personnel care about patient	3.63(3.56,3.70)	3.67(3.61,3.73)	3.65(3.61,3.70)
12(P)	To be told about transfer plans while they are being made	3.65(3.58,3.72)	3.65(3.59,3.71)	3.65(3.61,3.70)
13(P)	To receive information about patient once a day	3.62(3.55,3.69)	3.67(3.61,3.73)	3.65(3.60,3.69)
14(I)	To talk to the doctor every day	3.61(3.54,3.68)	3.66(3.60,3.72)	3.64(3.59,3.68)
15(P)	To be called at home about changes in the condition	3.63(3.56,3.70)	3.63(3.57,3.69)	3.63(3.59,3.68)
16(I)	To help with the patient's physical care	3.59(3.52,3.66)	3.63(3.57,3.69)	3.61(3.57,3.66)
17(I)	To have specific person to call at the hospital	3.56(3.49,3.63)	3.56(3.50,3.62)	3.56(3.51,3.60)
18(S)	To talk to the same nurse every day	3.56(3.49,3.64)	3.56(3.49,3.62)	3.56(3.51,3.60)
19(I)	To know why things were done for a patient	3.49(3.42,3.56)	3.58(3.52,3.64)	3.54(3.50,3.59)
20(A)	To know the expected outcome	3.55(3.48,3.62)	3.54(3.48,3.60)	3.54(3.50,3.59)
21(P)	To see the patient frequently	3.51(3.44,3.58)	3.54(3.48,3.60)	3.52(3.48,3.57)
22(S)	To talk about negative feelings such as guilt and anger	3.47(3.40,3.54)	3.54(3.47,3.60)	3.51(3.46,3.55)
23(P)	To visit at any time	3.47(3.40,3.54)	3.51(3.44,3.57)	3.49(3.44,3.53)
24(P)	To have visiting hours start on time	3.42(3.35,3.49)	3.48,(3.42,3.54)	3.45(3.41,3.50)
25(I)	To know about the types of staff members taking care	3.41(3.34,3.48)	3.48(3.41,3.54)	3.45(3.40,3.50)
26(C)	To feel accepted by the hospital staff	3.40(3.32,3.47)	3.46(3.40,3.52)	3.43(3.38,3.48)
27(C)	To have a bathroom near the waiting room	3.33(3.26,3.39)	3.38(3.32,3.44)	3.35(3.31,3.40)
28(S)	To have explanations of the	3.32(3.24,3.40)	3.36(3.29,3.43)	3.34(3.29,3.40)

	environment before going into ICU			
29(C)	To be assured it is all right to leave the hospital for a while	3.28(3.22,3.34)	3.31(3.26,3.38)	3.30(3.26,3.34)
30(S)	To know which staff members could give what information	3.28(3.21,3.34)	3.32(3.26,3.38)	3.30(3.26,3.43)
31(C)	To have a telephone near the waiting room	3.30(3.19,3.40)	3.29(3.20,3.39)	3.29(3.22,3.36)
32(S)	To have friends nearby for support	3.19(3.10,3.29)	3.25(3.16,3.34)	3.23(3.16,3.29)
33(S)	To have someone be concerned with the relative's health	3.22(3.12,3.31)	3.23(3.14,3.31)	3.22(3.16,3.28)
34(S)	To be told about other people that could help with problems	3.19(3.09,3.30)	3.17(3.08,3.26)	3.18(3.11,3.25)
35(C)	To have comfortable furniture in the waiting room	3.22(3.11,3.32)	3.15(3.04,3.25)	3.18(3.10,3.25)
36(S)	To have someone to help with financial problems	3.13(3.01,3.24)	3.17(3.07,3.27)	3.15(3.07,3.23)
37(C)	To have good food available while in the hospital	3.09(2.99,3.19)	3.14(3.05,3.24)	3.12(3.05,3.19)
38(S)	To be told about someone to help with family problems	3.08(2.98,3.18)	3.10(3.00,3.19)	3.09(3.02,3.16)
39(S)	To talk about the possibility of the patient's death	2.95(2.84,3.06)	3.07(2.97,3.16)	3.02(2.95,3.09)
40(S)	To have a place to be alone while in the hospital	2.94(2.83,3.05)	3.03(2.94,3.13)	2.99(2.92,3.07)
41(S)	To have another person with you when visiting critical care unit	2.90(2.80,3.00)	2.98(2.89,3.07)	2.95(2.88,3.01)
42(S)	To be alone at any time	2.74(2.63,2.86)	2.75(2.65,2.85)	2.75(2.67,2.82)
43(S)	To be encouraged to cry	2.55(2.45,2.65)	2.69(2.59,2.79)	2.63(2.56,2.70)
44(S)	To be told about chaplain services	2.42(2.33,2.52)	2.49(2.39,2.58)	2.46(2.39,2.52)
45(S)	To have the pastor visit	2.44(2.33,2.54)	2.46(2.36,2.55)	2.45(2.38,2.52)

*Confidence Interval, S=Support, A=Assurance, P=Proximity, C=Comfort, I=Information

Table 5: Top 10 needs that were reported to be the most important and the least important

Need item	Mean score (%)
Top 10 most important needs	
To have questions answered honestly	3.72(93.13)
To be assured the best possible care is being given to patient	3.70(92.61)
To feel there is hope	3.70(92.39)
To have explanations given that are understandable	3.70(92.28)
To have the waiting room near the patient	3.69(91.83)
To know exactly what is being done for patient	3.67(91.67)
To have directions as to what to do at the bedside	3.67(91.56)
To know specific facts concerning patient's progress	3.66(91.56)
To know how patient is being treated medically	3.66(91.50)
To have visiting hours changed for special conditions	3.66(91.50)

Top 10 least important needs

To have the pastor visit	2.45(61.22)
To be told about chaplain services	2.46(61.44)
To be encouraged to cry	2.63(65.78)
To be alone at any time	2.75(68.67)
To have another person with you when visiting critical care unit	2.95(73.67)
To have a place to be alone while in the hospital	3.00(74.89)
To talk about the possibility of the patient's death	3.02(75.44)
To be told about someone to help with family problems	3.09(77.28)
To have good food available while in the hospital	3.12(78.00)
To have someone to help with financial problems	3.15(78.83)

Table 6: Top 10 needs reported to be the most and least important from male family members' perspectives

Need item	Mean score (Importance percentage)
Top 10 the most important needs	
To be assured the best possible care is being given to patient	3.72(93.09)
To have questions answered honestly	3.71(92.84)
To have the waiting room near the patient	3.70(92.46)
To feel there is hope	3.69(92.21)
To have visiting hours changed for special conditions	3.68(92.08)
To have explanations given that are understandable	3.66(91.46)
To be told about transfer plans while they are being made	3.65(91.33)
To have directions as to what to do at the bedside	3.65(91.21)
To know exactly what is being done for patient	3.64(91.08)
To know specific facts concerning patient's progress	3.64(91.08)
Top 10 least important needs	

To be told about chaplain services	2.42(60.55)
To have the pastor visit	2.44(60.93)
To be encouraged to cry	2.55(63.82)
To be alone at any time	2.74(68.60)
To have another person with you when visiting critical care unit	2.90(72.61)
To have a place to be alone while in the hospital	2.94(73.62)
To talk about the possibility of the patient's death	2.99(73.87)
To be told about someone to help with family problems	3.08(77.01)
To have good food available while in the hospital	3.09(77.26)
To have someone to help with financial problems	3.13(78.27)

Table 7: Top 10 most and least important needs from female family members' perspectives

Need item	Mean score (Importance percentage)
Top 10 most important needs	
1. To have questions answered honestly	3.72(93.13)
2. To have explanations given that are understandable	3.17(92.93)
3. To feel there is hope	3.70(92.53)
4. To know how patient is being treated medically	3.70(92.43)
5. To be assured the best possible care is being given to patient	3.69(92.23)
6. To know exactly what is being done for patient	3.68(92.13)
7. To know specific facts concerning patient's progress	3.68(91.93)
8. To have directions as to what to do at the bedside	3.67(91.83)
9. To receive information about patient once a day	3.67(91.73)
10. To feel that hospital personnel care about patient	3.67(91.73)
Top 10 least important needs	
1. To have the pastor visit	2.46(61.45)
2. To be told about chaplain services	2.87(62.15)
3. To be encouraged to cry	2.69(67.33)
4. To be alone at any time	2.75(68.73)
5. To have another person with you when visiting critical care unit	2.98(74.50)
6. To have a place to be alone while in the hospital	3.04(75.90)
7. To talk about the possibility of the patient's death	3.07(76.69)

8. To be told about someone to help with family problems	3.10(77.49)
9. To have good food available while in the hospital	3.14(78.59)
10. To have comfortable furniture in the waiting room	3.15(78.69)
