Association Between Family Needs Perception and Satisfaction in Relation to Used ICU Visiting Policy

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Abstract: Background: Families of critically ill patients experience emotional turmoil due to fear, disrupted lives, future worries, and the stressful ICU environment. They crave clear information, reassurance, open communication, and close proximity to their loved ones. Traditional, rigid ICU visitation, often based on outdated concerns, can hinder care, stress patients, and exhaust families. **Purpose**: To explore the association between family needs perception and satisfaction in relation to used ICU visiting policy. **Design**: A correlation descriptive research design was utilized. **Sampling**: A convenience sample of 100 caregiver family members were selected. **Setting**: This study was conducted at the intensive care units of Beni-Suef University Hospital. **Instruments**: Two instruments of data collection were used. Assessment of critically ill patients' family needs using CCFNI, and family satisfaction questionnaire were involved **Results**: A strong negative correlation between total family satisfaction score and critical care family needs for support (p=0.002), assurance (p=0.001), proximality (p=0.001), and information (p<0.001). While a moderate negative was found, the need for comfort (p=0.05). The total CCFNI score had a strong negative correlation with family satisfaction score (p=0.002). **Conclusion**: More than half of studied family caregivers had poor family satisfaction. Also, the proximality need was the higher importance need ranked followed by information, assurance, support, and finally comfort need. General characteristics of family may play a subordinate role. **Recommendations:** Visiting policy may affect the level of critical care family satisfaction. A further study on the effect of using interdisciplinary family meetings with patients and health care providers.

Keywords: Family needs perception, Family satisfaction, ICU visiting policy.

Introduction

Families of critically ill patients experienced post-intensive care syndrome (PICS-F). This experience came after having one of family member admitted in intensive care units (ICUs) with critical illness. This critical illness negative perceived on patients and family members.(Kang, 2023) Families frequently believe that nurses are responsible of educating families, outlining ICU protocols, and promoting family involvement.(Asharani, 2019) Furthermore, a recent study revealed a discrepancy between the needs that family members who visit critically ill patients perceive as satisfied or unmet and the requirements that the patients themselves have stated. Unmet requirements have the potential to negatively impact family members' health and result in the development of PICS-F.(Haave R et al., 2021) Family members also experience different psychological issues and may increase by fear of losing their loved ones, distraction of family members, and fear from future, and patient present in highly stressful ICU environments equipped with high technology. (Scott et al., 2019)

It is challenging for medical professionals to care for the relatives of ICU patients. Families, who frequently overestimate the patient's severity, experience fear and grief due to the high-tech ICU atmosphere and the potential of death or separation. (Alsharari, 2019) Several studies (Kosinski et al., 2020; van Beusekom et al., 2016; Wendlandt et al., 2021) reported that one quartile of families experienced depression, and more than half of them experienced anxiety, and posttraumatic stress disease. In addition to, most of them experienced fatigue and sleep disorders.(Choi et al., 2018) The recovery of the patient in intensive care is significantly influenced by family satisfaction. That's why it's important to evaluate the level of their satisfaction (Ballut et al., 2022).

Several factors may increase risk for post-intensive care syndrome in families such as care giver gender, age, severity of patients illness, and present of social support.(Beesley et al., 2018; Charmaz & Thornberg, 2021) Besides, performing caregiving and decision maker roles, family members may face a several challenge such as increase financial demand with increase need for medical services, changing work shift to be compatible with visiting hours, and increase excuse from work. (Stayt & Venes, 2019). Several interventions such as open visiting policy were recommended to positively proactive engagement of relatives in care providing for patients (Putowski et al., 2023). This intervention aims to meet family needs, improving family satisfaction and their psychological well-being. Giving information to families about patient's conditions, reassurance, communication, and being closer to patients are important needs for patients and their families. (Abdul Halain et al., 2022)

A critically ill patient's admission to the intensive care unit (ICU) is considered a crisis not just for the patient but also for the patient's family. Families of ICU patients seek to be closer to their loved ones who

separated from them in a highly stressful environment. It is considered to be the most important and basic need for families of ICU patients. There is no universal visiting policy used, it is dependent on institution policy. A traditional strict visiting policy is one of the underlying visitations, result in interfere with the delivery of care, cause the patient to experience excessive physiological stress, and family exhaustion. (Dragoi et al., 2022) Another visiting policy is implied by allowing families are permitted to visit patients whenever they like, with no restrictions on visiting times, according to an open visiting policy. Open visiting policy has a dual benefit for patients and their family members. Decrease delirium frequency and duration for patients as well as anxiety and depression for their families. (Ning & Cope, 2020)

Family members' desires are significant because of their support of the patients as well as their own needs. (Haave R et al., 2021) The shift in culture toward patient- and family-centered care has prompted an exploration on the advantages of having family members present in the intensive care unit.(Dragoi et al., 2022) Flexible ICU visitation hours may be stressful for health professionals staff, but decrease psychological stress for patients and their family, increase family satisfaction and patient wellbeing. (Dragoi et al., 2022) Family presence in ICU have positive effect on improve patient satisfaction as well as decrease patients anxiety, stress, and incidence of delirium. (Rosa et al., 2017) Critical care nurses have essential role in assessing needs for

patients and their family which considered to be first step in holistic care. (Khatri Chhetri & Thulung, 2018) In order to improve overall ICU quality and make sure that the treatment given satisfies the requirements of both the patient and the family, family satisfaction with the care the patient got during an ICU stay can be a valuable source of information. Family satisfaction is crucial for assessing the caliber of medical care as it tells us whether or not medical staff have successfully taken into account the beliefs and expectations of the patient.(Haave R et al., 2021) A study was conducted by Eltaybani & Ahmed, (2021) in Egyptian ICUs, it was found that family reported dissatisfaction toward feeling comfort. Also, being able to communicate with patients increases family satisfaction. While financial issues, availability of medical supplies, and deterioration of patient's condition were negatively associated with family satisfaction.

Significance of the study:

Because the intensive care unit (ICU) is a challenging situation for both patients and their families, family members of patients who are admitted there often experience psychological crises, stress, and sadness. Moreover, the strain resulting from a family member's sickness might influence how family members manage the situation, perhaps impeding the patient's ability to receive the specialized care they require.(Cameron et al., 2016) Family needs require early attention to decrease psychological distress. It is highly valuable to explore the relationship between family needs

perception and satisfaction with ICU visiting policies in order to improve patient-centered care, resolve ethical issues, guide policy decisions, support family well-being, and maybe even improve patient outcomes. By making a significant contribution to this field of inquiry, our work opens the door to better ICU experiences for patients and their families. Therefore, the aim of this study is to explore the association between family needs perception and satisfaction in relation to used ICU visiting policy.

Purpose:

To explore the association between family needs perception and satisfaction in relation to used ICU visiting policy.

Research questions:

1) What is the level of perception of patient's family needs?

2) What is level of satisfaction of patient's family in relation to the used ICU visiting policy?

3) What is association between family needs perception and satisfaction in relation to used ICU visiting policy?

Method

Study design:

A correlation descriptive research design was utilized.

Research settings:

This study was conducted at the intensive care units of Beni-Suef University Hospital. The total bed capacity was 7 beds divided into seven ICU departments such as cardiac, neurological, cardiothoracic, and chest. They received patients who were diagnosed with life threatening

conditions such as acute respiratory failure and required intensive supportive care such as mechanical ventilator. The visiting policy in the selected setting is restricted. Family visits their patients twice per day (Afternoon from 12pm -12.30pm, and evening from 6 -6.30 pm).

Sampling:

A convenience sample of caregiver family members was included in the study. About 100 family members were included after calculating sample size from total number of patients admitted to previous ICUs. An electronic soft program used to calculate the sample size. Total sample size was 100, total number of patients was 134 admitted within three previous months, margin of error was 5%, and confidence level was 95%. Family members who refused to participate in this study were excluded from the study.

$$x = Z(c/_{100})^2 r(100-r)$$

$$n = {}^{N\,x}/_{((N-1)E^2 + x)}$$

$$E = Sqrt[{}^{(N - n)x}/_{n(N-1)}]$$

Instruments:

Two Instruments of data collection were used in this study after reviewing the related literature (Critical Care

Connections Inc, 2019; Delva et al., 2002; Schleyer & Curtis, 2013).

<u>**Instruments one**</u>: **Critically ill patients' family needs.**

It contained three parts.

- Part one: Characteristics of patients: and family members; Patients age, previous hospitalization and In addition, family member demographic data included family member age, marital status, which one involved in patient care, level of education, degree closer to patient, and number of visits.

- Part two: level of consciousness using Glascow coma scale which developed by Teasdale & Jennett (1974), Scoring system: 13-15 indicated consciousness, 14-9 indicated semiconscious patient, 8-3 indicated unconscious patient were assessed using part one of tool one.

- Part three: It was used to assess critically ill patients' family needs using critical Care Family Needs Inventory questionnaire (CCFNI). It was developed by Molter (Molter & JS, 1995) .The 45 needs statements total, The 45 CCFNI requirements statements were divided into five subscales: 6 needs statements for assess comfort, 14 needs statements for assess support,9 needs statements for assess information, 6 needs statements for assess comfort, closeness, and proximity in addition 7 needs statements for assess assurance. The 45 CCFNI requirements statements were divided into five subscales: 6 needs statements for assess comfort, 14 needs statements for assess support,9 needs statements for

assess information, 6 needs statements for assess comfort, closeness, and proximity in addition 7 needs statements for assess assurance.

Scoring system:

a Likert value was assigned between 1 and 4 indicating how important they were. 1 denotes not important, 2 somewhat important, 3 important, and 4 extremely important A score of 45 was the lowest, while 180 was the maximum.

<u>**Instrument two**</u> **used to measure family satisfaction using FS-ICU 24 questionnaire.**

This original scale developed by Heyland & Tranmer (2001). This tool consists of two parts. Fourteen questions involved in Part I, "Satisfaction with Care," and sixteen questions included in Part II, "Family Satisfaction with Decision-Making Around Care of Critically Ill Patients." Each question will be answer in form of Likert scale graded 1 to 5. Grade 1 indicated very dissatisfied and grade 5 indicated completely Satisfied (Critical Care Connections Inc, 2019). The total score was computed, and classified into (0-24) represents poor, (25-49) represents fair, (50-74) represents good, (75-94) represents very good, and >95 represents excellent. (Haave R et al., 2021)

Validity and Reliability:

CCFNI Part two, an instrument one has good psychometric properties, validity and reliability was measured using Cronbach's alpha coefficient was 0.90.

(Khatri Chhetri & Thulung, 2018). In addition, instrument two ,FS-ICU 24 has been high reliability with Cronbach's alpha was 0.90 (Dale & Frivold, 2018).

Pilot Study:

In the pilot research, ten family members (10% of the sample) were included to assess the usefulness of the instruments. The necessary modifications were made.

Procedure:

The dean of Beni-Suef University's nursing department sent a letter to the hospital director explaining the objectives and methods of data collection. The Beni-Suef University Faculty of Medicine Ethical Committee granted ethical approval. After the study's purpose was explained, administrative permission was granted to carry out the investigation. After obtaining Data collection starts from March to November 2023. The Arabic version of the questionnaire was translated, and professional back translation was completed. The researcher invites family members to complete the questionnaire.

Ethical considerations:

Ethical approval from the Faculty of medicine ethical committee of Beni-Suef University was obtained (approval code 2142020). Written informed consent was obtain from family members to participate in the study. The researcher informed the family members about their right to refuse to participate or withdrawal from the study, Data privacy, autonomy, and secrecy were guaranteed.

Statistical analysis:

Using SPSS v26, statistical analysis was performed (IBM Inc., Chicago, IL, USA). To assess if the data distribution was normally distributed, the Shapiro-Wilks test was employed. The mean and standard deviation were used to display quantitative parametric data (SD). The interquartile range and median were used to display quantitative non-parametric data (IQR). When applicable, the Chi-square or Fisher's exact tests were used to examine the frequency and percentage (%) of the qualitative variables. The Pearson moment correlation equation for linear relations of properly distributed variables was used to conduct correlations between different variables. A statistically significant result was defined as a two-tailed P value less than 0.05.

Result:

Table 1:- illustrates general characteristics of the studied family. The mean value of patients age ($\pm$ SD) was 48.06 ($\pm$15.3) years and about 29% of them were aged from 31-40 years. Family age had a mean value ($\pm$ SD) of 41.2 ($\pm$ 10.35) years, and 39% of families aged from 31-40 years. Regarding marital status, 64 % of family caregivers were married, 6 % of them were divorced. Regarding level of education, 58 % of family caregivers were educated and 42% of them were not educated. Regarding a patient's level of consciousness, about 60 % of patients were unconscious. Nearly 62 % of the studied patients had

previous hospitalization. Relationship to patient was first degree in 90 % patients and second degree in 10 % patients.

Table 2:- show Frequency distribution of the studied family in relation to family satisfaction score. The median (IQR) of satisfaction with care was 3.11(3.36 - 3.64). Satisfaction with decision-making was with a median (IQR) of 2.99(3.23 - 3.69). The total score was with a median (IQR) of 3.12 (3.36 - 3.56). About more than half 53 % had poor family satisfaction and less than one quarter experienced fair family satisfaction.

Table 3:- illustrates the relationship between CCFNI score and general characteristics of the studied family. The total CCFNI score was with a mean value (± SD) of 106.16 (±37.51). The mean value (± SD) for CCFNI subscale was support was 3 (±0.18), followed by comfort was 3.2 (±0.35), assurance was 3.51 (±0.22), information was 3.6 (±0.25), and proximality was 3.9 (±0.28). There was a statistically significance relation between CCFNI subscales as following support (P= 0.035), assurance (P= 0.024), proximality (P= 0.030), information (P= 0.021) and comfort (P= 0.036) and patient age group. There was a statistically significance relation between CCFNI subscales assurance (P= 0.001) and information (p=0.017) with marital status. Family who had previous hospitalization history had a statistically significance relation with CCFNI subscales (information p=0.003) than who didn't. Non-educated family caregivers had higher need for assurance and information with significance

difference (p=0.031, <0.001 respectively). Frist degree family caregivers had expressed more need with a statistically significant than second degree for proximality to their patients (p= 0.029) and need more information about patient's condition (p=0.021). Also, family whose patients are unconsciousness expressed more needed for being closer to their patients with statistically significance difference (p=0.003)

Table 4 presented the relationship between family satisfaction and their general characteristics. It was found that there was a statistical significance difference between general characteristics and family satisfaction mean score. Younger family caregivers had lower family Satisfaction mean score than older family caregivers with statistically significant (p=0.005). Also, younger family caregivers had lower family satisfaction with decision-making mean score than older family caregivers with statistically significant (p=0.029). In addition, married family caregivers had higher family satisfaction mean score than other with statistically significant (p=0.005). Also, family caregivers with previous hospitalizations experience had higher mean score than no previous hospitalizations with statistically significant (P=0.012). Frist degree family caregivers had lower mean scores than second degree caregivers with statistically significant (p=0.001). Also, family caregivers whose patients are unconscious had lower mean family satisfaction scores than others family caregivers whose patients are conscious and semi-

conscious with statistically significant (p<0.001).

Table 5 shows correlation between CCFNI score and the studied family satisfaction. It was found that family caregivers who expressed more needs for support, assurance, proximality, information, and comfort had lower satisfaction with care (p= 0.004, 0.012, 0.001, <0.001, 0.05 respectively). Also, a negative strong statistically significance association between increase the studied family caregivers need for support, assurance and information and their satisfaction with decision-making with (p= 0.001,0.002, and <0.001 correspondingly). A strong negative correlation between total family satisfaction score and critical care family needs for support (p=0.002), assurance (p=0.001), proximality (p=0.001), and information (p<0.001). While a moderate negative was found, the need for comfort (p=0.05). the total CCFNI score had a strong negative correlation with family satisfaction score (p=0.002).

Table 1: General characteristics of the studied critically care family and their patients.

General characteristics		(n=100)
Patient age	**48.1 ± 15.3**	
	21-30 years	13 (13%)
	31-40 years	29 (29%)
	41-50 years	20 (20%)
	51-60 years	14 (14%)
	61-80 years	24 (24%)
Family age	**41.2 ± 10.35**	
	21-30 years	18 (18%)
	31-40 years	39 (39%)
	41-50 years	20 (20%)
	51-60 years	23 (23%)
Marital status	**Married**	64 (64%)
	Divorced	6 (6%)
	Single	12 (12%)
	Widow	18 (18%)
Previous hospitalization	**Yes**	62 (62%)
	No	38(38%)
Level of education	**Educated**	58 (58%)
	Not educated	42 (42%)
Relationship to patient	**First degree**	90 (90%)
	Second degree	10 (10%)
Patient level of consciousness	**Conscious (GCS 13-15)**	10 (10%)
	Semiconscious (GCS14-9)	30 (30%)
	Unconscious (GCS 8-3)	60 (60%)

Data are presented as mean±SD or frequency (%).

Table 2: Frequency distribution of the studied family according to their level of family satisfaction score.

FS-ICU 24 questionnaire		(n=100)
Family satisfaction with care		3.11(3.36 - 3.64)
Family satisfaction with decision-making		2.99(3.23 - 3.69)
Total family satisfaction score		3.12(3.36 - 3.56)
Category of family satisfaction score	Poor family satisfaction(0-24)	53 (53%)
	Fair family satisfaction(25-49)	25 (25%)
	Good family satisfaction(50-74)	15 (15%)
	Very good family satisfaction(75-94)	7 (7%)
	Excellent family satisfaction (>95-100)	0 (0%)

Table 3: Relation between CCFNI score and general characteristics of the studied family:

General characteristics		Support	Assurance	Proximity	Information	Comfort
Family perception need Subscale Score		3.2 ± 0.35	3.5 ± 0.22	3.9 ± 0.28	3.6 ± 0.25	3 ± 0.18
Ranked		4 (69.00%)	3(69.59%)	1 (86.25%)	2 (78.58%)	5(64.13%)
Total CCFNI score		106.2 ± 37.51				
Patient age	21-30 years	3.2 ± 0.11	3.8 ± 0.22	3.6 ± 0.37	3.7± 0.22	2.9 ± 0.3
	31-40 years	3.1 ± 0.16	3.7 ± 0.22	3.5 ± 0.34	3.6 ± 0.22	3.3 ± 0.34
	41-50 years	3 ± 0.19	3.1 ± 0.21	3.3 ± 0.3	3.5 ± 0.21	3.2 ± 0.31
	51-60 years	3 ± 0.2	3.5 ± 0.29	3.2 ± 0.28	3.4 ± 0.28	3.2 ± 0.33
	>60 years	2.9 ± 0.14	3.5 ± 0.25	3.3 ± 0.25	3.6 ± 0.3	3.2 ± 0.45
P value		**0.035***	**0.024***	**0.030***	**0.021***	**0.036***
Marital status	Married	2.9 ± 0.18	3.2 ± 0.2	3.2 ± 0.35	3.5 ± 0.26	3 ± 0.4
	Divorced	3 ± 0.22	3.6 ± 0.21	3.3 ± 0.25	3.7 ± 0.15	3.1 ± 0.09
	Single	3 ± 0.18	3.4 ± 0.23	3.5 ± 0.06	3.7 ± 0.17	3.2 ± 0.36
	Widow	2.9 ± 0.11	3.4 ± 0.16	3.3 ± 0.35	3.7 ± 0.26	3.3 ± 0.31
P value		**0.057***	**0.001***	0.275	**0.017***	0.142
Previous hospitalization	Yes	3 ± 0.2	3.5 ± 0.21	3.3 ± 0.3	3.5 ± 0.24	3.2 ± 0.35
	No	3 ± 0.13	3.5 ± 0.25	3.3 ± 0.24	3.6 ± 0.27	3.2 ± 0.35
P value		0.786	0.384	0.542	**0.003***	0.772
Level of education	Educated	3 ± 0.19	3.5 ± 0.23	3.2 ± 0.26	3.5 ± 0.26	3.1 ± 0.34
	Not educated	3.5 ± 0.16	3.8 ± 0.22	3.3 ± 0.3	3.8 ± 0.25	3.2 ± 0.37
P value		0.444	**0.031***	0.138	**<0.001***	0.488
Relationship to patient	First degree	3 ± 0.18	3.5 ± 0.23	3.3 ± 0.28	3.6 ± 0.25	3.2 ± 0.36
	Second degree	3 ± 0.08	3.5 ± 0.22	3.1 ± 0.17	3.4 ± 0.31	3.2 ± 0.18
P value		0.443	0.091	**0.029***	**0.021***	0.612
Patient level of consciousness	Conscious	2.9 ± 0.28	3.6 ± 0.21	3.4 ± 0.2	3.7 ± 0.16	3 ± 0.49
	Semi-conscious	3 ± 0.15	3.5 ± 0.2	3.1 ± 0.31	3.6 ± 0.23	3.2 ± 0.4
	Unconscious	3 ± 0.16	3.5 ± 0.24	3.9 ± 0.3	3.5 ± 0.27	3.2 ± 0.29
P value		0.155	0.184	**0.003***	0.211	0.203

*: significant as P value ≤0.05, Data are presented as mean ± SD. Chi-square or Fisher's exact test

Table 4: Relation between family satisfaction and their general characteristics:

General characteristics		Family	Family	Total Family

		Satisfaction with care	Satisfaction with decision-making	Satisfaction score
Family age (years)	**21-30 y**	3.4 ± 0.22	3.4 ± 0.27	3.1 ± 0.20
	31-40 y	3.6 ± 0.23	3.3 ± 0.27	3.2 ± 0.37
	41-50 y	3.4 ± 0.16	3.4 ± 0.27	3.2 ± 0.37
	51-60 y	3.5 ± 0.19	3.5 ± 0.2	3.3 ± 0.10
	>60 y	3.5 ± 0.21	3.5 ± 0.32	3.5 ± 0.22
P value		**0.124**	**0.029***	**0.005***
Marital status	**Married**	3.5 ± 0.22	3.5± 0.29	3.6 ± 0.32
	Divorced	3.2 ± 0.2	3.2 ± 0.33	3.2 ± 0.37
	Single	3.2 ± 0.18	3.2 ± 0.23	3.2 ± 0.18
	Widow	3.2 ± 0.22	3.2 ± 0.27	3.2 ± 0.22
P value		0.235	0.618	**0.005***
Previous hospitalization	**Yes**	3.3 ± 0.21	3.5 ± 0.18	3.5 ± 0.18
	No	3.5 ± 0.23	3.1 ± 0.28	3.1 ± 0.28
P value		**<0.001***	**0.002***	**0.012***
Level of education	**Educated**	3.5 ± 0.21	3.4 ± 0.27	3.4 ± 0.27
	Not educated	3.4 ± 0.22	3.1 ± 0.3	3.1 ± 0.3
P value		**0.021***	0.002*	0.001*
Relationship to patient	**First degree**	3.2 ± 0.21	3.1 ± 0.10	3.1 ± 0.20
	Second degree	3.6 ± 0.06	3.4 ± 0.29	3.4 ± 0.19
P value		**0.010***	0.003*	0.001*
Patient level of consciousness	**Conscious**	3.5 ± 0.14	3.6 ± 0.3	3.6 ± 0.3
	Semi-conscious	3.6 ± 0.19	3.4 ± 0.32	3.3 ± 0.32
	Unconscious	3.4 ± 0.19	3.4 ± 0.24	3.1 ± 0.24
P value		**<0.001***	**0.029***	**<0.001***

*: significant as P value ≤0.05. Data are presented as mean ± SD.

Table 5: Correlation between CCFNI score and satisfaction of the studied family:

Family satisfaction tool		Critical Care Family Needs Inventory (CCFNI)					
		Support	Assurance	Proximity	Information	Comfort	CCFNI total score
Family Satisfaction with care	**r**	-0.691	-0.551	-0.625	-0.912	-.890	-0.851
	P value	0.004*	0.012*	0.001*	<0.001*	0.05*	0.005*
Family Satisfaction with decision-making	**r**	0.811	-0.641	0. 97	-0.991	-.025	-0.625
	P value	0.001	0.002*	0.003*	<0.001*	.806	0.003*
Total score of family satisfaction	**r**	-0.837	-0.912	-0.924	-0.885	0.527	-0.752
	P value	0.002*	0.001*	0.001*	<0.001*	0.05*	0.002*

*: significant as p value ≤0.05. r: Pearson Correlation coefficient.

Discussion:

Family satisfaction is a critical metric for assessing the quality of medical care since it tells us whether or not medical staff has effectively taken into account the patient's values and expectations while assessing the ICU stay.(Haave R et al., 2021) Taking care of patients' and their families' needs is one of the main duties of nurses in ICUs.(Alsharari, 2019) Several hospital organizations had strictly prescribed visiting hours in intensive care units due to stressful and highly demanding nursing monitoring and caring need for critically ill patients. This may be undue physiologic stress for the patient and exhaustion for the family. (Dragoi et al., 2022) The ICUs visiting policy in the selected setting were restricted and limited to fixed time with limited numbers of visitors in each time. Family perspective to be not able to say good-bye to their loving one as stolen moments. (Kentish-Barnes et al., 2021) Therefore, the aim of the current study was to investigate association between family needs perception and satisfaction in relation to used ICU visiting policy.

Regarding family needs perception, the studied families showed high priority for and proximality and information needs following assurance, support, and comfort. This was supported by Alsharari (2019) who reported that, the investigated patients' relatives in the northern part of Saudi Arabia had higher levels of demands in the areas of assurance, proximity, and information that should be met. However, their needs in the area of comfort are lower. Büyükçoban et al (2021) reported that need for assurance and proximity followed by information

was the most important need dimension experienced by family, on the other hand support and comfort were the least important dimension. Saleh Salameh et al.(2020) reported that in Palestine family assurance domain was the most important. Family members' demands pertaining to assurance and proximity must be given top priority. Mohamed (2016) reported that the highest importance needs for the studied families were assurance and information needs followed by proximity, support, and finally comfort need. Also, Cuenca et al (2022) stated that the family members also thought that information was provided in a more favourable way. While, Eltaybani & Ahmed, (2021) reported that the studied family dissatisfied dimension of comfort. This may be due to limited resources for having comfortable waiting room in their studied setting.

Regarding family satisfaction, more than half of the studied families had poor satisfaction and less than one quartile had fair satisfaction using FS-ICU 24 questionnaire. This may be interpreted due to a strict family visiting hours and the lack of information and assurance provided by the family about their patient's condition. The current finding supported by Ponnapa Reddy et al.(2023) who reported that the overall family satisfaction mean was low due to lack of information provided by doctors, increase patients severity of illness, and experience of dying patients in this units, limited visiting hours and feeling separated from their loving one. A need for proximality and information were the most important

ranked needs reported by the studied family. On the other hands, the current finding in contrast with Haave R et al. (2021) who reported that family satisfaction was extremely good, according to the members' overall satisfaction score. But families were less satisfied with the information they received and the decision-making processes than with the nursing and care performed during the ICU stay.

In addition to, Jensen et al (2017) reported that although there was space for improvement, the majority of family members expressed moderate to high levels of satisfaction with patient care, family care, information, and decision-making. This can be interpreted due to the presence of a welcome family policy within their units. Additionally, this may be the result of variations in the development of technology, the accessibility of qualified medical personnel, and the standard of care provided to patients and their families. Along with, Naef et al (2021) reported that higher levels of family satisfaction with ICU treatment were reported by 214 family members, and these levels were correlated with lower levels of psychological distress on all three measures. Family member traits did not substantially correlate with any measure of psychological distress; however, there was a less clear correlation between anxiety and higher patient age and higher degrees of depression in partners. Higher levels of posttraumatic stress disorder and depression were linked to patient mortality. Mitchell & Aitken (2017) reported that more than one quarters of studied family experienced anxiety and depression after having a relative in ICU.

General characteristics of family care givers and patient condition may be considered on their perceptions of needs and their satisfaction. The level of family satisfaction may be affected by age and degree of closeness to their patients. In our study first degree and younger family caregivers had lower family satisfaction mean score than other who older age. Also, being married, caring for consciousness patients and previous hospitalization may increase family satisfaction. This can be due to having social support, also family caregiver feeling less tension when communicating with their conscious patients, and previous hospitalization experience may decrease their anxiety and tension as reported by Moss et al (2019). The perspective for studying critical family needs was strongly associated with those dimensions' information, proximality support and assurance in relation to their level of satisfaction. Also, comfort dimensions were moderately associated with their satisfaction level. This can interpret the reason for low family satisfaction.

Also, five critical family needs dimensions were statistically significant with general characteristics of family such as age, marital status previous hospitalization, level of education, relatives' degree, and patients' consciousness level. Younger family caregivers expressed more to be closer to their loved one, having information, followed by assurance, support, and comfort. Also, being separated or single was highly associated with more needs for

support, assurance, and information. Too, families who experience previous hospitalization need more information about their patient's condition than not previous family hospitalization. Additionally, non-education family caregivers stated more needs for information and assurance and first-degree relatives specified higher needs for closer to their loved one and information. Family whose patients were unconscious stated more need for closer to their loved one.

The current study finding supported by Alsharari, (2019) who reported that assurance, closeness, and information aspects were deemed much more essential by family members with higher education levels than by those with lower education levels. Higher educated family members may have been able to find out more about the patient's condition, diagnosis, and ICU care, as well as assurances about the different course of their relative's illness. This may have reduced family members' anxiety and made sure they stayed close to their relatives while they were receiving ICU care. Another study supported by Teshome et al.(2018) who reported that family had lower satisfaction associated with younger age, higher family education, and poor patient health status are factors that are substantially linked to lower their satisfaction. But, the discrepancy between these results and the Padilla-Fortunatti et al. (2018) who report might likely be attributed to variations in the family participants' educational backgrounds and the accessibility of healthcare services in the two ICU environments. Also, Pun et al. (2023) noticed no variations in

the aspects of family members' requirements about age, educational attainment, or relationship to the patient.

Also, the results of the current study, which Alsharari supports, (2019) that there was a substantial increase in the information dimension requirement among those who had an unconscious relative in the intensive care unit. It's probable that the increased informational demand among family members of a loved one in the intensive care unit was brought on by the fact that the patient was not responding to them. They thus wish to be informed of any updates pertaining to their relatives who are in the intensive care unit. Also. it was supported by Saleh Salameh et al (2020) reported that because of their strong attachment with their loved one, families of ICU patients often had the highest demands in terms of assurance, proximity, information, and support.

Also, Gambhir et al (2021) reported that more family access to patients was seen by patients, families, and ICU personnel as advantageous and facilitating more communication chances; this is a known and documented family demand that is often unfulfilled. According to Mitchell & Aitken ,(2017), found that more than half of ICU staff members were happy with the new visiting schedule. This may have been because of their favourable experiences and realization that family members must be close to loving one. This might mean that being hospitalized for a critical illness and spending time in an intensive care unit (ICU) causes stress and upsets the family unit. Families

that are faced with the separation of family members, uncertainty about the prognosis and recovery, strange surroundings, and a possibly overwhelming financial load go through emotional, bodily, and psychological reactions. According to recent research, family dysfunction may be reduced by using preventative measures including early intervention and professional care that is family-focused.(Schmollgruber, 2019)

The hospital administration may recommend changing the visiting policy from restricted to open visiting hours in order to better satisfy the demands of the family. According to Ning & Cope, (2020) open visiting in adult critical care units has advantages including decreased delirium frequency and duration, increased patient and family satisfaction, and decreased family member worry and sadness. One of the most fundamental and significant requirements of family members of critically ill patients is to be close. Although it increases the chance of being at the patient's bedside, adult critical care units do not always accept open visitation. Furthermore, Removing even the minor constraints on visiting hours increased nurse views of family satisfaction with the visitation policy as well as family satisfaction itself. The satisfaction of nurses did not alter. These results lend credence to transparent, patient-centered visitation policies in critical care environments. (Chapman et al., 2016)

In critical care, enhancing family-centered outcomes is a top objective. (Cuenca et al., 2022) Furthermore, according to Gambhir et al., (2021)

good communication is essential for patient satisfaction. It has been demonstrated that family gatherings work well in different contexts, such critical care. In order to enhance patient experience and happiness, they support the use of planned and organized family meetings as a communication tool for specific patients on the hospital medical service. Critical attention to family satisfaction is a complicated fabric made of clear communication, available resources, and emotional support rather than a single component.

Conclusion and recommendation:

From the current study it can conclude the family satisfaction negatively affected by increase critically ill patient's family needs that visiting policy in the selected setting effect on level of satisfaction which was poor. Also, the proximality need was the higher need ranked followed by information need, assurance need, support need, and finally comfort. General characteristics of family may play a subordinate role. Younger family and previous hospitalization caregivers are associated with lower satisfaction, while higher education and being married are associated with higher satisfaction. Increase patients' level of consciousness increases family satisfaction. A negative correlation was found between the five dimensions of critical family needs inventory and their level of satisfaction.

From this study it can be recommended changing a strict hospital visiting policy may increase level of critical care family satisfaction. An additional investigation of the impact of

interdisciplinary family meetings for patients and medical professionals. To assess the construct validity and reliability of the Arabic versions of the CCFNI and family satisfaction instruments, more research is necessary. Further research with a bigger sample size is required in order to generalize. Other research needs to identify factors that contribute to critical care family satisfaction and their needs. Along with the healthcare system, interventions should be created to evaluate and address the varied needs of family members within the critical illness continuum. Work based on traditions, culture, and expertise is required as part of additional interventions to boost family member engagement and safeguarding in an intensive care unit. No limitation of the study was found .

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