



Family satisfaction with care of intensive care unit in teaching hospital, Chitwan

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Abstract

Families are an integral part of care of the patient who is concerned for routinely informed consents and end-of-life decisions regarding patient care and treatment. Family satisfaction often serves as an important alternative to patient satisfaction. Also, family satisfaction with ICU care is becoming an accepted measure of quality of care. Therefore, the aim of this study was to assess the family satisfaction with care of Intensive Care Unit (ICU).

A descriptive, cross-sectional research design was used for the study. A total of 75 respondents were selected by using non-probability consecutive sampling technique. Modified standardized structured interview schedule were used to collect the data from the respondents. Collected data were analyzed and interpreted by using descriptive and inferential statistics.

This study revealed that 52% were unsatisfied with the care of ICUs. Overall mean score of family satisfaction was 68.71±9.35. The significant variables for the level of family satisfaction were occupation (p=0.005), cost of ICU daily fees (p=0.026), cost of drugs and materials available at hospital pharmacy (p=0.044), cost of investigations (p=0.024).

It is concluded that more than half of the families reported dissatisfaction with care of ICU. Nevertheless, there is room for improvement, in particular regarding communication, waiting surroundings, needs consideration of families, providing emotional support. Therefore, nursing as well as hospital administration needs to plan and implement various programs to enhance higher satisfaction level of families.

Keywords: family, satisfaction, intensive care unit, care

1. Introduction

Based on the legal definition, a family of hospitalized patient refers to those who are concerned for routinely informed consents and end-of-life decisions regarding patient care and treatment. In today's context, if the critically ill patient can communicate family refers to those whomever the patient defines as his or her family members and if patient is unable to communicate family refers to anyone who shares a history and a future with the patient in day to day life [1].

The healing process is an active process which requires active participation of the health care providers, patient and patient's family members. But we often find that every health care providing system primarily focuses only on the patient's welfare and interest. The families of the patient plays an essential role in any treatment process of the patient but the practical problem faced by the families of the patients are often fail to noticed by health care providing system. Many researchers have suggested that families of ICU patients have a need for accessibility, support and information. Every ICU needs to monitor the quality of care, including the satisfaction of families with respect to the care [2, 3, 4].

Along with the patient care applying family nursing intervention helps to ensure family member to stay with the critically ill patient further helping to promote family cohesion and connection. The information provided to families is a vital component for families to cope and be satisfied with the critical care settings. Providing information and supporting families of critically ill patients with a caring behaviors and interactions ultimately influence in the critical care experiences for both patient and family

[1].

An essential component of quality care is patients' satisfaction with care. In the ICU, most patients cannot make decisions for themselves therefore families often act as decision maker on the behalf of patient. Better patient outcomes can be achieved by including families in ICU care [5].

Family members are an integral part of care of the patient. The crisis of a critical illness affects both the patient and family. Assessing the level of family satisfaction with overall care of the critically ill patients allows for the identification of areas of concern and implementation of an improvement process. This information provides opportunities for health care facilities to better meet the family's expectations in making the hospitalization a positive experience for both the patient and their family [6].

The main challenge in critical care in developing countries like Nepal is the expensive cost for the treatment faced by patient and families. As most of the patient is not able to pay the ICUs expenses so their families often have to sell their assets in order to treat their loved ones. Not only selling their assets but they also end at leaving hospital against the medical advice by 5% to 13% which resulting in the dissatisfaction of the ICUs cost. Unavailability of medications, drugs and equipment are other drawbacks in developing countries, mainly because of economy. Even matters that look simplest e.g. supply of medical gases such as oxygen; clean water and electricity become major issues in developing countries. Lack of human resources is another problem not only in developing countries but also in the developed world. Nurses, physicians and other health personnel are always being recruited to work in the Critical

Care Units. However, many skilled health care personnel are drained to developed countries, which are seeking such skilled staff, and thus there is a constant scarcity of manpower. Ultimately leading to decreased satisfaction level of people regarding health care facilities [7].

Therefore, many patients are admitted at ICUs facing health crisis. But, not only patient their family member too suffers from this crisis. The family members often suffer from the ICU facilities along with patient such as expensive cost for ICU care and treatment, limited visiting hours, unavailability of drugs and equipments, ordering medicines out of doctor's prescription, health care providers' skills and competencies, hospital services eventually leads to lower the family satisfaction level. So, intensive care units health personnel, nursing administrative and hospital administrative team needs to have clear and accurate information about satisfaction of the family members regarding ICU care. Family members' perceptions regarding health center facilities are important for identifying the improvement needed for upgrading health care. It helps as a feedback for health care center for improvement in providing quality of health care, health services facilities by the health centers for family members of ICU admitted patients. Also, if a Kathmandu which is a sophisticated and facilitated valley of Nepal is lacking for the manpower and facilities for providing care up to the optimal satisfaction level of public health receiver then, what may be situation of peripheries cities of Nepal. So, these entire conditions stimulated researcher to conduct research on this topic.

2. Materials and methods

A descriptive cross sectional research design was adopted to assess family satisfaction with care of intensive care unit in teaching hospital. The study was conducted among family members of ICU admitted patients in Chitwan Medical College Teaching Hospital (CMCTH) at Bharatpur, Chitwan. The areas that were included are Medicine Intensive Care Unit (MICU), Surgical Intensive Care Unit (SICU), Cardiac Care Unit (CCU), Neurosurgery Intensive Care Unit (NSICU), Pediatric Intensive Care Unit (PICU) and Neonatal Intensive Care Unit (NICU). Those family members included in the study were, who met the following criteria: Family members above 18 years, family members whose patient has reach 24 hours of being admitted at ICU, and closet family members to the patient who can be spouse, parents, children, siblings and relatives. Non Probability, consecutive sampling technique was used to assess family satisfaction with care of intensive care unit of teaching hospitals. A total 75 respondents were recruited on the four weeks period i.e., from 8th July 2017 to 7th August 2017 for data collection with those family members of intensive care units who meets the inclusion criteria.

Modified Standardized Structured Interview Schedule was used to assess family satisfaction with care of intensive care unit. The standardized tool that was used after modification was named as Family satisfaction with care in the Intensive Care Unit (FS-ICU-34) [8]. The content validity of the research instrument was established by consulting with research advisor, subject expert and linguistic professionals. The instrument was translated into Nepali version by removing jargon and technical words for simplicity and comprehensiveness. Two stage back translation of the

research instrument was done. Pre-testing was done with 10 respondents. On the basis of the findings of pretested tool, needful modification was done in item no. 12, 16, and 17 in original research instrument.

An Ethical approval was obtained from Institutional Review Committee of Chitwan Medical College (CMC-IRC). Permission for data collection was taken from the hospital authority of Chitwan Medical College Teaching Hospital. Written consent was obtained from each respondent by clarifying the purpose of the study prior to the data collection. Respondent's dignity was maintained by giving option to discontinue from the research study at any time, without any penalty. Confidentiality of the respondent was maintained by assuring them that the information given by them will not be disclosed and will be used only for the study purpose.

Data was collected by researcher from 8th July 2017 to 7th August 2017 in morning and evening shift by using modified standardized structured interview schedule from ICUs admitted different patients' family members. The data was collected from each respondent through face to face interview method. Each interview took 30-45 minutes. The data was analyzed using the IBM SPSS 20. Descriptive statistics (frequency, percentage, mean, median, standard deviation) and inferential statistics (Chi-square test) were used for the analysis of data. The findings was presented in tables and interpreted accordingly.

3. Results

Seventy five consecutive family members of patients admitted in Intensive Care Unit in Chitwan Medical College Teaching Hospital were studied prospectively regarding family satisfaction with care of ICU. Regarding demographic characteristics of respondents out of 75 respondents, 56.0% were of age group ≤ 32 years (Median=32, IQR=Q3-Q1=41-25), 56.0% were male and majority 69.3% were Hindu by religion. Regarding general information relating with patient of the respondents, about half i.e., 49.3% were offspring of patient, 57.3% had no prior experience of ICU as a family member, majority 64.0% of the respondents live with patient at home prior admission at ICU and only 44.4% of the respondents had monthly as an average duration of visiting patient while not living with patient at home prior admission.

Regarding ICU policies related information of the respondents, majority 65.3% said cost of ICU daily fees were expensive, majority 90.7% said visiting hour facility was appropriate and majority 88.0% said visiting time has enough duration to visit. Regarding hospital facilities of ICU related information, majority 78.7% said all drugs and materials are available at hospital pharmacy, majority 70.7% said cost of drugs and materials available at hospital pharmacy were expensive, majority 70.7% said cost of investigations were expensive and majority 85.3% said report of investigations are available on time.

Regarding the respondent's satisfaction with care, the highest mean score (Table 1) was found in the statements how well the atmosphere of ICU (3.64 ± 0.995) is and how well doctors care your family member (3.64 ± 0.671) whereas lowest mean score was found in the statement how well the ICU staff shows an interest in your needs (1.51 ± 0.742).

Table 1: Respondent’s Satisfaction with Care n=75

Items	Response No. (%)					Mean ± SD
	P	F	G	VG	E	
The courtesy, respect and compassion your family member (the patient) is being given.	1(1.3)	11(14.7)	47(62.7)	12(16.0)	4(5.3)	3.09±0.756
How well the ICU staff assesses and treats your family member’s symptoms	1(1.3)	14(18.7)	46(61.3)	14(18.7)	-	2.97±0.657
How well the ICU staffs are preventing your family member from suffering from further complications	6(8.0)	10(13.3)	42(56.0)	17(22.7)	-	2.93±0.827
How well the ICU staff shows an interest in your needs	47(62.7)	19(25.3)	8(10.7)	1(1.3)	-	1.51±0.742
How well the ICU staff provides emotional support	6(8.0)	44(58.7)	20(26.7)	5(6.7)	-	2.32±0.720
How well the ICU staff meets your spiritual/religious needs	7(9.3)	44 (58.7)	19(25.3)	5(6.7)	-	2.29±0.731
The teamwork of all the ICU staff who take care of your family member	-	8(10.7)	47(62.7)	20(26.7)	-	3.16±0.594
The courtesy, respect and compassion you are being given	14(18.7)	32(42.7)	22(29.3)	6(8.0)	1(1.3)	2.31±0.915
How well the nurses care your family member	-	11(14.7)	45(60.0)	18(24.0)	1(1.3)	3.12±0.657
How often nurses communicate with you about your family member’s condition	10(13.3)	22(29.3)	37(49.3)	5(6.7)	1 (1.3)	2.53±0.859
How well doctors care your family member.	-	1(1.3)	32(42.7)	32(46.7)	7(9.3)	3.64±0.671
How often doctors communicate with you about your family member’s condition	3(4.0)	2(2.7)	23(30.7)	42(56.0)	5(6.7)	3.59±0.824
How well is the atmosphere of ICU	5(6.7)	4(5.3)	13(17.3)	44(58.7)	9(12.0)	3.64±0.995
How well is the atmosphere of ICU waiting surroundings	40(53.3)	17(22.7)	13(17.3)	5(6.7)	-	1.77±0.967

P: Poor, F: Fair, G: Good, VG: Very Good, E: Excellent; SD: Standard Deviation

Regarding the satisfaction mean scores in each item of satisfaction with decision-making around critically ill patient, the highest mean score (Table2) was found in the statement how well ICU staff informs you about what is

happening to your family member and why things are being done (3.48±0.760) and the lowest mean score was found in the statement willingness of ICU staff to answer your questions (3.00±0.854).

Table 2: Respondent’s Satisfaction with Decision-Making around care of critically ill patient n=75

Items	Response No. (%)					Mean ± SD
	P	F	G	VG	E	
Willingness of ICU staff to answer your questions	3(4.0)	17(22.7)	33(44.0)	21(28.0)	1(1.3)	3.00±0.854
How well ICU staff provides you with explanations that you understand	-	6(8.0)	42(56.0)	20(26.7)	7(9.3)	3.37±0.767
The honesty of information providing to you about your family member’s condition	-	4(5.3)	41(54.7)	23(30.7)	7(9.3)	3.44±0.740
How well ICU staff informs you about what is happening to your family member and why things are being done.	-	5(6.7)	36(48.0)	27(36.0)	7(9.3)	3.48±0.760
The consistency of information providing to you about your family member’s condition	3(4.0)	8(10.7)	38(50.7)	23(30.7)	3(4.0)	3.20±0.838
How well you feel being include in the decision making process	-	11(14.7)	35(46.7)	25(33.3)	4(5.3)	3.29±0.785
Your feeling regarding having support during decision making process	-	8(10.7)	38(50.7)	23(30.7)	6(8.0)	3.36±0.782
Your feeling regarding having control over the care of your family member	-	8(10.7)	40(53.3)	22(29.3)	5(6.7)	3.32±0.756
How well is the adequate time that you have to address and answer questions	1(1.3)	10(13.3)	32(42.7)	25(33.3)	7(9.3)	3.36±0.880

P: Poor, F: Fair, G: Good, VG: Very Good, E: Excellent; SD: Standard Deviation

Regarding overall family mean satisfaction score (Table3) was 68.71±9.359. It also shows the mean satisfaction score of two different domain i.e. satisfaction with care and

satisfaction with decision-making around care of critically ill patient were 38.88±5.240 and 29.83±5.401 respectively.

Table 3: Family Satisfaction Mean Score on Different Domains n= 75

Domain	Possible Score		Obtained Score		Mean ±SD	Mean%
	Min.	Max.	Min.	Max.		
Satisfaction with care	14	70	27	52	38.88±5.24	51.84
Satisfaction with Decision-Making around care of critically ill patient	9	45	18	45	29.83±5.40	39.77
Overall family satisfaction	23	115	47	90	68.71±9.35	91.61

Table 4: Level of Family Satisfaction with Care of Intensive Care Unit n=75

Level of Satisfaction	Frequency	Percentage	Confidence Interval (CI)	
			Lower	Upper
Satisfied (≥68.71 mean score)	36	48.0	36.7	59.3
Unsatisfied (<68.71 mean score)	39	52.0		

Table 4 reveals, only 48.0% of respondents were satisfied and 52.0% of respondents were unsatisfied with care of

intensive care unit.

Table 5: Association between the Family’s Level of Satisfaction with Care of ICU and Socio-demographic related Variables n=75

Variables	Level of Satisfaction		χ^2 value	p value
	Satisfied (%)	Unsatisfied (%)		
Age group (in years)				
≤ 32	17(40.5)	25(59.5)	2.165	0.141
> 32	19(57.6)	14(42.4)		
Sex				
Female	16(48.5)	17(51.5)	0.006	0.941
Male	20(47.6)	22(52.4)		
Educational Level				
Up to Basic Level	13(52.0)	12(48.0)	0.240	0.624
Above Basic Level	23(46.0)	27(54.0)		
Occupation				
Employed	31(58.5)	22(41.5)	7.967	0.005*
Unemployed	5(22.7)	17 (77.3)		
Prior experience of ICU as a family member				
Yes	16(50.0)	16(50.0)	0.089	0.765
No	20(46.5)	23(53.5)		
Annual Income of patient’s family (In NPR)				
≤300000	19(42.2)	26(57.8)	1.505	0.220
>300000	17(56.7)	13(43.3)		

Level of Significance 0.05 statistically significant*

Table 5 shows association between family’s level of satisfaction with care of ICU and socio-demographic variables. It reveals occupation was statistically significant with family’s level of satisfaction with care of ICU.

Table 6: Association between the Family’s Level of Satisfaction with Care of ICU and ICU policies and Hospital facilities relating to ICU related Variable sn=75

Variables	Level of Satisfaction		χ^2 value	p value
	Satisfied (%)	Unsatisfied (%)		
Cost of ICU daily fees				
Low cost	16(66.7)	8(33.3)	4.927	0.026*
High cost	20(39.2)	31(60.8)		
Cost of drugs and materials available at hospital pharmacy				
Low cost	14(66.7)	7(33.3)	4.072	0.044*
High cost	22(40.7)	32(59.3)		
Cost of investigations				
Low cost	15(68.2)	7(31.8)	5.080	0.024*
High cost	21(39.6)	32(60.4)		

Level of Significance 0.05 statistically significant*

Table 6 shows association between family’s level of satisfaction with care of ICU and ICU policies and hospital facilities relating to ICU variables. It reveals all of the variables shown in table were statistically significant with family’s level of satisfaction with care of ICU.

4. Discussion

The descriptive, cross sectional study was conducted to find out the family satisfaction with care of intensive care unit in teaching hospital, Chitwan. The present study was conducted among 75 families whose family members were hospitalized at intensive care units of Chitwan Medical College Teaching Hospital. Overall satisfaction level of the families were assessed and categorized in two levels, i.e. Satisfied and unsatisfied, which shows the acceptable discrimination. The findings of the study revealed 52.0% of the families were unsatisfied with the care of ICUs. The

finding of the study also shows the mean score satisfaction of two domains along with mean percentage, i.e. satisfaction with care was 38.88 (51.84%) and satisfaction with decision making among critically ill patient was 29.83 (39.77%). The Overall families mean satisfaction was 68.71 (91.61%).

The findings of the study are similar to the studies conducted by Clark, Milner, Beck & Mason (2016) [9] which reveals overall mean satisfaction was 72.24, and Jongerden *et al.* (2013) [10] which reveals overall mean satisfaction of 74.1. The findings of the study is contrast to the studies conducted by Schwarzkopf *et al.* (2013) [11] which shows respondents were highly satisfied and 78.3 as overall mean satisfaction score, Lam *et al.* (2015) [12] which shows 84.3 mean score for satisfaction with care and 75.9 mean score for satisfaction with decision-making among critically ill patients. The findings of the study is contradict with the studies conducted by Hwang *et al.* (2014) [13] which reveals 76.3% satisfaction with care and less than 60% satisfaction with decision-making among critically ill patients, the study conducted by Lam *et al.* (2015) [12] which shows overall mean satisfaction, satisfaction with care and satisfaction with decision-making were 78.1, 78.0 and 78.6 respectively. The possibility of high level of unsatisfaction is due to the lack of communication between families and health personnel working at ICUs, the unstructured waiting surroundings for the families at hospital, the policies of ICUs such as high cost of the ICU fees, hospital facilities such as high cost of investigations and drugs available at hospital pharmacy, the lack of interest showed towards the families of ICUs patient by the ICU staffs, the lack of emotional support provided to families by the ICU staffs during the treatment of their patient and mostly due to the courtesy, respect and compassion given to families of the ICU admitted patients by the ICU staffs.

Likewise, among the independent variables of the study, the level of family satisfaction has statistically significant association with occupation (p=0.005), cost of ICU daily fees (p=0.026), cost of drugs and materials available at hospital pharmacy (p=0.044), cost of investigations (p=0.024). These findings may be explained by high cost rate of ICU daily fees, drugs and materials in hospital pharmacy and investigations leads to unsatisfaction among people.

5. Conclusions

The study concludes that more than half of the families were unsatisfied with the care of ICU. The level of satisfaction is statistically significant with occupation, cost of ICU daily fees, cost of drugs and materials available at hospital pharmacy, cost of investigations. Therefore, the health personnel should maintain good communication with families regarding patient’s health status and also concern towards the health of the families, the hospital higher authorities should focus on the maintenance of proper waiting surroundings for families and for cost effective health services to enhance more satisfaction of families regarding ICUs care.

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