Caregivers' satisfaction with intensive care unit services in tertiary care hospital

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ABSTRACT

Background: Caregivers play a vital role in intensive care unit (ICU) because critically ill patients cannot make their own decisions due to their illness. Measuring family satisfaction on quality of ICU care is essential. Hence, the current paper aimed to measure the family caregiver satisfaction in ICU care in tertiary care hospital.

Methods: The study adopted descriptive research design conducted from July 2016 to January 2017 at ICU in Emergency and Trauma Care center. A total number of 60 consented caregivers were recruited. An Internationally validated Family satisfaction survey questionnaire (FS) was used. Continuous variables of the data were described by mean standard deviation and categorical variables by frequency (%). Normality of the continuous variables was checked by Shapiro–Wilk test. Kruskal–Wallis test was used to compare the average FS score between the groups.

Results: Results showed that caregiver age was ranged between 25 and 66 years with mean age 40 (±19). Among the caregivers, 75% were male and 25% were female of which 75% were married and remaining were unmarried. Around half of the caregivers (48.3) were educated up to primary or secondary and 26.7% had higher secondary education level. About 46.7% involved in manual laborers and 36.7% were working in the private sector. Family members had taken primary caregiving role without prior experience (81.7%) at ICU. Almost 95% of the caregivers were highly satisfied with ICU care and only 5% were not satisfied.

Conclusion: Majority of caregivers are satisfied with ICU care. However, adequate measures need to be taken to ensure the complete satisfaction among caregivers at ICU.

Key Words: Caregiver satisfaction, caregivers, intensive care unit

INTRODUCTION

Indian family system is involved in caring family members, especially in health and disease. Caregiving responsibility is inculcated in individuals from early childhood.¹ Urbanization and industrialization brought significant changes in the form of nuclear and extended family system raised and downfall in the joint family. In families, proximity is high, hence, caregiver actively involves in therapeutic interventions.² In Indian families, caregiving is left to the family members. In the present study, family members are considered as caregivers, thus used interchangeably.

Intensive care unit (ICU) is also known as critical care which involves multidisciplinary and interprofessional specialty dedicated to the comprehensive management of needy patients. The primary goal of ICU care is to prevent physiologic deterioration while the underlying disease is treated and resolved. ICU care delivered by a skilled interprofessional team that includes physicians, nurses, social workers, physiotherapist, and other paramedical.³

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Critically ill patients cannot make their own decisions due to their illness or clouding of consciousness. The patient-centeredness in the ICU includes family centeredness; therefore, caregivers play an essential role in decision-making as well as meeting the day-to-day needs of patients at ICU.

Hence, perspectives of ICU caregivers and their satisfaction on quality of ICU care imperative to improve the quality of care at ICU. Literature review describes clinicians assume that there is no need to focus on improving caregiver satisfaction with ICU care. Indian society of critical care medicine recommends family satisfaction at ICU plays a key role. Thus, the current paper aimed to measure the family caregiver satisfaction in ICU care in tertiary care hospital, in Southern India.

**METHODS**

Caregivers were contacted at ICU in Emergency and Trauma Care Center, National Institute of Mental Health and Neurosciences, Bengaluru, India, between July 2016 and January 2017. A total number of 60 caregivers were selected and recruited based on inclusion and exclusion criteria. Adult caregivers who were involved in providing care for persons with traumatic brain injury (TBI) for more than 1 week consistently in ICU, aged between 20 and 60 years and consented to participate in the study were recruited. Caregivers who were providing care for brain tumor survivors, neurological infections, and whose patients expired during ICU care were excluded from the study. A total number of 64 caregivers were contacted during the study period, of which 60 caregivers met inclusion criteria. Four caregivers did not consent due to their personal reasons, hence, excluded from the study. The data were collected on one to one basis. Caregiver’s age, gender, education, occupation, and income details were collected through Semi-Structure Interview Schedule. The patient illness characteristics were collected from hospital files including Glasgow Coma Scale (GCS). GCS measures the degree of TBI. It can be scored as mild (13–15), moderate (9–12), and severe (<8).

To measure the family satisfaction of caregivers, an internationally validated Family Satisfaction survey was adopted. The survey questionnaire covers the overall ICU experience on how the patient and the caregivers were treated, communication by ICU care team, visiting hours, and the atmosphere in the waiting room. The scale was measured from 1 to 4, that is, 1 denotes excellent/completely satisfied and 4 denotes very poor/very dissatisfied. The space was provided for suggestions and comments (optional). The scores were standardized using the formula (Standardized score = [Observed Score−Minimum Score]/[Maximum Score−Minimum Score]). The results were divided into halves using 50 as the midpoint, score <50 indicate the high satisfaction, and score >50 indicate the less satisfaction.

Continuous variables of the data were described by mean standard deviation and categorical variables by frequency (%). Normality of the continuous variables was checked by Shapiro–Wilk test. The family satisfaction score was not normally distributed. Hence, Kruskal–Wallis test was used to compare the average family satisfaction score between the groups of the variables such as age, education, and GCS score. The P < 0.05 was considered to be statistically significant. All the statistical analysis was performed using IBM SPSS version 22.0 (SPSS South Asia Pvt.Ltd, Bengaluru, Karnataka, India).

**RESULTS**

Results showed that caregiver age was ranged between 25 and 66 years. Among the caregivers, 75% were male and 25% were female of which 75% were married and remaining were unmarried. About 90% of the caregivers belong to Hindu religion and 10% were from other religion. The majority (48.3%) of the caregivers were educated up to primary and secondary and 26.7% were educated higher secondary. Nearly 46.7% of the caregivers were manual laborers and rest of them worked in the private sector. More than half (55%) of caregiver were belonged to urban and remaining (45%) were hailing from rural background. The result also showed 81.7% of them had no prior experience at ICU. Table 1 depicts the demographic details of caregivers and TBI survivors.

The results indicated that 95% of caregivers were highly satisfied and 5% reported to be unhappy with ICU care. With respect to information needs, 85% of the caregivers reported that they were satisfied and remaining were not satisfied. Table 2 depicts the caregiver’s satisfaction levels. Kruskal–Wallis test results revealed that there was no statistically significant difference in the average of family satisfaction score between the different age group of caregivers ($\chi^2 = 1.04, P = 0.791$), which means that irrespective of the age group, caregivers were satisfied with the ICU care. Similar results hold for education ($\chi^2 = 2.15, P = 0.341$) and severity of illness (GCS score) ($\chi^2 = 2.27, P = 322$). Table 3 showed the Kruskal–Wallis test results.

**DISCUSSION**

ICU environment is stressful for patients, caregivers, or family members. Indian families are considered to be strong, stable, close, resilient and enduring with focus on family integrity, family loyalty, and family unity at the expense of individuality, freedom of choice, privacy, and personal space. Family members being as caregivers do...
Table 1: Demographic details of caregivers and traumatic brain injury survivors

| Variables                        | Caregiver (%) | TBI survivors (%) |
|----------------------------------|---------------|-------------------|
| Gender                           |               |                   |
| Male                             | 75            | 76.7              |
| Female                           | 25            | 23.3              |
| Religion                         |               |                   |
| Hindu                            | 90            | 91.7              |
| Other religion                   | 10            | 8.3               |
| Education                        |               |                   |
| Illiterate                       | 11.7          | 30.0              |
| Primary and secondary education  | 48.3          | 51.7              |
| PUC                              | 26.7          | 11.7              |
| Degree or above                  | 13.3          | 6.6               |
| Marital status                   |               |                   |
| Married                          | 75            | 68.3              |
| Unmarried                        | 21.7          | 28.9              |
| Single                           | 3.3           | 3.3               |
| Occupation                       |               |                   |
| Government                       | 5             | 3.3               |
| Quasi government                 | 1.7           | 21.7              |
| Private                          | 36.7          | 61.7              |
| Manual labor                     | 46.7          | 6.7               |
| Student                          | 6.7           | 6.7               |
| Other profession                 | 3.3           |                   |
| Domicile                         |               |                   |
| Urban                            | 45            | 53.3              |
| Rural                            | 55            | 46.7              |
| Previous caregiving experience in ICU |          |                   |
| Yes                              | 18.3          |                   |
| No                               | 81.7          |                   |

TBI: Traumatic brain injury, ICU: Intensive care unit

Table 2: Caregivers satisfaction at intensive care unit care

| Variable                                 | Percentage |
|------------------------------------------|------------|
| Family satisfaction with ICU care        |            |
| <50 satisfied                             | 95         |
| >50 not satisfied                         | 5          |
| Family satisfaction with informational needs |         |
| <50 satisfied                             | 85         |
| >50 not satisfied                         | 15         |

ICU: Intensive care unit

Table 3: Kruskal-Wallis test to compare the average family satisfaction between the groups of Glasgow Come Scale score, education, and caregivers age

| Variable          | Category          | Minimum | Maximum | Median | $\chi^2$ | $P$ |
|-------------------|-------------------|---------|---------|--------|----------|-----|
| Caregiver’s age   | Above 18-30       | 25      | 66      | 39.00  | 1.04     | 0.791|
|                   | 31-40             | 26      | 55      | 39.00  |          |     |
|                   | 41-50             | 28      | 63      | 35.50  |          |     |
|                   | Above 50          | 31      | 45      | 38.00  |          |     |
| Education         | Illiterate        | 30      | 54      | 38.00  | 2.15     | 0.341|
|                   | High school       | 29      | 66      | 39.00  |          |     |
|                   | PUC and above     | 25      | 54      | 37.50  |          |     |
| GCS               | Mild              | 30      | 63      | 40.50  | 2.27     | 0.322|
|                   | Moderate          | 31      | 54      | 37.50  |          |     |
|                   | Severe            | 25      | 66      | 38.00  |          |     |

GCS: Glasgow Come Scale

In this direction, the current study holds the significance from psychiatric social work perspective.

Male caregivers were higher in number compared to female. Majority of them were educated up to secondary and working as manual labors with urban background. The demographic details are comparable with previous study.[8] Both male and female caregivers had involved in providing care at ICU without having prior caregiving experience. This finding goes in line with earlier qualitative study that caregivers had less knowledge on what is ICU, what ICU is meant for, and how illness warranted in ICU.[9]

The key findings in this study included high caregivers’ satisfaction in the domains of treatment care received in ICU, visiting policy, and up-to-date and timely information provided on the prognosis and recovery of the patient. The study findings are comparable with earlier study conducted in private hospital in South India that caregivers are satisfied with the care received in ICU for their loved one who is critical. However, minor differences are observed regarding satisfaction of visiting policy at ICU.[9] This may be because one is private and the other one is government-run hospital.

Further, the study findings revealed that there were no differences in caregiver satisfaction when compared with age, education, and severity of illness. Caregivers’ informational needs uncertainty and stress were addressed during hospitalization by psychiatric social workers as a routine therapeutic intervention being a member of multidisciplinary team. Psychiatric Social Workers psychoeducation, counseling services, supportive psychotherapy, and intensive use of social casework.[10]

Although appropriate measures are taken to improve the caregiver satisfaction and to meet the informational needs in ICU by ICU care team, yet caregivers mental health needs such as uncertainty, stress, anxiety, frustration, and burnout are unmet among ICU families. Meeting the needs of patients and caregivers are an integral part of the treating members in ICU from a holistic approach. There is a greater need to explore the mental needs and measure them appropriately among ICU families. Therefore, further research is suggested in this area.

**Limitation of the study**

The study has few limitations. The study sample was cross-sectionally recruited. Participants were from different sociodemographic background and not restricted to specific disease. Thus, generalization of the study findings is cautioned to another setting.

**CONCLUSION**

The Study findings highlighted that caregiver is satisfied with ICU care. However, mental health issues of
caregivers’ fear, anxiety, stress, frustration, and burnout, uncertainty still prevail. Therefore, mental health and psychosocial interventions are need of the hour at ICU. We recommend the qualified, trained Medical and Psychiatric Social Workers to be appointed in ICU care round the clock to address the mental health issues of caregivers and family members at ICU.

Ethical conduct of research
This study was approved by the local Ethics Board and conducted in accordance with the principles laid down in the Declaration of Helsinki.

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Conflicts of interest
There are no conflicts of interest.

REFERENCES

1. Avasthi A. Preserve and strengthen family to promote mental health. Indian J Psychiatry 2010;52:113-26.
2. Chadda RK, Deb KS. Indian family systems, collectivistic society and psychotherapy. Indian J Psychiatry 2013;55:S299-309.
3. Marshall IC, Bosco L, Adhikari NK, Connolly B, Diaz JV, Dorman T, et al. What is an Intensive Care Unit? A report of the task force of the world federation of societies of intensive and critical care medicine. J Crit Care 2017;37:270-6.
4. Wall RJ, Curtis JR, Cooke CR, Engelberg RA. Family satisfaction in the ICU: Differences between families of survivors and nonsurvivors. Chest 2007;132:1425-33.
5. Ray B, Samaddar DP, Todi SK, Ramakrishnan N, John G, Ramasubban S, et al. Quality indicators for ICU: ISCCM guidelines for ICUs in India. Indian J Crit Care Med 2009;13:173-206.
6. Schleyer AM, Curtis JR. Family satisfaction in the ICU: Why should ICU clinicians care? Intensive Care Med 2013;39:1143-5.
7. Mullatti L. Families in India: Beliefs and realities. J Comp Fam Stud 1995;26:11-25.
8. Kumar S, Christina J, Jagadish AR, Peter JV, Thomas K, Sudarsanam TD, et al. Caregiver perceptions on intensive care: A qualitative study from Southern India. Natl Med J India 2017;30:131-5.
9. Venkataraman R, Ranganathan L, Rajniwala V, Abraham BK, Rajagopal S, Ramakrishnan N, et al. Critical care: Are we customer friendly? Indian J Crit Care Med 2015;19:507-12.
10. Raju B, Lukose S, Raj P, Reddy K. Clinically providing psycho-social care for caregivers in emergency and trauma care setting: Scope for medical and psychiatric social workers. Int J Crit Illn Inj Sci 2016;6:206-10.