

Role of Psychosocial Care on ICU Trauma

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ABSTRACT

Context: Patients treated in intensive care units (ICU) though receive the best medical attention are found to suffer from trauma typically attributed to the ICU environment. Biopsychosocial approach in ICUs is found to minimize ICU trauma. **Aims:** This study investigates the role of psychosocial care on patients in ICU after coronary artery bypass graft (CABG). **Settings and Design:** The study included 250 post-operative CABG patients from five corporate hospitals. The combination of between subject and correlation design was used. **Materials and Methods:** The ICU psychosocial care scale (ICUPCS) and ICU trauma scale (ICUTS) were used to measure the psychosocial care and trauma. **Statistical Analysis:** ANOVA and simple and multiple regression were applied. **Results:** Hospitals significantly differed in psychosocial care provided in ICUs. Higher the psychosocial care in ICU, lower was the ICU trauma experienced and vice versa. Psychosocial care was a significant major predictor of ICU trauma. **Conclusions:** The study suggests emphasis on psychosocial aspects in ICU care for optimizing prognosis.

Key words: *Intensive care units (ICU), psychosocial care, trauma*

INTRODUCTION

Technological advancement and the emphasis on holistic approach to treatment and care of patients are proving to place contrasting demands on medical profession. Technological dependence in biomedical field considered a boon to the doctors in enhancing accuracy in diagnosis and treatment process inadvertently seems to have bypassed patients' psychosocial needs. A patient in ICU, turning into passive recipient of incomprehensible invasive procedures and jargon filled communication among the doctors, beeps of gadgets attached to self and neighbor patients though receives best medical care is left to suffer anxiety and trauma in isolation.

Artificial light, patient care procedures, namely collection of blood samples, measuring vital signs, administering medication, assessing output via catheter, and patient's bath happening round the clock cause disruption in circadian rhythm, contribute to the incidence of ICU delirium.^[1-3] Fear and anxiety, amnesia, hallucinations or flashbacks, depression, and nightmares are some of the repercussions of ICU.^[4,5] The memories of frightening experiences may be an intimidation to their later psychological recovery in the general ward following the ICU stay^[6,7] continue to affect them several months after discharge from hospital.^[8-10] Some of the major causes of trauma reported by patients include isolation from family,^[11-13] deprivation of information, intrusion to human dignity and privacy^[14] repulsive physical environment,^[15,16] lack of sleep,^[17] immobility,^[18,19] feelings of powerlessness, frailty and vulnerability,^[4,20-22] and inability to communicate.^[1,6,8]

A study on CABG patients revealed that the hardest aspect for them during ICU stay was isolation from family. Immobility, feeling of thirst or being choked due to tubes and depersonalized treatment not being "listened to" were common complaints.^[23]

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Psychosocial care refers to the emotional and social support aimed to protect the patient from adverse emotional reaction due to physical condition of self-vis-à-vis the intimidating environment. Psychosocial intervention refers to holistic approach that facilitates the handling of individuals going through the ordeal of diseases and helps to re-establish the normal functioning.^[24] According to Institute of Medicine,^[24] psychosocial care interventions facilitate the handling of individuals going through the ordeal of the dreadful diseases and help to re-establish the normal functioning.

The adverse psychosocial consequences of ICU could be minimized if not averted only if the care in ICU emphasizes on the holistic approach that includes psychosocial care. Social and emotional support provided by the nursing staff was found to reduce the fear and anxiety in patients.^[25] Perceived social support was found to be an effective moderator in reducing anxiety in patients who underwent invasive cardiac procedure.^[26] Research evidence suggests that intensive care that integrates psychosocial dimensions positively impacted the pace of recovery^[27] and minimized the conditions leading to relapse and re-hospitalization.^[28]

The objectives of this study were to find out if the hospitals differed in the psychosocial care practices in the ICUs and the ICU trauma experienced by the patients. The study also aimed to assess the contribution of psychosocial care in reducing ICU trauma.

MATERIALS AND METHODS

Participants

The study used multistage sampling method. The first unit of sample was the hospitals and the last unit of the sample was the patients who underwent CABG and stayed in the ICU for a minimum period of 2 days. A total of 250 patients from five corporate hospitals constituted the participants. Among 250 patients 72% were men and 28% were women. The age of the total participants varied from 40 to 75 years ($M = 55.2$). CABG patients who had a minimum stay of two days in the ICU and shifted to the ward or room, and in a condition to communicate verbally and willing to sign the informed consent was included in the study.

Instruments

ICU psychosocial care scale

The ICU psychosocial care scale (ICUPCS), a 5-point Likert scale used for the study, was a modified version of the intensive care experience rating scale. It had three dimensions, namely protection of human dignity (seven items), family patient communication channel (six items), and family patient anxiety prevention (five items). The scale yielded a maximum score of 90 and a

minimum score of 18. The internal consistency of the scale was 0.75.

ICU trauma scale

The ICU trauma scale (ICUTS) was an adapted version of Davidson Trauma Scale.^[30] The scale consisting of 15 items, each basing on a 5-point rating scale measured three dimensions of trauma, namely re-experience, emotional numbing/avoidance, and hyper arousal. The scale had scores for individual dimensions besides the total score. The internal consistency of the scale was 0.74.

Procedure

After the administrative formalities, the patients were administered the scales within 24 h of shifting out of the ICU. The two scales were administered individually suiting the time, and convenience of the patient.

RESULTS

The results attempted to find out if the hospitals significantly differed in the psychosocial care practices and trauma experienced by patients in different ICUs.

Four one-way ANOVAs for psychosocial care (overall psychosocial care and its three dimensions) and four one-way ANOVAs for ICU trauma (overall trauma and its three dimensions) were computed. Results of these ANOVAs with corresponding M and SD are presented in Table 1.

The results of ANOVAs showed significant differences between the five hospitals with regard to the psychosocial care in ICU, $F = 38.20$, $P < 0.01$, and also on all the three dimensions of psychosocial care, namely protection of human dignity, $F = 43.57$, $P < 0.01$, family patient communication channel $F = 25.61$, $P < 0.01$ and family patient anxiety prevention, $F = 4.84$, $P < 0.01$. It can be observed that patients in H1 received the highest psychosocial care ($M = 65.32$, $SD = 6.17$), compared to its counterparts admitted into H3, who received relatively the lowest psychosocial care ($M = 53.46$, $SD = 3.33$). The mean scores of H4, H5, and H2 are found to be distributed between these two hospitals in descending order.

The results revealed that the hospitals differed significantly in the overall ICU trauma and the specific dimension of trauma by the patients. The patients significantly differed in overall ICU trauma, $F = 4.57$, $P < 0.01$ and its three dimensions re-experience ($F = 4.15$, $P < 0.01$), emotional numbing and avoidance ($F = 3.76$, $P < 0.01$), and hyper arousal ($F = 4.25$, $P < 0.01$). Looking into the means of the

Table 1: Mean, standard deviation and ANOVAs of the five hospitals on psychosocial care and its dimensions

Variable	Hospitals (N = 250)					ANOVA F (4,245)
	H1 (n = 50)	H2 (n = 50)	H3 (n = 50)	H4 (n = 50)	H5 (n = 50)	
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	
Psychosocial care	65.32 (6.17)	57.62 (5.17)	53.46 (3.33)	62.50 (5.26)	62.00 (6.19)	38.20**
PHD	27.98 (2.59)	24.14 (2.72)	21.76 (2.00)	26.88 (2.60)	24.92 (3.11)	43.57**
FPCC	22.68 (3.88)	18.34 (2.84)	17.40 (2.46)	20.94 (2.95)	21.40 (3.07)	25.61**
FPAP	14.66 (2.05)	15.14 (1.68)	14.30 (1.57)	14.68 (1.52)	15.68 (1.67)	4.84**
Trauma	38.62 (6.30)	42.16 (6.12)	44.46 (6.10)	43.4 (11.23)	44.42 (9.60)	4.57**
Re-experience	12.34 (2.72)	14.0 (2.66)	14.32 (2.56)	14.90 (4.10)	14.32 (3.15)	4.15**
Emotional numbing and avoidance	16.06 (2.69)	17.0 (2.67)	18.38 (2.73)	14.84 (4.85)	18.24 (4.10)	3.76**
Hyper-arousal	10.22 (2.24)	11.08 (1.82)	11.76 (1.94)	11.10 (2.84)	11.86 (2.30)	4.25**

PHD – Protection of human dignity; FPCC – Family patient communication channel; FPAP – Family patient anxiety protection; H1-H5 – The five hospitals included in the study; ** $P < .01$

Table 2: Summary of multiple regressions analysis for variables (dimensions of psychosocial care) predicting criterion ICU trauma in CABG patients (N = 250)

Predictors	B	SEB	β
Protection of human dignity	-0.32	0.17	-0.13
Family patient communication channel	-0.48	0.15	-0.21**
Family patient anxiety prevention	-0.48	0.29	-0.10
R^2	0.12		
C	67.80		
F	11.00**		

B – Unstandardized beta coefficient; SEB – Standardized error of beta; β – Standardized beta coefficient; C – Constant, ** $P < 0.01$

hospitals on overall trauma and its dimension, it may be noted that patients of H1 have the lowest level of trauma than the patients of other hospitals. Patients of H2 and H4 fall next to patients of H1 on trauma levels.

An observation of scores on the dimensions of trauma shows that the mean score of patients of H1 on re-experience are comparatively less than the scores of patients in the other four hospitals — H2, H3, H4, and H5. The scores on emotional numbing and avoidance of patients in H3 and H5 are comparable. On the dimension of hyper-arousal again it may be observed that patients of H1 scored the lowest and of H5 scored the highest. The scores of the other hospitals fall in between these two scores. The results showed that H1 ranked first in the psychosocial care provided in the ICU while its trauma score was the lowest among the five hospitals. Similarly patients of H3 scored the lowest in psychosocial care while the trauma experienced by the patients was the highest.

The fact that the hospital that occupied the first position in psychosocial care scored the lowest on trauma and vice versa indicates that there may be a relationship between psychosocial care and trauma. In order to find out the contribution of psychosocial care in determining ICU trauma, simple regression analysis was computed.

Contribution of psychosocial care to ICU trauma

The results revealed that statistically significant (12%)

proportion of the variance in ICU trauma was explained by psychosocial care, $R^2 = 0.12$, adjusted $R^2 = 0.11$, $F = 32.80$, $P < 0.01$. The relationship between psychosocial care and ICU trauma was negative, $\beta = -0.34$, $P < 0.01$, stating that with increase in the psychosocial care, the trauma among CABG patients decreased. Since the psychosocial care was found to play a significant role in ICU trauma, a multiple linear regression using enter method was computed to measure the strength of each of the domains of psychosocial care as predictor of the criterion ICU trauma. The results are presented in Table 2.

The results revealed that the combined predictors explained 12% of the variance in trauma, $R^2 = 0.12$, adjusted $R^2 = 0.11$, $F = 11.00$, $P < 0.01$. Family patient communication channel was the only significant individual predictor, $\beta = -0.21$, $P < 0.01$; neither protection of human dignity, nor family patient anxiety prevention was significant individual predictors in the final model. This indicates that the hospitals can successfully minimize if not totally mitigate the ICU trauma of patients by keeping the communication channel active both with the patient and the family. This involves informing the patient in advance details about the planned procedures, orienting the patient time to time about the date, day and time, reassuring the patient about the availability of family members in the hospital premises, keeping the family informed about the patient's condition, details of the procedures planned, risks, prognosis.

DISCUSSION

The results clearly indicated the significant role of psychosocial care in minimizing ICU trauma. Further, the results revealed that hospitals significantly varied in the psychosocial care in ICU practices. The National Board of Accreditation (NBA) provides a set of guidelines to be followed by the hospitals. These guidelines have due emphasis on psychosocial care thus

making the health care a holistic approach. However, the fact that the hospitals significantly differed in ICU practices with respect to psychosocial care suggests that they do get NBA accreditation by strictly implementing guidelines related to medical aspects without attaching equal weightage to the psychosocial aspects.

While the hospitals are adopting the Western practices in restricting the family's presence, there is a need to assess it in the context of sociocultural milieu. Indian culture is highly affiliation oriented.^[31] Healthcare system need to identify and apply this cultural strength in hospital care and cure practices. Efforts at linking the patient with family by establishing communication link through paramedical professionals during ICU stay of the patient may go a long way in reducing the anxiety both for the patient and the family due to isolation.^[4,5,14]

There are Indian studies indicating the advantages of social support during hospital stay and invasive procedures. Social support was found to have a therapeutic value with the power of reducing anxiety and distress in patients of CABG.^[26]

More often than not the ICU staff, without investing a conscious effort, considers that they have provided the necessary psychosocial care which, the patients do not receive in fact.^[29] Psychosocial care is considered to be "provided" only when the patient endorses the receipt of it. Hence, just as the way that the staff can check an inventory with respect to essential biomedical care (such as marking the temperature, BP, etc), the ICUs must have a provision of recording in the inventory about the orienting the patient about the time, date and day, the procedure to be administered, information on his/her condition, and so on. But what must precede this practice is an intensive in-service orientation program for the ICU staff that sensitizes them on the impact of psychosocial care on convalescence, relapse, re-hospitalization, and recovery of patients. Inclusion of a health psychologist in the ICU serves multipurpose needs of the patients, doctors, and the hospitals.

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