



Factors Associated with Perceived Stressors among Critical Care Units Adult Patients: An Exploratory Study

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

The critical care unit environment has been observed as a leading stressor not only amongst the health care professionals but in patients also. Unfamiliar surroundings, dependency on others, financial problems, etc. are among factors that are responsible for the development of stress in the patients admitted to the critical care units. Stress and its factors are also responsible for the patient's deliberate recovery and depraved prognosis. In this study, we explored the association between selective factors and perceived stressors among adult patients admitted to critical care units. A quantitative, exploratory research design study was conducted, to identify the association between the perceived stressors and selected factors of adult patients admitted in Critical Care Units of the selected multispecialty hospitals at Vadodara. A total of sixty patients admitted to the critical care departments were selected through the convenience sampling technique. A demographic variables datasheet and hospitals stress rating interview scale was used after the expert's content validation to collect the data. Analysis and interpretation of data were done by using descriptive and inferential statistics.

Results: Study findings revealed that all the patients, who were interviewed through the hospital stress interview scale, expressed the perception of stressors as indicated by the total perceived stressors score of above (1%). The study also revealed that separation from family members or

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spouses and financial problems are the highly rated perceived stressors among the patients admitted to the critical care unit. Patients also reported the least perceived stressful area was the problem with medication. There was a significant association between the socioeconomic status and medical-surgical diagnosis of patients with perceived stressors.

Conclusion: Therefore, the findings of the study concluded that the study, patients admitted in the critical care department also suffer from stress due to some stressors, and it affects their prognosis and early recovery. Nursing professionals need to focus on the subjective characteristics of patients so that perceived stressors and early detection of the related complication can be prevented.

Keywords: Perceived stressors; critical care unit; adult's patients; medical; surgical.

1. INTRODUCTION AND BACKGROUND

There is an old saying to be alive is to be under stress. Stress is a noun and is a state of mental or emotional strain or tension resulting from adverse or demanding circumstances [1].

Stress is a natural physical and mental reaction to life experiences. Everyone expresses stress from time to time. Anything from everyday responsibilities like work and family to serious life events such as a new diagnosis was or the death of a loved one can trigger stress for an instant short-term situation. Stress can be beneficial to a person's health even it can help people to cope with potentially serious situations. If stress levels stay elevated for longer than it can be detrimental to human being's health. Chronic stress can cause a variety of symptoms and affects the human body [2].

Patients who enter the environment of the hospital especially in the critical care unit often find themselves attached to various medical treatment related equipment with pain and hearing the unaware sound of various pieces of mechanical equipment. Such a scenario does not illustrate the peace usually associated with the environment needed for recovery from a serious illness. The process of hospitalization is a very distressing experience for every patient. People who have to move their life settings from the familiar to the unfamiliar environment, losing their privacy and sense of security and individuality such factors can lead to a tense state in the patients [3].

Patients in the critical care unit experience multiple, acute, and often overwhelming and recurring stressors. Stating the deep and lasting negative impact of various stressors of critical care unit on patients' outcomes, it is proved that patients are most frequently stressed with fear, lack of knowledge or information about their

condition, cultural and language barriers, and a feeling of being disempowered.

Dealing with the stress in the acute health condition that has placed the individual in the critical care unit is, in and of itself, very stressful without the added burden of dealing with the stressors of the environment [4].

The peculiarity of the hospital atmosphere can act as a possible source of stress. Sophisticated instruments with blinking fairy lights are the anxiety aggravating factors for the patients. Economic worries create fear about how to pay medical bills and how long to remain off the work [5].

Stress can provide stimulation and motivation, as well as cause discomfort and the retreat. However, when stressors overwhelm a person prevailing coping mechanism, disequilibrium occurs, and a crisis result. If symptoms of stress persist beyond the duration of stressors, a person has experienced trauma. Stress is not always imposed upon people from the environment. Many aspects of stress arise within a person. Therefore, much of the time, stress can be reduced or even prevented; thereby assisting in restoring or preserving health because of the widespread experience of stress in numerous situations, and health care professionals must be well-informed about them. Health care professionals need to focus on helping people to engage in adopting coping behaviours. Evidenced-based practices study findings of the stress factors regarding events of hospitalization can help the medical team to take appropriate judicious interventions to minimize the stressful events, which reduces the stressors of hospitalized patients and would help in the early recovery. So, reducing the stressors is an important responsibility of health team members. Although similar studies are conducted on the stress and anxiety of health care professionals

nonetheless most of the descriptive studies were not designed to elicit information about the critical care experience as well as stressors in critical care unit's patients, accordingly, there is scope to identify the experiences and perceived stressors of the seriously ill adult patients critical care unit.

Limited reviews are found in this area in the Indian scenario and there is some discrepancy even in conducted studies on this issue especially of the critical care units' patients. In critical care unit patients, identifying and introducing stressor factors is the first step of intervention and planning care. Therefore, this study has been conducted on the perceived stressors that can affect the prognosis and early recovery of critical care unit patients.

2. MATERIALS AND METHODS

A quantitative research approach was adopted to conduct this study and the design used was exploratory research, to identify the association between the perceived stressors and selected factors among adult patients admitted in Critical Care Units at selected multispeciality hospitals at Vadodara. A total of sixty adult patients admitted to the critical care departments were selected through the non-probability, convenience sampling technique. The patients who were conscious and able to understand the procedure of data collection were included in the study. Patients who were on anti-depressant or anxiety medication are excluded from the study.

3. REVIEW OF LITERATURE

The physical atmosphere of the intensive care unit is the source of unintended and unwanted stress among the patients, family relatives, and staff. A developed healing environment is grateful for the good impact as well as the early prognosis of the patients. Effect of noise, lights, alarming system of types of equipment is environmental stressors effects on the patient's outcome. The patients and staff also will be advantageous if good stressors free setting is provided in the intensive care unit [6].

Physical and psychological stressors adversely affect the treatment and length of stay of patients in intensive care units. A total of 98 patients, 80 in the General Surgery Intensive Care Unit and 18 in the Anesthesiology and Intensive Care Unit, were included in the study. The second most stressful stress factor was noted that the

existence of tubes in the mouth and nose. The least stressful factor for the patients was the presence of nurses constantly performing activities around the bed. Although 51% of the patients were postoperative, the pain was ranked 5th among stress factors. They also discovered that elimination or modification of these factors would contribute positively to the treatment of intensive care unit patients and shorten their length of stay in the intensive care unit [7].

Ayten Zaybak and Kivan Cevik [8], conducted the study among the 86 patients who stayed in medical, surgical intensive care unit at least for 24 duration and 52 nurses who were working in the same intensive care units. Data were collected through the intensive care unit sources of environmental stress scale. The study reported maximum stress and perception of stressors are found in the patients more than the nurses. Those patients who were on mechanical ventilation had a maximum perception of stressors in the intensive care unit. The main stressors reported by the patients were lack of privacy, being in the hot/cold room, being seen by the others patients in the same, and alarming the monitors.

4. RESULTS

A total of 60 adult critical care unit patients were studied, with the majority, that is, 33 % of them belongs to 48 to 57 years of age. There were 42 (70%) male patients and 18(30%) females. Most of the patients (85%) were married & 12% were widows. Concerning the duration of illness of hospitalized adult patients in the critical care unit, 33 (55%) were suffering from the disease for more than 6 months. Previous hospitalizations showed that 2 patients (3%) never had the experience of hospitalization & 42 patients (97%) had three time hospitalised before in the critical care unit.

The socioeconomic status revealed that 2 patients (3%) were from upper-class socioeconomic status & 15 patients (14%) were from upper-middle-class status & 21 patients (35 %) were from middle-class status & 18 patients (30%) were from lower-middle-class status. Regarding the Perception of stressors in adult critical care unit patients: all the patients who participated in the study were interviewed with the hospital stress rating interview scale. All of them expressed perception of stressors as indicated by the total perceived stressors score of above (1%), which is considered as the

presence of a stressor. In the view of the severity of the perception of the stressors in adult patients in the critical care unit's data revealed that a majority of 43 (72%) patients had a moderate perception of stressors, 17 (28%) patients had a severe perception of stressors.

Data presented in bar diagram-1 represent that, out of 9 areas of perceived stressors, among areas of perceived stressors, according to percentage score of perceived stressors the highly rated perceived stressful areas were "Separation from spouse" having rank-1 "separation from family" members having rank-2. The least perceived stressful events were "unfamiliar surroundings" rank-9 & "loss of independence" having rank-8.

In the present study, a significant association was found between the severity of perceived stressors with the socioeconomic status 11.501 ($p < 0.05$), Duration of Illness 9.492 ($p < 0.05$) and duration of hospital stays 0.752 ($p < 0.05$).

There was a significant association was found between the intensity of perceived stressors and medical & Surgical diagnosis 6.65 ($P < 0.05$). It also discovered through the study calculations 26 out of 30 (86.7%) medical diagnosis adult patients were having a moderate perception of stressors 17 out of 30 (56.7%) of surgical diagnosis. In surgical diagnosis 13 out of 30 (43.3%) were having a more severe perception of stressors than 4 out of 30 (13.3%) of medical diagnoses.

5. DISCUSSION

The current study inspected the associated factors for perceived stressors among the adult patients admitted in critical Care Units of tertiary care hospitals. perceived stressors intensity was assessed through the hospital's stress rating interview scale.

As per the previous researches conducted, many factors were associated with perceived stressors among the critical care unit adult patients such as age, socio-economic status of patients. In the current study, also socioeconomic status, Duration of Illness, and duration of hospital stays were found to be significant associated with the severity of perceived stressors of adult patients admitted in the critical care units. This is comparable to several studies conducted among the critical care units' patients [9].

The findings of the present study also revealed that maximum medical disorder hospitalized patients were having a severe perception of stressors. These findings are similar to a study conducted in Hospital Vera Cruz - Belo Horizonte (MG), Brazil among the critical care units' patients and reported that the maximum perceived stressor found in medically diagnosed cases [10].

Daxton T (2018) in his study found that 48% of hospitalized patients were experiencing severe perceptions of stressors [11]. The investigator also found in the study findings that, there are numerous factors are associated with the severity of perception of stressors such as separation from the spouse and family, financial problems. Other studies also reported the same factors such as financial problems are also affect the stress level of the patients.

Chiou A, Potempa, K (2018), researched among the Cardiovascular disorder patient's restriction of lifestyle (67%), staff taking care hastily (42%), loss of independence (46. %). expenditure of illness (67%) & worry about spouse (63%) are the common factors found. The researcher also reported that survivors identified and numerous stressors associated with their surgical intervention patients' emotional impact (86%), restriction of lifestyle (79%), staff taking care hurriedly (64%), loss of independence (43%), expenditure of illness (43%) & worry about spouse (50%) [12].

According to M.J. Stewart (1996), common stressful situations in heart disease have been identified as financial problems, restriction of physical activity & medical therapy, and the majority of the samples (52.65%) were always disturbed by the expenses towards the hospitalization [10].

The present study revealed that the most stressful events according to the rank order were being in pain (5th rank), fear of death (2nd rank), Missing of spouse (2nd rank), unfamiliar surroundings (9th rank) & knowing about the Treatment was 4th rank.

According to Conock M.A (2014), the most stressful items according to the rank order were being in pain (5th rank), fear of death (5th rank), Missing of spouse (10th rank). unfamiliar surroundings & unusual noises (15th rank) & knowing about the treatment was 16th rank [13].

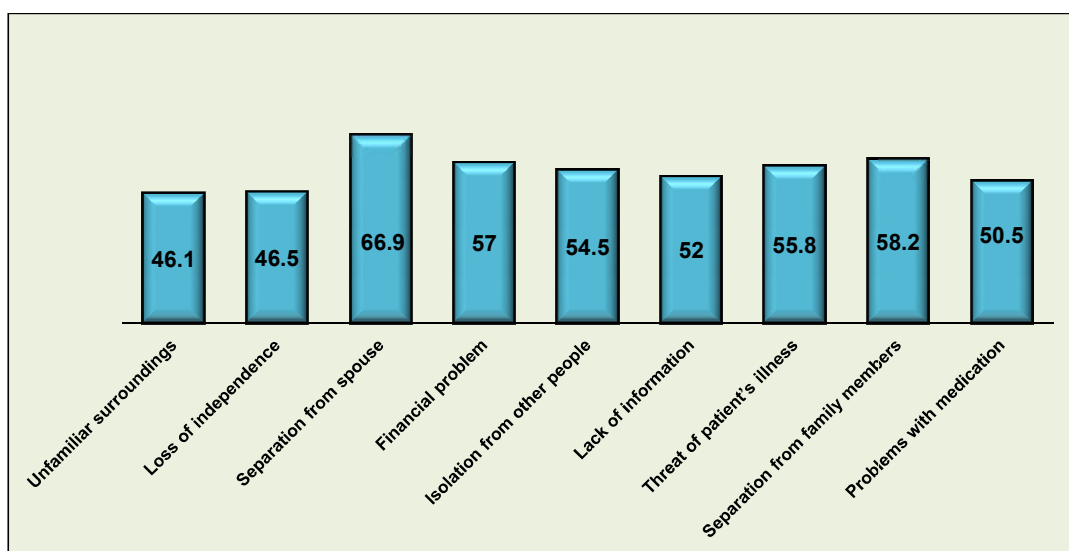


Fig. 1. Ranking of perceived stressors

Lazarus, R.S (1981) found that the 1st rank order of perception of stressor was relating to spouse & the 2nd rank order of perception of stressor was related to family & friends. The investigator here pointed out that among areas of perceived stressors according to % score of perceived stressors the highly rated perceived stressful areas were separated from family members having rank-1 & Separation from spouse having rank-2 [14].

The investigator observed that the majority of the patients (67%) stayed in the hospital for 1-10 days 25% for 11 to 20 days & 6% for 21-30 days having cardiovascular disorder. Similar findings were found in the study conducted by Fu-Jin Shih (2017) on the cardiac surgery patients' diseases, the majority of the patients (77%) stayed in the ICU for 1 week or less, 17% for 8 to 14 days & 6% for more than 2 weeks [15]. The investigator observed that there is a significant association between the intensity of perceived stressors & Socioeconomic status (chi-square (3) = 11.501, p<0.05.), duration of illness (chi-square (4) = 9.492, p< 0.05.) & Duration of hospital stay (chi-square (5) = 10.752, p <0.05.). 32 out of 40 (80%) were having a moderate perception of stressors & 8 out of 40 (20%) were having a severe perception of stressors in 1-10 days of the duration of the hospital stay.

Salvagioni DAJ (2017), in her study, found that patients previously admitted to the hospital (82%) & Duration of hospital stay (54%) reported a significant association in the intensity of perception of stressors than those of the first

time and prolonged hospitalization is a significant factor contributing to the perception of physical, financial & total stressors [16].

This study's findings established that there is a significant association between the intensity of perceived stressors and medical & surgical diagnosis. In surgical diagnosis 13 out of 30 (43.3%) were having a more severe perception of stressors than 4 out of 30 (13.3%) of medical diagnoses. There is no study available showing the same findings.

6. CONCLUSION

Based on the above verdicts of the present study, perception of stressors in Critical Care Unit adults' patients & deterioration in their physical & mental health status due to the imbalanced coping Mechanism is a common problem faced by the patients in the Critical Care Unit. So, the findings of this study may be helpful to the member of the health team to recognize the perceived stressors & their association with other factors. Accordingly, the health team members can plan the activities to reduce the stresses in the hospitalized patients in the Critical Care Unit.

CONSENT AND ETHICAL APPROVAL

Formal ethical approval received from institutional ethical committee, informed consent was obtained from participants and assured of anonymity.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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