



A New Perspective of Identifying and Dealing with Psychological Factors in ICUs.

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ABSTRACT

ICUs are considered to be stressful and psychologically taxing and are a potentially hostile environment for the critically ill patients. Psychological states such as stress, anxiety, and depression among the patients in Intensive care unit (ICU) are well-known factors which often affect the outcome of treatment. Although various studies and researches have been undertaken on the psychological stressors affecting the patients in intensive care units; each hospital being a unique entity the variables at play in every hospital and ICU differs from another. Every ICU being a dynamic and complex entity in its own right is confronted with its own set of challenges and metrics that require deeper study. It is difficult to generalize a study focused on a particular ICU to another ICU. The objective of this study was to assess, analyze and delve deeper into finding the source of kind of psychological dimensions that adversely affect the patients in ICUs of Apollo Hospitals Bhubaneswar using a validated questionnaire, develop instruments based on the findings and allow for intervention that addresses the source of psychological stressors in the patients.

KEYWORDS

Psychological Factors, Intensive Care Unit, stressors, perception, experience

INTRODUCTION

ICU is considered to be a psychologically demanding and intimidating place because of the congregation of critically ill and severely injured patients. From the patients' point of view, it is both a frightening place and a safe haven (*Blacher, 1997*). The experience of hospitalization itself is a source of psychological stress to most patients regardless of the nature of illness as separation from normal life situation associated with stress of illness or disability is likely to produce tension, anxiety, and fear in anyone admitted to the hospital, but it is intensified for the recover from critical illness. Common conditions that are treated within ICUs include ARDS, trauma, multiple organ failure, and sepsis. (Intensive Care Society, *2011*). But suddenly, unexpectedly finding oneself in such a situation is both frightening and unfamiliar (*Susan, 1989*). It is intensified for the patient in the intensive care unit (*Eleanor, 1968*).

Intensive Care Units (ICU) give patients the best scope to survive at the same time be confronted with numerous stressful stimuli (*Sharon, 1978*).

For the patient strange and unfamiliar surroundings (*Susan, 1989*) frequent interruption to sleep (*Riegel & Ehrenreich, 1989*) due to sudden crashes, oxygen administration and ventilator noises, the dragging of chairs, noisy footsteps, staff conversation, other patients, uncomfortable positioning etc sensory deprivation (*Riegel & Ehrenreich, 1989*), all add to the stress and anxiety of a patient. Isolation and separation from family (*Ballard, 1981*), lack of information and communication (*Helen, 1996*) and depersonalization may be most significant stressor faced by ICU patient (*Riegel & Ehrenreich, 1989*). Lack of privacy and control which is common in ICUs, as patients are often nursed naked (*Jain, 1991*) or partially covered (*Dyer, 1996*). These are all prevalent factors which are characteristic of an ICU that creates an illusion of constant crisis, a crisis that engulfs him (*Eleanor, 1968*).

The concept of an environment that is beyond the medical apparatus and administration of medicine that adds to the process of healing comes out significantly for those who are working in the environment. This emphasizes the role of psychological factors in the healing environment. Doctors, Nurses, other care takers, the relatives of the patients do express their appreciation of these factors, but each group has their own way of conceptualizing the psychological factor. But the important contribution to the healing process has to be accepted as the perception of patient himself. Therefore the study involved developing tools for understanding the perception and experience of the patients in ICU. To develop interventional strategies/Stroke steps to counter the perceived

threats in ICUs followed assessing the impact of interventions. This intention was that the study outcomes could be very useful for the caregivers besides improving the psychological outcome of ICU patients.

METHOD

The study includes both qualitative and quantitative approaches to provide a better understanding of the problem and to work out intervention strategies. The qualitative aspects were to reflect the intense human emotions through face to face interactions. Additionally, it helped to provide an enhanced understanding of data by drawing meaningful and defensible inferences on the meanings, intentions, context and consequences of the collected data.

The study was carried out in ICUs of Apollo Hospitals Bhubaneswar. Only adult patients were the subjects.

The first phase of the study was a pilot study of two weeks. Thirty minutes of intense personal interactions were held to collect in-depth understanding on different aspects of patients' experiences in the ICUs and perceptions on the items of the questionnaires. This helped in the development of 75 item study instrument which was an adaptation of the English Volicer Test. In phase II, it was item analyzed to retain 50 items.

Phase III was the pre-intervention data collection where the questionnaire was administered to 125 patients. In Phase IV the action plan emerged from the response of Phase III. In phase V the impact was studied.

PERIOD OF DATA COLLECTION

- The data for the study was initially collected for the patients in the year 2012 -13. This was the pre-intervention data collection period.
- Interventions based on the findings of the study were administered in the year 2013-14 to the ICUs.
- The year 2014-15 was the post-intervention data collection year in which the same set of questionnaires were administered again to the patients.

RESPONSE OF ICU PATIENTS TO THE QUESTIONNAIRE

Of the fifty items studied, only three items were identified to having highly disturbing/stressful effect. Twenty-Eight items were found to have a slightly disturbing effect. Three items were rated to have a highly reassuring effect, four were having a slightly reassuring effect and fourteen items had no effect.

Psychological items that were identified as highly stressful and have highly disturbing effect are as described below:

Table 1: Psychological Items having a highly disturbing effect as responded by the patients.

Item No	Item	Mean
20	Separation from parents/ children.	4.25
31	Knowing you have a serious illness	4.29
35	Feeling that you may become dependent on medicines	4.38

Separation from parents and children

Separation from parents and children was identified as highly stressful by 55.20 % of patients. Another 26.40% described it to be slightly stressful. In total 81.60% of patients responded this item as stressful. As revealed from the interactions, Patients wanted to be with their family members when they are suffering but hospital regulations prevent regular interaction in the best interest of patients so that they don't contract any kind of infection. The inability to be surrounded by the family members and to be unable to see them might bring about some stress in the patients. The identification of separation from family members as highly stressful Items is in consonance with available literature (Jain, 1991; Jeanette, Marilyn & Noll, 1993).

Knowing that you have a serious illness

If a patient anticipates continued exposure to threat over a prolonged period of time, that patient will undoubtedly experience psychological stress (Sharon, 1978). 59.20% of patients identified this Item to be highly stressful. Another 20% of patients identified this Item to be slightly stressful. As revealed from the interactions, inability to discharge one's professional and familial responsibilities and the financial cost to be incurred on treatment add to the stress that the patient might be undergoing.

Feeling that you may become dependent on medicines

This emerged as a highly stressful Item for 80.80% of patients. 64% of patients rated it to be a having highly stressful effect and another 16.80% as slightly stressful. Volicer and Isenberg (1977) had identified it as a hospital stress Item and interaction with patients revealed as much. The pain of the disease, the restrictions imposed on account of medication and the expenses incurred in availing those medications might be a source of stress. Some of these Items which are considered highly stressful by other studies (Parsons, 1997) have been identified as less stressful in this study. The results were of a variance with what the available literature had to say and this could be attributed to the professional or empathetic care they received from the nurses and doctors. This can also be attributed to

certain physical facilities like ergonomically designed beds and design of ICU of Apollo Hospitals Bhubaneswar or because of certain policies being followed in ICUs in a tertiary care hospital like Apollo.

ACTION PLAN IMPLEMENTATION DIRECTED AT NEGATING THE EFFECTS OF STRESS INDUCING ITEMS

Separation from parents/children (Item 20)

To negate the stress provoked by long hours of separation of the patients' from their parents and their children or spouse visiting hours were increased from one hour daily to two hours and twice daily in morning and in evening. Secondly, emphasis was given on educating the patient during admission about the visiting hours and impressing upon him the intent of preventing infection due to exposure to hasten the healing process faster. Voice of Customer team was set up. They were to take daily rounds, listen to the grievances of patients and counseling them if required. A dedicated Clinical Psychologist was engaged to counsel patients who were preoccupied with the debilitating thoughts of separation from their family.

Knowing that you have a serious illness (Item 31) & Feeling that you may become dependent on medicines (Item 35)

To counteract these Medical Superintendent (MS) held interactive sessions with patients having a stay of more than 3 days. Further MS daily rounds were initiated where the medical head was taking the lead of meeting for these seriously ill patients. The patients were explained of the diagnosis, possible prognosis, treatment plan along with the chances of recovery and discharge to help them deal with the situation is a better way. Interpreters were employed wherever necessary.

In a similar way, for all other 28 items that were responded to as slightly disturbing, targeted interventions were initiated.

POST INTERVENTION DATA ANALYSIS

To assess the impact of action plan implemented, by analyzing the change in the perceptions of the stakeholders, post-intervention data collection was initiated by administering the same questionnaire. It is important to remember that the questionnaire was administered to the same category of patients, not the same patients. A period of 1 to 2 years is a long period of time to expect the patients in the Phase III to continue till Phase V. The similarity is in the stress the faced. The criticality of their illness which warrants an ICU stay cannot be very much different from the patients that formed the part of the study in the Phase-III.

On analyzing the responses to the administered questionnaires in this period of study, it was revealed that the action plan implemented has worked towards alleviating the effect of almost all the aspects (described as items) that had either a highly stressful effect or slightly stressful effect for the patients in the pre-intervention period.

Table 2: A comparative analysis of response of patients (for the items those had a highly disturbing effect) in the Pre-Intervention period.

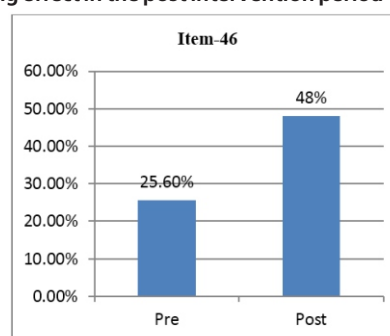
Item No	Mean		% of patient's response as highly stressful		P Value
	Pre	Post	Pre	Post	
20	4.3	3.5	55.20	25.6	< .000
31	4.3	3.3	59.20	26.4	< .000
35	4.4	3.2	64.00	30.4	< .000

In the pre-intervention period Item 20, 31 and 35 were identified as highly stressful by 55.20%, 59.20% and 64.00 % of patients respectively while the same items were rated stressful by less percentage of patients by 25.60 %, 26.00%, and 30.20% respectively. There was almost a 50 % drop in the percentage of people rating the items as stressful.

The data collected after the implementation of the action plan formulated to mitigate stress revealed the reduced level of stress underlining the efficacy of the action plan.

Another observation that came to fore in the post-intervention data analysis was that item no. 46 i.e. having too much of noise was rated highly stressful by 48 % of the respondents in the post-intervention phase. This item did not figure as a source of stress in the pre-Intervention phase.

Graph 1: Psychological Items found to have a highly disturbing effect in the post intervention period



The reasons for item no. 46 featuring as a source of stress were traced out, analyzed and action plan was implemented to reduce the impact of stress.

The post-intervention period data collected also revealed that the 28 items that were found to be slightly disturbing had also returned reduced values in patients' response, suggesting a positive impact of the interventions implemented.

CONCLUSION

This study was undertaken first to identify the psychological factors affecting patients in the stressful environment of ICUs. Then the study then involved devising interventional strategies based on the analysis of the perceptions of the said stakeholders with an aim to mitigate the reason and effect of stress experienced. The subsequent phase of the study also involved assessing the impact of these interventions. The study also threw light on the importance of considering qualitative approach towards understanding the different experiences, perceptions of the patients in ICU. Humans being complex entities many facets are not revealed when only a quantitative method is applied which could aid in understanding and take measures to alleviating stress. It also showcased why interactive sessions need to be weaved into the daily engagement process between patients and caregivers. The tools that were employed to understand and analyze patient perception could serve as a template for the management in the future for the benefit of the patients.

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