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Full Length Research Article

ICU TRANSITION ON PHYSICAL PARAMETERS

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ABSTRACT

Aim of the study: Is to assess the physical health after discharge from ICU
Background: Intensive Care Units (ICUs) are specialized units for providing care to critically ill patients. Majority of patients admitted to the ICU require emergent medical attention for keeping the vital functions supported with lifesaving interventions. Once patients recovered from acute phase, they are transferred from ICUs to general wards. During stay in intensive care unit, the patient is vulnerable to several issues affecting the physical and psychological health like altered sleep patterns, anxiety, depression, disorientation, mood changes and lapses of memory and concentration etc.
Design: Descriptive study design
Methods: Non probability purposive consecutive sampling technique was used. A total of 100 admitted patients participated in the study. Likert scale was used to assess the physical parameters for data collection.
Result: The finding of the study revealed moderate degree of altered physical health issues in study group i.e. 70% sleep pattern, 82% eating pattern, 93% elimination pattern, and 81% of them with mobility pattern. Comparison among the aspects of physical parameters represented an average percentage score of altered sleep pattern, which was found to be maximum (70.24±8.07 %), and 7.33% more than the overall physical score percent (62.91±3.59 %). Friedmann test indicated the difference among various aspects of physical parameters. Overall physical changes was highly significant ($p < 0.001$), which indicates that there were remarkable changes in the physical parameters among patients discharged from intensive care units.
The data illustrates that participants were having major problem with sleep pattern disturbance as compared to other aspects of health parameters.
Conclusions: The finding illustrated that patients transferred from ICU to the wards are often need both physical and psychological care as they are highly dependent patients with multiple complex needs.

INTRODUCTION

More than 5 million patients are admitted to the ICUs every year. Between 2000 and 2020, the population younger than 65 years is expected to grow by about 10%, while the number of individuals 65 years and older is projected to rise by approximately 50%. Admission to an ICU is an extremely significant hospital experience for critically ill patients.

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The ICU stay may have both short- and long-term effects on the overall recovery and these patients may undergo several healthcare transitions within the healthcare setting during their recovery (http://www.sccm.org/Communications; Kate Field, 2008).

Background

Intensive Care Units (ICUs) are specialized units to provide specialized comprehensive care to most critically ill patients. Majority of patients admitted to the ICU require emergent medical attention for keeping the vital functions supported with lifesaving interventions (Song-Hee Kim et al., 2014; http://www.ncbi.nlm.nih.gov).

These patients needs special care as per their health status. At the time of entry to ICU, patients with acute condition may be under life threatening situation which requires immediate attention. After recovery from acute phase of illness when patient reaches a stable state, the patient may be transferred to the high dependency unit and wards. The patients are usually anxious and perceive transfer to be hazardous as they are shifted away from a safe and familiar environment of ICUs (Marzieh Momennasab, 2016). Transfer from ICU to the wards brings feeling of insecurity amongst the patients. On the contrary the patients lack preparation for shifting from ICU. These patients may suffers from variety of physical and psychological problems like altered sleep patterns, anxiety, depression, disorientation, mood changes and lapses of memory and concentration are experienced by the patients. It has been observed that patients admitted to the intensive care unit (ICU) develop "ICU-acquired weakness," a condition characterized by profound weakness greater than expected to result from prolonged bed rest. Individuals with ICU-acquired weakness typically have significant activity limitations, often requiring physical assistance for even the most basic activities associated with bed mobility which makes them dependent (Dunn, 2007; Goossens et al., 2012). Previous studies discusses that patients shifted from ICU to intermediate ICU experience physical impairments, such as muscle weakness and neuropathies, and difficulties in eating, swallowing, chewing, coughing, moving the upper extremities, toileting, and mobilizing etc. All suchchanges may be associated to various key factors as they have undergone ryles' tube insertion, prolonged anaesthesia, prolonged bedrest, restricted mobility etc. Because of physical and psychological disturbances the patients take much longer to achieve the goal of self-care status (Kate Field, 2008). McKinney A.A, and Deeny P. carried out a study for exploring the lived experience of patients transferred from ICU to the ward.. The findings revealed that during pre-transfer period participants mainly accepted their impending transfer but in the post-transfer period, mixed feelings regarding the actual transfer was found. Participants were suffering from physical complaints, which led to feelings of dependency. The study also revealed that, there was an impact on post-transfer period (Intensive Care Unit–Acquired Weakness, 2012). Although most patients experience variety of physical problems after shifting from ICU, sleep disturbance was commonly encountered amongst intensive care patients which affect recovery and increases mortality. Evidence from previous researches suggested that a substantial proportion of ICU patients experience poor sleep quality, prolonged sleep latency, and frequent awakenings that contribute to fatigue, physical and emotional distress (McKinney, 2002; Lori, 2015).

Aim of the study: Was to assess the physical health after discharge from ICU

MATERIALS AND METHODS

Total 100 patients admitted in the ICUs of a teaching hospital participated in the study. A non-experimental descriptive study design was carried out and samples were selected with non-probability purposive consecutive sampling technique. The tool consisted of 22 items scale for data collection. The tool was developed through extensive review of literature and seeking opinion from experts. Reliability of the tool was 0.891.

Ethical consideration: The project has been approved by the ethics committee of the institution. Informed consent was obtained from the participants before initiating the study.

RESULTS

Table 1. Distribution of participants based on severity of altered physical health pattern

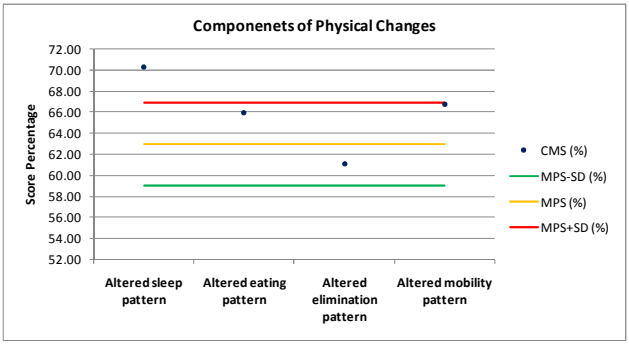
Physical health pattern	Mild	Moderate	Severe
Score key	1.00 - 2.32	2.33 - 3.66	3.67- 5.00
Sleep	0	70	30
Eating	2	82	16
Elimination	1	93	6
Mobility	0	81	19

Altered physical health pattern

Above table depicts that70% of the participants were found with moderate and 30% with severe degree of altered sleep pattern. It also showed that 82% participants had moderate and 16% had severe degree of altered eating pattern, while 93% had moderate and 6% severe degree of altered elimination pattern. It also represented that 81% of them had moderate and 19% had severe degree of altered mobility pattern. This study represented that majority of the participants had moderate degree of altered physical health problems after shifting from the ICU to ward.

Table 2. Comparison among the aspects of physical parameters N=100

Aspects of physical parameters	Percentage Score		
	Mean	SD	Median
Altered sleep pattern	70.24	8.07	72.00
Altered eating pattern	65.88	8.89	68.00
Altered elimination pattern	61.07	7.55	60.00
Altered mobility pattern	66.67	6.09	66.67
Overall Physical parameters	62.91	3.59	62.61
Friedman Test	chi sq = 83.01, p < 0.001		



* CMS – Component Mean Score, MPS – Mean Physical Score percent, SD – Standard Deviation of physical score percent

Figure 1. Comparison of mean value of aspects of physical parameters

Above table represents the comparison among the aspects of the physical parameters. The average percentage score of altered sleep pattern was found to be maximum (70.24±8.07 %), which was 7.33% more than the overall physical score percent (62.91±3.59 %). According to Friedmann test the difference among various aspects of physical parameters changes as well as overall physical changes was highly significant ($p < 0.001$), which indicates that there were remarkable changes in the physical parameters among ICU patients. Figure-1 illustrated that the three components of physical parameters i.e. altered eating pattern, altered elimination pattern and altered mobility pattern have almost

equivalent effect to overall effect on physical parameters but the altered sleep pattern shows abnormally high effect than the overall effect on physical parameters as it lies above the 1 SD of overall physical score percent. This study describes alteration in various parameters of physical health, participants had sleep pattern disturbance as a major problem as compared to eating, elimination and mobility problems. But it also represented that the participants had eating and mobility problems related to shifting from ICU to ward.

Conclusion

The finding of the study provided insight about the effect of transition on physical health of patients after shifting from ICU to general wards. The study revealed that majority of participants faced disturbance in sleep pattern. Similar results were also found in the studies carried out on medical and surgical ICU patients (n = 1,625), where 38% experienced difficulty falling asleep, and 61% reported a greater than usual need for sleep. In another study, nearly 70% of ICU patients with cancer experienced a moderate or severe level of sleep disturbance, and poor sleep was identified as one of the most stressful aspects of their ICU stay. Several months after hospital discharge, more than half of ICU survivors (n =39) continued to experience worse interrupted sleep or altered sleep patterns compared with their pre-hospital patterns (Lori, 2015). Patients transferred from ICU to the ward are often highly dependent with multiple complex needs, both physical and psychological. So, this study recommends that patients should be prepared well before discharge from the intensive care unit to the wards. Ongoing care to these patients may help nurses to tackle with various physical and psychological problems.

REFERENCES

The intensice care professionals, Society of critical care medicine, http://www.sccm.org/Communications

Kate Field, SumanPrinjha, Kathy Rowan .One patient amongst many': a qualitative analysis of intensive care unit patients' experiences of transferring to the general ward. *Critical Care 2008, 12:R21*

Song-Hee Kim, Carri W. Chan, Marcelo Olivares and Gabriel Escobar. ICU Admission Control: An Empirical Study of Capacity Allocation and its Implication on Patient Outcomes. April 23, 2014

Marie Häggström, Kenneth Asplund, and Lisbeth Kristiansen.Struggle with a gap between intensive care units and general wards,Int J Qual Stud Health Well-being. 2009; 4: 181–192. Published online Sep 1, 2009. http://www.ncbi.nlm.nih.gov

MarziehMomennasab,TaherehGhahramani, ShahrzadYektatalab, and FaridZand. Physical and Mental Health of Patients Immediately After Discharge From Intensive Care Unit and 24 Hours Later,Trauma Mon. 2016 Feb; 21(1): e29231.

Dunn, M. J. G, C L Gwinnutt,C.L. and Gray,A.J.. Critical care in the emergency department: patient transfer,Emerg Med J. 2007 Jan; 24(1): 40–44.

Goossens E., Hilderson D., Moons P. Coaching through transition: A challenge for critical care nurses. (2012) *AustCrit Care*; 25(1):1-2

Intensive Care Unit–Acquired Weakness: Implications for Physical Therapist Management, Journal of the americanphysical therapy association,. 2012 Dec; 92(12): 1494–1506.

McKinney AA, Deeny P. Leaving the intensive care unit: a phenomenological study of the patients' experience. Intensive Crit Care Nursing. 2002 Dec;18(6):320-31.

Lori J Delaney, Frank Van Haren, and Violeta Lopez. Sleeping on a problem: the impact of sleep disturbance on intensive care patients - a clinical review, Ann Intensive Care. 2015; 5: 3.

Ellyn E. Matthews, Sleep Disturbances and Fatigue in Critically Ill Patients,AACN AdvCrit Care. 2011 Jul-Sep; 22(3): 204–224.

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