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Original Article

EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON PREVENTION OF ICU DELIRIUM AMONG NURSES

Ashwini[1], Savitha Prabhu[2], Sushmitha Shetty[3], Veena Prabhu[4], Maria Pais[5] & Basil Kuriakose[6]
[1,2,3,4]Students, [5]Assistant Professor, Department of Obstetrics & Gynecological Nursing, , [6]Lecture, Department of Community Health Nursing, Manipal College of Nursing, Manipal, Karnataka, India

Correspondence :
Maria Pais
Assistant Professor, Department of Obstetrics & Gynecological, Manipal College of Nursing, Manipal University, Karnataka 576 104, India. E-mail : mariapuso@gmail.com

Abstract :
Delirium is extremely common in intensive care unit (ICU) patient due to comorbidity, critical illness and iatroogenesis. This complication of hospital stay is extremely hazardous in older persons and is associated with prolonged hospital stays. yet ICU nurses and physicians are usually unaware of the presence of hypoactive delirium and only recognize this disturbance in agitated patients (hyperactive delirium).The aim of the study was to assess the existing knowledge of ICU staff nurses regarding ICU delirium and to assess the effectiveness of structured teaching programme on the knowledge of ICU staff nurses regarding ICU delirium. An evaluative approach with one group Pretest Posttest design was used for the study. Fourty samples were selected by using non-probability purposive sampling method, in selected hospitals of Udupi District. The collected data were analyzed using descriptive and inferential statistics. A significant difference between Pretest and Posttest knowledge was found (t=23.95, p=<0.0001). The study findings showed that there significant increase in posttest knowledge of ICU staff nurses regarding ICU delirium. The nurse can identify the delirium early and prevent the complication by treating well in advance.

Keywords: Knowledge questionnaire, structured teaching program (STP)

Introduction :

Advances in medical science and technology have prompted the establishment of many highly specialized units Intensive Care Unit (ICU) providing intensive patient care. Intensive care unit (ICU) cater to patients with the most severe and life threating illness and injuries that require constant close monitoring and support from specialized equipment and medications in order to maintain normal body functions. In the recent years there has been increasing awareness of the fact, diseases, treatment and events such as surgery or the experience of critical care often have significant and persistent consequences for the cognitive and psychological functioning. Critically ill patients often report they have experience psychological distress, including anxiety and fear during treatment in ICU.

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Until recently critical care emphasis was on monitoring pulmonary, cardiac and renal dysfunction as a source of morbidity in ICU patients but has underestimated the impact of Brain Dysfunction[1]. ICU Delirium in the intensive care unit is a serious problem that has recently attracted much attention[2]. ICU Delirium is a common manifestation of Acute Brain Dysfunction in Critically ill patients[3]. ICU Delirium is a transient, usually reversible cause of cerebral dysfunction and manifestation of cognitive deficits in arousal (Hyperactive Delirium, Hypoactive Delirium and Mixed Delirium) with clinically wide range of Neuropsychiatric abnormalities[4]. ICU Delirium is widely prevalent during critical care illness and places patient at greater risk for development of Cognitive impairment and increased mortality[5].

As the number of intensive care units and the number of people in them grow, ICU delirium is perforce increasing as a problem. An Intensive Care Unit can be very intimidating place for a patient. Shrill alarms, lights slashing from machines intermittently and unpleasant odors, patients can make little sense of this strange and over whelming

environment. Critical care Units are busy places where generally the focus is on physical care despite the holistic approach emphasized in modern Nursing. Nurses are in close contact with patient and they are in the best position to provide support to them. The skillful ICU Staff Nurses make the patients feel safe and comfortable throughout the treatment. ICU delirium is a serious, highly frequent, complication in ICU patients. It is being defined as a transient organic mental syndrome characterized by a disturbance in an awareness cognition and attention. Motor unrest, sleep problem, anxiety and agitation, are characteristic features of delirium[6].

A delirium is a serious high frequency complication in intensive care unit Intensive care Unit patients. The consequences of this complication range from high morbidity and mortality to greater need for nursing care. ICU delirium is a common cause for psychotic symptoms like thought disorders. Despite these, delirium is often not recognized and there for not treated. Another study was conducted to know regular and systemic assessment of ICU Delirium by ICU Nurses with knowledge of Delirium was necessary, as more than 60% of the patients with ICU Delirium are missed by staff nurses and more than 70% by Physicians[7]. Agitation and violent behaviors, due to severity of illness, frequent use of sedation and analgesia, and lack of verbal communication, it may be difficult to assess Delirium in critically ill patients[7]. A study was conducted on review of prevention of Delirium should always be foremost in diagnosis & treatment of Delirium patients in ICU, USA. The study showed value of nursing in preventing Delirium is evident. When nurses apply knowledge of potential causes, co-ordinate with other members of health team & initiate prompt actions for treatment of Delirium & reducing signs and symptoms. The study concluded that nurses are the one who recognize the need, assistance via psychiatric consultations, observations & management to ensure quality of care.[8]

Material and Methods :

An evaluative approach with one group pretest post test design was used to assess the existing knowledge regarding ICU delirium and find the effectiveness of structured teaching programme on knowledge regarding ICU delirium among 40 ICU staff nurses working in selected hospital of Udupi District. Purposive sampling technique was used to select the samples. The prevalidated structured knowledge regarding prevention on ICU delirium questionnaires (reliability r=0.79), were administered to obtain data from the samples. Structured teaching programme on prevention of ICU delirium was given after assessment of pretest knowledge score. After eight days of intervention, investigator administered the posttest to assess the level of knowledge questionnaire. The collected data were analyzed using descriptive and inferentional statistics.

Results :

Sample characteristics

Majority of ICU staff nurses are (85%) belonged age group of 21-25yrs. Majority (90%) of the study sample were females, and (75%) staff nurses were belongs to Hindu religion. Most of the staff nurses (85%) had the total working experience 1-5yrs. Majority(60%) of the staff nurses had<1yr experience in ICU.

Table1. Frequency and percentage of pre test and post test knowledge scores groups of ICU staff nurses regarding ICU delirium. n=40

Score range		Pretest score		Post test score	
		f	%	f	%
Good	(16-25)	3	7.5	40	100.0
Average	(8-16)	30	75.0	--	--
Poor	(0-8)	7	17.5	--	--

Maximum possible score= 25

The data presented in table 2 shows that in the pretest majority of them (75%) had average knowledge, whereas in posttest all the participant nurses (100%) had gained good knowledge. This indicates that Structured Teaching Programme has been an effective method of increasing knowledge of ICU staff nurses regarding ICU delirium.

Table 2: Comparison of mean pretest and posttest knowledge score of ICU delirium among ICU staff nurse. n=40

Variance	Mean	Standard deviation	t- value	p-value
Pretest knowledge score	11.5	3.58		
Posttest knowledge score	23.92	1.43	23.95	0.0001

Table 2 depict that paried't' test was done to determine the difference between mean pretest and post test scores, 't' value was 23.95 which indicates there is significant difference it mean pretest and posttest knowledge scores (P=0.0001).

Keywords : Knowledge questionnaire, structured teaching program (STP) - Maria Pais

Discussion :

The pretest showed that majority (75%) of nurse had average knowledge; whereas in post test revealed that all participants (100%) acquired good level of knowledge scores. Thus, it is interpreted that structured Teaching Programme improved the knowledge of ICU delirium. A study was conducted in New England Medical Center among 50 ICU staff nurses from two different hospitals(University medical and community teaching), to measure the impact of simple education intervention on ICU delirium and result showed that, knowledge on delirium was significantly increased after education.($p<0.0005$)[9], it support the present finding of the study. The impact of a model of education to improve knowledge and recognition of delirium in older patients by register nurses through online learning intervention among treatment and control group were positive. The intervention group scores were higher and the change over time result was statistically significant. ($t=3.78m$ $p=0.001$). The benefits of using this type of educational delivery platform in terms of flexibility, overcoming distance barriers, cost effectiveness and active participation.[10]

Conclusion :

The major conclusions drawn on the basis of finding of the study were, majority (75 %) nurses who were working in the ICU had average knowledge of ICU delirium. After providing the structured teaching programme they have significantly increased their knowledge. It can help the nurses to identify the ICU delirium and treat the patients in advance. A simple composite educational intervention incorporating theory rapidly improves the capacity for ICU nurses to perform delirium assessment in a standardized fashion without a detrimental effect on accuracy. A standardized approach to identifying delirium in ICU patients should be incorporated in the education of critical care nurses. Finally, educational initiatives focused on improving the ability of bedside clinicians to assess delirium are at least as important as those for the assessment of pain and sedation, and should be part of any ICU patient improvement effort.

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