Available online at www.scientiaresearchlibrary.com

Scientia Research Library

ISSN 2348-0416
USA CODEN: JASRHB

Journal of Applied Science And Research, 2020, 8 (2):1-6

(*http://www.scientiaresearchlibrary.com/arhcive.php*)

A QUASI EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF SELF-INSTRUCTIONAL MODULE REGARDING PAEDIATRIC TRAUMA CARE AMONG STAFF NURSES WORKING IN A SELECTED PAEDIATRIC HOSPITAL, BANGALORE.

Mrs. Soumya Suresh (Asst.Professor)

CHILD HEALTH NURSING, T.JOHN COLLEGE OF NURSING ,GOTTEGERE BANNERGHATTA MAIN ROAD ,BENGALURU

ABSTRACT

Nurses are integral part of healthcare delivery system and it is very important that they need a clear understanding of the nature of Paediatric trauma care in saving the life of the patients. However in the reality of day to day health care administration issues errors can and do run rampant. Although this should never give an excuse to provide substandard care. Educational material likes mainly helps the nurses to boost their knowledge. SIM on Paediatric trauma care helps the nurses to gain more knowledge regarding action, dose, indication, Contra-indication, and nurses responsibility. Pediatric injury management should include an integrated public health approach from prevention through prehospital care, to emergency and acute hospital care, to rehabilitation and long-term follow–up, as indicated, for stress reactions associated with the injury.

Keywords : Assess, Pediatric unit, Causality, Pediatric trauma care, Knowledge, Self-Instructional Module, Staff nurse.

INTRODUCTION

NEED FOR THE STUDY

Trauma is the commonest cause of death in childhood. Road traffic accidents and falls account for 80%of injuries. Thoracic and abdominal injuries usually result from blunt trauma, penetrating injuries are uncommon. Significant injuries can occur without overlying fractures.[1]

Trauma is rightly called as the "The Neglected disease of Modern Developing Nations". Trauma causes significant morbidity and mortality both in the developed and the developing world.. As poly-trauma is common (50% cases), a multidisciplinary approach is required. Peripheral injuries occur in approximately 20% of the children. However, these are the major liver, chest, and head injuries (15%), which are responsible for the high mortality in thisage group.

Worldwide, injuries and violence are the leading cause of death, in particular in the young. The same pattern of mortality is noted in small children (1-4 years) with an increasing trend.in the United states (fiscal year 2003), there were 14,110 deaths from injury in children less than 18 years

old reported to the national centre for injury prevention and control. Of these, motor vehicle and traffic- related incidents were responsible for 63%of the deaths, followed by homicide, suicide and drowning. The leading cause of nonfatal injuries receiving medical attention, more than 151,000 required hospitalizations.[3]

Injury is the leading causes of death among children older than 1 year. Death from unintentional injury accounts for 65%of all injury deaths in children younger than 19 years. From 1972-1992,motor vehicle accidents(MVA's)were the leading cause of death in children aged 1-19 years, followed by homicide or suicide and drowning. Each year approximately 20,000 children and teenagers die as result of injury. Moreover, for every child who dies from an injury, 40 others are hospitalized and 1120 are treated in emergency departments. An estimated 50,000 children acquire permanent disabilities each year. Thus paediatric trauma continues to be one of the major threats to the health and wellbeing of children[5].

The time of the day injury occurred was evenly distributed in the morning, afternoon, and evening. Several factors influence childhood injuries, including age, sex, behaviour and environment. Male children younger than 18 years have higher injury and mortality rates.in the infant and toddler age group falls are common cause of severe injury. Approximately 35%significant injuries occur as the result of accidents in the very environment that should be the most sheltering and nurturing to children[4].

A trauma nursing job requires the nurse to be able to respond quickly and efficiently to a variety of different types of trauma injuries in patients with various ages and backgrounds. Trauma nursing jobs are available in most hospitals and require the evaluation, assessment and stabilization of patients in the quickest time with the minimal amount of information.[2]

Nurses are strategically positioned to contribute to the research base of practice in paediatric trauma care. Much of the published research in paediatric trauma and critical care is the result of descriptive studies that have had an impact at all phases of trauma care. The analysis of existing data saves time for the consent with this vulnerable patient population.[2]

A study was conducted to describe current trauma nursing education requirements and nursing perception for additional paediatric trauma education. A web-based survey was electronically distributed to members of Society of Trauma Nurses.. Basic concepts of primary/secondary survey, airway management, and fluid management for hypovolemic shock should be a high priority within this curriculum[1].

The researcher itself had an experience when working as a staff nurse in a major hospital in south India. A 2 year baby was brought to the emergency department, with severe head injury. At that time the baby was severely bleeding and GCS score was low, and the baby was going to the stage of collapse. The staff nurses were in a stage of embracement, they were only aware of how to control the bleeding. The baby's condition was getting worse.at that time the casualty doctor was not there. After the doctor came, then only the treatment got started. This incidence motivated the researcher to select the topic as the research problem, to improve the knowledge of staff nurses regarding paediatric trauma care.

REVIEW OF LITERATURE

The survey of related literature is essential for a fruitful study in any field of knowledge. For the success of the study the researcher has to review more related literatures.it helps the researcher to obtain more information regarding the topic.

A study has been conducted regarding paediatric falls assessment instruments and injury risk indicators in a tertiary care setting. The background of the study says there is lack of paediatric-specific fall assessment instruments and little information on the exploration of injury risk as related to falls in hospitalized children. An ambispective, matched case-control design conducted in a sample of 100 in-patient paediatric patients. The study concluded that more research is required to institute and standardize paediatric fall and injury risk assessments for everyday use. The explicit approach of using predictive modelling is critical in creating a universal, baseline reference for the most reliable and valid measure of assessment in children and implications for nursing management.[6]

A study has been conducted regarding recruitment crisisin Leicester, United Kingdom Many UK National Health Service Trusts have recently experienced considerable difficulties filling paediatric trainee posts leaving rotas, especially at middle grade level, understaffed. Trainees expressed concerns about the ability to attend clinics and obtain study leave. Amongst middle grade trainees the response rate was 22.7%. The study came in to a conclusion that the paediatric staffing crisis is real and is likely to affect training. Solutions have been suggested by the Royal College of Pediatrics and Child Health but will not immediately solve the problem[8]

A study has been conducted regarding orthopaedic nursing in Southampton, United Kingdom. Using focus group methodology, data were collected from nurses working in the domain of paediatric orthopaedics. The results demonstrated that the fundamental principles of orthopaedic nursing practice are embedded in both paediatric and adult based orthopaedic care, with some explicit definable differences which individualize paediatric orthopaedic nursing as a specialist domain of practice[9].

A systematic review has been conducted regarding quality indicators for evaluating paediatric trauma care in, Calgary, Canada They searched MEDLINE (1950- January 14, 2009), EMBASE (1980-week 2, 2009), CINAHL (1982- week 2, 2009) and The Cochrane Library (4th Quarter 2008) from the earliest available date to January 14, 2009,. They came to the conclusion that here is limited experimental research regarding quality indicators in pediatric trauma care, but the literature suggests that deficiencies exist in the quality of care. Future research is needed to develop and evaluate patient-centred pediatric-specific indicators that cover the full spectrum of trauma care[12].

OBJECTIVES OF THE STUDY

1. To assess the pre-test knowledge scores of the subjects.

2. To analyse the effectiveness of SIM with post-test knowledge scores of subjects with pre-testknowledge scores.

3. To find out the association between post-test knowledge scores with their demographic variables of the subjects.

HYPOTHESIS

- RH1: There will be a significant difference between pre and post-test knowledge scores staff nurses regarding paediatric trauma care.
- RH2: There will be association between the post-test knowledge scores of staff nurses with their demographic variables.

MATERIALS AND METHOD

CONCEPTUAL FRAMEWORK:

The conceptual framework selected for the study was based on ERNESTINEWEIDENBACH

Prescriptive theory.

Methods

APPROACH:

The research approach adopted for this study is an evaluation approach.

DESIGN:

The research design selected for this study was quasi experimental design.

SETTINGS:

The study was conducted in KCG Hospital, Bangalore.

PARTICIPANTS:

50 nurses working in Pediatric units and causality were assessed by Convenience sampling technique as a Non probability sampling method.

PRE-ASSESSMENT:

The tool was developed by preparation of structured knowledge questionnaire; content validity of the tool was established by giving to professional experts.

INTERVENTION:

Personal data was assessed by using a demographic questionnaire; structured knowledge Questionnaire was administered on day one to 50 staff nurses. Self-instructional module was administered on the same day to them.

POST-ASSESSMENT:

Structured knowledge questionnaire was administered after 7 days of administration of self Instructional module to assess its effectiveness.

RESULTS AND DISCUSSION

The Major Findings of the study are as follows: Findings related to demographic variables;

1. The respondents consists of 15 (30%) males and 35 (70%) females.

2. Majority of the respondents 34 (68%) GNM and 16 (32%) of them had BSc (N) degree.

3. With regard to working experience, 27 (54%) had 1 year of experience, 12 (24%) had 3-4 years of experience, 11 (22%) had above 4 years of Experience.

4. With regard to experience in critical care units, 54% had I year of experience, 16 % had 2 years of Experience, 10 % had 3 years of experience.

5. Regarding additional qualification, 18% had attended in service training, majority not exposed to

any training.

FINDING RELATED TO EFFECTIVENESS OF SIM:

The overall mean percentage of post-test knowledge scores on Pediatric trauma care among nurses is 84.6% is apparently higher than the overall mean percentage of pre-test knowledge score 50.1 % and is significant at 0.05 level.

INTERPRETATION AND CONCLUSION

The major findings of the study were that the nurses in critical care units had inadequate knowledge regarding Pediatric trauma care. SIM increased the knowledge of the staff nurses regarding Pediatric trauma care. The Mean post-test scores (84.6%) significantly higher than the mean pre-test scores (50.1%) on Pediatric trauma care indicating that the SIM was effective in increasing the knowledge of nurses regarding Pediatric trauma care.

REFERENCE

[1] Haley K, Schweer L. Pediatric trauma nursing education requirements: a national overview. *Journal of Trauma Nursing* [serial on the Internet]. (2007, Oct), [cited October 22, **2010**]; 14(4): 199-202. Available from

http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=2009759241&site=ehost-live

[2] Responsibilities of paediatric trauma nurse. Available from: http://www.the healthcare.com

[3] Kjetil soreide,Andreas J kruger,Christian L Ellingsen,Kjell Josevik.Pediatric trauma deaths are predominated by severe head injuries during spring and summer. *journal of paed surg*(**2009**,jan);17(3)757-766.

[4] Devandra k Gupta.Chilhood trauma:the neglected childhood killer disease.(**2010**):61-65 Available from: http://www.afrjpaedsurg.org/article.asp?issn=0189-6725:

[5] Pediatric trauma statistics. Available from: http://emedicine.medscape.com/article/435031:

[6] HARVEY K, KRAMLICH D, CHAPMAN J, PARKER J, BLADES E. Exploring and evaluating five pediatric falls assessment instruments and injury risk indicators: an ambispective study in a tertiary care setting. *Journal of Nursing Management* [serial on the Internet]. (2010, July), [cited October13,**2010**];18(5):531-541. Available from:

http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=2010716090&site=ehost-live

[7] Young S, Hutchinson A, Nguyen V, Le T, Nguyen D, Vo T. Teaching pediatric resuscitation skills in a developing country: introduction of the Advanced Pediatric Life Support course into Vietnam. Emergency Medicine Australasia [serial on the Internet]. (2008, June), [cited October 13, **2010**]; 20(3): 271-275. Available from:

http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=2009946414&site=ehost-live

[8] Roland D, Dimitri P, Walker V. The extent and effect of the recruitment crisis in the UK trainee paediatric workforce. *Internet Journal of Healthcare Administration* [serial on the Internet]. (2010), [cited October 13, **2010**]; 7(1):

Availablefrom:
http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=2010676587&site=ehost-live

[9] Judd J. Defining expertise in paediatric orthopaedic nursing. *International Journal of Orthopaedic & Trauma Nursing* [serial on the Internet]. (2010, Aug), [cited October 13, **2010**]; 14(3): 159-168. Available from:

http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=2010750241&site=ehost-live

[10] Shebesta K, Cook B, Rickets C, Schweer L, Brown R, Garcia V, et al. Pediatric trauma nurse practitioners increase bedside nurses' satisfaction with pediatric trauma patient care. *Journal of Trauma Nursing* [serial on the Internet]. (2006, Apr), [cited October 21, **2010**]; 13(2): 66-69

Available from:

http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=2009370354&site=ehostlive

[11] Haley K, Schweer L. Pediatric trauma nursing education requirements: a national overview. *Journal of Trauma Nursing* [serial on the Internet]. (2007, Oct), [cited October 22, **2010**]; 14(4): 199-202. Available from:

http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=2009759241&site=ehost-live

[12] Stelfox H, Bobranska-Artiuch B, Nathens A, Straus S. A systematic review of quality indicators for evaluating pediatric trauma care. Critical Care Medicine [serial on the Internet]. (2010, Apr), [cited October 22, **2010**]; 38(4): 1187-1196.

[13] Valani R, Yanchar N, Grant V, Hancock B. The development of a national pediatric trauma curriculum. Medical Teacher [serial on the Internet]. (2010, Mar), [cited October 22, **2010**]; 32(3): e115-9. Available from:

http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=2010589208&site=ehost-live

[14] Petrosyan M, Guner Y, Emami C, Ford H. Disparities in the delivery of pediatric trauma care. *Journal of Trauma* [serial on the Internet]. (2009, Aug 2), [cited October 22, **2010**]; 67(2 Suppl): S114-9.Available from:

http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=2010369826&site=ehost-live

[15] Hunt E, Heine M, Hohenhaus S, Luo X, Frush K. Simulated pediatric trauma team management: assessment of an educational intervention. Pediatric Emergency Care [serial on the Internet]. (2007, Nov), [cited October 22, **2010**]; 23(11): 796-804.

Available from:

http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=2009724824&site=ehost- live