RESEARCH ARTICLE

A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAM ON KNOWLEDGE REGARDING THE TRIAGE SYSTEM AMONG THE NURSING STUDENTS AT SELECTED COLLEGES, KURNOOL

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ABSTRACT

The Triage system is an emergency care unit during disasters. It ensures medical resources are allocated efficiently and providing timely. Student nurses are being part of Triage medical team can assist casualties, assess them quickly and categorize their conditions by the use of color coding in triage system. The study approached through quantitative research by Quasi experimental design. Future research is recommended to conduct comparative study between urban area and rural area on nursing students with large samples.

INTRODUCTION

Triage is the process of determining the priority of treatments based on the severity of their condition. A process of sorting injured people into groups based on their need for or likely benefit from immediate medical treatment. Triage is used specially in the battlefield and disaster site's when limited medical resources must be allocated. Triage is the term derived from French verb "trier" meaning is to sort or to choose in this system according to the type and urgency of their conditions to get right patient to the right place in right time with the right care. In the triage medical team one doctor, one physician, one triage nurse and two health assistants are there at the place of disaster. At the time of disasters these people will take them for treatment by dividing by the use of color coding. Red indicates resuscitation, yellow refers emergency, blue refers semi urgent, green refers non urgent and black refers dead.

Need For The Study

"You don't maintain the hospital without doctors as likely you don't treat disaster victims without triage nurse." The triage system in an emergency care unit during disasters is crucial for student nurses as it helps them prioritize patients based on the severity of their conditions. This system ensures that medical resources are allocated efficiently providing timely care to those who need it most urgently.

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The nursing students learn how to assess patients quickly, categorize their conditions, and allocate resources efficiently, which are essential skills in managing mass casualty situations. This experience prepare them to work more effectively in high pressure environments and make critical decisions to save lives.

Statement Of The Problem: A study to assess the effectiveness ofstructured teaching program on knowledge regarding the triage systemduring disasters amongthe nursing students at selective colleges in kurnool.

Objectives

- To assess the level of knowledge regarding the triage system during disasters among the nursing students,before and after administration of structured teaching program regarding the triage system.
- To evaluate the effectiveness of structured teaching programby comparing pre test and post test knowledge scores regarding the triage system.
- To find out the association between knowledge regarding the triage system during disasters among B.Sc., nursing students with selected demographic variables.

REVIEW OF LITERATURE

Review of literature is an essential step in the development of a research project. It helps the researcher to design ,to propose study in a scientific manner as to achieve that results.

Group	Color	Type of Injuries
Priority 1 / Emergent	Red	Critical; may survive if simple lifesaving measures are applied.
Priority 2 / Urgent	Yellow	Likely to survive if simple care is given within hours.
Priority 3 / Nonurgent	Green	Minor injuries; care may be delayed while other patients receive treatment.
Priority 2 or 3	Blue	Catastrophic Patients unlikely to survive or those who need extensive care within minutes.
None	Black	Dead or severely injured and not expected to survive.

Bengt Fridlund 2022 conducted a longitudinal retrospective study on registry –based validation study of RETTSO, the Swedish adult ED context version. The study based on cohort data from a health care region comprising two EDs in southern Sweden. Two editions of RETTSO enabling comparison of crude data and adjusted for Age – Combined Charleston Co morbidity Index (ACCI) and gender.

Katrina Braeden 2021conducted a systemic review on the SALT and START Triage systems for classifying patient acuity level. The literature was searched using a systematic search strategy for articles in the Medline, CINAHL, and Web of science, Scopus, PubMed, ProQuest, databases, and the grey literature. Stimulation based and medical record based studies investigating the accuracy and applicability of the SALT AND START Triage systems in adult and child populations during MCIs and disasters.

Brief description of methods and procedures

Research Approach

A quantitative research approach is utilized.

Research Design

The research design used for this study was Quasi experimental research design involves the manipulation of independent variable to observe the effect on dependent variable. One group pretest- posttest design was adopted.

Research Setting

The study was conducted in the selected nursing college, Kurnool.

Population: A sample of nursing students in selected nursing colleges, Kurnool.

Sample: The nursing students of 3rd and 4th year BSc nursing were involved in this study.

Sample Size: Sample size was 50 students.

Sampling Technique: Non probability convenient sampling technique was used to select the sample for the study.

Instrument and Scoring Procedure: The tool consists of two parts:

Part I: Socio Demographic Variables: It includes of demographic variables such as age, sex, educational status, religion, previous experience regarding the triage system and source of knowledge.

Part II: Structured Questionnaire: It is used to assess the level of knowledge of nursing students regarding the triage system. The questionnaire consists of 30 questions with 4 options, in which 3 options are wrong and 1 is correct.

Scoring procedure: Score was interpreted as follows, if level of knowledge is <50% then nursing student have inadequate knowledge, if level of knowledge is from 51 – 75% then student nurse have moderate knowledge and if level of knowledge is >75% then student nurse have adequate knowledge.

Protecting the Human Subjects: Oral consent was obtained from each participant was obtained after explaining the purpose of the study before collecting the data. The permission was obtained from the principal, college of nursing. Confidentiality of the information was maintained.

Data Collection Procedure: The Study was conducted in selected college, Kurnool. For a period of one week after obtaining written permission from principal of selected college, Kurnool and Oral permission was obtained from each participant prior to the study. Purpose of this study was explained to the participants. Samples were chosen by non-probability convenience sampling technique. The 2nd,3rd and 4thyear BSc Nursing students were selected for the study. 50 samples were selected to participate in the study. Data collection was done by structured questionnaire. On the first day of data collection self introducing about the researcher was given and the pre-test knowledge questionnaire was given and data was collected. On the same day structured teaching program was given on the triage system using power point presentation. On the 7th day post-test knowledge questionnaire was given and the data was collected. Data obtained was tabulated, analyzed by using descriptive and inferential statistics.

FINDINGS AND INTERPRETATION

DISCUSSION

The discussion includes objective wise discussion of the findings of the study. The aim of this study is to assess the effectiveness of STP on knowledge regarding the triage system during disasters among nursing students in selected nursing colleges, Kurnool.

Objective 1: To assess the level of knowledge regarding the triage system during disasters among the nursing students, before and after administration of structured teaching program regarding the triage system.

Finding 1: The study findings revealed that before administration of STP i.e. in pre- test, 8% of students had inadequate knowledge, and 60% of students had moderate knowledge and 32% of students had adequate knowledge.

After administration of STP i.e. in post-test, 0% of students had poor knowledge, 4% of students had moderately adequate knowledge, 96% of students had adequate knowledge.

Objective 2: To evaluate the effectiveness of STP regarding the triage system among nursing students by comparing pre-test and post-test knowledge scores.

Table 1. Frequency and Percentage distribution of the students according to the demographic variables

S.No	Demographic variables		Frequency	Percentage
1.	Age	17 to 18	01	02%
		19 to 20	34	68%
		21 to 22	14	28%
		23 to 24	01	02%
2.	Sex	Male	20	40%
		Female	30	60%
3.	Religion	Hindu	32	64%
		Muslim	13	26%
		Christian	05	10%
4.	Educational status	3rd year	23	46%
		4th year	27	54%
5.	Previous Knowledge regarding the triage system	Yes	50	100%
		No	0	0
6.	Source of knowledge	Media	0	0
		Books	26	52%
		Teachers	20	40%
		Health professionals	04	08%

Table 2. Level of knowledge of nursing students regarding the triage system prior to implementation of STP

Level of knowledge	Min. – Max. Obtainable score	Frequency	Percentage
Inadequate	0 - 10	4	8%
Moderate	11 - 20	30	16%
Adequate	21 - 30	16	32%
Total		50	100%

Table 2. Level of knowledge of nursing students regarding the triage system after implementation of STP

Level of knowledge	Min. – Max. Obtainable score	Frequency	Percentage
Inadequate	0 - 10	0	0
Moderate	11 - 20	02	04%
Adequate	21 - 30	48	96%
Total		50	100%

Table 3. Comparison of level of knowledge of pre-test and post-test scores of the nursing students regarding the triage system in terms of Frequency and Percentage distribution

Level of knowledge	Min. – Max. Obtainable score	Frequency		Percentage	
		Pre	Post	Pre	Post
Inadequate	0 - 10	04	0	08%	0%
Moderate	11- 20	30	02	60%	04%
Adequate	21- 30	16	48	32%	96%

Table 4. Comparison of mean and standard deviation Of pre-test and post-test knowledge scores of Bsc nursing

Test scores	Total No. of students	Mean	Standard deviation	"t" Value	"df" Value	Level of significance
Pre test	50	24.5	2.517	13.773	49	.000 (.01)

Finding 2: The study findings revealed that comparison of mean and standard deviation of pre-test and post-test knowledge scores shows that pre-test mean score is 24.54 whereas in post-test mean score is 18.00 revealing the difference of 6.54 shows the effectiveness of STP.

Objective 3: To find out the association between knowledge regarding the triage system among nursing students with the selected demographic variables.

Finding 3: It was interpreted that there was non significant association found between knowledge scores of nursing students regarding the triage system with the selected demographic variables.

RECOMMENDATIONS

- A comparative study can be done between urban area and rural area on nursing students.
- A similar study can be conducted with large samples.
- Study can be done using different methods of teaching.
- Future studies can be conducted on knowledge and factors influence non compliance of optional health during emergency services.

CONCLUSION

On the basis of the findings of the study, it was revealed that there is a effectiveness of the Structured Teaching Program on knowledge regarding the triage system among nursing students in selected nursing colleges, Kurnool.

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