



“A Study To Assess The Effectiveness Of Information Booklet On Knowledge Regarding Management Of Mass Casualty Incidences Among Staff Nurses Working In Selected Hospitals, Bangalore”

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Abstract

Background: A mass casualty incident (MCI) is defined as “an event that overwhelms the local healthcare system, where the number of casualties vastly exceeds the local resources and capabilities in a short period of time.” Any MCI can rapidly exhaust available resources for not only the MCI but the normal day-to-day tasks of the hospital. Each hospital should institute a surge plan in preparation for anticipated, progressive, insidious (“notice” events), and sudden-onset (“no-notice” events) disasters occurring within the community. The ability to successfully allocate resources and organize an effective response to an MCI is centered on flexible, integrated communication, and information systems. **Objectives :** 1) To assess the pre test knowledge level of staff nurses regarding Management of mass casualty incidences. 2) To assess the post test knowledge level of staff nurses regarding Management of mass casualty incidences. 3) To assess the effectiveness of information booklet on knowledge of staff nurses regarding Management of mass casualty incidences. 4) To determine the association between pre test knowledge of staff nurses regarding Management of mass casualty incidences and selected demographic variables **Hypothesis:** H₁- There is a significant difference in the pre test and post test knowledge scores of staff nurses regarding Management of mass casualty incidences. H₂- There is a significant association between the pre test knowledge of staff nurses regarding Management of mass casualty incidences and selected demographic variables at the significance level of 0.05. **Methodology:** The research design consisted of pre experimental research design of one group pretest and post-test design. The population selected for the study was staff nurses of selected hospitals at Bangalore. The study samples were 60 staff nurses and were selected by using purposive sampling technique. The development of the tool involved steps of test construction i.e. preparing the blue print, selection of items, content validation and establishment of reliability. The content

validity of the questionnaire was done and modifications were done according to the suggestions given by the experts. Pre testing and reliability of the tools were done. The reliability co efficient of the knowledge questionnaire was found to be 0.893. The tool was found to be reliable. **Results:** In the Pre test of knowledge regarding Management of mass casualty incidences among Staff nurses that the level of knowledge of Staff nurses before providing information booklet. In that 45(75%) of respondents were have inadequate knowledge, 15(25%) of them have moderate knowledge and no one of respondents have adequate knowledge. Where as posttest 37(61.7%) of staff nurses have adequate knowledge. 23(38.3%) of them have moderate knowledge and 0(0%) of staff nurses were have inadequate knowledge. The means pre-test score was 16.4 and means post test score was 27.2. The difference in knowledge score was 10.8 with percentage gain in knowledge so knowledge was significant after providing information booklet. pre test knowledge regarding management of mass casualty incidences among staff nurses was 16.4 and post test knowledge regarding management of mass casualty incidences among staff nurses was 27.2, which is significant, so there is enough evidence that information booklet is effective in enhancing the knowledge of management of mass casualty incidences among staff nurses. The study was concluded that there was a significant improvement obtained following information booklet on Knowledge regarding management of mass casualty incidences. This study was recommended that there is an immense need for educational programme to improve the knowledge regarding management of mass casualty incidences among staff nurses.

Key words: Assess, effectiveness, Information booklet, Management of mass casualty incidences, Staff Nurse.

Introduction

"This, there was no comparison. It was probably the largest mass casualty incident anybody had responded to."

- John Crowley

Wellness is an ambiguous notion that frequently defies clear description, despite its obvious relevance to everybody. It has been described numerous times over the years. According to one commonly utilized means, being physically fit is "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity¹."

In recent years, this concept has grown to encompass the capacity to live an economically and socially advantageous existence.¹ Promoting wellness is critical in empowering people to become in charge of their lives to enhance their well-being. The inaugural global symposium on Healthy Living took place in Ottawa in 1986, partly because of to the increasing aspirations of the emerging health improvement organization across the globe. It initiated an array of measures involving international organizations, national governments, and neighborhood groups to realize the objective of "Good Health for Everyone" by the end of 2000 and thereafter. Health advocacy promotes public wellness by focusing on increasing people's overall well-being and lowering medical hazards caused by variables such as smoking, beverage use, and lack of exercise.²

Whenever talking about illnesses, the expression "illness" means an episode whereby the well-being of the body is damaged, resulting in an adjustment from an ideal condition and impairment of important processes within the body. Infection, according to the dictionary published by Oxford University Press, is a situation that involves the human body's or specific organ's activities are impeded. It is vital distinguish between the phrases "sickness," "disease," and "illness," as they are not interchangeable³.

Preventive medicine wellness, additionally referred to as preventive care or prophylaxis, is the utilization of established proactively health examinations, counseling, and maintenance to avoid future sickness and cure. In opposed to wellness, avoiding diseases is focused on efforts to slow or stop the progression of persistent illnesses⁴.

Happiness is intimately linked to promoting health and avoiding illnesses since it encompasses private mindsets and proactive actions that lead to improved well-being and consequences.4A massive casualty incident (MCI), also known as a situation with multiple casualty incident or numerous casualty crisis, occurs when emergency medical staff and supplies on the spot become overrun by the sheer quantity and seriousness of wounded⁵.

A major hospitalization (MCI) is a sudden occurrence that puts hospital emergency room facilities to the test, necessitating the medical facility and the healthcare the system's combined efforts. Highway, railroad, and air travel collisions, flames, clashes, explosive attacks, and infections that cause mass mortality are more often than catastrophic catastrophes⁶.

Bulk tragedy episodes have increased as a consequence of both natural and artificial unusual catastrophes, which frequently endanger the health of the public. While hurricanes as well as other catastrophes caused by nature can be predicted, no mechanism exists to anticipate the possibility of tremors. Such unpredictable circumstances make catastrophic loss control extremely difficult⁷.

Healthcare facilities are vital essential providers of service. Response to emergencies and catastrophic casualty management are typical phases of hospital disaster management operations. Quick action is one of the primary goals and a significant indicator of success in successful mass casualty control throughout the pre- through hospital phases of a catastrophe.

This necessitates particular care due to the critical functions that institutions and medical professionals provide. Scheduling for lightning-fast and efficient mass victims' administration includes fundamental elements such as the field and healthcare evaluation, evaluation fundamentals and techniques, pre-hospital treatment, disaster preparedness, hospital weight the victim plan, solving distinctive mass the victim challenges, fundamental life support, and emotional categorization.

In 2009-10, catastrophes caused by humans killed over 12 times more people than catastrophes caused by nature did. As a result, catastrophes cause a significant number of fatalities, human beings as well as animals, in just a few years of time, putting immense strain on individuals, society, and government, as they face the uncommon difficulty of dealing with a significant amount of surviving seeking medical treatment for the consequences of dangers⁸.

Healthcare preparedness for disasters is an evolving process that helps to quickly mobilize employees, beds, machinery, and supplies in a safe atmosphere following an enormous fatality or large

assembly. As a result, training emergency doctors, institution supervisors, and surgeries in the fundamentals of massive mortality administration is critical for every healthcare facility to become more adequately prepared for disasters and respond efficiently to patient needs in order to avert a secondary crisis scenario.

When reacting to a mass mortality catastrophe, the primary objective of medical personnel is to save as many lives as possible. Rather than doing everything possible to preserve every life, scarce funds must be deployed in an efficient manner to save as much life as feasible⁸.

Material and Methods

Research approach : Evaluative Research Approach.

Research design : Pre-experimental; one group pre-test, post-test design.

Research setting : Selected Hospitals at Bangalore.

Population : Staff Nurses.

Sample : Staff Nurses working in Selected Hospitals at Bangalore.

Sampling technique : Purposive sampling technique.

Sample size : 60 Staff Nurses..

Criteria for selection of the sample: The criteria for sample selection are mainly depicted under two headings, which includes the inclusion and the exclusion criteria.

Inclusion criteria

The study includes: The Staff nurses; who are;

- ✓ Working in the selected hospitals at Bangalore.
- ✓ Co-operative and willing to participate in the study.
- ✓ Available during the time of data collection.

Exclusion criteria:

The study excludes: The Staff nurses; who are;

- ✓ Not co-operative and non-willing to participate.
- ✓ Not available at the time of data collection.

Development and selection of tool:

The tool serves as an instrument for collecting data relevant to the study while also contributing to a foundation of general understanding in the topic. The goals of the research guided the selection and development of the tool. Following an assessment of relevant research, an organized knowledge quiz was deemed acceptable. The newly created tool has been improved and confirmed by topical specialists. The research's tool was a standardized information survey.

Description of tool: The tool consists of the following sections:

Section A: Sociodemographic Information:

The initial part of the instrument includes seven categories for collecting data about the specified baseline elements, including age, sex, faith, schooling received, amount of expertise, specialty of work, and where to find information.

Section B: Structured knowledge questionnaire

Structured knowledge questionnaire was prepared in the form of multiple choice questions. It consists of 30 items regarding the knowledge of Management of mass casualty incidences.

Development of Information Booklet: Based on the objectives, the Information Booklet was prepared. Content validity was taken from seven experts and necessary modifications were done. The Information Booklet was pertaining to domains of learning i.e., knowledge.

Information Booklet: The researcher devised and produced an outline for the Organized Instructional Course using a survey of literature and suggestions from guides and experts. The anticipated instruction curriculum centered on the subsequent elements: Introductory to drugs Meaning of Substance and dependence on drugs Drug morphology, pharmaceutical sources of information, pharmaceutical's adverse effects on different systems of the body, drug categories, Rehabilitation and avoidance of drug abuse.

Results and Discussion

Distribution of sample characteristics according to socio demographic variables.

The overwhelming majority of the nurses on staff (53.3%) were under the age of 25, while 22 (36.7%) were among the ages of 26 to 30, and 6 (10%) were among 31 to 35. The overwhelming of professional nursing (75.0%) were men, with 15 (25.0%) being women. The plurality of professional nursing (58.3%) were Hindus, while 18 (30%) were Muslims and 7 (11.7%) were Christians. The overwhelming majority of employees with nurses (23, 38.3%) have a GNM instruction, followed by B.Sc. Nursing, P.B.B.Sc. Nursing, and M.Sc. Nursing. The vast majority of nursing staff (41.7%) had 6-10 decades of expertise, followed by 21 (35%), 10-15 years of knowledge, and 9 (15%) with 16+ years of knowledge and training. Five (8.3%) of the staff nurses had less than five years of service. Being an employee region: majority. 20 (33.3%) of the registered nurses are employed in Fatality, 16(26.7%) in ICU, 14(23.3%) in OT, and the rest 10(16.7%) in Regular Rooms. The majority of material providers 32 (53.33%) of the participants got knowledge through printed materials, 12 (20.0%) through the ICE scheme, 10 (16.67%) through the Mass Health Education Program, and 6 (10%) through digital platforms.

OBJECTIVE 1: TO ASSESS THE PRE TEST KNOWLEDGE LEVEL OF STAFF NURSES REGARDING MANAGEMENT OF MASS CASUALTY INCIDENTS.

Level of knowledge	Score	No of Respondents	
		No	%
Inadequate	<50%	45	75.0
Moderate	50-75%	15	25.0
Adequate	>75%	0	0.0
Total		60	100

Table No. 9 show the prior assessment proficiency concerning controlling catastrophic injuries between employee nurses, indicating the degree of understanding of employees beforehand to distributing instructional pamphlet. In that 45 (75%) participants had insufficient expertise, 15 (25%) had intermediate expertise, and none had sufficient expertise.

OBJECTIVE – 2 TO ASSESS THE POST TEST KNOWLEDGE LEVEL OF STAFF NURSES REGARDING MANAGEMENT OF MASS CASUALTY INCIDENTS.

Level of information	Score	No. of Defendants	
		No.	%
Inadequates	<50%	0	0.0
Moderates	50-75%	23	38.3
Adequates	>75%	37	61.7
Total		60	100

Table 10 show afterwards understanding of managing catastrophic injuries between nurse employees after distributing an education pamphlet. In that, 0 (0%) of the registered nurses had inadequate expertise, 23 (38.3%) had basic understanding, and 37 (61.7%) had sufficient expertise.

OBJECTIVE – 3 TO ASSESS THE EFFECTIVENESS OF INFORMATION BOOKLET ON KNOWLEDGE OF STAFF NURSES REGARDING MANAGEMENT OF MASS CASUALTY INCIDENTS.

Level of Knowledge	Scores	Pre tests		Post tests	
		No	%	No	%
Inadequate	<50%	45	75.0	0	0.0
Moderate	50-75%	15	25.0	23	38.3
Adequate	>75%	0	0.0	37	61.7
Totals		60	100	60	100

Table No. 11 show that the employees and nurses' degree of understanding was insufficient prior to the provision of the guidance document, however their degree of expertise was sufficient following the provision of the discussion booklets addressing the administration of massive catastrophe incidents. As a result, the intended instructional schedule had a higher degree of expertise.

Knowledge	Max statement	Max Score	Mean	SD	Mean %
Pre test	30	30	16.4	3.4	54.7
post test	30	30	27.2	2.8	90.7

Table No. 13 showed that the mean pre-test score was 16.4 and the mean post-test score was 27.2. The disparity in understanding score was 10.8, with an approximate gain in understanding, indicating that knowledge was considerable after distributing the contents of the booklet.

Table No. 14 shows that pre-test understanding of gathering fatality occurrences between employees was 16.4 and afterwards understanding of volume victims instances between employees nurses was 27.2, both of which are important, indicating that the information booklet is effective in improving staff nurses' understanding of mass victims reflection leadership.

Information	Average	Std. Deviation	Avg. %	t -value
Pre test	16.4	3.4	54.7	34.8**
Post test	27.2	2.8	90.7	
Enhancement	10.8	2.4	36.0	

** Significant at $P < 0.01$, (df 59, t value 2)

To evaluate the effectiveness of the information booklet, a research hypothesis was formulated.

H1 means that there will be significant variations in the initial and final knowledge assessments of the details in the pamphlet on massive disaster handling. The results revealed an important distinction in pre-test and post-test awareness ratings, indicating that the content of the packet was successful.

In addition, a chi-square statistic was used to investigate the relationship among professional nurses' expertise in managing serious injuries and their demographic characteristics. The findings demonstrated a substantial relationship among understanding of managing major casualty events and socioeconomic status including year of involvement and field of employment. There wasn't little association among understanding of massive fatality handling and demographic factors such as age, sex, belief system, educational credentials, and where to find information, as evidenced by the high chi-square number and tiny p-value.

Implications of the Study

The findings of the study have implications for Research and administration. Based on the study results, the nurses can organize awareness campaign through different media to increase the awareness regarding Management of Mass Casualty Incidences. Nursing professionals can make significant contribution to health promotion.

Recommendations

On the basis of the findings of the study, the following recommendations have been made for further study:

- 1) The study can be conducted on a larger sample.
- 2) A comparative study can be conducted to find out the effectiveness of information booklet between Other staff nurses.
- 3) An evaluatory study can be conducted to find out the effectiveness of information booklet among two different groups.

Declarations

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Informed Consent: The authors have obtained student consent and were asked to sign the consent form. All data collected were kept strictly confidential.

Ethical Approval: The proposal for the study was approved by the Institutional Review Board of the Pragathi College of Nursing Bangalore.

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