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Original Article

A Study to Evaluate the Effectiveness of Self- Instructional Module (Sim) On Knowledge Regarding Management of Complications of Spinal Cord Injury Among Staff Nurses in Selected Hospitals, Jaipur

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Abstract

Introduction: Health is wealth in reality due to the fact a healthful lifestyle is life in all its abundance, joy and fullness. When one often thinks approximately illnesses and accidents all the time, those calamities will keep coming back to haunt the character. The fine way is to pay attention on being wholesome and keep away from bad sports. With fitness and optimism, we tend to look lifestyles inside the pleasant way possible.[1]

Materials & Methods: The study used a quantitative, evaluative approach with a pre-experimental one-group pre-test-post-test design. The study was conducted among 60 staff nurses at SDMH and Apex Hospital in Jaipur, selected using non-probability purposive sampling.

Results: The results of this study showed that the overall post-test knowledge mean score was 27.25 (SD±4.49), which showed that staff nurses had adequate knowledge regarding management of complication of Spinal Cord Injury.

Conclusions: The study found that staff nurses' knowledge on managing spinal cord injury complications improved significantly after intervention. Age, education, and experience were associated with knowledge scores.

Keywords: Evaluate; Effectiveness; Self- Instructional Module; Knowledge; Spinal Cord Injury

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Introduction

Disability is a trouble in frame function or structure; an interest hassle is a problem encountered by using a person in executing a mission or action; at the same time as participation limit is a problem experienced through a man or woman in involvement in existence situations.[2]

Unlike different components of the frame, the spinal wire does no longer have the potential to restore itself if it is damaged. A spinal wire harm happens whilst there may be damage to the spinalcord either from trauma, loss of its everyday blood deliver or compression from tumour or infection.[3]

Spinal twine injury is harm to the spinal twine that outcomes in a lack of function consisting of mobility or feeling. A worrying spinal cord injury dramatically modifications the lives of the people worried. Both the

affected person and circle of relatives pass through the various stages of grief and loss specially within the financial matters.[4]

Spinal accidents represent a serious medical and social hassle for societies on all continents. The patients are predominantly young, healthful and vocationally energetic human beings, which includes huge social and monetary results. A survey on 343 cases was conducted, wherein the leading motive of hospitalization become lumbar harm, accompanied through cervical and thoracic injuries.[5]

Complications after SCI are each not unusual and severe. Genitourinary and respiration complications and pressure ulcers are the maximum not unusual reasons for hospitalization. Increased affected person age and severity of the spinal wire lesion additionally impacted on the hazard of headaches requiring hospitalization.[6]

The analysis of a risky spinal harm and its subsequent management can be hard, and a missed backbone harm may have devastating long-time period results. Spinal column harm has to consequently be presumed until it's far excluded.[7]

Spinal twine damage impacts many aspects of a character's life. Often spinal cord injured patients are of the more youthful age group. Most of these patients are managed at centers without complete spinal trauma gadgets.[8]

The annual prevalence fee of spinal twine damage varies from united states to us of a, starting from 15 to seventy-one consistent with million. In 2008 the incidence of spinal wire harm within the United Kingdom changed into around 13/m, Australia 14/m, Canada 35/m, China 65/m and America 35/m per 12 months. This suggests round forty in keeping with million or 52,000 spinal accidents arise every year globally[9].

The maximum common reason of spinal wire damage is motor vehicle crashes, which money owed for 35% spinal twine injuries. Violence-related injuries account for 24%, falls with 22% and sports activities related accidents 8%.[10]

Objectives

1. To assess the previous knowledge on management of complications of spinal cord injury among staff nurses.
2. To develop and administer self-instructional module on management of complications of spinal cord injury.
3. To assess the post-test knowledge on management of complications of spinal cord injury among staff nurses.
4. To evaluate the effectiveness of self-instructional module on management of complications of spinal cord injury by comparing mean pre and post-test knowledge scores.
5. To determine an association between mean pre-test knowledge scores on management of complications of spinal cord injury among staff nurses with their selected demographic variables.

Hypotheses

The study proposes the following hypothesis will be tested at 0.05 level of significance:

H_1: The mean posttest knowledge scores of staff nurses regarding management of complications of spinal cord injury is significantly higher than their mean pretest knowledge scores.

H_2: There is a significant association between the mean pretest knowledge scores of staff nurses regarding management of complications of spinal cord injury with their selected socio demographic variables.

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Materials & Methods:

Research Approach: present study and the objectives to be accomplished, a quantitative, evaluative approach was considered appropriate for the present study.

Research Design: The research design used for the present study is a pre-experimental one group pretest posttest design

Setting of The Study: The study was conducted in SDMH and Apex Hospital Jaipur.

Population: In the present study the population comprises of staff nurses.

Sample and Sampling Techniques: Sample consists of a subset of a population selected to participate in a research study. The sample for the present study consists ofstaff nurses at selected hospitals of Jaipur.

Sample Size: The sample size for the present study consists of 60 staff nurses at selected hospital at Jaipur.

Sample Technique: Sampling is a complex and technical form but its basic features are familiar to all of us.

In this study: Sampling refers to the process of selecting a portion of the population to represent the entire population. The investigator had utilized a non-probability purposive sampling technique. The rationale for selecting this sampling technique is based on the availability of the samples.

Sampling Criteria: The study was conducted based on the following criteria,

Inclusion Criteria

Staff nurses: - The study includes staff nurses who are: -

- Studying in selected hospital, Jaipur.
- available at the time of data collection.
- willing to participate in the study

Exclusion Criteria

Staff nurses: -

- who are not willing to participate in the study

Pilot Study: Pilot Study Was Done to Check the Clarity of Items in The Tool and The Feasibility in Conducting the Study. Pilot study was conducted on October 2023 at Krishiv Health Care Hospital, Jaipur. This was conducted after obtaining permission from the administrator of the institute. About 6 samples who fulfilled the inclusion criteria were selected by convenience sampling technique. A pretest was conducted using the structured knowledge questionnaire, after the completion, SIM was distributed. On the 8th day a post test was conducted using the same pretest knowledge questionnaire. The completed questionnaire was collected after an average time of 45min.

Results:

Section- I: Description of sample characteristics.

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Table: 1 Distribution of frequency and percentage analysis of selected variables

	Demographic Variables	Respondents	
		Frequency	Percentage
1	Age		
	22-28 Years	48	80.00%
	29-35 Years	07	11.67%
	36 & Above Years	05	08.33%
2	Gender		
	Male	11	18.33%
	Female	49	81.67%
3	Educational Status		
	GNM	34	56.67%
	P.B.B.Sc. (N)	13	21.67%
	B.Sc. (N)	10	16.67%
	M.Sc. (N)	03	05.00%
4	Total Year of Experience		
	0-1 Year	38	63.33%
	2-5 Years	09	15.00%
	6-10 Years	05	08.33%
	11 & Above Years	08	13.33%
5	Have previous Knowledge on Management on SPI		
	Yes	48	80.00%
	No	12	20.00%
6	Source of Information		
	Mass Media	03	06.25%
	In- Service Education	35	72.92%
	Books/ Journals	10	20.83
7	Managed a client with complication of SPI		
	Yes	29	48.33%
	No	31	51.67%

Section-II: This section deals with finding related to overall pretest knowledge score of staff nurses regarding management of complication of Spinal Cord Injury.

Table: 2 Descriptive statistics for total Pre-test knowledge score obtained Test

Knowledge Level	Category	Classification of Respondents	
		Pre- Test	
		Number	Frequency
Inadequate	**≤ 50 % Score**	**48**	**80.00%**
Moderate	**51-75 % Score**	**09**	**15.00%**
Adequate	**≥76 % Score**	**03**	**05.00%**
Total		**60**	**100.00%**

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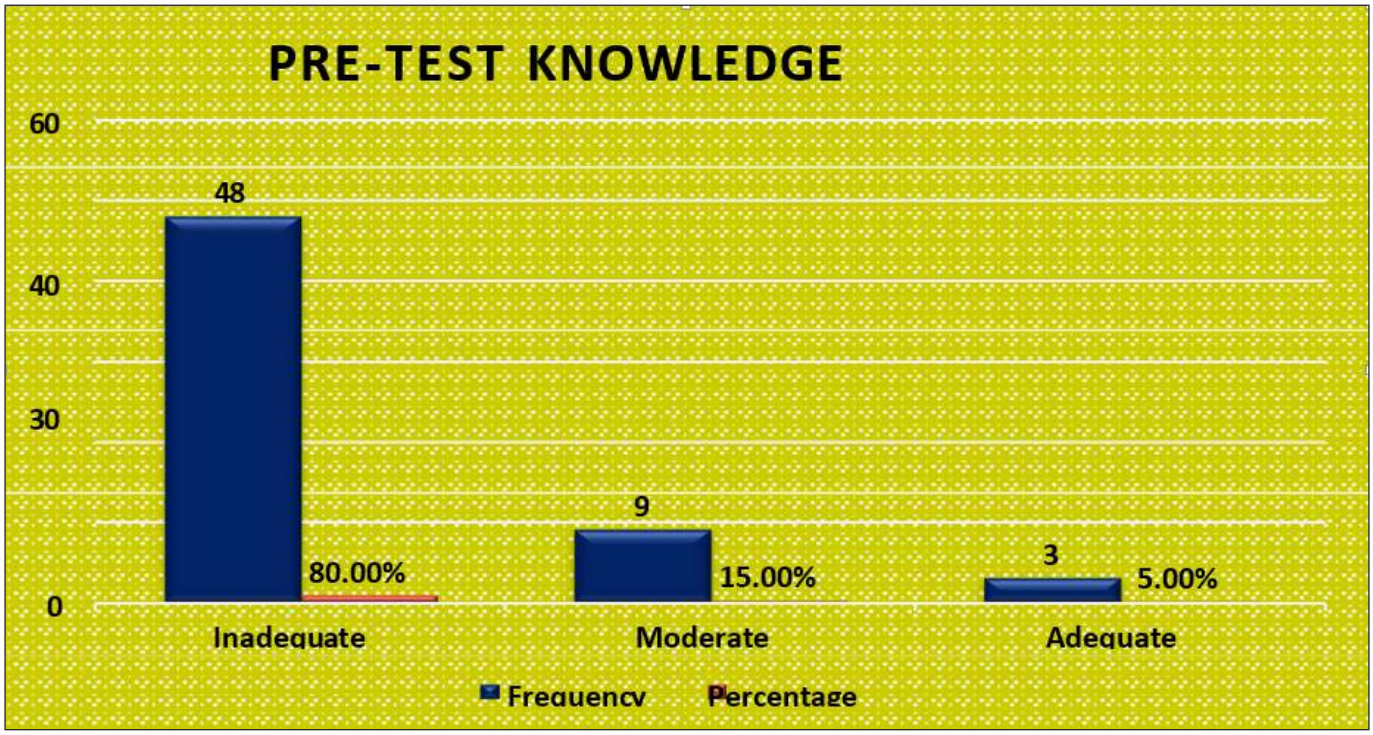

Fig: 4distributions of samples according to Pre-Test Knowledge.

Table: 3 Pre-Test Mean knowledge score of Respondents on the Management of Complication of Spinal Cord Injury.

Variables	N	Mean	SD	Standard Error
Score	60	10.78	4.33	0.56

Section-III: This section deals with finding related to overall post-test knowledge score of staff nurses regarding management of complication of Spinal Cord Injury.

Table: 4 Descriptive statistics for total Post-test knowledge score obtained Test

Knowledge Level	Category	Classification of Respondents	
		Post- Test	
		Number	Frequency
Inadequate	≤ 50 % Score	02	03.33%
Moderate	51-75 % Score	05	08.33%
Adequate	≥76 % Score	53	88.33%
Total		60	100.00%

Table: 5 Post-Test Mean knowledge score of Respondents on the Management of Complication of Spinal Cord Injury.

Variables	N	Mean	SD	Standard Error
Score	60	27.25	4.49	0.58

Section-IV: This section deals with comparison of mean of the pre-test and post-test knowledge score of staff nurses to evaluate the effectiveness of the Self- Instructional Module on management of complication of spinal cord injury.

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Table - 6 Comparison of Overall Pre-Test and Post-Test Knowledge Scores of staff nurses on Management of Complications of Spinal Cord Injury.

Aspect	Max Score	Respondent Knowledge			Paired 't' Test
		Mean	Mean %	S.D.	
Pre-Test	34	10.78	31.71 %	4.33	18.72
Post- Test	34	27.25	80.15 %	4.49	
Enhancement	34	16.47	48.44 %	0.16	

*** Significant at 5% level, t (0.05, 59df) =1.96**

Conclusions:

The study assessed staff nurses' knowledge on managing spinal cord injury complications. Pretest results showed 80% had inadequate knowledge, while posttest results showed 88.33% had adequate knowledge. The mean posttest knowledge score (80.15%) was significantly higher than the pretest score (31.71%). The study found a significant association between knowledge scores and age, education, and experience.

Recommendation:

1. Nursing education: Self-instructional modules can improve staff nurses' knowledge.
2. Nursing practice: Nurses play a vital role in health promotion and maintenance.
3. Nursing administration: Organize in-service education programs, seminars, and workshops.
4. Nursing research: Conduct in-depth studies to assess knowledge and develop evidence-based practices.

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Conflicts of interests: There is no conflict of interest

Reference:

1. Priya Shetty. Health introduction. Putting science at the heart of development. 2012 Dec. Available from: URL - http://www.scidev.net/
2. WHO. Disabilities. Health topics. 2012. Available from:URL- http://www.who.int/topics/disabilities/en/
3. Weaver FM, Lavela SL. Preventive care in spinal cord injury and disorders: examples in research and implementation. Physical Medicine & Rehabilitation Clinics of North America. 2007 May 18; 18 (2): P.297-316.
4. Rick Daniels, Laura Nosek, Leslie Nicoil. Contemprory Medical Surgical Nursing.1st ed. Thomson Delmai Learning. 2007. P.1214.
5. Pietraszkiewicz F, Tysiewicz-Dudek M. Epidemiology in spinal injuries in Lubuskie province. Orthopaedic Traumatology Rehabilitation. 2010. Sep- Oct; 12 (5): P.435-42.
6. Eujei. Chronic complication of spinal cord injury. Spinal cord injury health issues. May 2011. Available from: URL - http://www.apparelyzed.com/
7. Karim B. Trauma. Initial assessment of spinal trauma. April 2002.Availablefrom: URL - http://www.trauma.org/index.php/main/article/380/
8. Pandey VK, Nigam V, Goyal TD, Chhabra HS. Care of post traumatic spinal cord injury patients in India: An analysis. Indian Journal Orthopaedic. 2007 Oct; 41: P.295-99.
9. Graham. Spinal cord injury explained. Spinal cord injury thrill seeking wheel chair adventures. 2008. Available from: URL - http://www.streetsie.com/spinal- cord-injury/
10. ASmeltzer S, Bare B, Hinkle J, Cheever K. Brunner and Suddarth's Textbook of Medical Surgical Nursing.11th ed. New Delhi: Lippincott Williams & Wilkins. 2009. P.1926.