



RESEARCH ARTICLE

ASSESS THE KNOWLEDGE AND PRACTICE OF STAFF NURSES ON NURSING CARE OF PATIENT WITH SPINAL CORD INJURY IN ORDER TO DEVELOP NURSING CARE PROTOCOL AT DHIRAJ HOSPITAL, WAGHODIA, VADODARA

¹Kevin Christian, ²Nikhil Gurjar and ³Dr. Ravindra, H.N.

¹Assistant Professor, Department Of Medical Surgical Nursing, Sumandeep Nursing College, Sumandeep Vidyapeeth, Vadodara, India

²Post Graduate student, Sumandeep Nursing College, Sumandeep Vidyapeeth, Vadodara, India

³Principal, Sumandeep Nursing College, Head of Department, of Medical Surgical Nursing, Sumandeep Nursing College, Sumandeep Vidyapeeth, Vadodara, India

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ABSTRACT

Background: Spinal cord injury damage to any part of the spinal cord or nerves at the end of the spinal canal often causes permanent changes in strength, sensation and other body functions below the site of the injury. Combinations of various methods of health education will be helpful to enhance the further knowledge regarding spinal cord injury practices. **Aim:** The aim of this study is to assess the level of knowledge and practice regarding spinal cord injury among staff nurses working in Dhiraj Hospital, Waghodia, vadodara. **Objectives:** 1) Assess the pre-test knowledge and practice of staff nurses on nursing care of patient with spinal cord injury. 2) Develop nursing care protocol on nursing care of patient with spinal cord injury. 3) Evaluate the impact of nursing care protocols. 4) Find the association between pre-test knowledge score and practice score with selected demographic variables. **Material and Method:** A pre-experimental one group pre-test-post-test design is used. The sampling technique was non-probability convenience sampling is used to collect the 70 samples of staff nurses and data collection done by administering the structured questionnaire and practice check list. Data was analyzed by using descriptive and inferential statistics such as standard deviation, chi-test, and paired 't' test. **Results:** The pre-test assessment the score of 24(34%) staff nurses was having moderate level of knowledge and 46(66%) were having inadequate knowledge while in post-test 5(7%) of staff nurses having moderate level of knowledge and 65(93%) having adequate level of knowledge nobody was found at the inadequate level. The obtained pre-test mean score was 7.14 and post-test mean score was 15.24 the mean difference of the pre-test and post-test is 8.10 which shows the improvement in the level of knowledge among staff nurses, The pre-test SD was 1.35 and post-test SD 1.33 The obtained "t" test value 33.270, df=69 significant at 0.05 level. Whereas the pre-test score of practice shows 23(32.85%) staff nurses were has inadequate practice and 47(67.14%) was having moderate practice, the post test data reveals that 24(34.28%) were having moderate practice and 46(65.71%) having adequate practice towards spinal cord injury. The obtained pre-test of practice mean score was 4.02 and post-test of practice mean score was 7.66 of staff nurses; the mean difference of the pre-test and post-test of practice is 3.63 the pre-test SD of practice was .83 and post-test SD .81 The obtained "t" test value 27.790, df=69 shows significant at 0.05 level. It indicates that there is increased in the level of knowledge and improves practice towards spinal cord injury after providing nursing care protocol. **Conclusion:** The result of the present study shows that there is a great need for the staff nurses to update their knowledge and practice regarding nursing care of patient with spinal cord injury.

Key words: Knowledge, Practice, Staff nurses, Spinal cord injury, Protocol, Dhiraj Hospital.

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INTRODUCTION

Spinal cord injury damage to any part of the spinal cord or nerves at the end of the spinal canal often causes permanent changes in strength, sensation and other body functions below

the site of the injury (<https://www.mayoclinic.org/diseases-conditions/spinal-cord-injury/basics/definition/con-20023837>). a spinal cord injury (SCI) is damage to the spinal cord that causes changes in its function, either temporary or permanent. These changes translate into loss of muscle function, sensation, or autonomic function in parts of the body served by the spinal cord below the level of the lesion (https://en.wikipedia.org/wiki/Spinal_cord_injury). Spinal cord injury (SCI) is a

*Corresponding author: Kevin Christian

Assistant Professor, Department Of Medical Surgical Nursing, Sumandeep Nursing College, Sumandeep Vidyapeeth, Vadodara, India

devastating condition which occurs with an annual incidence of 12.1-57.8 cases per million. SCI is associated with permanent disability and decreased life expectancy. Although more than 80% of the world's population live in the more than 100 developing countries, little information is available regarding the epidemiology of SCI in these countries. Since there is no curative treatment for SCI, prevention of SCI is paramount. Investigating the epidemiological pattern of SCI is the first step in planning for preventive strategies. The epidemiology of SCI varies in different countries and the results of epidemiological studies from developed countries are not applicable to developing countries. Given the poorly elucidated epidemiological pattern of SCI in developing countries, this systematic review aims to pool all available data to elucidate epidemiological patterns of SCI in these countries (<https://www.karger.com/Article/FullText/35071>).

Objectives of the Study

- Assess the pre-test knowledge and practice of staff nurses on nursing care of patient with spinal cord injury.
- Develop nursing care protocol on nursing care of patient with spinal cord injury.
- Evaluate the impact of nursing care protocols.
- Find the association between pre-test knowledge score and practice Score with selected demographic variables.

Hypothesis

- H1:** There will be significant difference in the knowledge and practice score regarding spinal cord injury among staff nurses after receiving nursing care protocol.
- H2:** There will be significant association between pre- test score with selected demographic variables.

MATERIALS AND METHODS

Research Approach: Evaluatory approach.

Research Design: One group pre-test and post-test pre-experimental research design.

Variables under the Study

Independent variables: "An independent is a variable which can influence the dependent variable. The independent variable in this study is study is nursing care protocols on spinal cord injury.

Dependent variables: "A dependent variable is the response behaviour or the outcome that is caused by the independent variable. The dependent variable in this study is the knowledge and practice of staff nurses regarding nursing care of patient with spinal cord injury.

Research Setting: Setting is the physical location or the area where the research study is conducted. In this study setting refers to the Dhiraj Hospital, situated in Waghodia, Vadodara.

Population: In this study target population consisted of staff nurses working in Dhiraj hospital Waghodia, vadodara.

Sample and sampling technique: The samples in this study is staff nurses who working in Dhiraj Hospital and available

during the research study. In this study, Non-probability convenience sampling technique was used.

Data Collection Techniques and Tools: Data collection instrument was structured knowledge questionnaire.

Data Collection Tool: The tool is divided into three parts:

- Section 1:** Demographic variables such as age, gender, education qualification, qualification experience.
- Section 2:** Structured knowledge questionnaire will be used to assess knowledge regarding spinal cord injury.
- Section 3:** practice check list will be used to assess the practice regarding spinal cord injury.

RESULTS

Findings are Organised in the Following Section

Section I: Analysis of socio demographic characteristics of the respondent

Data shows that highest percentage (84%) of staff nurses were in the age group of 20-25 years and least (14%) were in the group of 25-30 and (2%) were in the group of 30-35 yrs and (0%) were in group of 35-40 years. Data indicates the highest percentage (60%) of female staff nurses and least percentage (40%) of male staff nurses. Above data shows the data about education qualification, highest percentage (65.71%) B.Sc. nursing/ P.B. B.Sc. nurses and least percentage (28.57%) G.N.M. nurses and (5.71%) A.N.M. nurses. Data shows the qualification experience a majority were having (85.71%) in the range of 0-2 year, (10%) in the range of 2-4 year, (1.42%) in the range of 4-6 year and (2.85%) in the range of >6 year.

Section II: Assessment of Knowledge Regarding Spinal cord injury

Table 1. Distribution of pre-test level of knowledge score of staff nurses regarding spinal cord injury based on their knowledge categories (Pre-test)N=70

Sr. No.	Knowledge level	Frequency	Percentage
1	Inadequate	46	65.71%
2	Moderate	24	34.28%
3	Adequate	00	00%
Total		70	100%

Table 2. Distribution of post-test level of knowledge score of staff nurses regarding spinal cord injury based on their knowledge categories (Post-test)N=70

Sr. No.	Knowledge level	Frequency	Percentage
1	Inadequate	00	00%
2	Moderate	5	7.14%
3	Adequate	65	92.85%
Total		70	100%

Table 3. Distribution of pre-test practice score of staff nurses regarding spinal cord injury (Pre-test)N=70

Sr. No.	Categories of practice	Frequency	Percentage
1	Inadequate	23	32.85%
2	Moderate	47	67.14%
3	Adequate	0	0%

Table 4. Distribution of post-test practice score of staff nurses regarding spinal cord injury (Post-test)N=70

Sr. No.	Categories of attitude	Frequency	Percentage
1	Inadequate	0	0%
2	Moderate	24	34.28%
3	Adequate	46	65.71%

Section III: Analysis of effectiveness of nursing care protocol of spinal cord injury. N=70

Table 5. Comparison of pre-test and post-test knowledge score of staff nurses

Variable	Pre test	Mean	Mean Difference	Std. Deviation	t- Value
Knowledge regarding spinal cord injury	Pre-test	7.142857	8.100003	1.354389	33.270
	Post-Test	15.24286			

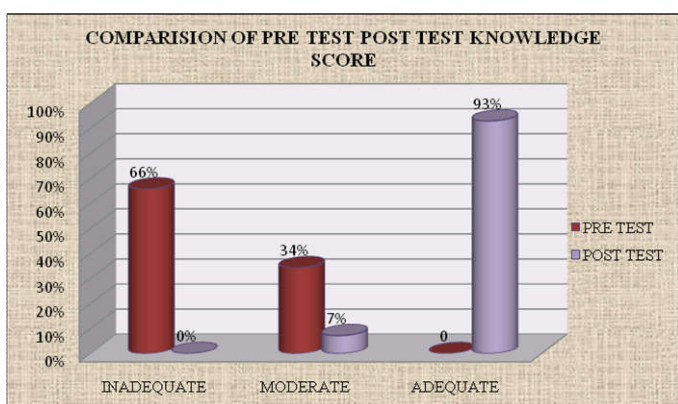
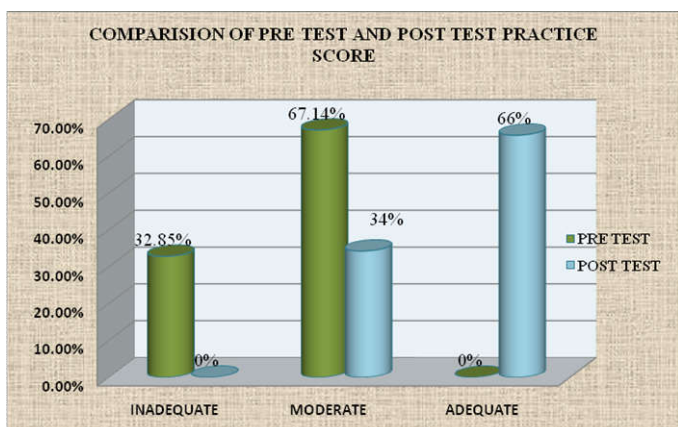


Table 6. Comparison of pre-test and post-test practice score of staff nurses

Variable	Pre-test	Mean	Mean Difference	Std. Deviation	t- Value
Practice regarding spinal cord injury	Pre-test	4.0286	3.638	.83356	27.790
	Post-Test	7.6666			



SECTION IV: Association between pre-test knowledge score and socio- demographic variable.

Above table reveals the association between knowledge of staff nurses and demographic variable. Found was the non-significant demographic variable is age, gender, education qualification, qualification experience with knowledge.

Recommendations

Based on the findings of the present study recommendation offered for the future study

- The similar study can be conducted on larger sample this will provide the valuable evidence in the area of practice.
- A similar study can be conducted on staff nurses to improve the SCI practices.
- A similar study can be done to assess the knowledge and practice on spinal cord injury.
- The similar study can be done in the community setting.
- A longitudinal study can be done by using post-test after one month, six months and one year to assess the effectiveness of STP.

DISCUSSION

The present study was conducted to evaluate the effectiveness of structured teaching programme on knowledge and practice regarding spinal cord injury among staff nurses working in Dhiraj hospital Waghodia, Vadodara.” The aim of study was conducted to evaluate the effectiveness of structured teaching programme on knowledge and practice regarding spinal cord injury among staff nurses. It was found staff nurses had inadequate knowledge and practice regarding nursing care of patient with spinal cord injury among staff nurses and nursing care protocol is effective to improve the knowledge and practice regarding nursing care of patient with spinal cord injury. Different study shows that the nursing care protocol is help to improve the knowledge and practice of spinal cord injury. Various evidences show the effectiveness of structured teaching programme in improving knowledge and practice regarding nursing care of patient with spinal cord injury. Chacko V, 1986 Oct 1, a study was conducted on 218 patients with spinal injury treated in a general hospital in rural India. 125 patients had neurological deficit. The commonest cause for spinal injury was falling from trees (55.2%) (Chacko, 1989). DE Vivo MJ., 2012 May 1, the study was conducted to review trends in the incidence, prevalence, demographic characteristics, etiology, injury severity and selected outcomes of traumatic spinal cord injury (SCI). Study design was review supplemented by inception cohort. Methods: An extensive literature review was conducted to identify all relevant studies of descriptive epidemiology of traumatic SCI (DE, 2012). Kennedy P, 2003 March 1, A study was conducted to improving psychological adjustment, self-perception and enhancing adaptive coping following spinal cord injury. A study design was a controlled trial comparing patients that received the CET intervention with matched controls on measures of psychological adjustment and coping (Kennedy, 2003). Matheis EN, 2006 Aug Study was conducted to determine how spiritual-based coping relates to quality of life in individuals with spinal cord injury (SCI). Samples were primarily Caucasian single men aged 19 to 71. A telephone interview of 75 participants was done (Matheis, 2006).

Conclusion

Analysis of obtained data was planned based on the objectives and hypothesis of the study, both descriptive and inferential statistics were used for the analysis of the data. The data is interpreted in the forms of tables and graphs.

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