*Section A-Research paper*
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# EFFECTIVENESS OF SELF-INSTRUCTIONAL MODULE REGARDING KNOWLEDGE ON CORRECT BODY MECHANICS IN PREVENTION OF LOW BACK PAIN AMONG STAFF NURSES

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## ABSTRACT

**Background:-**The present study was conducted to assess the effect of SIM on knowledge of correct body mechanics in prevention of low back pain among staff nurses.

**Methods: -**

An experimental design was chosen with one group pre test- post-test research design. The sample size was 60 registered Staff nurses. The data was collected by using a self structured questionnaire focusing on knowledge on proper body mechanics in prevention of low back pain among staff nurses. The data were analyzed with the help of descriptive and inferential statistics.

**Result:-**

The study clearly shows that there was a significant gain in knowledge of Staff nurses which emphasizes that proper body mechanics is necessary for the prevention of low back pain.

**Conclusion:-**

The Staff nurses can be benefited with SIM to improve knowledge on correct body mechanism in prevention of low back pain.

**Keywords:** Self instructional module, body mechanics, low back pain

## INTRODUCTION

Professionals in the health care industry should possess in-depth scientific knowledge of body mechanics and how to apply it to daily practise. Body mechanics are significantly influenced by gravity. Everything has a continual pull from the earth towards its centre, which supports appropriate posture and overall bodily equilibrium.[1]

While moving bedridden or paralysed individuals, proper use must be considered because the body's proper functioning is related to posture as well. In order to move patients at a hospital, essential actions such as walking, moving, and lifting are required.[2]

A large number of nurses reporting sickness from back pain each year, back injuries in the nursing profession account for almost a quarter of a million lost workdays yearly. [3]

Within the healthcare industry, one occupational category that is susceptible to lower back discomfort is nurses. The prevalence of lower back pain among nurses ranged from 50% to 90%. Lower back pain is usually caused by nurses lifting or transferring patients who may move suddenly while performing repeated tasks with poor body posture.[4]

### Background of the study

Lower Back Pain is still a typical occupational illness for nurses. However in order for nurses to

exercise their fundamental right to work in a secure and healthy environment, to continue their professions, and to better support their patients, it is crucial that they take preventative measures for LBP in nurses.[5]

The majority of the time, nurses injure their backs turning bedridden patients or moving them between stretchers, beds, and chairs, they continue, noting that among all nurses, orthopaedic and intensive care unit nurses experience the highest rates of low back pain. When it is incorporated into daily tasks, body mechanics helps reduce the amount of stress on the spine. Using appropriate body mechanics is an excellent strategy to prevent further back injuries. So, learning proper body mechanics is crucial for preventing back pain.[6]

**Problem Statement**

Assess the effectiveness of self-instructional module regarding knowledge on correct body mechanics in prevention of low back pain among staff nurses at Sagar.

**Objectives of the Study**

The objective of the study:

1. To assess the knowledge of staff nurses regarding proper body mechanics in prevention of low back pain before giving the self-instructional module
2. To determine the effectiveness of self-instructional module regarding knowledge on proper body mechanics in prevention of low back pain among staff nurses.

**Null Hypothesis**

**$H_1$:** There will be no significant difference in the knowledge score of the Staff Nurses

**$H_3$:**Therewillbenosignificantassociationbetweensampleswiththeirselecteddemographic variables

**Study Design**

One group pre test- post-test research design.

**Setting**

The study was conducted in selected Hospital at Sagar , Madhya Pradesh.

**CriteriaforSampleSelection**

**Inclusion Criteria**

- Staff Nurses willingtoparticipateinthestudy.

**Exclusion Criteria**

- Staff Nurses absent at the time of study.

**Statistical Analysis**

To find out what knowledge staff nurses have regarding lower back pain, data was compiled and reviewed. Results were analysed using frequency, percentage, mean, and standard deviation. An unpaired t-test is utilised to determine whether there is a significant informational difference between the experimental and control groups.

**Ethical Clearance :**-After obtaining approval from the authority, an Interview Schedule was used to obtain demographic and baseline data.

**Independent Variable**

Staff nurses with LBP.

**DependentVariable**

Knowledge is a dependent variable that relies on self instructional module..

**Demographic Variables**

Age, Religion, Academic qualification and Source ofknowledgelower back pain .

**Sample:** staff nurses were selected from medicine, surgery and orthopedic ward.

**Sample size:** Total 60

**Sampling technique:** purposive and convenience sampling technique

**Duration of Study:** 6 weeks

**Scoring Procedure**

Each query had four possible answers from which the sample had to select only one. The correct answer received a score of 01, while the incorrect choice received a score of zero. The following is how the results were interpreted:

1. Inadequate awareness, with a ranking of less than 50%
2. A moderate knowledge score of 51-74 % is needed.
3. More than 75% of people have adequate awareness.

**Method of Data Collection**

The data was collected by using a self structured questionnaire focusing on knowledge on proper body mechanics in prevention of low back pain among staff nurses. The first part of questionnaire consists of demographical data such as age, religion, professional qualification, educational qualification and source of information. The second part asks questions about knowledge upon proper body mechanics in prevention of low back pain among staff nurses. After completing the pre test a Self Instructional Module on correct body mechanics in prevention of low back pain was given to them and the post test was done after 7 days. The data thus collected was analyzed using descriptive and inferential statistics

**Result**

**Table 1. Frequency and percentage distribution of subject sasperage, religion, professional experience in year, educational qualification, socio-economicstatus,source of knowledge**

N=60

| | **Category** | **Frequency** | **Percentage** |
|---|---|---|---|
| | | **N** | **%** |
| AgeGroup | 21-25 | 26 | 43.33 |
| | 26-30 | 24 | 40 |
| | 31-35 | 10 | 16.66 |
| Religion | Hindu | 30 | 50 |
| | Muslim | 04 | 6.66 |
| | Christian | 26 | 43.33 |
| Professionalqualification(inyears) | 1-3 | 38 | 63.33 |
| | 4-6 | 16 | 26.66 |
| | 7-9 | 06 | 10 |
| EducationalQualification | DiplomainNursing | 20 | 33.33 |
| | B.Sc.Nursing | 30 | 50 |
| | PostBasicB.Sc.Nursing | 10 | 16.66 |

Table 1 shows that 26 (43.33 %) of staff nurses are between the ages of 21 and 25, 24 (40 %) of staff nurses are between the ages of 26 and 30, and 10 (16.66 %) of staff nurses are between the ages of 31 and 35. Regarding religion 30 (50 %) of staff nurses were Hindu ,4(6.66%) were Muslim and 26 (43.33%) were Christian. Regarding professional qualification 38(63.33%) staff nurses had 1-3 years of qualification, 16(26.66%) had professional qualification of 4-6 years and 6(10%) had 7-9 years of professional qualification. Regarding educational qualification 20(33.33%) staff nurses having diploma in nursing,30 (50%) staff nurses had B.Sc Nursing and 10 (16.66%) having post basic B.Sc nursing.

**Assessment of knowledge score**

In the pre-test, the majority of staff nurses, 48 (80%) had insufficient knowledge and 12 (20%) had moderate knowledge, but in the post-test, 8 (13.33%) of them had moderate knowledge and 52 (86.66%) of them had adequate knowledge.

**Table2.FrequencyandPercentagedistributionofoverallknowledgescore**

N=60

| S. No. | Levelofknowledge | Overall knowledge score | | | |
|---|---|---|---|---|---|
| | | Pre-test | | Post-test | |
| | | f | % | f | % |
| 1. | Inadequate (<50) | 48 | 80 | - | - |
| 2. | Moderate (5175) | 12 | 20 | 08 | 13.33 |
| 3. | Adequate(>75%) | - | - | 52 | 86.66 |

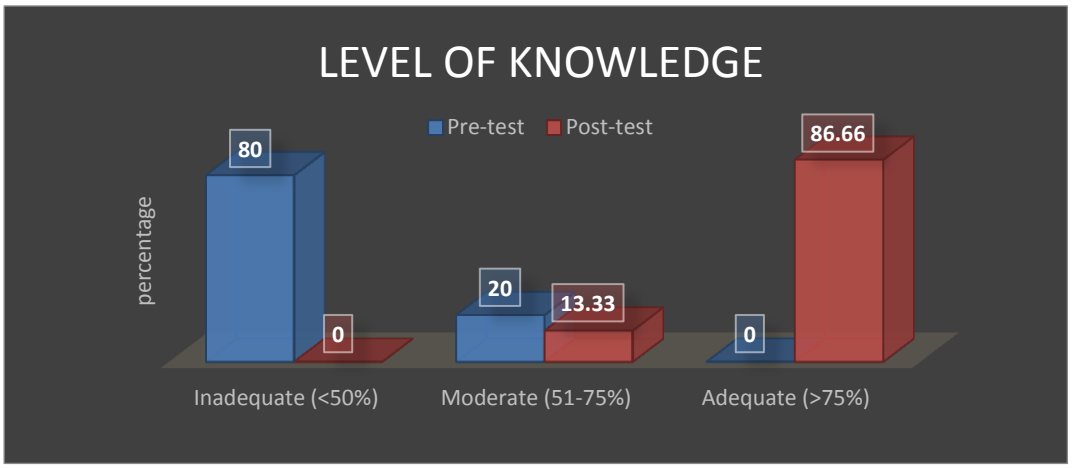


**Figure1.Bargraphshowingthelevelofknowledge**

**Discussion**

After passing the pre-test, they were given a self-instructional module on proper body mechanics for preventing low back discomfort, and the post-test was administered seven days later. Descriptive and inferential statistics were used to analyse the information that was thusly gathered.

**Conclusion**

The results of the study demonstrated how well the self-instructional module improved staff nurses' knowledge. The level of nursing staff awareness of optimal body mechanics for preventing low back pain needs to be raised. Because low back pain is a highly common issue among staff nurses, prevention of low back pain is very important for all staff nurses.

**Confidentiality of Data**

The feedback forms completed by the staff nurses are kept confidential. Only the principal investigator has access to these documents.

**Conflict of Interest:** None

**Funding:** - Self

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