



# A STUDY TO ASSESS THE EFFECTIVENESS OF NURSE LED INTERVENTION ON KNOWLEDGE REGARDING ERGONOMICS ON PHYSICAL DISCOMFORT AMONG NURSING STUDENTS IN SELECTED NURSING COLLEGE OF INDORE DISTRICT (M.P.)

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The current study has been undertaken to assess knowledge score regarding Ergonomics on physical discomfort among Nursing students by Nurse led intervention. The research design used for study was pre- experimental in nature. The tool for study was self-structured knowledge questionnaire which consists of 2 parts-PART- I consisted questions related to Socio-demographic data; PART-II consisted of self -structured knowledge questionnaire to assess knowledge score regarding Ergonomics on physical discomfort among Nursing students. The data was analyzed by using descriptive & inferential statistical methods. The most significant finding was that 80.0% subjects have poor knowledge, 20.0% have average knowledge score while 0.0% peoples were having good knowledge score.

**Keywords:** Assess, nurse led intervention, Knowledge, ergonomics, physical discomfort.

## 1. INTRODUCTION

Ergonomics can assist in preventing musculoskeletal pain. Studies have demonstrated the importance of ergonomic interventions, resulting in reductions in the frequency of musculoskeletal pain, discomfort, and absenteeism. Moreover, there is evidence that ergonomic office interventions are effective at reducing costs associated with musculoskeletal disorders and can increase worker productivity. Healthcare workers are prone to injury from a number of sources, including the tools they work with, the patients they help, and the stress that their bodies experience in their line of work. One way to minimize injury to doctors, nurses, and other healthcare employees is to introduce high-quality ergonomics that will help keep them in comfortable, natural positions while they are working. For sonographers, for example, an ergonomic ultrasound chair will make all the difference in the world. These chairs will allow them to conduct ultrasounds in a comfortable position while providing the physical support they need to avoid strain and injury.

## 2. PROBLEM STATEMENT

A study to assess the effectiveness of nurse led intervention on knowledge regarding ergonomics on physical discomfort among nursing students in selected nursing college of Indore district (M.P.)

### 3.OBJECTIVE OF THE STUDY

1. To assess the pre-test knowledge of Nursing students regarding Ergonomics on physical discomfort before implementing Nurse led intervention.
2. To determine the effectiveness of Nurse led intervention on knowledge regarding Ergonomics on physical discomfort by comparing post-test and pre- test knowledge score.
3. To find out the association between pre-test knowledge score of Nursing students with selected demographic variables.

### 4. HYPOTHESES:

H1 – There is a significant difference between mean pre-test and post-test level of knowledge score of Nursing students regarding Ergonomics on physical discomfort.

H2 – There is a significant association between the pre-test knowledge score of Nursing students regarding Ergonomics on physical discomfort with selected demographic variables.

### 5. ASSUMPTION

1. Nursing students may have deficit knowledge regarding Ergonomics on physical discomfort.
2. Nurse led intervention will enhance knowledge of nursing students regarding Ergonomics on physical discomfort.

### 6. METHODOLOGY:

An evaluative approach was used and research design pre-experimental one group pre-test post-test research design was used for the study. The samples consisted of 60 Nursing students selected by Non probability convenient sampling technique. The setting for the study was Selected nursing college, Indore. Data was gathered with help of demographic variables & administering a self-structured knowledge questionnaire by analyst prior & after Nurse led intervention. Post-test was done after seven days of pre-test. Data were analysis using descriptive & inferential statistics

### 7.ANALYSIS AND INTERPRETATION

**SECTION-I Table -1 Frequency & percentage distribution of samples according to their demographic variables.**  
n = 60

#### a. Socio-personal data

**Table 1: Frequency and percentage distribution**

S.N o.	Variables	Frequency	Percentage
1.	<b>AGE</b>		
	18-19 year	15	50.0
	19-20 year	12	40.0
2.	>21 years	3	10.0
	<b>Course of study</b>		
	GNM	10	33.3
	B.Sc. Nursing	16	53.3
3	Post B.Sc. Nursing	4	13.3
	<b>Gender</b>		
	Male	8	26.7
4	Female	22	73.3
	<b>Occupation of parents</b>		
	Private employee	8	26.7
	Government employee	4	13.3
	Business	11	36.7
	Shopkeeper	7	23.3

**Regrading age-** This was reported that 15 (50.0%) of the population of Nursing students were more frequently belonged to the age between 18-19 years and that followed by the age group of 19-20 years consisted of 12 (40.0%) Nursing students. This was also noticed that the higher age group of >20 years consisted of 3 (10.0%) Nursing students.

**Regrading Course of study-** Major part (16, 53.3%) of population of Nursing students found to be with B.Sc. Nursing course, (10, 33.3%) of population of Nursing students found to be with GNM course of study, (4, 13.3%) of population of Nursing students found to be with post B.Sc. Nursing.

**Regrading Gender-** (8, 26.7%) of population of Nursing students was most commonly male. Rest, 22 (73.3%) Nursing students found to be female had also participated in the present study.

**Regrading occupation of parents-** Occupation of parents of 8 (26.7%) nursing student found to be private employee, Occupation of parents of 4 (13.3%) nursing student found to be government employee, Occupation of parents of 11

(36.7%) nursing student found to be business and also Occupation of parents of 7 (23.3%) nursing student found to be shopkeeper.

**b. Assess the significance difference between pre-test and post-test knowledge**

**Table 2: Comparison of scoring to judge the knowledge among Nursing students between pre (baseline) and post administration stages (n = 30)**

Parameter	Variable	Scatterings	Z-Statistic	p-value (LOS)
		Mean $\pm$ SD		
Knowledge	Pre-test	8.76 $\pm$ 2.07	-20.55 Df=29	p<0.05
	Post-test	21.03 $\pm$ 2.07		

Table 2 highlights the pre and post administrative assessment of knowledge of Nursing students about Ergonomics on physical discomfort. However, the difference was analyzed to rule out the improvement in knowledge between day one (baseline) and seventh day post-administration.

Post-administration, the knowledge among Nursing students about Ergonomics on physical discomfort found to be differed and was significantly improved after administration of Nurse led intervention as compared to pre administrative knowledge.

After administration at day seven the average (Mean  $\pm$  Standard Deviation) score to judge the knowledge (21.03  $\pm$  2.07points) among Nursing students found to be significantly greater and improved as compared to average score of knowledge (8.76  $\pm$  2.07points) at baseline stage.

Moreover, the statistical agreement projected that the Nursing students intervened with reliable Nurse led intervention had better and significantly improved knowledge.

Henceforth, the statistical agreement demonstrated that the Nurse led intervention preferred as an effective conservative program for improving the knowledge among Nursing students regarding Ergonomics on physical discomfort.

Furthermore, the alternative hypothesis was accepted and concluded that there were significant differences between pretest and posttest knowledge scoring regarding Ergonomics on physical discomfort among Nursing students.

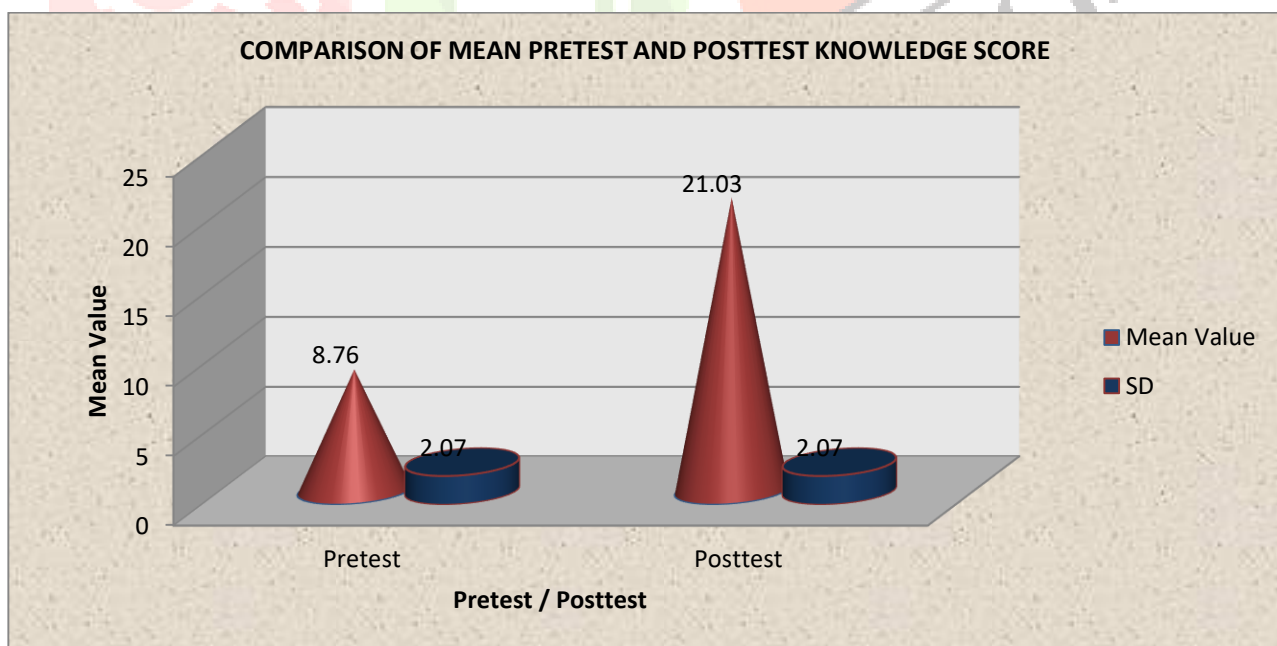


Figure 1 -Bar diagram showing the comparison in scoring of knowledge among Nursing students having before (pre-test) and after administration (post-test).

## c. The association of knowledge of Nursing students with selected demographic variables

Table 3 The association of knowledge regarding Ergonomics on physical discomfort of Nursing students before administration with selected demographic variables at baseline stage (pretest)

Socio-demographic Variables	Poor	Average	Good	Tot al	D f	Chi- Square value
<b>1 Age</b>						
18-19 year	11	4	0	15	2	1.25
19-20 year	10	2	0	12		
>20 years	3	0	0	3		
<b>2. Education</b>						
GNM	8	2	0	10	2	0.07
B.Sc. Nursing	13	3	0	16		
Post B.Sc. Nursing	3	1	0	4		
<b>3. Gender</b>						
Male	8	0	0	8	1	2.72
Female	16	6	0	22		
<b>4. Occupation of parents</b>						
Private employee	7	1	0	8	3	0.85
Government employee	3	1	0	4		
Business	8	3	0	11		
Shopkeeper	6	1	0	7		

The above chi square table says that there is significant association between knowledge score and the selected socio demographic variables as the chi square value is greater than the tabulated value at 0.05 level of significance. Therefore, the H<sub>2</sub> hypothesis was rejected.

## 8. DISCUSSION

- This was reported that 15 (50.0%) of the population of Nursing students were more frequently belonged to the age between 18-19 years and that followed by the age group of 19-20 years consisted of 12 (40.0%) Nursing students. This was also noticed that the higher age group of >20 years consisted of 3 (10.0%) Nursing students.
- Major part (16, 53.3%) of population of Nursing students found to be with B.Sc. Nursing course, (10, 33.3%) of population of Nursing students found to be with GNM course of study, (4, 13.3%) of population of Nursing students found to be with post B.Sc. Nursing.
- (8, 26.7%) of population of Nursing students was most commonly male. Rest, 22 (73.3%) Nursing students found to be female had also participated in the present study.
- Occupation of parents of 8 (26.7%) nursing student found to be private employee, Occupation of parents of 4 (13.3%) nursing student found to be government employee, Occupation of parents of 11 (36.7%) nursing student found to be business and also Occupation of parents of 7 (23.3%) nursing student found to be shopkeeper.
- After administration at day seven the average (Mean  $\pm$  Standard Deviation) score to judge the knowledge (21.03  $\pm$  2.07points) among Nursing students found to be significantly greater and improved as compared to average score of knowledge (8.76  $\pm$  2.07points) at baseline stage.
- Moreover, the statistical agreement projected that the Nursing students intervened with reliable Nurse led intervention had better and significantly improved knowledge.
- Before administration of Nurse led intervention exactly 24 (80.0%) Nursing students observed with poor (1-10) knowledge about Ergonomics on physical discomfort. Further, analysis indicated that population of Nursing

students (6, 20.0%) identified with average (11-20) knowledge about Ergonomics on physical discomfort before administration of Nurse led intervention.

- However, post administration none (0.0%) of the Nursing students identified with poor knowledge about Ergonomics on physical discomfort. This was also noted that 9 (21.0%) Nursing students had obtained with average (11-20) and 21 (70.0%) Nursing students had obtained with good (21-30) knowledge about Ergonomics on physical discomfort.
- The chi square says that there is significant association between knowledge score and the selected socio demographic variables as the chi square value is greater than the tabulated value at 0.05 level of significance. Therefore, the H2 hypothesis was rejected.

### 9.CONCLUSION

The study concluded that After administration of Nurse led intervention, the knowledge assessment among Nursing students had indicated that the improvements in knowledge of Nursing students about Ergonomics on physical discomfort found at large at post administration stage as compared to baseline stage

### 10. LIMITATIONS-

- This was limited to selected nursing college, Indore.
- This was limited to 60 nursing students.

### 11.REFERENCE-

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