Evaluate the Effectiveness of Video Assisted Teaching Programme on Knowledge Regarding Body Mechanics among GNM Students in Selected Nursing Institutes

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ABSTRACT

Background of the study: Body mechanics is the application of mechanical principles and knowledge of human anatomy of the action of body parts during activity, bed ridden patients and they need full time assistance. Good alignment is necessary when sitting, standing or lying down. So with the use of correct body mechanics, we can maintain a balance in keeping the spine in vertical alignment.

Objectives: To assess the knowledge regarding body mechanics among first year GNM students. To evaluate the effectiveness of video assisted teaching programme on knowledge regarding body mechanics among first year GNM students in terms of gain in knowledge score. To find out an association between pre-test knowledge score regarding body mechanics with their selected socio demographical variables.

Methodology: An evaluative study was conducted among 40 first year GNM students at selected Nursing colleges of Hubballi. Samples were selected using non-probability convenient sampling technique. Data were collected by structured knowledge questionnaire.

Results: Overall result of the study revealed that the level of knowledge on body mechanics in pre-test 26 (65%) had average knowledge, 08 (20%) had good knowledge and 06 (15%) had poor knowledge. Whereas, in post-test after Video Assisted Teaching Programme, 34 (85%) had good knowledge and 06 (15%) had average knowledge.

Conclusion: The study concluded that the Video Assisted Teaching Programme was effective in improving knowledge regarding body mechanics.

Key words: Knowledge, Video Assisted Teaching Programme, Body mechanics, Nursing students.

SUMMARY OF METHODS:


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

Research setting: KLES’ Institute of Nursing Sciences, Hubballi.

Table 1: Symbolic representation of pre-experimental; one group pre-test, post-test design

<table>
<thead>
<tr>
<th>GROUP</th>
<th>PRE-TEST</th>
<th>INTERVENTION</th>
<th>POST-TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Year GNM Students</td>
<td>O₁</td>
<td>X</td>
<td>O₂</td>
</tr>
</tbody>
</table>
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O1: Assessment of the knowledge of the subjects through structured knowledge questionnaire before the administration of Video Assisted Teaching Programme.
X: Administration of Video Assisted Teaching Programme on knowledge regarding body mechanics.
O2: Assessment of the knowledge of the subjects through same structured knowledge questionnaire after the administration of Video Assisted Teaching Programme.

The variables for present study were:
Independent Variable : Video Assisted Teaching Programme
Dependent variable : Knowledge regarding body mechanics
Attribute variables : Age, religion, type of family, education of mother, education of father, occupation of mother, occupation of father, family income, habitat and source of information.

Population:
Target Population : GNM Students
Accessible Population : GNM students of KLES Institute of Nursing Sciences, Hubli

Sample and sampling technique:
Sample : 1st year GNM students of KLES Institute of Nursing Sciences, Hubli
Sampling technique : Non-Probability; Convenient sampling technique
Sample size : 40

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:
General population who are,
First year GNM Students who were:
• Available at the time of data collection.
• Willing to participate in the study.

Exclusion Criteria:
First year GNM Students who were:
• Sick at the time of data collection.

Selection and development of the tool:
Based on the objectives of the study, a structured knowledge questionnaire was prepared by the researcher.
The tool used for research study was structured knowledge questionnaire which was prepared to assess the knowledge regarding body mechanics. The tool was formulated on the basis of the experience of the investigator, review of literature, extensive library search and consultation with experts.

Description of the data collection tool:
In this study the data collection tools were consisted of 2 parts covering the following areas.
Part: I- Socio demographic of general population included 10 items such as Age, religion, type of family, education of mother, education of father, occupation of mother, occupation of father, family income, habitat and source of information.
Part: II - Structured knowledge questionnaire regarding body mechanics.

### Table 2: Data Collection Schedule:

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Samples</th>
<th>Pre-Test</th>
<th>Intervention</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Year GNM students</td>
<td>40</td>
<td>17-04-2023</td>
<td>14-04-2023</td>
<td>24-04-2023</td>
</tr>
</tbody>
</table>

**DETAILED ANALYSIS OF RESULTS:**

**Findings related to socio-demographic variables of subjects**

- All the sample samples were 40(100%) belongs to 18-20 years.
- Majority of sample 34(85%) were female, 06(15%) were male.
- Majority of sample 32(80%) were Hindu and 07(17.5%) were Christian, 01(2.5%) were Muslim.
- With regards to type of family, majority of subjects 32(80%) belongs to nuclear family, 08(20%) belongs to joint family.
- With regards to the education of mother, about 17(42.5%) were secondary education, 10(25%) were primary education, 05(12.5%) were pre-university education, 05(12.5%) graduation and above and only about 03(7.5%) were non formal education.
- With regards to the education of father, about majority of sample 11(27.5%) were primary education, 10(25%) were secondary education, 09(22.5%) were graduation and above, 08(20%) pre-university education and only about 02(5%) were non formal education.
- With regards to occupation of mother, majority of sample 23(57.5%) were not employed, 07(17.5%) were daily wage workers. 05(12.5%) were private employees and 05(12.5%) were government employee.
- With regards to occupation of father, majority of sample 14(35%) were private employed, 10(25%) were daily wage workers. 09(22.5%) were not employed and 07(17.5%) were government employee.
- In terms of family income in Rupees per month majority of sample 14(35%) had 20,001 & above, 10(25%) had 15,001-20,000, 08(20%) had 10,001-15,000 and 08(20%) had 5,000-10,000.
- With regards to residence of subject’s majority of sample 21 (52.5%) were receding in rural area and 19 (47.5%) were receding in urban area.
- With regards to source of information 12 (30%) were had electronic media, 12(30%) were peer group and social circle, 10 (25%) were had information by print media, 03 (7.5%) were health professionals and 03 (7.5%) were by no information.

![Figure 1: Graph 1: The column graph represents income in rupees per month Analysis and interpretation of knowledge scores of first year GNM students regarding Body mechanics.](image-url)
Table 3: Mean, Median, Mode, Standard Deviation and Range of knowledge scores of subjects regarding Body Mechanics, n=40

<table>
<thead>
<tr>
<th>Area of analysis</th>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>Standard deviation</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>21.95</td>
<td>22</td>
<td>22</td>
<td>2.54</td>
<td>11</td>
</tr>
<tr>
<td>Post-test</td>
<td>29.57</td>
<td>30</td>
<td>30</td>
<td>3.13</td>
<td>16</td>
</tr>
<tr>
<td>Difference</td>
<td>7.62</td>
<td>08</td>
<td>08</td>
<td>0.59</td>
<td>05</td>
</tr>
</tbody>
</table>

Table 3 reveals that, the mean pre-test knowledge score of first year GNM students was 21.95, median 22, mode 22, standard deviation 2.54 and range 11. Whereas the mean post-test, knowledge score was 29.57, median 30, mode 30, standard deviation 3.13 and range 16. The overall difference in mean knowledge score was 7.62, median 08, mode 08, standard deviation 0.59 and range 05.

Table No. 4: Frequency and percentage distribution of knowledge scores of subjects regarding Body Mechanics, n=40

<table>
<thead>
<tr>
<th>Level of knowledge</th>
<th>Pre-test</th>
<th></th>
<th></th>
<th>Post-test</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency (f)</td>
<td>Percentage (%)</td>
<td>Frequency (f)</td>
<td>Percentage (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good (Above 24.49)</td>
<td>08</td>
<td>20</td>
<td>34</td>
<td>85</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average (19.41 to 24.49)</td>
<td>26</td>
<td>65</td>
<td>06</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor (Below 19.41)</td>
<td>06</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table No. 4 reveals that, distribution of level of knowledge of first year GNM students regarding the body mechanics during pre-test and post-test. Most of the subjects in the pre-test 26 (65%) had average knowledge, 08 (20%) had good knowledge and 06 (15%) had poor knowledge. Whereas, in post-test after video assisted teaching programme, 34 (85%) had good knowledge and 06 (15%) had average knowledge.

Graph 2: The cone graph represents percentage distribution of subjects according to their level of knowledge scores in pre-test and post-test.

Analysis and interpretation of data to find out an association between knowledge scores regarding body mechanics among first year GNM students and their selected socio-demographic variables. With regard to statistical association between pre-test knowledge scores and selected socio-demographic variables, there was no association between the knowledge scores and socio-demographic variables. Hence H2 was not accepted.
CONCLUSIONS

Majority of sample were 40(100%) belongs to 18-20 years. Majority of sample 34(85%) were female, 06(15%) were male. Majority of sample 32(80%) were Hindu and 01(2.5%) were Muslim, 07(17.5%) were Christian. With regards to type of family, majority of subjects 32(80%) belongs to nuclear family, 08(20%) belongs to joint family. With regards to the education of mother, about 17(42.5%) were secondary education, 10(25%) were primary education, 05(12.5%) were pre-university education, 05(12.5%) graduation and above and only about 03(7.5%) were non formal education. With regards to the education of father, about 11(27.5%) were primary education, 10(25%) were secondary education, 09(22.5%) were graduation and above, 08(20%) pre-university education and only about 02(5%) were non formal education. With regards to occupation of mother, 23(57.5%) were not employed, 07(17.5%) were daily wage workers, 05(12.5%) were private employees and 05(12.5%) were government employee. With regards to occupation of father, 14(35%) were private employed, 07(17.5%) were daily wage workers. 09(22.5%) were not employed and 07(17.5%) were government employee. In terms of family income in Rupees per month 14(35%) had 20,001 & above, 10(25%) had 15,001-20,000, 08(20%) had 10,001-15,000 and 08(20%) had 5,000-10,000. With regards to residence of subjects 21(52.5%) were receding in rural area and 19(47.5%) were receding in urban area. With regards to source of information 12(30%) were had electronic media, 12(30%) were peer group and social circle, 10(25%) were had information by print media, 03(7.5%) were health professionals and 03(7.5%) were by no information. The overall pre-test knowledge score revealed that majority of subjects 26 (65%) had average knowledge, 08 (20%) had good knowledge and 06 (15%) had poor knowledge. After Video Assisted Teaching programme in post-test all subjects 34 (85%) had good knowledge and 06 (15%) had average knowledge. The study concluded that the video assisted teaching programme was effective in improving knowledge of subjects.

Declaration by Authors

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Conflict of Interest: The authors declare no conflict of interest.

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