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# A STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED DEMONSTRATION ON KNOWLEDGE AND PRACTICE ABOUT TRIANGULAR BANDAGING IN FIRST AID MANAGEMENT AMONG 3rd YEAR BSC NURSING STUDENTS OF SELECTED NURSING COLLEGES OF VADODARA CITY

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## ABSTRACT

*The study was intended to assess the effectiveness of planned demonstration on knowledge and practice about triangular bandaging in first aid management among 3rd year Bsc nursing students of selected nursing colleges of Vadodara city. A quasi-experimental pre-test, post-test and experimental group design was selected and 50 students were selected through simple random sampling. Data were collected using 15 Structured questionnaires to assess knowledge and 30 Planned demonstration checklist questionnaires to assess practice Results indicated 14% of students have inadequate knowledge, 68% have moderately adequate knowledge and 18% have adequate knowledge. Students had an average knowledge score of approximately 2.04, which significantly improved to around 2.80 after the demonstration. Students had an average practice score of 1.0000, which significantly increased to 2.3400 after the intervention. The participants' knowledge of triangular bandaging does not appear to be significantly influenced by their age, living area, residential facility, gender, duration of practice in the hospital, or whether they have received training regarding bandaging.*

**Keywords: Effectiveness, Demonstration, Triangular bandaging, First-aid and management.**



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## INTRODUCTION

Bandaging is the process of covering wound or an injured part. Bandages are used to hold dressing in place, apply pressure to a part, immobilize a part, obliterate cavities, support an injured area, and check haemorrhages. Bandages are an essential medical supply for any first aid kit. They allow for the effective provision of wound care for a variety of different injuries and facilitate the wound healing process. The most common reason for folding a triangular bandage to use for first aid treatment is to make a supportive and protective sling, to secure an injured arm to the body to reduce the risk of further damage or to support it while recovering from a break, fracture, or sprain.

Bandaging is a basic procedure, but if carried out incorrectly it has the potential to cause inconsiderable harm. Bandaging skills are essential for all nursing students. It is important to be able to choose the correct type, size and composition of bandage and then apply it safely using the most appropriate technique as incorrectly applied bandage may lead to pressure necrosis and subsequent limb amputation.

## MATERIALS AND METHODS

A quasi-experimental pre-test, post-test and experimental group design was selected for this study to assess Effectiveness of Demonstration on Knowledge and Practice about Bandaging in First Aid Management among 3rd year B.Sc. Nursing Students of selected Nursing Colleges of Vadodara City. The study was conducted in Selected Nursing colleges. The target population consisted students of Neotech School of Nursing and Parul Institute of Nursing.

A sample of 50 students were selected through simple random sampling technique. Inclusion criteria included Students with knowledge and practice of Bandaging, 19-25 year of age and who are present at the data collection, who are willing to participate in the research. Exclusion criteria included students with lack of knowledge, students with lack of practice and skill.

Data collection tool included: (1) 15 Structured questionnaires to assess knowledge on Bandaging in First Aid Management and (2) Planned demonstration checklist to assess practice.
Content validity of the tool was established through expert review. A pilot study was conducted to ensure feasibility. Ethical approval was obtained from the institution ethics committee, and informed consent was secured from each participant. Data was analysed using Inferential statistics including paired t-test and Chi-square test.


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**Table 1: Frequency and percentage distribution according to the level of knowledge and practice regarding triangular bandaging in first aid management**

| Level of Knowledge | **Pre-test** | | **Post-test** | |
|---|---|---|---|---|
| | Frequency | Percentage (%) | Frequency | Percentage (%) |
| Inadequate Knowledge | 7 | 14.0 | 0 | 0 |
| Moderately Adequate Knowledge | 34 | 68.0 | 10 | 20.0 |
| Adequate Knowledge | 9 | 18.0 | 40 | 80.0 |
| Level of Practice | **Pre-test** | | **Post-test** | |
| | Frequency | Percentage (%) | Frequency | Percentage (%) |
| Poor Practice | 50 | 100.0 | 0 | 0 |
| Average Practice | 0 | 0 | 33 | 66.0 |
| Good Practice | 0 | 0 | 17 | 34.0 |

**Table 2 : Effectiveness of planned demonstration on knowledge regarding triangular bandaging in first aid management. (Paired t-test)**

| **Variables** | | **Mean** | **Mean difference** | **Std. Deviation** | **t-value** |
|---|---|---|---|---|---|
| **Level of Knowledge** | **Pre-test** | **2.0400** | **0.76000** | **.57000** | **7.224** |
| | **Post-test** | **2.8000** | | **.40406** | **Df=49** **P=.000** |

**Table 3 : Effectiveness of planned demonstration on Practice regarding triangular bandaging in first aid management among 3rd year BSc nursing students of selected nursing colleges of Vadodara. (Paired-t test)**

| **Variables** | | **Mean** | **Mean difference** | **Std. Deviation** | **t-value** |
|---|---|---|---|---|---|
| **Level of Practice** | **Pre-test** | **1.0000** | **1.34000** | **.0000** | **19.801** |
| | **Post-test** | **2.3400** | | **.47852** | **Df=49** **P=.000** |


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**Table 4 : Association between the knowledge score of triangular bandaging with their selected demographic variables.**

| Demographic variables | Level of Knowledge | | | Total | $X^2$ | df | P Value |
|---|---|---|---|---|---|---|---|
| | Inadequate | Moderately Adequate | Adequate | | | | |
| **Age** | | | | | | | |
| 19 to 21 Years | 5 | 18 | 3 | 26 | 2.327[a] | 2 | .312 (NS) |
| 21 to 23 Years | 2 | 16 | 6 | 24 | | | |
| Total | 7 | 34 | 9 | 50 | | | |
| **Living Area** | | | | | | | |
| Urban | 3 | 20 | 2 | 25 | 3.979[a] | 2 | .137(NS) |
| Rural | 4 | 14 | 7 | 25 | | | |
| Total | 7 | 34 | 9 | 50 | | | |
| **Residential Facility** | | | | | | | |
| Hosteller | 4 | 20 | 6 | 30 | .210[a] | 2 | .900(NS) |
| Day Scholar | 3 | 14 | 3 | 20 | | | |
| Total | 7 | 34 | 9 | 50 | | | |
| **Gender** | | | | | | | |
| Male | 2 | 9 | 0 | 11 | 3.111[a] | 2 | .211 (NS) |
| Female | 5 | 25 | 9 | 39 | | | |
| Total | 7 | 34 | 9 | 50 | | | |
| **Duration Of Practice In Hospital** | | | | | | | |
| 3 Months | 6 | 12 | 5 | 23 | 6.742[a] | 4 | .150 (NS) |
| 6 Months | 0 | 8 | 2 | 10 | | | |
| 2 years and above | 1 | 14 | 2 | 17 | | | |
| Total | 7 | 34 | 9 | 50 | | | |
| **Training regarding bandaging?** | | | | | | | |
| Yes | 2 | 16 | 5 | 23 | 1.202[a] | 2 | .548 (NS) |
| No | 5 | 18 | 4 | 27 | | | |
| Total | 7 | 34 | 9 | 50 | | | |


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## DISCUSSION

The students are categorized into 3 levels: inadequate, moderately adequate and adequate knowledge. The findings highlight that 14% of students have inadequate knowledge, 68% have moderately adequate knowledge and 18% have adequate knowledge. Before the demonstration (Pre-test Knowledge Mean), students had an average knowledge score of approximately 2.04, which significantly improved to around 2.80 after the demonstration (Post-test Knowledge Mean). The mean difference between pre-test and post-test scores was approximately 0.76, indicating a notable knowledge improvement.

Before the demonstration, students had an average practice score of 1.0000, which significantly increased to 2.3400 after the intervention. The mean difference of approximately 1.34000 illustrates a substantial improvement in practice.

The student's knowledge of triangular bandaging does not appear to be significantly influenced by their age, living area, residential facility, gender, duration of practice in the hospital, or whether they have received training regarding bandaging.

## RESULTS

### Level of Knowledge:

In the pre-test, 14.0% of the students had inadequate knowledge about triangular bandaging, while the majority, 68.0%, possessed moderately adequate knowledge. Only 18.0% of students had adequate knowledge before the intervention.

In the post-test, the effectiveness of the intervention is evident, as 80.0% of students now have adequate knowledge, and the percentage of those with inadequate knowledge has reduced to 0.0%. The percentage of students with moderately adequate knowledge has also decreased to 20.0%.

### Level of Practice:

In the pre-test, all students (100.0%) demonstrated poor practice in the application of triangular bandaging. Following the intervention, there is a significant improvement, with 66.0% of students now exhibiting average practice and 34.0% showing good practice in triangular bandaging. Overall, the data suggests that the intervention has been highly effective in improving both the knowledge and practice levels of 3rd year BSc nursing students regarding triangular bandaging in first aid management. Prior to the intervention, inadequate knowledge and poor practice were prevalent, but after the intervention, the majority of students demonstrated adequate knowledge and a substantial improvement in practice. This is a positive outcome and indicates the success of the educational program.


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## CONCLUSION

The study conclude that 14% of students have inadequate knowledge, 68% have moderately adequate knowledge and 18% have adequate knowledge. Students had an average knowledge score of approximately 2.04, which significantly improved to around 2.80 after the demonstration. Students had an average practice score of 1.0000, which significantly increased to 2.3400 after the intervention. The participants' knowledge of triangular bandaging does not appear to be significantly influenced by their age, living area, residential facility, gender, duration of practice in the hospital, or whether they have received training regarding bandaging.

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