Original Article

# A Study To Assess The Effectiveness Of Video Assisted Teaching programme (Vat) On Knowledge Regarding Care Of Unconscious Patients Among Staff Nurses Working In Intensive Care Unit

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**DOI:** 10.47750/pnr.2022.13.S07.555

## Abstract

The unconscious patient presents a number of challenges for medical professionals, including rapid care, diagnosis, specialised therapy, and the ability to anticipate prognosis. It is necessary to have a strategy that is both methodical and logical, with an emphasis on working together.

**Aim and the Objectives:** The purpose of this project is to create a video-assisted education programme for the staff nurses working in the intensive care unit so that they may test their knowledge about how to care for unconscious patients. Objectives Prior to the intervention, it is necessary to conduct a knowledge assessment of the staff nurses working in the critical care unit concerning the care of patients who are unconscious. The purpose of this study is to determine whether or not the video-assisted education programme improved the knowledge of staff nurses working in the critical care unit about how to care for unconscious patients following the intervention. & The purpose of this study is to determine the association between the knowledge of the staff nurses and certain socio-demographic statistics.

**Methods and Materials:** The sample for the current research was comprised of staff nurses who were employed in the intensive care unit of Krishna Hospital in Karad. In this particular study, the approach of purposive sampling has been applied. The samples are collected in a manner comparable to that of a lottery and are chosen at random according to the inclusion and exclusion criteria. There were a total of sixty staff nurses that participated in the study.

The findings of this study showed that the knowledge score of the nurses who had written the pre-test had been low. According to the findings of this study, the mean score on the pre-test was significantly lower than the score on the post-test.

**Result**: As a result of participating in the video assisted training programme, the nurses in this study saw their post-test scores rise from poor to fair to good. This was one of the findings of the current study. In the current investigation, it was found that the mean score on the pre-test was 15.1, but the mean score on the post-test was high. This difference was significant. When the scores from the pre-test and the post-test were compared, it was clear that there was a substantial improvement in the staff nurses' overall level of knowledge. Therefore, it appears that after implementing the video assisted training programme, a significant impact was given to the improvement in the knowledge score of staff nurses. **Conclusion:** The conclusion that can be drawn from this is that the programme of video-assisted instruction was successful.

**Key words:** Knowledge, Intensive Care Unit, Staff Nurses, Unconscious Patients, Video Assisted Teaching.

## Introduction

Unconsciousness is a state that develops when a person loses the ability to keep a conscious awareness of both themselves and their surroundings. It is characterised by a lack of reactivity to people and other environmental stimuli that can range from almost none to a complete absence. [1] The concept of the psychoanalytic unconscious or cognitive processes (such as implicit cognition) that take place outside of awareness should not be confused with loss of consciousness. Neither should altered states of consciousness, such as delirium (a condition in which a person is confused and only partially responsive to their surroundings), normal sleep, hypnosis, or other altered states in which a person responds to stimuli. [2] Loss of consciousness may be the result of a traumatic brain injury, brain hypoxia (inadequate oxygen, which may be the result of a brain infarction or cardiac arrest), severe poisoning with drugs that depress the activity of the central nervous system (such as alcohol and other hypnotic or sedative drugs), severe fatigue, anaesthesia, or another cause. Loss of consciousness may also be the result of other causes. [3] Unconsciousness is an abnormal state in which a person is not fully receptive to his or her surroundings and is not aware of what is going on around them. [4] Loss of consciousness can range in severity from fainting to coma, with sleepiness being the mildest form of the condition and collapse being the most severe. [5]

In contrast to while they are sleeping, people who are unconscious are unable to cough, clear their throats, or turn their heads when they are in need of assistance. Because of the increased risk of choking when a person is unconscious, it is critical that they maintain a clean airway while they are waiting for medical attention. [6] If you are able to ascertain what caused the loss of consciousness, call emergency medical services and provide first aid for the disease or injury until they arrive. If you are unable to determine what caused the loss of consciousness, call emergency medical services anyhow. The individual will be lying on their stomach with their back to you. In order to support the upper and lower body, bend one arm up and one arm down. Tilt the person's head back in order to provide space for air to flow freely in and out of the mouth. Several different kinds of injuries and illnesses can bring on a state of unconsciousness. [7] This result can be attained by preserving a patent airway. ensuring the safety of the customer Controlling the levels of fluids and nutrients in the body, as well as preserving the integrity of the skin, In addition to stimulating the senses, Provided at the appropriate time to prevent sensory deprivation, dietary requirements, the need for elimination, and family requirements, which include family support, Inform the patient about their care requirements, and attend to their needs. [9] Because there are a variety of underlying disorders that can lead to loss of consciousness, the attending physician will do tests to assess the scope of the problem and will treat the disease or injury accordingly. [10] Acute and general physicians are expected to have the skills necessary to care for unconscious patients, despite the fact that unconscious patients most frequently present themselves at emergency departments. When the prognosis is bad and decisions on ceiling of care or cardiac resuscitation need to be made, input from an early senior physician as well as critical care is required. This is especially true when the cause of unconsciousness is not immediately apparent and can be reversed. [11] When characterising a patient's level of awareness, it is important to avoid using inaccurate phrases like "drowsy" or "mildly unconsciousness." Instead, it is important to provide a detailed explanation of the patient's real condition and their ability to function. [12]

The thalamus is an important component in the process of keeping a person alert. Direct trauma or issues that originate inside the brainstem can both cause damage to the thalamus and the ascending reticular activating system. Both of these structures are susceptible to harm. [13]

In terms of emergency care, diagnosis, targeted therapy, and estimating the patient's prognosis, the unconscious patient presents a unique set of challenges. It is necessary to have a strategy that is both methodical and logical, with an emphasis on working together. [14]

In cases where the reason of the coma is not immediately apparent and cannot be reversed, the input of senior physicians and colleagues working in critical care is required. Patients with a poor prognosis require decisions, such as "ceiling of care," to be made at an early point in the treatment process. [15]

## Problem Statement

A study to assess the effectiveness of video assisted teaching programme (VAT) on knowledge regarding care of unconscious patients among staff nurses working in intensive care unit in krishna hospital, karad.

## Aim of the Study

To provide video- assisted teaching programme to assess the knowledge regarding care of unconscious patients among staff nurses working in intensive care unit.

## Objectives

1. To determine the level of expertise had by staff nurses employed in the critical care unit with relation to the treatment of unconscious patients in advance of the intervention.

2. To evaluate the impact of a video-assisted teaching programme on the knowledge of staff nurses working in intensive care units after the intervention regarding how to care for patients who are unconscious.

## Material & Mothods

Research design

The investigator was able to evaluate the knowledge of staff nurses working in Karad's tertiary care hospital on how to care for patients who were unconscious thanks to the research design that was chosen for this study, which was a one-group pre-test post-test design.

Setting:The study was carried out at the Krishna Hospital and Medical Research Centre, which are both located on the campus of the Karad campus of the Krishna Institute of Medical Sciences Deemed to Be University.

Participants The participants in this study were staff nurses working at Krishna Hospital in Karad. The population for this study consisted of these individuals.

Sample:.The sample for the current research was comprised of staff nurses who were employed in the intensive care unit of Krishna Hospital in Karad.

Sampling technique: In this particular study, a technique known as purposive sampling was utilised. The samples are collected in a manner comparable to that of a lottery and are chosen at random according to the inclusion and exclusion criteria.

Size of the sample: sixty staff nurses

## Criteria:

Convenient sampling criteria used for the data collection.

## Inclusion criteria

1. All of the registered nurses who are currently employed in the intensive care unit of Krishna Hospital

2. Registered nurses who are attending to patients who are unconscious
Data collecting instrumentation is covered in Section A.

Part-I Obtaining background information through the use of a semi-structured questionnaire

It contains the fundamental information about the customer, such as their age, gender, level of education, years of experience in the workforce, and annual family income.

Score on the Part-II Knowledge Test

A scale of the likert type with five points and 28 items was used to determine the level of knowledge that staff nurses who worked in the intensive care unit had regarding the management of unconscious patients. The highest possible score is 28, and the lowest possible score is 0. The final score broken down into three categories: poor, good, and exceptional

0-9 Poor, 10-19 Good, 20-28 Excellent

The following is the procedure for collecting data for the primary study:

From the 24th of September 2019 through the 10th of October 2019, the data collecting for the primary study was carried out.

In the primary research, there were a total of sixty ICU staff nurses included in the sample. The purpose of the current research was to evaluate the impact that a video-assisted teaching programme had on the level of knowledge had by ICU staff nurses regarding the management of unconscious patients. For the purpose of data collection, a structured questionnaire that had been previously evaluated was constructed. After getting their informed consent first, staff members were chosen at random and then assigned to the appropriate group using a suitable sampling procedure. Following receipt of ethical clearance from the ethics committee, standardised questionnaires were distributed to the staff nurses who were willing to take part in this research. A pre-test was administered to the staff nurses before they were shown the video assisted training, and the investigator will collect pretest data once the teaching programme has been carried out.

## Ethical consideration.

Prior to the beginning of the investigation, the Krishna Institute of Medical Sciences Deemed University in Karad, Maharashtra, possessed an Institutional Ethical committee that reviewed and gave their stamp of approval to the research. We were successful in obtaining a letter of authorization from the Dean of the Krishna Institute of Medical Sciences in Karad. The data for the pre-training intervention were gathered between the 12th of June 2019 and the 11th of June 2019. In order to evaluate the level of knowledge had, multiple choice questionnaires were filled out.

## Results:

Part I: Distribution of samples according to the demographic variables This section deals with the description of the demographic variables or sample characteristics. Section I: Distribution of samples according to the demographic variables The selection criteria led to the selection of samples consisting of sixty different ICU staff nurses. The data on the demographic data were examined using descriptive statistics, and the results were provided in terms of frequency and percentage, along with a diagram to illustrate the data. The information that

was gathered from the sample was broken down and categorised according to a number of different factors, including age, gender, educational qualification, employment experience, and family income.

• In the first section, we will discuss the distribution of samples based on the demographic characteristics.

- Table No.1: Frequency and percentage distribution of samples according to demographic variables.

N=60

| Demographic Variable | Frequency | Percentage |
|---|---|---|
| Age | | |
| 21-24 year | 23 | 38.3 |
| 25-29 year | 17 | 28.3 |
| 30-34 year | 10 | 16.6 |
| 34 year above | 10 | 16.6 |
| Gender | | |
| Male | 22 | 36.6 |
| Female | 38 | 63.3 |
| Educational qualification | | |
| ANM | 00 | - |
| GNM | 29 | 48.3 |
| POST BSC | 22 | 36.6 |
| B,BSC (N) | 09 | 15 |
| Working experience | | |
| 1-9 YRS | 38 | 63.3 |
| 10-19 YRS | 12 | 20 |
| 20-29 YRS | 6 | 10 |
| 30 YRS | 4 | 6.6 |
| Family income | | |
| ≥ 78,063 | 3 | 5 |

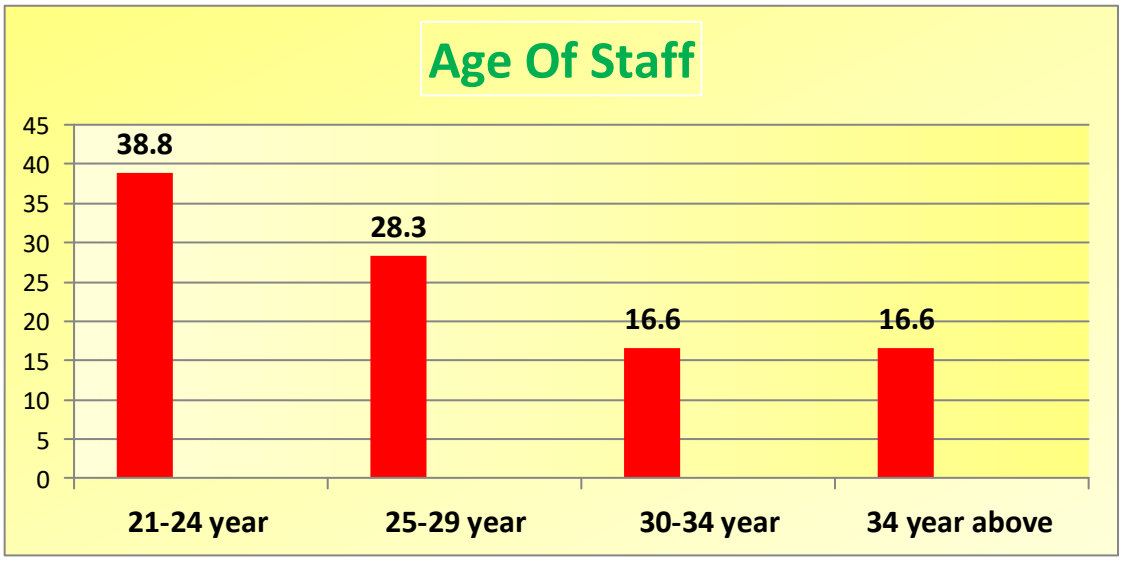
| | | |
|---|---|---|
| 39,033-78,062 | 15 | 25 |
| 29,200-39,032 | 10 | 16.6 |
| 19,516-29,199 | 32 | 53.3 |
| 11,708-19,515 | - | - |
| 3.908-11.707 | - | - |
| ≤ 3,907 | - | - |

Table 1 demonstrates that the vast majority of the sample (23, or 38.3%) belonged to the age range of 21 to 24 years, that 38, or 63.3%, were female staff nurses, that 225, or 56.25 percent, were married, and that 29, or 48.3%, had finished a GNM course. In terms of the number of years spent working, 38 (63.3% of the total) had between 1 and 9 years of experience, while in terms of the family income, 32 (53.3% of the total) had between 19,516-29,199.

According to Table 1, out of a total of sixty staff nurses, 23 (38.1%) belonged to the age group of 21-24 years, 17 (28.3%) belonged to the age group of 25-29 years, 10 (16.6%) belonged to the age group of 30-34 years, and approximately 10 (16%) belonged to the age group of above 34 years.

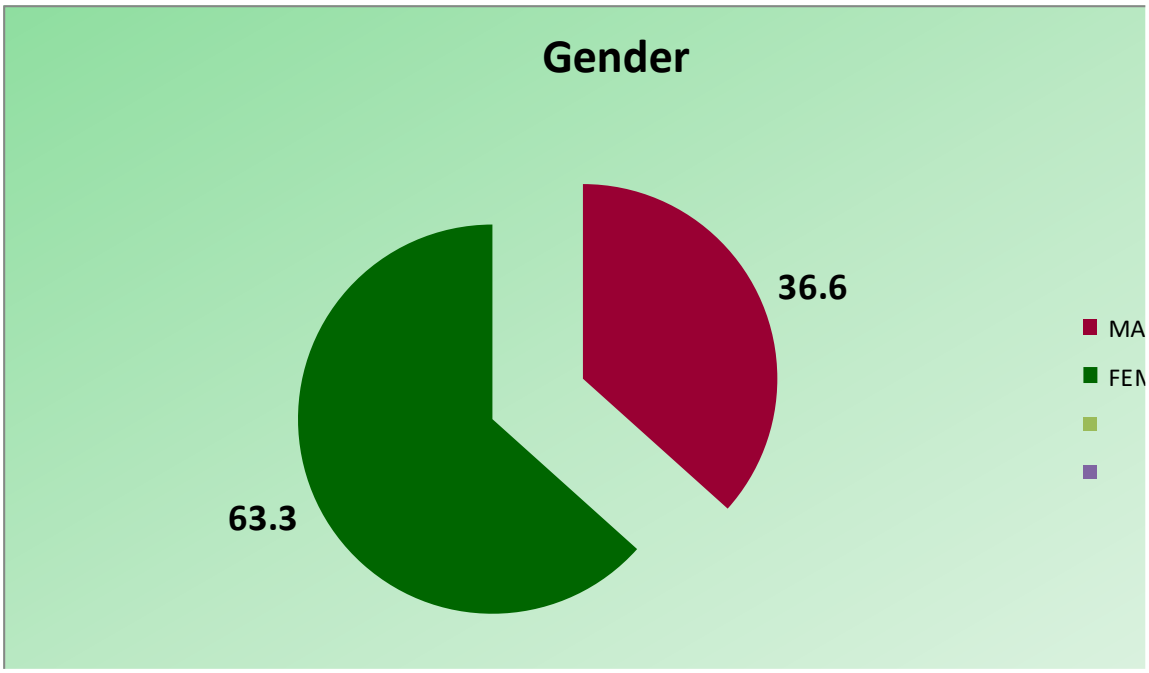
There were 22 male staff nurses (36.6%), compared to 38 female staff nurses (63.3%). In terms of educational attainment, 29 (48.3%) had a GNM, 22 (36.6% had a Basic BSc, and just 9 (15%) had a postgraduate degree. According to working experience, the greatest number of people, 38 (63%), were in the group of 1-9 years, while 12 (20) were between 10-19 years, 20-29 years, and only 4 (6.6) were in the group of more than 30 years.

According to the maximum monthly income, 32 (53.3%) of the respondents fell between the range of 19,516-29,199, and 10 (16.6%) fell within the range of 29,200-39,032 dollars. In the group of 78,063, there are just

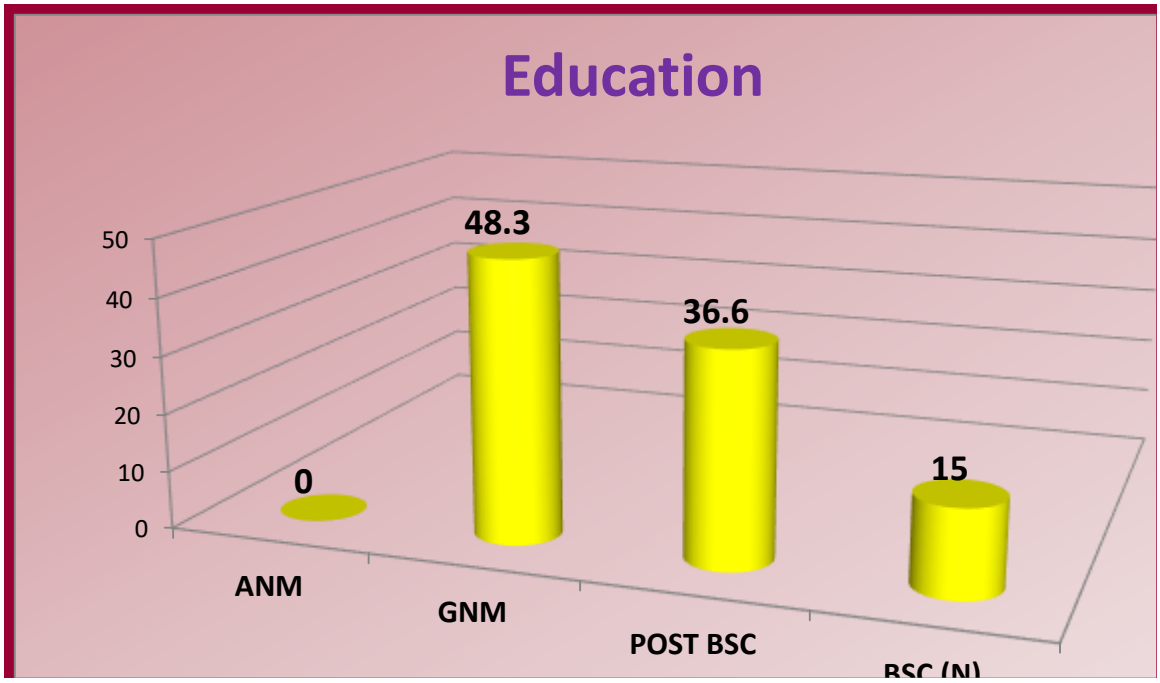



2(3,3).

Graph: 1 Graph showing percentage distribution of ICU Staff nurses according to their age. Majority of the sample 23(38.3%) belonged to age group of 21-24years.

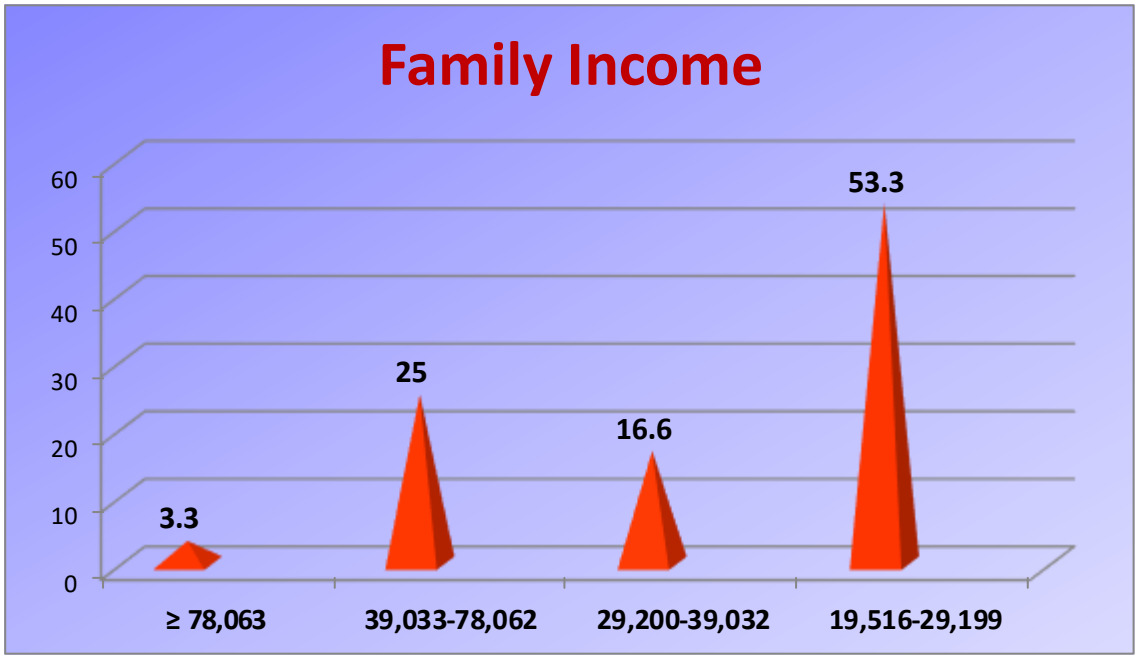



Graph: 2 Graph showing percentage distribution of ICU Staff nurses according to their gender. 38(63.3%) were female staff nurses




Graph: 3 Graph showing percentage distribution of ICU Staff nurses according to their education. According to education 29(48.3%) were GNM, were 22(36.6) Basic BSc and only 9(15) were post graduate.


Graph: 4 Graph showing percentage distribution of ICU Staff nurses according to their working experience. Maximum were 38(63%) in the group of 1-9 years, 12(20) between 10-19 years in the range of 20-29 years only 4(6.6) in the group of above 30 years.




Graph: 5 Graph showing percentage distribution of ICU Staff nurses according to their family income.

Section B: Analysis of pre-test score among ICU staff nurses according to their knowledge

Table no: 1 Distribution of pre-test score of ICU staff nurses

N=60

| | Mean | SD | Unpaired t Value | P value |
|---|---|---|---|---|
| Pre- test score | 15.1 | 4.611 | 25.397 | <0.0001 |

*(P0.01) denotes that the result is significant; ** (P0.001) denotes that the result is highly significant; *** (P0.0001) denotes that the result is extremely significant; (P>0.05) denotes that the result is not significant.

The preceding data demonstrates that the staff nurses' knowledge score on the pre-test was less than 0.0001 on average before the video assisted education programme was implemented.

Analysis of the video assisted education programme used by ICU staff nurses both before and after completion of the test is presented in Section C.

Table No.3: Distribution of pre-test and post-test score among ICU staff nurses

N=60

| | Mean | SD | Unpaired t Value | P value |
|---|---|---|---|---|
| Pre -test score | 21.6 | 1.682 | 19.699 | <0.0001 |
| Post score | 15.1 | 4.611 | | |

*(P0.01) indicates that the finding is significant; ** (P0.001) indicates that the finding is highly significant; *** (P0.0001) indicates that the finding is extremely significant; and (P>0.05) indicates that the finding is not significant.

There was a statistically significant difference detected between the pre-test and post-test knowledge score of the ICU staffs after receiving the video assisted training programme, as shown by the above table (P 0.0001***). Because of this, it was demonstrated that the programme of video-assisted instruction was highly effective in producing a good level of knowledge.

Examination of the H1 hypothesis.

Table No.6: Association of pre- test and post- test score with demographic variables.

| Group | Demographic variable | PRE TEST SCORE | | | Chi Square | P value |
|---|---|---|---|---|---|---|
| | | Poor | Fair | Good | | |
| Age | | | | | | |
| Pre | 21-24year | 10 | 13 | - | | |
| | 25-29 year | 6 | 11 | - | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Test | 30-34 year | 5 | 5 | - | 0.8096 | 0.8472 |
| | 34 year above | 5 | 5 | | | |
| Post test | 21-24year | 0 | 0 | 23 | - | - |
| | 25-29 year | 0 | 0 | 17 | | |
| | 30-34 year | 0 | 0 | 10 | | |
| | 34 year above | 0 | 0 | 10 | | |
| Gender | | | | | | |
| Pre-test | Male | 10 | 12 | | 0.3247 | 0.5688 |
| | Female | 15 | 13 | | | |
| Post Test | Male | 0 | 22 | | - | - |
| | Female | 0 | 28 | | | |
| Educational qualification | | | | | | |
| Pre Test | A.N.M | 0 | 0 | 0 | 22.291 | <0.0001 |
| | G.N.M | 20 | 9 | 0 | | |
| | PB.B.Sc(N) | 2 | 20 | 0 | | |
| | BSC | 1 | 8 | 0 | | |
| Post Test | A.N.M | 0 | 0 | 0 | - | - |
| | G.N.M | 0 | 0 | 29 | | |
| | PB.B.Sc(N) | 0 | 0 | 22 | | |
| | BSC | 0 | 0 | 9 | | |
| Pre test | 1-9 year | 3 | 35 | | 2.010 | 0.5704 |
| | 10-19 year | 2 | 10 | | | |
| | 20-29 year | 0 | 6 | | | |
| | 30 year above | 0 | 4 | | | |
| Post Test | 1-9 year | 0 | 0 | 38 | - | - |
| | 10-19 year | 0 | 0 | 12 | | |
| | 20-29 year | 0 | 0 | 6 | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | 30 year above | 0 | 0 | 4 | | |
| Pre Test | ≥ 78,063 | 1 | 1 | 0 | 1.799 | 0.6152 |
| | 39,033-78,062 | 7 | 7 | 0 | | |
| | 29,200-39,032 | 6 | 4 | 0 | | |
| | 19,516-29,199 | 12 | 20 | 0 | | |
| Post Test | ≥ 78,063 | 0 | 0 | 2 | - | - |
| | 39,033-78,062 | 0 | 0 | 15 | | |
| | 29,200-39,032 | 0 | 0 | 10 | | |
| | 19,516-29,199 | 0 | 0 | 32 | | |

*(P0.01) indicates that the finding is significant; ** (p0.001) indicates that the finding is highly significant; *** (P0.0001) indicates that the finding is extremely significant; p>0.05 indicates that the finding is not significant.

The data presented in the table above demonstrates that there was a statistically significant correlation discovered between the level of education attained and the pretest (P less than 0.05).

The pre-test was not shown to have any significant association with age, gender, working experience, or family income.

Putting assumptions to the test H2

According to the data presented in the table above, the null hypothesis H2 was correct, and there was a statistically significant difference

## Discusion

reveals that the bulk of the staff nurses, 23 (38.3%), were between the ages of 21 and 24 years old. In terms of their educational attainment, 29 (48.3%) had finished the GNM course. The majority of staff nurses, 38 out of 63.3%, were women. According to their years of professional experience, the majority of applicants, 38 (63%), fell into the 1-9 year category. Based on their average monthly income, maximum 32 (53.3) individuals belonged to the group 19,516-29.

The comparison of the data from the pre-test and the post-test

It was found out in this study that the knowledge score of the nurses who had taken the pre-test and written it was low and average (p 0.0001).

According to the findings of this study, the mean score on the pre-test was significantly lower than the score on the post-test.

As a result of participating in the video assisted training programme, the nurses in this study saw their post-test scores rise from poor to fair to good. This was one of the findings of the current study.

In the current investigation, it was found that the mean score on the pre-test was 15.1, but the mean score on the post-test was high. This difference was significant.

A number of researchers came to similar conclusions. In 2009, a study was carried out to investigate the impact of a sensory stimulation programme on the rate of recovery in patients who were unconscious and suffering from traumatic brain injury. The purpose of this quasi-experimental study was to investigate the effects of a sensory stimulation programme on unconscious patients. These patients were split into two groups: the control group and the experimental group. The response to stimulation was evaluated with the modified sensory modality assessment and rehabilitation technique score as well as the Glasgow coma score, and the results indicated that the sensory stimulation programme can improve brain recovery in patients who have suffered from traumatic brain injury.

The results of the current study demonstrated that teaching with video assistance was successful (p 0.0001) The difference between the score on the pre-test and the score on the post-test will be significant.

Another study, entitled "Effectiveness of Video Assisted Teaching Programme (Vatp) on Knowledge and Health Beliefs Regarding Osteoporosis among Women in Selected Hospitals, Chennai," was carried out by Gipsy Sara Ninan and colleagues. This study was carried out at the SRM General Hospital and Research Centre in Kattankulathur. The sample consisted of 60 different women between the ages of 30 and 50 that were picked using a non-probability convenient sampling procedure. There were 30 women in the study group and 30 women in the control group. Both the pre-test and post-test levels of knowledge and health beliefs were evaluated using a self-administered structured knowledge questionnaire and the Osteoporosis Health Belief Scale. The methods and the researcher adopted a quasi experimental pre-test-post-test control group design for the study.

**Conclusions:** The following are some of the inferences that may be derived from the findings of the study: When it came to their knowledge, the real gain score was consistently high in the post-test score. When the scores from the pre-test and the post-test were compared, it revealed a significant improvement in the staff nurses' overall level of knowledge. Therefore, it appears that after implementing the video assisted training programme, a significant impact was given to the improvement in the knowledge score of staff nurses. The conclusion that can be drawn from this is that the programme of video-assisted instruction was successful.

**Acknowledgements:** The authors would like to thank the administration at Krishna Hospital and Krishna Institute of Medical Sciences "Deemed To Be University" Karad for their encouragement and assistance.

**CONFLICT OF INTEREST:** No any conflict of interest.

**FINANCIAL SUPPORT:** Self

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