EFFECTIVENESS OF STRUCTURED TEACHING PROGRAM ON KNOWLEDGE AND PRACTICE REGARDING NATIONAL INSTITUTE OF HEALTH STROKE SCALE AMONG THIRD YEAR B.BSC NURSING STUDENTS IN SELECTED NURSING INSTITUTE: A QUASI EXPERIMENTAL STUDY

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ABSTRACT
Introduction: Stroke is a disease that affects the arteries leading to and within the brain. It is the No. 5 cause of death and a leading cause of disability in the United States. A stroke occurs when a blood vessel that carries oxygen and nutrients to the brain is either blocked by a clot or bursts (or ruptures). Stroke, cerebrovascular accident (CVA), or brain attack is the onset and persistence of neurologic dysfunction resulting from disruption of blood supply to the brain and indicates infarction rather than ischemia. Aim of the study – Aim of the study was to determine the effectiveness of structured teaching program on knowledge and practice regarding national institute of health stroke scale among third year B.BSc nursing students in selected nursing institute. methodology: This study based on quantitative research approach, (Quasi experimental study- one group pre-test post-test research design) was used . The sample size was 50 third year B.BSc Nursing students and sample technique was non probability convenient sampling technique. The data collected was analyzed by using descriptive and inferential statistics in terms of frequency, mean, standard deviation , chi square and paired 't' test. Result : The study reveals that mean knowledge score 21.88 with SD 3.07 and mean percentage knowledge score was 72.93% with SD 10.24. Mean practice score was 8.88 with SD 1.82 and mean percentage practice score was 59.20% with SD 12.16. Analysis on correlation by using Pearson correlation coefficient test shows positive correlation($r = 0.970$) between knowledge score and practice score of third year B.BSc nursing students. Conclusion : the study reveals that there is a deficit knowledge and practice regarding national institute of health stroke scale in pretest . the post test knowledge and practice was increased which reveals that structured teaching program was effective on knowledge and practice regarding national institute of health stroke scale
Key words : Effectiveness ,Stroke, National institute of health stroke scale, Health, Brain.

INTRODUCTION
The cranial cavity houses the brain, a substantial organ weighing around 1.4 kg. The brain and spinal cord are both parts of the central nervous system. The brain is surrounded inside the skull, and the spinal cord is enclosed by the vertebrae that make up the spinal column, providing excellent protection from damage and injury. The arteries within and going to the brain are

affected by the condition known as stroke. It is the fifth biggest cause of mortality and a major contributor to disability in the US. A stroke happens when a blood artery that supplies the brain with oxygen and nutrients becomes blocked by a clot or ruptures (or bursts). A portion of the brain dies when it is deprived of the blood (and oxygen) it requires. Healthcare professionals utilize the NIH Stroke Scale (NIHSS), also known as the National Institutes of Health Stroke Scale, to systematically measure the damage brought on by a stroke. The NIHSS consists of 11 items, every of which is scored between 0 and 4 for a particular skill. In general, a score of 0 for each item shows normal performance in that particular skill, while a higher number denotes some degree of impairment. The overall NIHSS score for a patient is determined by adding the individual scores on each component. The highest score is 47, while the lowest score is zero. The modified NIHSS (mNIHSS) reduces redundancy and gets rid of elements that aren't very dependable. When utilized in telemedicine, clinical trials, and scores retrieved from records, the mNIHSS exhibits improved dependability in a variety of contexts and populations. The percentage of components with great agreement rose from 54% to 71% in the validation process of the mNIHSS against the NIHSS, whereas the percentage of elements with poor agreement dropped from 12% to 5%. In all, 45% all NIHSS items received reliability ratings below outstanding, compared to just 29% for the mNIHSS. The mNIHSS is a tremendous improvement compared to the NIHSS even though it is not the perfect stroke scale.

NEED OF THE STUDY

The mNIHSS has shown reliability at bedside, with record abstraction, with telemedicine, and in clinical trials. Since the mNIHSS is more reliable, it may allow for improved practitioner communication,improved medical care, and refinement of trial enrolments. The mNIHSS should now serve as the primary stroke clinical deficit scale for clinical and research aims.Researcher finds that, Stroke is the leading cause of long-term disability and the third leading cause of death in the United States. Most Neurologists evaluate the extent of neurological deficit according to the National Institutes of Health Stroke Scale (NIHSS). The National Institute of Health stroke Scale is one such tool which is a research-driven and therefore popular assessment tool for medical professionals. Using the components, it help to the check the proper impairment caused by stroke. Hence this Investigator felt the need to assess the level of knowledge and practice regarding National Institute of Health stroke Scale as an assessment tool and to disseminate structured teaching program and checklist to improve their knowledge and practice regarding National Institute of Health stroke Scale.

AIM OF THE STUDY

Aim of the study was to determine the effectiveness of structured teaching program on knowledge and practice regarding national institute of health stroke scale among third year B.BSc nursing students in selected nursing institute

RESEARCH METHODOLOGY

Aim of the study was to determine the effectiveness of structured teaching program on knowledge and practice regarding national institute of health stroke scale among third year B.BSc nursing students in selected nursing institute This study based on quantitative research

approach, (Quasi experimental study-one group pre-test post-test research design) was used .The self-administered questionnaire was used to assess knowledge regarding NIHSS among students of third year B.BSc nursing students regarding NIHSS whereas observational checklist to assess the practice regarding NIHSS. The sample size was 50 third year B.BSc Nursing students and sample technique was non probability convenient sampling technique. Reliability of the tool was determined by administering tool to 10 samples. Guttman split half method (Parallel method) was used for questionnaire and practice. The data collected was analyzed by using descriptive and inferential statistics in terms of frequency, mean, standard deviation, chi square and paired 't' test.The pilot study was conducted among 10 third year B.BSc nursing students in a selected nursing institute to find out the feasibility of the study. The finding of the pilot study have shown the feasibility of the major study.

RESULT

In the research article, demographic information reveals key insights about third-year B.BSc nursing students. A significant majority, 74%, of these students fall within the age range of 20-22 years. Additionally, a substantial 56% identify as Hindus. Furthermore, the majority, accounting for 74%, hail from urban backgrounds. Notably, 70% of these nursing students lacked knowledge regarding the NIHSS (National Institutes of Health Stroke Scale), highlighting a potential gap in their education. However, it's encouraging that 80% of them gained their knowledge about NIHSS from the internet, showcasing their proactive approach to learning and bridging knowledge gaps through online resources. These demographic findings shed light on the student population's characteristics and knowledge acquisition methods, offering valuable insights for educational enhancements.

Table I : Table showing comparison of pre-test and post-test knowledge score among third year B.BSc nursing students   n=50

Overall	Mean	SD	Mean Difference	df	Table value	Calculated t-value	p-value
PreTest	12.62	2.84	9.26±3.78	49	2	17.30	0.0001 ,p<0.05
PostTest	21.88	3.07					

This table shows the comparison of pre-test and post test knowledge scores of third year B.BSc students regarding NIHSS Score. Mean, standard deviation and mean difference values are compared and student's paired 't' test is applied at 5% level of significance. The tabulated value for n=50-1 i.e. 49 degrees of freedom was 2.00. The calculated 't' value i.e. 17.30 are much higher than the tabulated value at 5% level of significance for overall knowledge score of third year B.BSc students which is statistically acceptable level of significance. Hence it is statistically interpreted that the Structured Teaching Programme on knowledge regarding NIHSS among third year B.BSc students was effective. Thus the H1 is accepted.
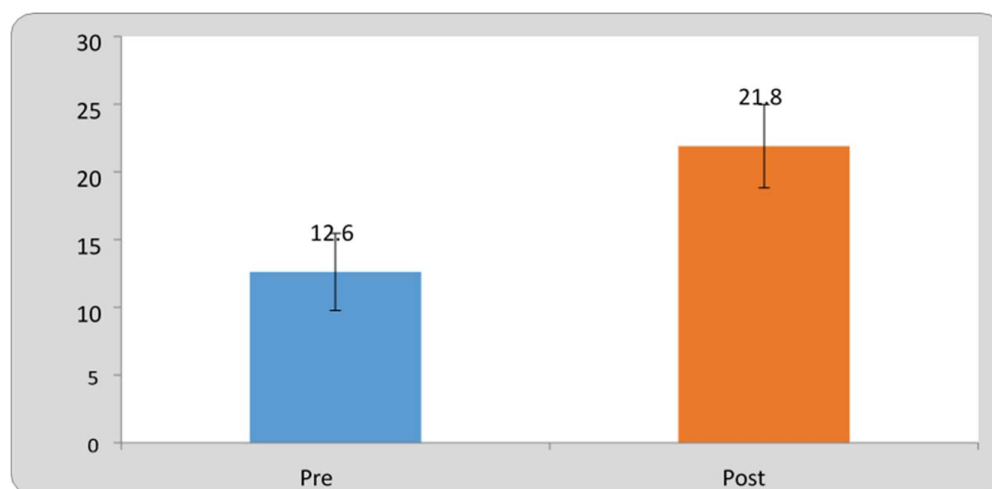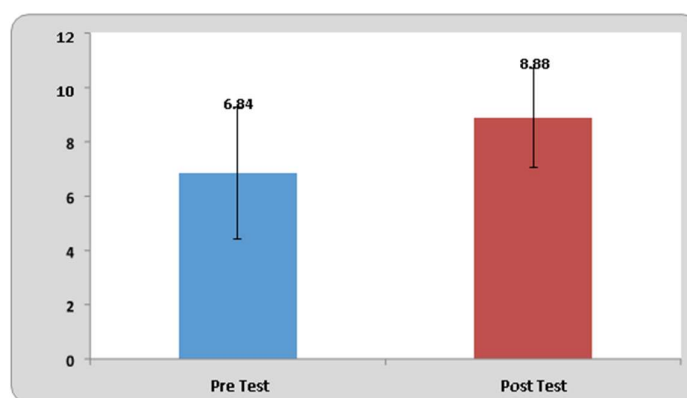
Figure I: Bar diagram representing a comparison of pre test and post testknowledge score among third year B.BSc nursing students

Table II : Table showing comparison of pre-test and post-test practice score among third year B.BSc nursing students n=50

Overall	Mean	SD	Mean Difference	df	Table value	lculatedt-value	p-value
Pre Test	6.84	2.41	2.04±2.39	49	2	6.01	0.0001 S,p<0.05
Post Test	8.88	1.82					

This table shows the comparison of pre-test and post test practice scores of thirdyear B.BSc students regarding NIHSS Score. Mean, standard deviation and mean difference values are compared and student's paired 't' test is applied at 5% level of significance. The tabulated value for n=50-1 i.e. 49 degrees of freedom was 2.00. The calculated 't' value i.e. 6.01 are much higher than the tabulated value at 5% level of significance for overall practice score of third year B.BSc students which is statistically acceptable level of significance. Hence it is statistically interpreted that the Structured Teaching Programme on practice regarding NIHSS among third year B.BSc students was effective. Thus the H1 is accepted.

**Figure II: Bar diagram representing comparison of pre test and post test practice score
among third year B.BSc nursing students**

Analysis reveals that, in the knowledge score, there is a significant association of age, religion, area of residency and there is no association of knowledge regarding NIHSS and source of knowledge. In the practice score, there is a significant association of area of residency, knowledge regarding NIHSS and there is no association of source of knowledge, age and religion.

DISCUSSION

Research to evaluate staff nurses employed by private multi-specialty hospitals in the Vidarbha Region of Maharashtra's understanding and practice of the national institute for health stroke scale. According to the study's results, just 2% and 5% of staff nurses had very excellent and poor understanding, respectively, of NIHSS, while the bulk of them (74%) had average knowledge. However, in terms of practice, roughly 27 percent of nursing staff scored at a good level, and 72% at an exceptional level. Level of understanding and practice score do not significantly correlate with one another. Using Pearson's association coefficient, it was determined that there was a negative association between the knowledge and practice scores ($r=-0.166$, $p=0.099$), demonstrating that as knowledge scores rise, so do nursing staff practices ($r=-0.166$, p-value=0.099). In respect to age (years), sex, higher education, length of working area, and working in private hospitals with multiple specialties in the Vidarbha region of Maharashtra, there is no statistically significant correlation between level of knowledge and practice.

The overall mean expertise in scores of third-year B.BSc nursing students were compared between the pre-test and post-test in the current study. The post-test mean knowledge value was 21.88 with a standard deviation of 3.07, and the practice track was 8.88 with a standard deviation of 1.82, both of which were higher than the pre-test mean wisdom score value of 9.5 with a standard deviation of 3.78 and the practice score value of 2.04 SD of 2.39. According to the statistical paired t-test conducted on third-year B.BSc nursing students, the difference between the pre-test and post-test skill and practice scores was found to be 17.30 and 6.01, respectively. This difference is considered statistically significant at the 5% level of significance (p0.05). Therefore, it can be inferred statistically that a systematic instruction program on knowledge and practice relating the stroke scale of the National Institute of Health was successful. H1 is therefore approved whereas H0 is disapproved.

CONCLUSION

With the different aspects of the study in terms of analysis and interpretation were discussed. The study reveals that mean knowledge score 21.88 with SD 3.07 and mean percentage knowledge score was 72.93% with SD 10.24. Mean practice score was 8.88 with SD 1.82 and mean percentage practice score was 59.20% with SD 12.16. Analysis on correlation by using Pearson correlation coefficient test shows positive correlation ($r = 0.970$) between knowledge score and practice score of third year B.BSc nursing students. There was association of knowledge score with age, religion, and area of residency, none of the other demographic variables was associated with knowledge score. There was association of practice score with

area of residency and previous knowledge regarding NIHSS, none of the other demographic variables was associated with practice score.

CONFLICTS OF INTREST: This statement is to certify that all authors have been and approved the manuscript being submitted. We warrant that the article has not received prior publication and is not under consideration for publication elsewhere. We have no conflict to declare.

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