

EFFECTIVENESS OF VIDEO ASSISTED TEACHING ON PRACTICE REGARDING NEUROLOGICAL ASSESSMENT AMONG NURSES WORKING IN MAHARANA BHUPAL GOVERNMENT HOSPITAL AT UDAIPUR.

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ABSTRACT

A Neurological (neuro) Assessment consists of a physical examination to identify signs of disorders affecting brain, spinal cord and nerves (nervous system).[1] The prevalence estimates in India for 2019 range from 3.0 to 11.9 per 1000 of the population and incidence from 0.2 to 0.6 per 1000 of the population per year, with a major contribution from the rural population. According to WHO (World Health Organization) 2007, A report shows that neurological disorders, ranging from epilepsy to Alzheimer disease, from stroke to headache, affect up to one billion people worldwide. Neurological disorders also include brain injuries, neuro infections, multiple sclerosis and Parkinson disease. Public health challenges, reveals that of the one billion people affected worldwide, 50 million suffer from epilepsy and 24 million from Alzheimer and other dementias. Neurological disorders affect people in all countries, irrespective of age, sex, education or income.

Keywords: Effectiveness, Video Assisted Teaching, Neurological Assessment, Practice, and Nurses.

INTRODUCTION

Timely and accurate assessment of a patient's neurological status is an important aspect of nursing care. All patients have the potential for a neurological event, whether they have a neurological primary diagnosis or not. Nurses are instrumental in preventing irreversible damage by identifying in patients subtle changes from baseline that could signal deterioration. It is within the scope of nursing practice to perform independent patient assessments. A neurological Assessment is the assessment of sensory neuron and motor responses, especially reflexes, to determine whether the nervous system is impaired. A neurological Assessment begins when the nurse first interacts with the client and involves observations about appearance, communication patterns, and general behaviors. The first part of the checklist provides a general overview of performing a basic neurological Assessment.

RESEARCH PROBLEM

Effectiveness of Video Assisted Teaching on Practice regarding Neurological Assessment among Nurses working in MBGH, Udaipur.

OBJECTIVES

1. To assess the pre-test and Post-test practice scores regarding Neurological assessment among Nurses in control and experimental group.
2. To find out the effectiveness of Video Assisted Teaching on practice regarding Neurological Assessment among Nurses in experimental group.
3. To find out the association between pre-test practice scores with socio demographic variables.

MATERIAL AND METHODS

The approach adopted for the present study was evaluative approach as the study aimed at assessing the Effectiveness of Video Assisted Teaching on practice regarding Neurological Assessment among nurses. In this study Quasi Experimental research design was used. The conceptual framework for the study was developed on Ludwig von Bertalanffy's General systems theory (1968) model to conceptualize the research study. The setting areas of the study were Neurology department of SSB Block, MBGH, Udaipur. In this study 68 nurses were drawn as sample by using Purposive sampling Technique. The data was collected using observational checklist and after this Video Assisted Teaching was implemented. After seven days, post test was conducted using the same observational checklist. Data was analyzed by using descriptive and inferential statistics.

Part A: Demographic Profile consists of 7 items.

Part B: Observational checklist. This section consisted observational checklist on before Performing

Procedure Steps, memory, orientation, cranial nerves, assessment of motor system, assessment of cerebellar function, assessment of sensory system, assessment of reflexes, after Procedure aspects of Neurological Assessment. Same observational checklist was used for assessment of practice in pre-test and post-test. Each correct response was considered as “YES” and was scored one and each incorrect response or not attempted was considered as ‘NO’ and was scored zero. The total possible score of the observation checklist was 39. Same observational checklist was used for the assessment of practice in pre -test and post- test.

RESULT

Major findings related to socio- demographic variables revealed that, majority of the participants 18 (52.94%) were in the age group of 31-35 years, in experimental group. Whereas 20 (58.82%) participants were in the age group of 31-35 years, in control group. According to gender, 23 (67.65%) participants were female and 11 (32.35%) were male in experimental group. Whereas 18 (52.94%) participants were female and 16 (47.06%) were male in control group. Regarding professional qualification, majority of participants 21 (61.76%) had GNM diploma in experimental group. Whereas 19 (55.88%) had GNM diploma In control group. In view of area of work, 23 (67.65%) participants were working in Neuro ICU ward in experimental group. Whereas 19 (55.88%) participants were working in modular OT in control group. As per work experience, 13 (38.24%) participants were having 6-10 years experience in experimental group. Whereas 12 (35.29%) participants were having 6-10 years experience in control group In view of attended any training program regarding neurological assessment, majority of participants 22 (64.71%) had not attended while 12 (35.29%) participants had attended such training program in experimental group. Whereas 21 (61.76%) had not attended while 13 (38.24%) participants had attended such training program in control group. Analysis revealed that there was no significant association found between the pre-test practice score regarding neurological assessment with other demographic variables like age, type of family, professional qualification, work experience and attended any training program regarding neurological assessment in experimental group.

Analysis revealed that there was no significant association found between the pre-test practice score regarding neurological assessment with other demographic variables like age, gender, type of family, professional qualification, area of work, work experience and attended any training program regarding neurological assessment in control group. Analysis revealed that there was overall increase (37.26%) in practice level in experimental group. Maximum increase in Assess cerebellar Function step (68.5%) followed by Assess reflexes (65.5%), Assess sensory system (48.5%) and Assess motor

system (41%). In Control Group mean % pre test practice score was 63.28%, while post test mean practice score was 63.79%. The mean % difference was 0.51%. The difference was found statistically not significant. This indicated that the Video Assisted Teaching was very effective in increasing the practice regarding Neurological Assessment among nurses in experimental group in comparison to control group.

Table 1.1: Pre and Post-Test Practice Scores in Control Group

n=34

Sr. No.	Observation	Max. Score	Mean	Mean %	SD	Mean Difference
1	Pre-test	39	24.68	63.29%	4.07	0.20
2	Post-test	39	24.88	63.79%	3.99	

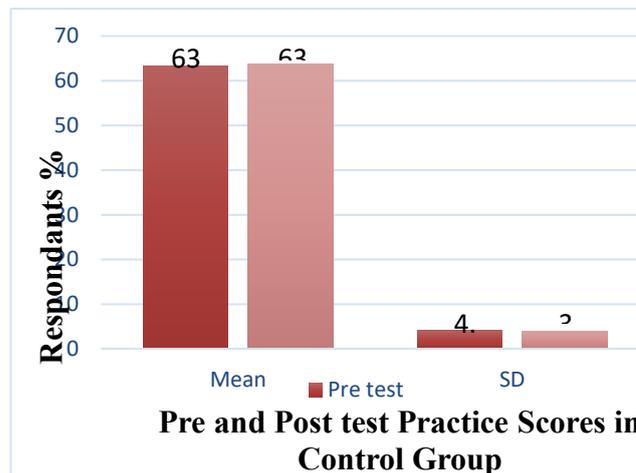


Table and Figure 1.1 revealed that In Control Group, maximum possible score was 39. The mean pre – test score was 24.68 with SD 4.07, mean % pre-test was 63.29%. The mean post –test score was 24.88 with SD 3.99, mean % post-test was 63.79%. The mean difference was 0.20.

Table 1.2: Pre and Post-Test Practice Scores among Experimental Group

n=34

Sr. No.	Observation	Max. Score	Mean	Mean %	SD	Mean Difference
1	Pre-test	39	23.56	60.41%	3.48	14.53
2	Post-test	39	38.09	97.67%	0.75	

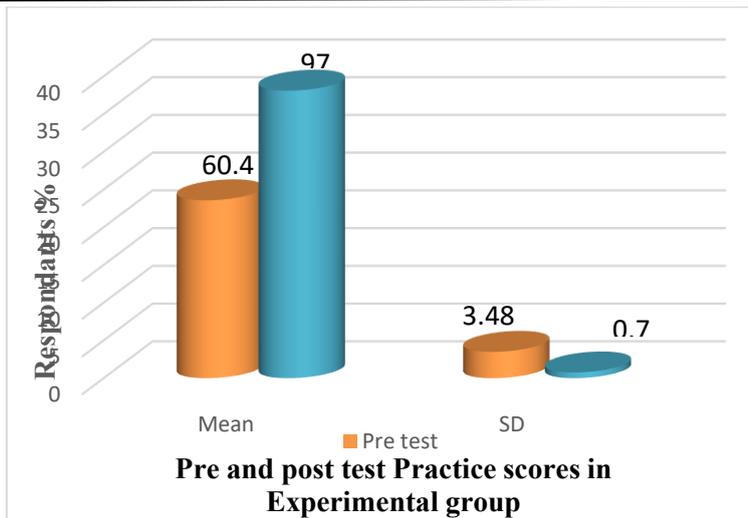
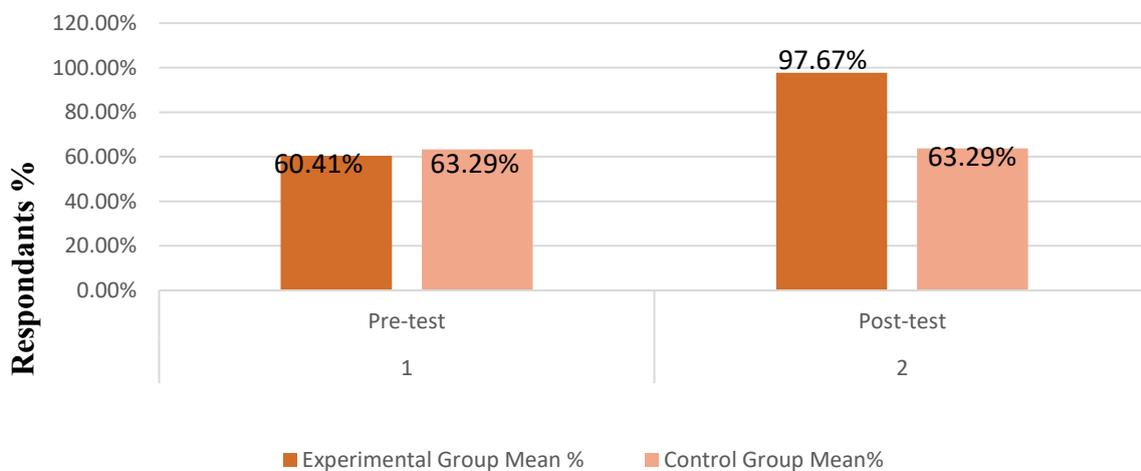


Table and Figure 1.2 revealed that In experimental group The mean pre – test score was 23.56 with SD 3.48, mean % pre test was 60.41%. The mean post –test score was 38.09 with SD 0.75, mean % post test was 97.67%. The mean Difference was 14.53.

Table 1.3: Effectiveness of Video Assisted Teaching on Practice in Experimental Group

n=68

Group	Test	N	Mean(%)	SD	Mean Difference	Paired ‘t’ value	Result
Control	Pre	34	63.29%	4.07	0.20	0.6912 (p=.4943)	***
	Post	34	63.79%	3.99			
Experimental	Pre	34	60.41%	3.48	14.53	24.5040 (p=.0001)	***
	Post	34	97.67%	0.75			



Effectiveness of video Assisted Teaching on Practice in Experimental Group

Figure 1.3: Effectiveness of video Assisted Teaching on Practice in Experimental Group

Table and figure 1.3 revealed that maximum possible score was 39. The mean pre – test score was 23.56 with SD 3.48, mean % pre test was 60.41%. The mean post –test score was 38.09 with SD 0.75, mean % post test was 97.67%. The Paired ‘t’ test value was 24.5040 was greater than table value (2.02 at df-33, p=.0001) in Experimental Group. The mean post –test score was 24.88 with SD 3.99, mean % post test was 63.79% in control group. The Paired ‘t’ test value was 0.6912. It shows that there is significant difference between the pre test and post test level of practice regarding neurological assessment in experimental group. Hence research hypothesis H1 stated that there is a significant difference between mean pre test and post test practice scores in experimental group was accepted in this study.

TABLE 1.4: ASSOCIATION BETWEEN PRACTICE SCORES AND WITH SELECTED SOCIO DEMOGRAPHIC VARIABLES IN BOTH GROUPS

Associations between pre-test scores of Practice with demographic variables in control group

n = 34

S. No .	Demographic Variables	Freq.	Level of practice		X ²	Table Value	Level of significance
			Poor practice	Average + Good practice			
1.	Age (in years)						
a)	21-25 years	00	00	00	0.9008	5.99	NS
b)	26-30 years	09	02	07			
c)	31-35 years	20	04	16			
d)	36 years & above	05	02	03			
2	Gender						
a)	Male	16	02	14	2.04	3.84	NS
b)	Female	18	06	12			
3.	Prof. Qualification						
a)	GNM	19	05	14	0.247	5.99	NS
b)	Basic B.Sc. Nursing	09	02	07			
c)	PB B.Sc. Nursing	06	01	05			
d)	M.Sc. Nursing	00	00	00			
4.	Areas of work						
a)	Neurology ward	00	00	00	0.1468	3.84	NS
b)	Neuro-surgery ward	15	04	11			
c)	Neuro ICU	00	00	00			
d)	Modular OT	19	04	15			
5.	Work experience						
a)	Less than 5 year	09	02	07	1.641	7.82	NS
b)	6-10 year	12	04	08			
c)	11-15 year	10	02	08			
d)	Above 16 year	03	00	03			

6	Have you attended any training program regarding neurological assessment						
a)	Yes	13	03	10	.0023	3.84	NS
b)	No	21	05	16			

With Regards to Age

In term of association between mean pre test practice scores and Age of the respondents revealed that highest score were found in 31-35 years and least was found in 21-25 years. In term of association between pre-test practice score and age analysis revealed that obtained t-value 5.99, X^2 0.9008 p-value > 0.05 level of significant which indicates that there was no significant association between pre test practice scores and age of respondents.

With Regards to Gender

In term of association between mean pre test practice scores and Gender of the respondents revealed that highest score were found in male and least was found in female. In term of association between pre-test practice score and gender analysis revealed that obtained t-value 3.84, X^2 2.04 p-value > 0.05 level of significant which indicates that there was significant association between pre test practice scores and gender of respondents.

With Regards to Professional Qualification

In term of association between mean pre test practice scores and professional qualification of the respondents revealed that highest score were found in GNM and least was found in M.Sc. nursing. t-value 5.99, X^2 0.247, p-value > 0.05 level of significant which indicates that there was no significant association between pre test practice scores and professional qualifications of respondents.

With regards to Area of Work

In term of association between mean pre test practice scores and Area of work of the respondents revealed that highest score were found in Modular OT and least were found in Neuro- ICU, Neuro-Ward t-value 3.84, X^2 0.1468 p-value > 0.05 level of significant which indicates that there was no significant association between pre test practice scores and Area of Work of respondents.

With regards to Work Experience

In term of association between mean pre test practice scores and work experience of the respondents revealed that highest score were found in 6-10 year, 11-15 year and least was found in Above 16 year. In term of association between pre-test practice score and work experience analysis revealed that obtained t-value 7.82, X^2 1.641, p-value > 0.05 level of significant which indicates that there was significant association between pre test practice scores and work experience of respondents.

Have you Attended any training program regarding Neurological Assessment

In term of association between mean pre test practice scores and have you attained any training program regarding Neurological Assessment of the respondents revealed that highest score were found in Yes and least was found in No. In term of association between pre-test practice score and attained any training program regarding Neurological Assessment analysis revealed that obtained t-value 3.84 X2 .0023 p -value > 0.05 level of significant which indicates that there was no significant association between pre test practice scores and have attained any training program of respondents.

Associations between pre-test scores of practice with demographic variables in experimental group

n= 34

S. No .	Demographic Variables	Freq.	Level of practice		X ²	Table Value	Level of significance
			Poor practice	Average + Good practice			
1.	Age (in years)						
a)	21-25 years	00	00	00	.0921	5.99	NS
b)	26-30 years	09	03	06			
c)	31-35 years	18	05	13			
d)	36 years & above	07	02	05			
2	Gender						
a)	Male	11	06	05	4.9476	3.84	S
b)	Female	23	04	19			
3.	Prof. Qualification						
a)	GNM	21	06	15	0.539	5.99	NS
b)	Basic B.Sc. Nursing	07	02	05			
c)	PB B.Sc. Nursing	06	02	04			
d)	M.Sc. Nursing	00	00	00			
4.	Areas of work						
a)	Neurology ward	11	06	05	4.9476	7.82	S
b)	Neuro-surgery ward	00	00	00			
c)	Neuro ICU	23	04	19			
d)	Modular OT	00	00	00			
5.	Work experience						
a)	Less than 5 year	06	03	03	4.2410	7.82	NS
b)	6-10 year	13	04	09			
c)	11-15 year	11	01	10			
d)	Above 16 year	04	02	02			
6	Have you attended any training program regarding neurological assessment						

a)	Yes	22	06	16	0.5183	3.84	NS
b)	No	10	04	06			

With Regards to Age

In term of association between mean pre test practice scores and Age of the respondents revealed that highest score were found in 31-35 years and least was found in 21-25 years. In term of association between pre-test practice score and age analysis revealed that obtained t-value 5.99, X^2 0.0921 p-value > 0.05 level of significant which indicates that there was no significant association between pre test practice scores and age of respondents.

With Regards to Gender

In term of association between mean pre test practice scores and Gender of the respondents revealed that highest score were found in female and least was found in male. In term of association between pre-test practice score and gender analysis revealed that obtained t-value 3.84, X^2 4.9476 p-value > 0.05 level of significant which indicates that there was significant association between pre test practice scores and gender of respondents.

With Regards to Professional Qualification

In term of association between mean pre test practice scores and professional qualification of the respondents revealed that highest score were found in GNM and least was found in M.Sc. nursing. T-value 5.99, X^2 0.539, p-value > 0.05 level of significant which indicates that there was no significant association between pre test practice scores and professional qualifications of respondents.

With regards to Area of Work

In term of association between mean pre test practice scores and Area of work of the respondents revealed that highest score were found in Neuro-ICU and least were found in Neuro- Surgery ward, Modular OT t-value 7.82, X^2 4.9476 p-value > 0.05 level of significant which indicates that there was significant association between pre test practice scores and Area of Work of respondents.

With regards to Work Experience

In term of association between mean pre test practice scores and work experience of the respondents revealed that highest score were found in 11-15 year and least was found in Above 16 year. In term of association between pre-test practice score and work experience analysis revealed that obtained t-value 7.82, X^2 4.2410, p-value > 0.05 level of significant which indicates that there was no significant association between pre test practice scores and work experience of respondents.

Have you Attended any training program regarding Neurological Assessment

In term of association between mean pre test practice scores and have you attained any training program regarding Neurological Assessment of the respondents revealed that highest score were found in Yes and least was found in No. In term of association between pre-test practice score and

attained any training program regarding Neurological Assessment analysis revealed that obtained t-value 3.84 X2 0.5183 p -value > 0.05 level of significant which indicates that there was no significant association between pre test practice scores and have attained any training program of respondents.

DISCUSSION

This study deals with the discussion in accordance with objectives of the study and hypothesis. The present study has been under taken to assess the effectiveness of Video Assisted Teaching on practice regarding Neurological Assessment among nurses at MBGH, Udaipur, Rajasthan.

CONCLUSION

The Practice of the Nurses Regarding Neurological Assessment before the administration of the Video Assisted teaching was poor, The Video Assisted Teaching significantly increased the practice of Nurses regarding Neurological Assessment. The Video Assisted Teaching was an effective strategy to enhance the Practice of Nurses so these kinds of strategies can be used in the hospitals, to increase practice regarding Neurological Assessment. So that the quality of care of Patients will be increased by Decreasing error in practice which in turn will make Nurses confident, secure and motivated.

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