



A STUDY TO ASSESS THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING ON KNOWLEDGE AND PRACTICE REGARDING EARLY AMBULATION AMONG PATIENTS UNDERGONE MAJOR SURGERY

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ABSTRACT

Background/Aim: Early ambulation is an important component of postoperative care after major surgery. Its benefits were first reported in 1940. Ambulation is the ability to walk from place to place independently, with or without assistive devices. Early walking is one of the most crucial things seniors can do after surgery to prevent postoperative complications. Walking is a low-intensity activity which is ideal for most seniors who are recovering from a surgery or other hospitalization. This study helps to assess the effectiveness of video assisted teaching on knowledge and practice regarding early ambulation among patients undergone major surgery.

Materials and Methods: Pre-experimental research design one group pre and post test design has been used. The participants consist of 60. The participants were selected through purposive sampling method and conducted pretest (semi structured interviews) and video teaching was provided and after that post-test was conducted to the patients with the same tool.

Results: Early ambulation will enhance the post-operative recovery among the major surgery and also it will be use full in reducing post-operative complications.

Conclusion. The following conclusion was drawn from the following study. The patients gained adequate knowledge about early ambulation followed by video assisted teaching and prevention of complication.

Key words: early ambulation, major surgery.

Introduction

One of the most important things to do following surgery is to start walking right away to avoid issues. An approach to postoperative care in which a patient gets out of bed and performs light activity as soon as feasible after surgery (such as sitting, standing, or walking). Reducing the time to ambulation is a procedure to speed up a patient's capacity to walk or move around. It is distinguished by a shorter hospital stay or term of recumbency than is customary. After major surgery, early ambulation is a crucial part of postoperative treatment. The first accounts of its advantages date from 1940. Ambulation is the capacity to move about independently, either with or without aids.¹ One of the most important things seniors may do following surgery to avoid postoperative issues is to start walking right away. Most seniors who are recovering from surgery or another hospitalisation will find that walking is a low-intensity activity that is appropriate for them.² 2016 Nisha Clement According to data from 56 countries, there were between 187 and 281 million major surgeries performed annually in 2004. This is a significant and underappreciated volume with important public health ramifications. The mortality rate during general anaesthesia is reported to be as high as 1 in 150 in parts of sub-Saharan Africa (10), and infections and other postoperative complications are also a serious concern globally. Studies in developing countries suggest a death rate of 5-10% associated with major surgery. Globally, according to data monitor, there were 7.4 million major abdominal procedures performed in 2010, and that number is predicted to rise to 8.1 million in 2020.³ Montie20B Waldhausen et al., 1990. POI can last up to 4-5 days, significantly lengthening the time to hospital discharge for patients and increasing the risk of complications.⁴ Luckey et al., 2003 It has been found that intestinal dysmotility may persist longer if the surgery involves the distal GI tract rather than the proximal GI tract, especially if the distal colon is reanastomized. increase.⁵ Huges et al., 2000. POI is a public health concern because post-abdominal surgery patients are at increased risk of developing cardiovascular and pulmonary complications associated with decreased physical activity due to pain and other immobility symptoms. A big concern above. Previous studies have provided overwhelming evidence that POI prolongs postoperative recovery by several days.⁶ Prasad & Matthews, 1999 significantly delays healing and adds more than \$1 billion annually in associated medical costs to treat this problem. Postoperative ileus is a prevalent problem after major surgery and can result in significant postoperative morbidity, lengthy hospital stays, and increased healthcare costs. A common noninvasive postoperative standard of care believed to prevent and resolve POI is early patient ambulation and instruction to spend more time sitting in a chair and walking⁷ Schirmer, 1990 Evidence for the effectiveness of these interventions remains controversial and unconvincing

2.Methods:

2.1. study procedure

The data of our study were collected from “chettinad academy of research institute”, which was a pre-experimental design study initiated. The study has been approved by institution human ethics committee CARE and conducted in chettinad hospital and research institute, a provincial city in Tamilnadu India. All participants had major surgery. A total of 60 patients signed the informed permission form after being selected for this study from surgical ward.

Inclusion criteria: Patients who are post operative periods undergone major surgeries,(post-operative day2 – video assisted teaching),(Post-operative day 4-asses the knowledge)Willing to participate and available during data collection.

Exclusion criteria: Mother who are not able to read and understand Tamil English, Adolescent pregnancy, Normal antenatal mothers, Mother in first trimester.

2.2. Study content and measurements

A structured questionnaire containing four aspects was used in this study. Part of the data were collected from the patients surgical management manual in which all medical records from the initial examination were kept.

The study instrument like structure questionnaire for demographic data, semi structure questionnaire for knowledge in ambulation, mobility scale

2.3. Statistical analysis

Data were analyzed using IBM SPSS Statistics for Windows, Version 22.0. (IBM Corp., Armonk, NY). The mean and standard deviation was calculated for demographic data. Frequencies were calculated for level of knowledge patients undergone major surgery, effectiveness of video assisted teaching program on post operative ambulation among patients undergoing major surgery. The χ^2 test and Fisher's exact test were used to associate between post-test level of knowledge on post operative ambulation among patient undergoing major surgery.

Results

Regarding gender in group, majority of the subjects 30 (50.00%) were male, 30 (50.00%) were female.

With regards to marital status in the group, majority of the subjects 53 (88.3%) of them were married, 7 (11.3%) were unmarried.

When the education is considered in the group, majority of the subjects 24 (40.00%) were studied up to higher education, 23 (38.3%) were studied upto primary education, 13 (21.7%) were had no formal education.

Regarding occupation status in intervention group , majority of the subjects 28(46.7%) were private employee , 5(8.3%) were Govt employee, 5 (8.3%) were homemakers.1 (0.7%) were daily wagers.

With the aspect of monthly income in the group, majority of the subjects 42(70.00%) were earned between Rs. More than 15,001, 13 (21.7%) were earned more than Rs 10,001-15,000, 5 (8.3%) were earned between Rs.5,000-10,000. When the place of residence in the group majority of the subjects 37(61.7%) were hailed from urban ,23 (38.3%) were hailed from urban Regarding the diet pattern in the group, majority of the subjects 34 (56.6%) were non vegetarian, 26(43.3 %) were vegetarian.Regarding the type of anesthesia in the group, majority of the subjects 31 (51.7%) were others, 15(25%) were general anesthesia ,13(23.3%)

Fig:4.1 Frequency distribution of pretest knowledge among patients with major surgery.

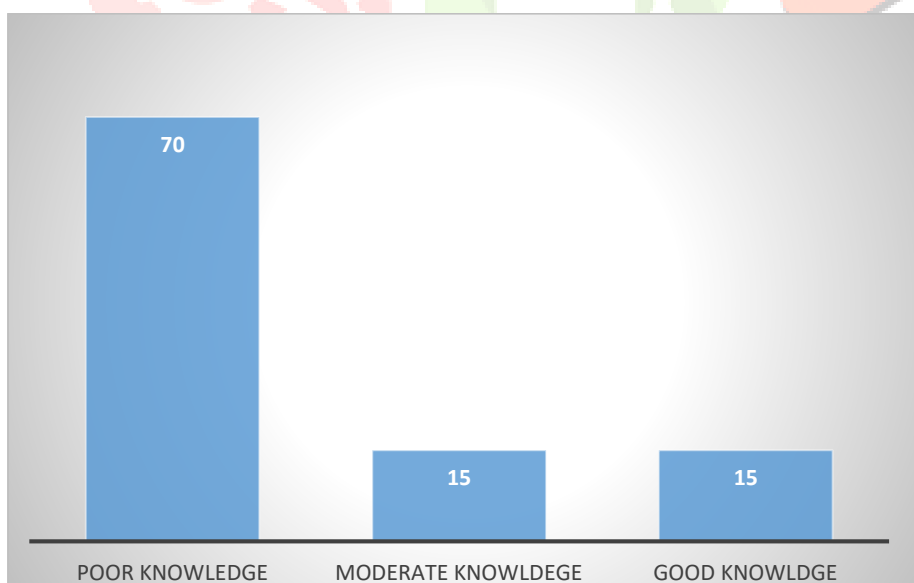
Figure 4.1 shows the majority of abdominal surgery ambulation pre test knowledge 42 (70%) of them were had poor knowledge ,9 (15.0%) of them were had moderate knowledge, 9(15.0%) of them were had good knowledge.

Frequency distribution of posttest knowledge among patients with major surgery.

Figure 4.2 the majority of major surgery ambulation posttest knowledge 42(35%) of them were had good knowledge, (15.0%) of them were had moderate knowledge, 9(15.0%) of them were had poor knowledge.

SECTION- II: TO ASSESS THE LEVEL OF KNOWLEDGE REGARDING POST- OPERATIVE AMBULATION AMONG PATIENTS UNDERGOING MAJOR SURGERY.

Frequency and percentage distribution of pretest knowledge among patients with major surgery.



Frequency distribution of posttest knowledge among patients with major surgery.

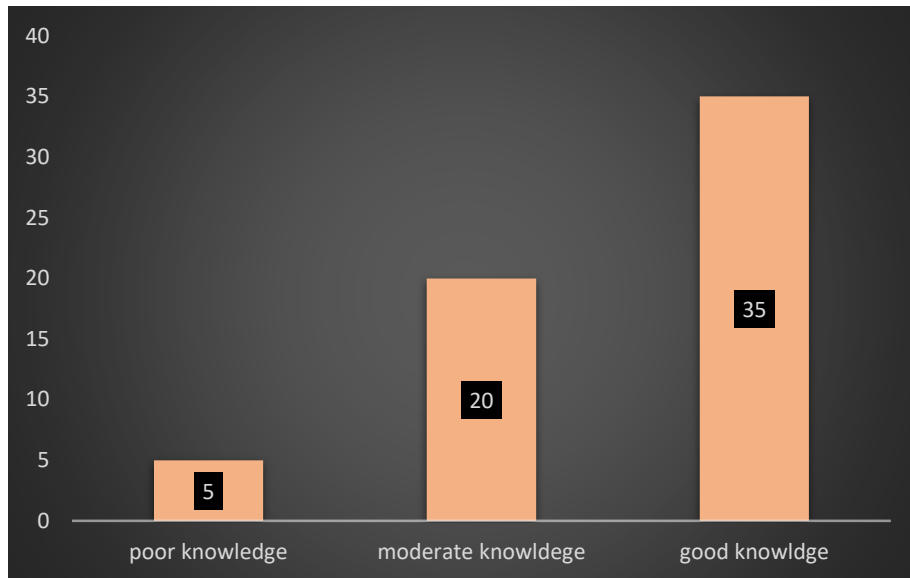


Fig:4.2 post test knowledge of patients undergone major surgery

Table 4.2 and figure 4.3 Comparison between pretest and post-test level of knowledge

Figure 4.3 pre test knowledge 42 (70%) of them had poor knowledge ,9 (15.0%) of them had moderate knowledge, 9(15.0%) of them had good knowledge.Posttest knowledge 42(58.3%) of them had good knowledge,20 (33.3%) of them had moderate knowledge, 5(8.3) of them had poor knowledge.

Table. 4.2 Comparison between pretest and post-test level of knowledge

S.NO	CATRGORY	LEVEL OF KNOWLEDGE					
		INADEQUATE KNOWLEDGE		MODERATE KNOWLEDGE		ADEQUATE KNOWLEDGE	
		F	%	F	%	F	%
1	PRE-TEST KNOWLEDGE	42	70	9	15	9	15
2	POST TEST KNOWLEDGE	5	8.3	20	33.3	35	58.3

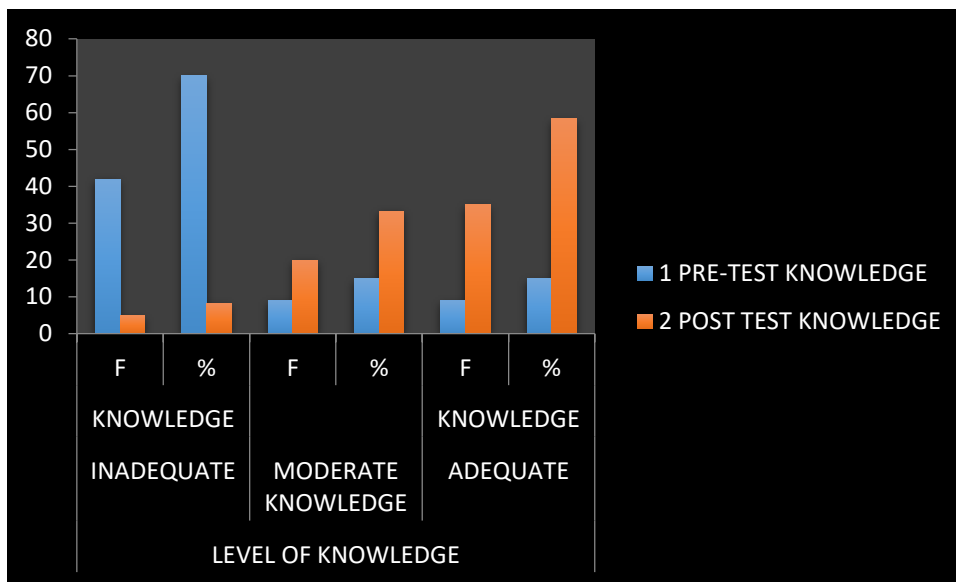


Fig 4.3 Comparison between pretest and post-test level of knowledge

Secton-III: TO EVALUATE THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAM ON POST-OPERATIVE AMBULATION AMONG PATIENTS UNDERGOING MAJOR SURGERY

Frequency And Percentage Distribution Of Practice Of Ambulation Among Patients With Major Surgery

Figure 4.4 shows the majority of major surgery 34(56.7%) of them were had borderline mobility,20(33.3%) of them were had perform mobility, 6(10.0%) of them were had dependent mobility.

Secton-III: TO EVALUATE THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAM ON POST-OPERATIVE AMBULATION AMONG PATIENTS UNDERGOING MAJOR SURGERY

Frequency And Percentage Distribution Of Practice Of Ambulation Among Patients With Major Surgery

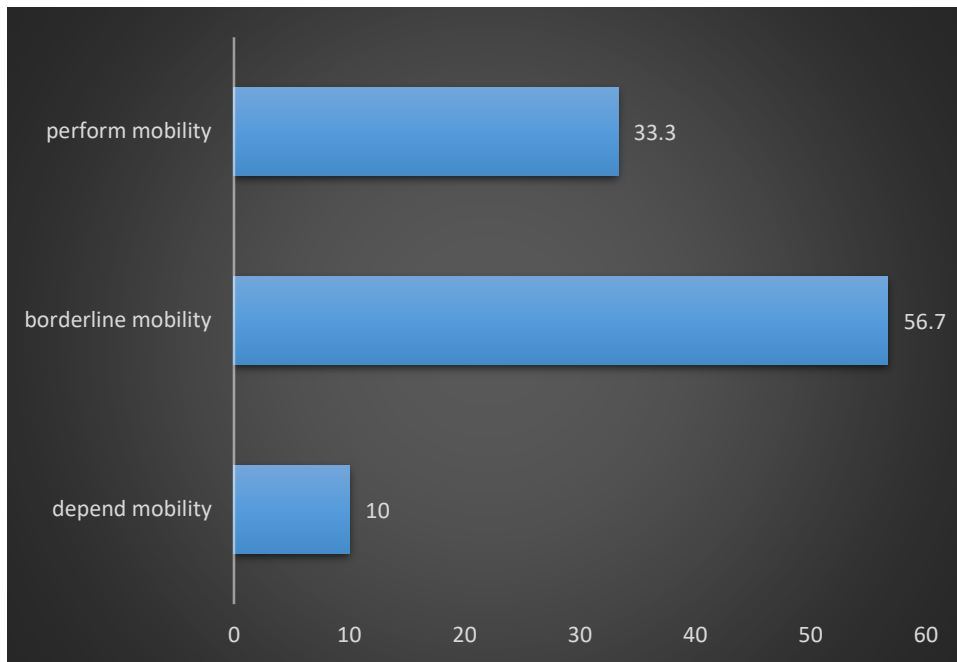


Fig 4.4: Practice of ambulation among patients with major surgery

Section : VI To associate between post test level of knowledge on ambulation with selected with demographic variables Table 4.3: To associate between post test level of knowledge on ambulation with selected with demographic variables

Table 4.3: To associate between post test level of knowledge on ambulation with selected with demographic variables

S.NO	DEMOGRAPHIC VARIABLE	CATEGORY	Post test						Chi square	
			Poor Knowledge		Moderate Knowledge		Good knowledge			P
			F	%	F	%	F	%		
1	Age in years	<50years	4	6.6%	13	21.7%	28	46.6%	6.18	0.18
		50-60 years	0	0%	6	10	3	5%		
		<60 years	1	0.7%	1	0.7%	4	6.6%		
2	Gender	Male	3	5%	8	13.3%	19	31.6%	1.25	0.53
		Female	2	3.3%	12	20%	16	26.6%		
3	Marital status	Married	4	6.6%	18	15%	31	51.5%	0.39	0.82
		un married	1	0.7%	2	3.3%	4	6.6%		
4	Education status	no formal education	0	0%	2	3.3%	11	18.3%	9.47	0.05
		primary education	1	0.7%	7	11.6%	15	15.0%		
		higher education	4	6.6%	11	18.3%	9	15.0%		
5	Occupation	home makers	1	0.7%	8	13.3%	12	6.6%	5.95	0.65
		government employee	0	0%	1	0.7%	4	6.6%		
		private employee	4	6.6%	9	15%	15	25%		
		self-employee	0	0%	1	0.7%	4	6.6%		
		daily wagers	0	0%	1	0.7%	0	0%		
6.	Monthly income	5,000-10,000	1	0.7%	0	0%	4	0%	6.36	0.174
		10,001-15,000	0	0%	3	5%	10	16		
		more than 15,001	4	6.6%	17	13.3%	21	35		
7.	Resistance	Urban	4	6.6%	10	10%	23	38.3	2.10	0.34
		Rural	1	0.7%	10	16.6%	12	6.6%		
8.	dietary pattern	veg dietarian	5	8.3%	8	13.3%	21	35	6.24	0.04
		non vegetarian	0	0%	12	20.	14	23.3%		
9	Weight	> 50 kg	0	0%	4	6.6%	0	0%	13.1	0.01
		51-60 kg	5	35%	12	6.6%	33	55%		
		<60 kg	0	0%	4	6.6%	2	3.3%		
10	type of anesthesia	Regional	2	3.3	4	6.6%	9	15%	0.88	0.92
		General	1	0.7%	5	8.3%	8	13.3%		
		Others	2	3.3%	11	18.3%	18	30%		

The above table 4.3 explains the significant association between posttest level of knowledge on ambulation with selected demographic variables in the

group. Chi square test reveals that, there was significant association between post test level of knowledge and education (=9.47, P=0.05), diet pattern (=6.24, P=0.03), weight (13.1, P=0.01), other demographic variable in the group of ambulation in major surgery was statistically not significant $p > 0.0$

Discussion:**4.1 DISTRIBUTION OF MAJOR SURGERY PATIENTS ACCORDING TO THEIR SELECTED SOCIO DEMOGRAPHIC VARIABLES.**

The above table 1 explains the distribution of major surgery according to their selected socio demographic variables.

In aspects of age majority of subjects 45(75.0%) belongs to the age group between >50 years, 9(15%) belongs to the age group less than 51-60 years, 6(10.0%) belongs to the age group more than 60 years.

Regarding gender in group, majority of the subjects 30 (50.00%) were male, 30 (50.00%) were female. With regards to marital status in the group, majority of the subjects 53 (88.3%) of them were married, 7 (11.3%) were unmarried.

When the education is considered in the group, majority of the subjects 24 (40.00%) were studied up to higher education, 23 (38.3%) were studied upto primary education, 13 (21.7%) were had no formal education.

Regarding occupation status in intervention group, majority of the subjects 28(46.7%) were private employee, 5(8.3%) were Government employee, 5 (8.3%) were homemakers, 1 (0.7%) were daily wagers.

With the aspect of monthly income in the group, majority of the subjects 42(70.00%) were earned between Rs. More than 15,001, 13 (21.7%) were earned more than Rs 10,001-15,000, 5 (8.3%) were earned between Rs.5,000 -10,000.

When the place of residence in the group majority of the subjects 37(61.7%) were hailed from urban, 23 (38.3%) were hailed from rural. Regarding the diet pattern in the group, majority of the subjects 34 (56.6%) were non vegetarian, 26(43.3%) were vegetarian.

When the weight in the group majority of the subjects 4(6.7%) were 50-60kg, 50 (83.3%) were < 60 kg, 6 (10%) were >50 kg.

Regarding the type of anesthesia in the group, majority of the subjects 31 (51.7%) were others, 15(25%) were general anesthesia, 13(23.3%) were spinal anesthesia.

SECTION:1 TO ASSESS THE LEVEL OF KNOWLEDGE REGARDING POST- OPERATIVE AMBULATION AMONG PATIENTS UNDERGOING MAJOR SURGERY.

Fig1 Frequency and percentage distribution of pretest knowledge among patients with major abdominal surgery.

Figure 1 shows the majority of major surgery ambulation pre test knowledge 42(70%) of them were had poor knowledge, 9(15.0%) of them were had moderate knowledge, 9(15.0%) of them were had good knowledge.

Fig 2 frequency and percentage distribution of post-test knowledge among patients with major abdominal surgery.

Figure 4.2 the majority of major surgery ambulation posttest knowledge 42(35%) of them were had poor knowledge, (15.0%) of them were had moderate knowledge, 9(15.0%) of them were had poor knowledge.

Hence the state of hypothesis . There will be significant difference between pretest level of knowledge and posttest level of knowledge regarding post-operative ambulation among patients undergoing major surgery.

Table 4.2 and figure 4.3 Comparison between pretest and post-test level of knowledge

Figure 4.3 pre test knowledge 42 (70%) of them had poor knowledge ,9 (15.0%) of them had moderate knowledge, 9(15.0%) of them had good knowledge.Posttest knowledge 42(58.3%) of them had good knowledge,20 (33.3%) of them had moderate knowledge, 5(8.3) of them had poor knowledge

SECTION 2. TO EVALUATE THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAM ON POST-OPERATIVE AMBULATION AMONG PATIENTS UNDERGOING MAJOR SURGERY

frequency and percentage distribution of practice of ambulation among patients with major surgery

Figure 4.3 shows the majority of surgery 34(56.7%) of them were had borderline mobility,20(33.3%) of them were had perform mobility, 6(10.0%) of them were had dependent mobility

SECTION;3 TO ASSOCIATE BETWEEN POSTTEST LEVEL OF KNOWLEDGE ON AMBULATION WITH SELECTED DEMOGRAPHIC VARIABLES

the significant an associate between posttest level of knowledge on ambulation with selected demographic variables in the group. Chi square test reveals that, there was significant association between post test level of knowledge and education ($\chi^2=9.47$, $P=0.05$),diet pattern($\chi^2=6.24$, $P=0.03$),weight (13.1, $P=0.01$), other demographic variable in the group of ambulation in major surgery was statistically not significant $p>0.05$

Hence state hypothesis H2-There will be significant association between the knowledge regarding the post-operative ambulation among major surgery patients with their selected demographic variables

Recommendations

This study can be replicated with a large sample size for better generalizations

The hospital authority can practice early ambulation from first post-operative period

A similar study can be done to identify the \effect of early ambulation enhanced the post-operative recovery with five or seven days nursing intervention.True experimental post- test can be used

One of the aim of nursing research to explain the broaden and scope of nursing finding of the study will provide baseline data regarding early ambulation and post-operative recovery. Hence it can be used for further studies in their area.

Nurse researcher should challenge to perform scientific work and take part the assessment of wound

healing ,and functional ability and evaluation of post-operative recovery for clients with major surgery

Conclusion

Statistical evidence proved that early ambulation is an effective intervention to enhance the post-operative recovery which increases the confident and motivate the patients to do their daily activities and functional activities independently .during the first day of the post-operative period

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