Available online at www.ijmrhs.com



ISSN No: 2319-5886

International Journal of Medical Research & Health Sciences, 2016, 5, 11:588-595

Studying the effectiveness of film and video to selected nursing to freshman nursing students at Islamic Azad University, Isfahan (Khorasgan) Branch, Isfahan, Iran

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ABSTRACT

Nursing education puts emphasize on the student's achievement to the ultimate goals of education, that is, the competency and efficiency indifferent field sand ultimately fulfillment of a patient's care needs. The present research was conducted with aim of determining the effectiveness of these of film and video to teach selected nursing procedures to nursing students at Islamic Azad University, Isfahan (Khorasgan). The study sample consisted of all first semester nursing students of Islamic Azad University Isfahan (Khorasgan). in the academic year 2013-2014. 52 nursing students were selected as the sample through census. The sample was randomly divided into control and experimental group. the experimental group used film and video In addition to usual tutorials. instruments used in this study included evaluating check lists of techniques to assess pulse, breathing control, blood pressure control with stethoscope, placement of the nasogastric tube, feeding through inserting a nasogastric tube and removing the nasogastric tube. Data were analyzed trough and relative distribution of the mean, standard deviation, and T-test. The data showed that the mean score of the experimental group in doing the required nursingtechniqueswas85. 86 ± 15.38 and the mean score of the control group was 65.41 ± 12.67 and this difference was statistically significant byT-test, P < 0.001. The results showed that the using film and video in learning nursing techniques has been useful and has increased the mean scores in the control group.

Keywords: nasogastric tube, blood pressure, stethoscope.

INTRODUCTION

The purpose of nursing is to provide secure and optimal care to the patients. Regard to the increasing expansion of the science and use of the modern knowledge is useful in improving the level of nurses' psychomotor performance and this case results in the reduction of the distance between the theoretical and applied knowledge of the nursing students and also improves the quality of the provision of health and medical cares to the patients [1]. Nursing training is a very basic and important element in the case of nurturing efficient and competent nurses and is one of the main aims of the universities and without this factor the aim of nurturing efficient and competent nurses cannot be a reachable objective. And every kind of discussion regarding training nursing students without paying attention to the psycho field and its characteristics would not be complete [2]. Essentially, teaching and learning theoretically way is related to the social sciences and for the evolution of the knowledge and skills of the nursing students, there is a need to continuous training in a clinical way. Clinical training in the profession of nursing has a very important and specific state and improvement of its weak points will result in the improvement of the quality of the nurses' performances and understanding their strengths and emending of the weak points [3]. Clinical training is one of the

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basic components of the graduate and post-graduate nursing students' program. Failure in gaining the required abilities in those areas is one the main problems of the postgraduate students in this field of study, therefore, the necessity of using the modern training methods for improving the quality of clinical training is very important [4]. Clinical skills lab at the BSc level of nursing is designed for learning practical skills and there is a need for further research on knowledge and skill transfer between different sites and laboratories. In general, the health care needs a work force with a high quality in the clinical care, and learning through computer is an effective strategy for training [5]. As we know, with regard to the increase in the number of the nursing students in nursing care and inappropriateness of the type of training regarding the provision of traditional cares, there is an urgent need to provide the type of training in the form of online multi-media or CD in order to improve the quality of learning[6]. Various researches confirm the effectiveness of using multimedia and auxiliary training tools in improving the quality of nurses' performance including Khatooni and his colleagues' study, 2013 which was conducted with the aim of reviewing the impact of the designed training software in the field of practical principles and skills of nursing on the learning of practical skills in nursing student, the sample were 164 first semester nursing students and the results showed that the designed training software was effective on learning practical skills of the nursing students. Application of the training software as an effective strategy can result in the improvement of the nursing students' practical skills. Ma et al.[7] also in study with the title of the effect of using video in education: entrance of the Information Technologies in the medical science, which is conducted on 100 medical students(50 individuals using traditional way, 50 individuals using way video), the results showed that using training films in training clinical examinations to students in comparison with the traditional training method could have been effective in improving the extent of ability of self-efficacy and also betterment of practical skill in this area. Holland et al.[8] also studied the skills nursing students who were enrolled in lower semesters in giving oral medications to patients; in a way that the control group only received the normal trainings in the clinical training skill classes and the speech, which was delivered by experienced teachers, and the intervention group in addition to the mentioned trainings, without any limitations had access to online training videos related to medication administration skills. The results showed that satisfaction and performance score of the intervention group was significantly higher than those of the control group and also the online training films that have good practical samples can along with the skills training sessions improve students' contentment and skill. With regard to the importance of clinical training in promoting nurses' students performance, it is necessary that the various training methods to be reviewed and the more efficient ones to be considered and used more than others, in this regard the present study was conducted with the aim of determining the effectiveness of using film and video in learning nursing techniques among nursing students at Islamic Azad University, Isfahan (Khorasgan).

MATERIALS AND METHODS

Humans have long to understand the phenomena shaping the world around them has made efforts Over time, your efforts could rely on common principles to transform methods the product of science Name the two sets of these methods are generally divided into two categories There are few studies (interventional non-intervention) qualitative studies and combined studies [12]. This study was conducted using quantitative method and experimental. The independent variables in this study included the use of film and video and dependent variables. Monitoring vital signs and clinical skills students learn in the nasogastric tube insertion, Feeding through a nasogastric tube, nasogastric tube was out. Students in the experimental group and control simultaneously in a single pass your practical work practice period, divided Thus, using direct instruction and the use of film in teaching and. To distribute movies to be viewed outside the formal class hours a week group exercise based on the film. And a program designated Tuesdays 4 pm to 5 pm Students with a head band rehearsing. And evaluation was conducted at the end of training on the Check list. Methods of Sampling. The statistical population included all nursing students in the first semester (study population) Branch of Islamic Azad University in the academic year 2013-2014 was. The census sampling samples were divided randomly into two groups; In addition to the usual experimental group of film and video tutorials are also used. The independent variables in this study Nursing Students Using Video. The main outcome measures students' clinical skills in taking vital signs, feeding through a nasogastric tube Nasogastric tube removal and placement of the nasogastric tube. Students in the experimental group and the control unit at the same time serving their practical work practice period divided. This research was an experimental and qualitative study and the statistical population of this research included all of the first semester nursing students at Khorasgan Islamic Azad University during the academic year 2013-2014. Using the method of capitation all of randomly divided into two groups of control and experimental. The experimental (26 control group students) group in addition to the normal training used film and video. The instruments which are used in this research were as the following: check lists of evaluating the technique of pulse control, breathing control, blood pressure control with phone,

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placement of a nasogastric tube, feeding through nasogastric tube and removing a nasogastric tube. The collected data were analyzed using absolute and relative normal distribution of standard deviation and T-test.

RESULTS

First aim: determining and comparing the effectiveness of using film and video in learning to control oral thermal degree in the two control and experimental groups.

Table 1: Frequency and comparison of the learning scores (score) of controlling oral temperature in the two control and experimental groups

Score of oral temperature	Experimental	group	Cont	trol group	
	Number	Percer	nt Number	Percent	
Weak (25 – 50)	2	7.1	7	33.3	
Mean (51 – 75)	12	42.9	14	66.7	
Good (75 – 100)	14	50	0		0
Mean of the normal distribution score	28				
	82.5		58.9		
	16.1		12.3		
Result of the test	P value < 0.0001		T = 5.59		

The results of the independent t-test showed that the mean score in learning to control temperature in the two experimental and control groups were significantly different (P value < 0.001). As you can see in Table 1, the state of learning to control oral temperature in the experimental group was better than the control group in such a way that in the first group they had 50 percent good performance while we didn't have good performance in the experimental group. Meanwhile , independent t-test showed that the mean score for oral temperature in the experimental group that had received film training was significantly more than the mean score of the control group. Therefore, the training has been effective P value <0.001.

Second aim: Determining and comparing the effectiveness of learning to control pulse in the two experimental and control group

	Experimental	group Contr	ol	group			
Score of pulse control	Number	Percent	t	Number		Percent	
Weak (25 – 50)	4	14.3	3		15		
Mean (51 – 75)	7	25	16			80	
Good (75 – 100)	17	60.7	1				5
Mean of the normal distribution score	28		20				
	85.6		67.	5			
	20.9		13.	1			
Result of the test	P value < 0.000	1	T =	= 2.41			

Table 2: Comparison of learning (score) to control pulse in the experimental and control group

The results of the independent t-test showed that there was significant difference between the mean score of the experimental group in pulse controlling and that of the control group (Pvalue = 0. 001 andt = 2.41). As you can see in Table 2 with regard to the state of pulse controlling in the experimental group, we have 60.7% good performance and in the control group we have 5% good performance. (P value = 0.001 and t = 2.41). Moreover, the independent T-test showed that mean score of pulse controlling in the experimental group that in addition to the traditional training method received film training was significantly more than the control group (P value = 0.001, t = 2.41).

Third aim: Determining and comparing the effectiveness of breath controlling in the two experimental and control groups

Score of breath controlling	Experimental	group	Contro	ol group
	Number	Percent	Number	Percent
Weak (25 – 50)	2	7.7	2	10
Mean (51 – 75)	9	34.6	18	90
Good (75 – 100)	15	57.7	0	0
Mean of the normal distribution score	26		20	
	87.5		72.08	
	16.20		7.77	
Result of the test	P value < 0.0001		T = 3.91	

Fable 3: Com	narison of learn	ing (score) t	o control breath	in the experimer	ntal and control	grouns
able 5. Com	parison or icarn	ing (score) i	o controi bi cath	m the experiment	nai and control	groups

The results of the independent t-test indicated that there was significant difference between the mean score of the experimental group in breath controlling and that of the control group (P value = 0.001 and t = 3.91). As you can see in Table 3, regarding the state of breath controlling in the experimental group, we have 57.7% good performance and in the control group we have 0% good performance. In addition, the independent T-test showed that mean score of breath controlling in the experimental group that received film training in addition to the traditional training was significantly more than that of the control group.

Fourth aim: Determining and comparing the effectiveness of controlling blood pressure in the two experimental and control groups

The results of the independent T-test indicated that there was significant difference between the mean score of the experimental group and that of the control group in blood pressure controlling (P value = 0. 02 andt = 2.49). As you can see in Table 4, the state of vein blood pressure controlling with stethoscope in the experimental group was better than that of the control group in such a way that we have 89.3% good performance and in the control group we have no good performance. In addition, the independent T-test showed that mean score of vein blood pressure controlling with stethoscope in the experimental group that received film training was significantly more than that of the control group. Therefore, film training was effective, P value = 0.002, t = 2.49).

Score of reviewing blood pressure with stethoscope	Experimental	group	Contro	ol group
	Number	Percent	Number	Percent
Weak (25 – 50)	0	0	0	30.4
Moderate (51 – 75)	3	10.7	7	30.4
Good (75 – 100)	25	89.3	16	69.6
Mean of the normal distribution score	28		23	
	96.5		88.7	
	8.55		12.56	
Result of the test	P value $= 0.02$		T = 2.49	

Table 4: Comparison of learning (score) to control blood pressure with stethoscope in the two experimental and control groups

Fifth aim: Determining and comparing the effectiveness of placement of the nasogastric tube in the experimental and control groups

Table 5: Comparison of learning (score) placement of the nasogastric tube in the two experimental and control groups

Score of reviewing placement of the nasogastric tube	Experimental	group Co	ontrol	group	
	Number	Percent	t Number	Percent	
Weak (25 – 50)	2	7.4	11	45.8	
Moderate (51 – 75)	8	29.6	9	37.5	
Good (75 – 100)	17	63.0	4	16.7	
Mean of the normal distribution score	84.53		55.74		
	20.73		21.81		
Result of the test	P value < 0.001		T = 5.0	1	
P value -	< 0.001, t = 5.01				

As you can see in Table 5, the condition of placement of the nasogastric tube in the experimental group was better than that of the control group in such a way that they have 63% good performance and in the control group we have

no good performance. In addition, the independent T-test showed that the mean of placement of the nasogastric tube in the experimental group that received film training was significantly more than that of the control group. Therefore, film training was effective, P value < 0.001, t = 5.01).

Sixth aim: Determining and comparing the effectiveness of feeding through nasogastric tube in the experimental and control groups.

Control group regarding the mean score of feeding through nasogastric tube in (P value < 0.001, t = 5.01). As you can see in Table 6, the condition of feeding through nasogastric tube in the experimental group was better than that of the control group in such a way that they have 70.4% good performance and a score higher than 75 and in the control group they have no good performance. In addition, the independent T-test showed that the mean of feeding through nasogastric tube in the experimental group that received film training was significantly more than that of the control group. Therefore, film training was effective, P value < 0.001, t = 5.01).

Table 6: Comparison of learning (score) feeding through nasogastric tube in the two experimental and control groups

Score of reviewing of feeding through nasogastric tube	Experimental	group	Control	group
	Number	Percent	Number	Percent
Weak (25 – 50)	3	11.1	10	41.7
Moderate (51 – 75)	5	18.5	12	0.50
Good (75 – 100)	19	70.4	2	8.3
Mean of the normal distribution score	27		24	
	56.13		56.96	
	18.57		22.93	
Result of the test	P value < 0.001		T = 5.01	

Seventh aim: Determining and comparing the effectiveness of the technique of extracting nasogastric tube in the experimental and control groups.

Table 7: Comparison of learning (score) removing the nasogastric tube in the two experimental and control groups

Score of reviewing removal of nasogastric tube	Experimental	group		Control	group
	Number	Percent	Nu	mber	Percent
Weak (25 – 50)	2	7.7		2	10
Moderate (51 – 75)	9	34.6		18	90
Good (75 – 100)	15	57.7		0	0
Mean of the normal distribution score	26			20	
	81.7			57.03	
	20.7			23.53	
Result of the test	P value < 0.001			T = 4.03	

The results of the independent t-test indicated that there was significant difference between the experimental group and the control group regarding the discharging of the nasogastric tube.

As we can see in Table 7, the condition of removing the nasogastric tube in the experimental group was better than that of the control group in such a way that they have63% good performance and a score higher than 75 and in the control group we hadn't good performance. In addition, the independent T-test showed that the mean of removing the nasogastric tube in the experimental group that received film training was significantly more than that of the control group. Therefore, film training was effective, P value < 0.001, t = 5.01). The mean of the total learning score in the experimental and control groups were 85.9 ± 15.4 and 65.4 ± 12.7 , respectively. The results of the independent t-test showed that this difference was significant (p value < 0.001) (Table 8).

	Learning	Number	Program	Sta. D	Maximum	Minimum
Ire	Experimental	28	82.5549	16.09921	50.00	100.00
mperatu	Control	21	58.9351	12.35496	39.29	75.00
Teı	Total	49	72.4322	18.67800	39.29	100.00
	Experimental	28	85.6331	20.95856	27.27	100.00
Pulse	Control	20	67.5000	13.12974	25.00	77.27
	Total	48	78.0777	20.09106	25.00	100.00
50	Experimental	26	87.5000	16.20185	50.00	100.00
reathing	Control	20	72.0833	7.77752	50.00	75.00
В	Total	46	80.7971	15.20128	50.00	100.00
	Experimental	28	96.5000	8.55700	75.00	100.00
Blood pressure	Control	23	88.7101	13.56096	62.00	100.00
_	Total	51	92.9869	11.65251	62.00	100.00
le Ich	Experimental	27	84.5346	20.73630	28.75	100.00
lacing th se-stoma pipe	Control	24	55.7456	21.81712	25.00	92.11
Pl	Total	51	70.9868	25.55709	25.00	100.00
pe	Experimental	27	86.1359	18.57723	32.81	100.00
Feeding ough pi	Control	24	56.9661	22.93149	25.00	100.00
thr	Total	51	72.4090	25.25023	25.00	100.00
ng -	Experimental	28	81.7820	20.73393	25.00	100.00
schargii 1e nose- nach pi	Control	24	57.0313	23.53792	25.00	98.44
th stor	Total	52	70.3586	25.15311	25.00	100.00
	Experimental	32	85.8684	15.38883	28.85	100.00
Total	Control	27	655.4108	12.67913	40.78	92.50
	Total	59	76.5065	17.44440	28.85	100.00

Table 8: The mean of total score of learning in the experimental and control groups

DISCUSSION AND CONCLUSION

The study was performed with the aim of determining the effectiveness of teaching nursing techniques in a traditional way and using film and video on the learning of the first semester nursing students at Islamic Azad University, Khorasghan, Iran, in 2013. The data obtained data showed that the number of freshmen Nursing students in Khorasghan Branchin 2013, were 59female students. Their age ranged from 21-18 years. The results obtained from the aims of the research show the positive effects of using film and video besides the traditional training. In analyzing the first aim, the results showed that the mean score of oral temperature in the experimental group that had received film training was significantly higher than that of the control group. Therefore, the training program has been effective. With regard to the fact that in the traditional training most of the discussion was based on the teacher's explanations and speech and the sense that is involved in this type of learning is the sense of hearing, the student will learn theoretically and with a special framework the way of conducting, but in practice doing this type of action is not clear and without ambiguity. But when the theoretical training were conducted in a real context by watching films, the ambiguities will evade and learning will be established. In this method during the process of learning the visual sense will also be active and involved and this will result in getting more information about the field under study and the more a person receives information about a particular topic, the more will be the possibility of the level of learning in the person. In examining the body temperature through oral method after mentioning the steps through a traditional method, the student will remember these stages, but when he watches these steps in the film he will see the correct method of using the instrument and this will help to erase any ambiguities in this regard and establish the learning. Fazljoo et al.[9] in there study reviewed the effects of three methods of speaking, direct

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observation and watching film on students' knowledge and attitude in comparison with the electro-shock treatment. The results showed that watching film will significantly increase the student's knowledge and this increase in relation to the speaking method is totally manifest, but in comparison of the direct method and film watching there was no significant difference between these two methods. In reviewing the second aim, the results indicated that the mean score in controlling pulse in the experimental group that get film training was significantly higher than the mean score of Considering the fact that in the traditional method the content of the teaching materials will be fully explained by the teacher, can result in facilitation of the learning process but when the stages are conducted practically in a real situation on a case, the student will see it and will learn a lot from it. In this method the student will completely see the place of hand on the pulse to control it and this affaire will be one step further from the mental manifestation in the traditional training and will be converted into a real manifestation of the action under study and the durability of these kinds of information will be higher in the brain. The results of Kelly et al.[10] and Yu et al.'s study show the effectiveness of training films on the rate of nursing students' clinical skills. In reviewing the third aim the results showed that the mean score of breath controlling in the experimental group that were trained with film in addition to the traditional method was significantly higher than the mean score of the control group. Theorists in the educational fields believe that the traditional training classes has no longer have the past effectiveness because they were related to a particular time and place and couldn't provide a real and appropriate context of learning. The technology of using film in teaching provides various opportunities for the learning environment and results in a significant teaching exchange, but cannot solely improve the quality of teaching and learning [11]. When the student wants to check the breathing state, the film that is a real context of this work will help the person to acquire more information about the skill under study. On the other hand, the recorded pictures can be repeated and replayed. This will help the student to answer the questions or ambiguities regarding different sections or way of conducting and finally will result in activation of learning. The more the students practice, the easy the learning would be. In analyzing the fourth objective the mean of arterial blood pressure control with phones in the experimental group that have video training was significantly higher than that of the control group. Due to the increasing number of students and the lack of trainees in proportion to the number of students, there is not enough space and facilities to practically carry out their quire skills of the medical science so that all students cause it. There fore, the training methods that teach these skills in environments similar to the real settings can be effective in improving the learning process. In evaluating the fifth objective the mean inserting the nasogastric tube in the experimental group that had film training was significantly higher than the mean score of the control group. In order to learn any subject better, we should engage most of our senses to achieve a direct learning experiences. But the direct experience because of time limitation, unavailability of the object or other factors, is not always possible. In these cases, the training media provide the learners a situation relatively similar to that first-hand experience. In this learning technique observation of the patient's status, the exact location and the manner of the tube insertion is very important. When the situation is presented via the film, it exactly becomes clear and a lot of points that were probably a question for students are answered by observing the film. The parts that are more sensitive and needs to be repeated, will be repeated. These affairs will help students to increase the rate of their attention and learning. In evaluation of the sixth goal it was found that the mean score of checking feeding through tube in the experimental group that had received film training was significantly more than the mean of control group. Individuals receive most the information through the sense of sight and when this sense is engaged with the other senses in the process of learning, it can result in the increase of their attention. Attention is one of the most important items in the learning process and this will increase the receiving and consolidating of information. On the other hand, when a technique has different stages and if it should be provided in a theoretical format may be forgotten, but pictures have a long durability. In reviewing the seventh objective it was found that the mean of removal of the nasogastric tube in in the experimental group that had received film training was significantly higher than the mean score of the control group. The real experience of such techniques is not applicable for all students, but since these techniques are the basic and necessary techniques for each nurse, exact training in this regard is of prime importance. The training method that creates a context similar to real learning context for the learners will improve its efficiency, thus the method of watching film will provide this kind of situation more than other training methods. Generally, the results showed that training with film is more effective than the traditional methods in teaching and learning nursing techniques. The mean score of the experimental group in doing the required nursing techniques was 85.86 ± 15.38 and that of the control group was 65.41 ± 12.67 and this difference is statically significant with regard to the t-test and P < 0.001. Using film in teaching has many advantages such as increasing the students' interest and persuading them to take active participation in the learning process and helping them to have exact clinical judgment. In addition, problems such as lack of teachers, time and appropriate resources for teaching can be solved by using video films during teaching course. On the other hand, the anxiety of students in these training situations will reduce because in situations similar to the real ones they will learn the required technique without being concerned about making any

mistakes in doing the technique. I hope that with the developments in the field of multi-media teaching, the results of this study have persuaded teachers more than before to use these methods of teaching in training nursing students and also have provided a motivation for producing teaching films in our country.

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