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Effectiveness of video based instruction on knowledge: Ill effects of substance abuse and its prevention

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Abstract
Objectives: to assess and compare knowledge among nursing students regarding ill effects of substance abuse and its prevention before and after video based instruction and to determine the association between post test level of knowledge and demographic variables among nursing students. The hypotheses of the study were there will be significant difference in the mean score of knowledge before and after video based instruction among nursing students (H_1) and there will be significant association between post test level knowledge and selected demographic variables among nursing students.(H_2).
Methods: Quantitative approach, Pre-experimental one group pre-test post test study was conducted to evaluate the effectiveness of video based instruction on knowledge with 50 nursing students posted in psychiatric ward GRH at Madurai. Total enumerative sampling was used and the data was collected by structured knowledge questionnaire with paper-pencil technique before and after video based instruction. Study subjects were given with video based instruction (session comprises of aspects like concept, ill effects and prevention of substance abuse including case scenario to all samples for 30 minutes).
Statistical analysis: Paired Student 't' test, Chi-square test was used to test hypotheses.
Results: Before video based instruction 1(2%), 38(76%) and 11(22%) respectively belonged to the category of poor, average and good knowledge with the mean score of 4.00, 10.89 and 18.09 and no one had very good knowledge. After intervention, 5(10%), 23(46%) and 22(44%) respectively belonged to the category of average, good and very good knowledge with the mean score of 13.40, 19.26 and 24.86 and none of them had poor knowledge. The overall pre-test mean score was 12.34 and for the post test is 21.14. There was a significant difference in the mean score of knowledge before and after video based instruction i.e. the calculated 't' value was 12.595 and it was statistically significant at 0.05 level. Further there was a significant association between post test level of knowledge and place of living at 0.05 level of significance among nursing students.
Conclusion: Thus, study finding concludes that video based instruction was significantly effective to improve knowledge regarding ill effects of substance abuse and its prevention among nursing students.

Keywords: Video based instruction, Knowledge, Substance abuse, nursing students.

1. Introduction
"No drug user grows old; because they die young."

(Jordan)

The term substance is used in reference to any drug, medication, or toxin that shares the potential for abuse. Addiction is a physiologic and psychologic dependence on alcohol or other drug of abuse that affects the central nervous system in such a way that withdrawal symptoms are experienced when the substance is discontinued [1].

Substance abuse in a maladaptive pattern of substance use manifested by recurrent and significant adverse consequences related to repeated use of the substance. Substances have deleterious effects over the individual. Substance abuse includes alcoholism and drug abuse. People with opt substance abuse for varied reasons like tensions release, salvation of problems, to fulfill their needs like to overcome anxiety, pressure of fatigue, experimental use, recreational use or circumstantial phase. No single factor can be identified as a cause for drug addiction [2].

Studies between 1968 until 2000 have been primarily on alcohol use have varied in terms of populations surveyed (ranged from 115 to 16,725), sampling procedures (convenient, purposive and representative), focus of enquiry (alcohol use, habitual excessive use, alcohol abuse, alcoholism, chronic alcoholism, alcohol and drug abuse and alcohol dependence),

location (urban, rural or both, Slums), in the screening instruments used (survey questionnaires and schedules, semi-structured interviews, quantity frequency index, Michigan Alcohol Screening Test (MAST) etc). Alcohol 'use/abuse' prevalence in different regions has thus varied from 167/1000 to 370/1000; 'alcohol addiction' or 'alcoholism' or 'chronic alcoholism' from 2.36/1000 to 34.5/1000; alcohol and drug use/abuse from 21.4 to 28.8/1000. A meta-analysis by Reddy and Chandrashekhar (1998) revealed an overall substance use prevalence of 6.9/1000 for India with urban and rural rates of 5.8 and 7.3/1000 population. The rates among men and women were 11.9 and 1.7% respectively [3].

A descriptive-exploratory study was conducted with 44 students to verify the knowledge of nursing students regarding the use of alcohol and other drugs, particularly addiction, tolerance, withdrawal and intoxication, the reasons students give for drug addiction and commencement, and personal interest in the issue of drug use. A semi-structured questionnaire, constructed by the researchers based on the objectives, with open and closed questions, totaling 24 points was used. It was shown that students knowledge is still limited, comprehension about a patients reasons for using and becoming addicted is incomplete and the interest is current [4].

A cross-sectional study survey was conducted to gather data on substance abuse-related knowledge and attitudes and self-confidence to resist substance use from 243 second-year senior high school students studying at two schools in northern Taiwan. Result concluded participants were most knowledgeable about tobacco (80.2%), followed by alcohol (72.0%), and marijuana (30.0%). Alcohol was the substance participants most willing to use (2.18 ± 3.27), followed by tobacco (0.66 ± 2.19), Ketamine (0.43 ± 1.93), and marijuana (0.38 ± 1.83). Participants had higher awareness of the harmful effects of Ketamine (t = -2.37, p = .018), marijuana (t = -2.33, p = .021), and tobacco (t = -2.02, p = .044), with participants reporting greater self-confidence to resist using these three substances [5].

A descriptive study was employed using a self-administrated questionnaire to collect the data from 400 high school students on knowledge regarding substance abuse and its harmful effects in Jordan. A multistage, random sample was used and results concluded that: Students of both sexes were knowledgeable about aspects of substance abuse, including its harmful effects on the body and society and reported that even occasional or frequent use of cigarettes, alcohol, and other drugs was extremely harmful. A majority of the students perceived substance abuse as a problem, although the older students were more acutely aware than the younger group. However, the results revealed that the students lack in-depth knowledge of substance abuse [6].

2. Methodology

A Quantitative approach, Pre experimental one group pre-test post test design was used. The study was conducted in GRH, Madurai, Tamilnadu. A formal approval was obtained from the authorities and ethical consent was obtained from all subjects. Total enumerative sampling technique was adopted to select the sample of 50 nursing students posted in Psychiatric ward. Students pursuing GNM II and B.Sc Nursing III year were included in the study. Structured knowledge questionnaire was used to assess knowledge regarding ill effects of substance abuse and its prevention before and after video based instruction. The reliability of the questionnaire was calculated by split half method and calculated value was 0.78. The researcher spent 20 minutes to complete the data collection process by paper-pencil technique for whole sample before and after the intervention. Study subjects were given with intervention i.e Video based instruction (session comprises of aspects like concept, effects of substance abuse including case scenario and its prevention for 30 minutes) by having them divided into 2 groups on the first day. Post test on knowledge was conducted on 15th day after intervention. The data was analyzed by SPSS 16 version by descriptive and inferential statistics.

3. Results

The demographic variables of the study were age, gender, course, educational status of father, occupation of father, place of living, previous source of information and history of substance use in family. Frequency and percentage distribution of nursing students in terms of level of knowledge, mean score, standard deviation of knowledge score before and after video based instruction was calculated as per standard scales criteria as shown in Table 1 and 2.

Table 1: Frequency Distribution, Mean and Percentage on Knowledge

N=50

Level of knowledge	Pre test			Post test		
	f	Mean	%	f	Mean	%
Poor knowledge (0-6)	01	4.00	2	-	-	-
Average knowledge (7-14)	38	10.89	76	5	13.40	10
Good knowledge (15-22)	11	18.09	22	23	19.26	46
Very good knowledge (23-30)	-	-	-	22	24.86	44

Table 2: Overall Mean, Standard deviation and Mean difference

N=50

	Pre test				Post test				Difference in mean%
	Mean	SD	SE	Mean%	Mean	SD	SE	Mean%	
Overall	12.34	3.84	0.54	41	21.14	4.12	0.58	70.5	29.5

There was a significant difference in the mean score of knowledge regarding ill effects of substance abuse and its prevention before and after video based intervention i.e the calculated 't' value was 12.595 and it was statistically significant at 0.05 level. Hence it concluded that video based instruction was significantly effective in improving knowledge among nursing students and the research Hypothesis (H_1) was accepted as shown in Table 3

Table 3: Paired t' test showing effectiveness of video based instruction

N=50

Score of knowledge	Mean	Mean difference	SD_D	SE_{MD}	"t" value	P value
Pre test	12.34	8.800	4.940	0.699	12.595	0.000*
Post test	21.14					

* = statistically significant at 0.05 level. t(49)= 2.01

There was a significant association between post test level of knowledge and place of living i.e. calculated Chi-square value is 6.15 and it was statistically significant at 0.05 level. Hence the research Hypothesis (H_2) was accepted as shown in Table 4.

Table 4: Chi-square test ($\chi 2$) showing association between level of knowledge and demographic variables N=50

Demographic variables	Average		Good		Very good		$\chi 2$	df	p-value
	f	%	f	%	f	%			
Place of living									
1. Village/Rural	0	0	12	24	06	12	6.15	2	0.04*
2. Urban/City	5	10	11	22	16	32			

* = statistically significant at 0.05 level. t(2)= 5.99

4. Discussion

In the present study, Before video based instruction 1(2%), 38(76%) and 11(22%) respectively belonged to the category of poor, average and good knowledge respectively with the mean score of 4.00, 10.89 and 18.09 and no one had very good knowledge. Further the overall pre-test mean score, standard deviation and mean percentage was respectively 12.34, 3.84 and 41%.

Similarly, a descriptive study was conducted to determine emergency department doctors' and nurses' knowledge and attitudes regarding problematic substance use and substance users. Methods: Data were collected using an adapted survey questionnaire and the Substance Abuse Attitude Survey (SAAS). By means of convenience/opportunistic sampling all emergency department doctors and nurses (N = 145) working in three university teaching hospitals in Ireland were included and the results proved that Doctors had in-depth knowledge whereas Nurses had considerable average (40%) and good knowledge (25%) but not in-depth [7].

In the present study it revealed that After intervention, 5(10%), 23(46%) and 22(44%) respectively belonged to the category of average, good and very good knowledge with the respective mean score of 13.40, 19.26 and 24.86 and none of them had poor knowledge. After video based instruction overall post test mean score was raised to 21.14 from the pretest mean score 12.34. Post test standard deviation was about 4.12 and the mean percentage was 70.5. Further There was a significant difference in the mean score of knowledge before and after video based instruction i.e the calculated't' value was 12.595 and it was statistically significant at 0.05 level.

Similarly, a quasi-experimental study was conducted with pretest-posttest design to evaluate effectiveness of culturally based substance abuse prevention videos on knowledge and prevention of substance abuse. Results proved that video instruction was significantly effective in changing knowledge at 0.05 level ('t'=9.87) [8].

In the present study there was significant association of post test level of knowledge and place of living among nursing students i.e calculated chi-square value is 6.15 and it was statistically significant at 0.05 level. Similarly, an experimental study was conducted to evaluate the effectiveness of smoking intervention on knowledge and cessation of smoking which proved there was a significant association with knowledge regarding ill effects of substance abuse and place of living of students at 0.05 level [9].

5. Conclusion

Thus, study finding concludes that video based instruction was significantly effective to improve knowledge among nursing students regarding ill effects of substance abuse and its prevention.

6. Reference

1. Sreevani R. A Guide to mental health and psychiatric nursing. (3rd ed.). Bnagaluru: JP medical publishers, 2010.
2. Townsend Mary. Psychiatric Mental health nursing. (6th ed.). Philadelphia: F.A Davis Company, 2009.
3. Pratima Murthy, Manjunatha N, Subodh BN, Prabhat Kumar Chand, Vivek Benegal. Substance use and addiction research in India. Indian journal of psychiatry. 2010; 52(1):186-199.
4. Vilela MV, Ventura CAA, da Silva EC. [Nursing students knowledge about alcohol and drugs]. Rev Lat Am Enfermagem [Internet]. Jan [cited Mar 11] 2016; 18:529-34. Available from: http://www.ncbi.nlm.nih.gov/pubmed/20694421
5. Chueh KH, Ding GY, Yao KW, Huang YJ, Hung CC. [Relationships among risk knowledge, attitudes and ability to resist substance abuse in adolescents]. Hu Li Za Zhi [Internet]. 2013 Feb [cited Mar 11] 2016; 60(1):60-8. Available from: http://www.ncbi.nlm.nih.gov/pubmed/23386526
6. Haddad L, Shotar A, Umlauf M, Al-Zyoud S. Knowledge of substance abuse among high school students in Jordan. J Transcult Nurs [Internet]. 2010; 21(2):143-50. Available from: http://www.ncbi.nlm.nih.gov/pubmed/20220034
7. Kelleher S, Cotter P. A descriptive study on emergency department doctors' and nurses' knowledge and attitudes concerning substance use and substance users. Int Emerg Nurs. 2009; 17(1):3-14.
8. Holleran LK, Reeves L, Dustman P, Marsiglia FF. Creating Culturally Grounded Videos for Substance Abuse Prevention. J Soc Work Pract Addict [Internet]. Taylor & Francis Group; 2002 Jan 12 [cited Mar 10] 2016; 2(1):55-78. Available from: http://www.tandfonline.com/doi/abs/10.1300/J160v02n01_04
9. Thomas RE, McLellan J, Perera R. School-based programmes for preventing smoking. Cochrane database Syst Rev [Internet]. 2013 Jan [cited Mar 11] 2016; 4:CD001293. Available from: http://www.ncbi.nlm.nih.gov/pubmed/23633306