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EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE REGARDING POST EXPOSURE PROPHYLAXIS OF BLOOD BORNE DISEASES AMONG PARAMEDICAL STUDENTS

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ABSTRACT

Introduction: Occupational disease burden in India is growing at an unprecedental pace. In the occupational settings, there is a risk that healthcare providers will be exposed to blood borne pathogens like HIV, HBV, and HCV during working hours. Objectives: Evaluate the effectiveness of Video Assisted Teaching Programme on knowledge regarding Post Exposure Prophylaxis of Blood Borne Diseases among Paramedical students. Materials and Methods: Quantitative approach was used and study design was Pre-experimental one group pre test- post test design. The main study was conducted in February 2016. 60 participants were selected by using non probability convenient sampling technique. The data were analyzed and interpreted using descriptive and inferential statistics. Results: The mean post test knowledge score 24 was significantly higher than the pre test knowledge score 3.9. The obtained 'Z' value was 44.6 and *p* value is 0.001, the findings show that Video Assisted Teaching Programme is effective. The study revealed that there was no significant association between pre test knowledge score and demographic variables. Conclusion: The Video Assisted Teaching Programme improved the knowledge regarding Post Exposure Prophylaxis of Blood Borne Diseases among Paramedical students.

Key words: Effectiveness; Video Assisted Teaching Programme; Post Exposure Prophylaxis of Blood Borne Diseases; Paramedical students.

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INTRODUCTION

Hospital is a large, organizationally complex, system driven institution employing large number of workers from different professional streams. It is also a potentially hazardous workplace that exposes their workers to a wide range of physical, chemical, biological, ergonomical and psychological hazards [1]. Occupational disease burden in India is growing at an unprecedental pace [2].

In the occupational settings, there is a risk that healthcare providers will be exposed to blood borne pathogens like HIV, HBV, and HCV during working hours. An exposure that may place a Health Care Professional at risk of blood-borne pathogens is defined as: a percutaneous injury (e.g., needle stick or cut with a sharp instrument); contact with the mucous membrane of

the eye or mouth; contact with non-intact skin (particularly when the exposed skin is chapped, abraded, or afflicted with dermatitis); or contact with the intact skin when the contact duration is prolonged (e.g., several minutes or more) with blood or other potentially infectious body fluids [3].

Post exposure prophylaxis (PEP) refers to the comprehensive management given to minimize the risk of infection following potential exposure to blood-borne pathogens (HIV, HBV and HCV). For maximum efficacy PEP should be started within 2 hours and certainly within 72 hours. The PEP regimen should be continued for 4 weeks [3].

Statement of the Problem

A study to Assess the Effectiveness of Video Assisted Teaching Programme on Knowledge Regarding Post Exposure Prophylaxis of Blood Borne Diseases among Paramedical Students in Selected College at Perinthalmanna, Kerala, India.

OBJECTIVES

1. Assess the pre and post test level of knowledge regarding Post Exposure Prophylaxis of Blood Borne Diseases among Paramedical students.
2. Evaluate the effectiveness of Video Assisted Teaching Programme on knowledge regarding Post Exposure Prophylaxis of Blood Borne Diseases among Paramedical students.
3. Find out the association between pre test level of knowledge and selected demographic variables.

Hypotheses

The hypotheses are tested at 0.05 level of significance.

H_1 - There is significant difference between pre and post level of knowledge scores on Post Exposure Prophylaxis of Blood Borne Diseases among Paramedical students.

H_2 – There is significant association between pre test level of knowledge scores and selected demographic variables.

RESEARCH METHODOLOGY
Ethical Consideration

Formal approval from Principal, Al Shifa College of Nursing, Research proposal has been approved by the Institutional Review Board. Permission was obtained from the study setting, Al Shifa College of Paramedical sciences for conducting the study. Informed written consent was obtained from each participants before data collection. Assurance was provided that confidentiality and anonymity will be maintained. Purpose of study was explained to the participants for the co operation towards the study. No ethical issues were aroused during the course of study.

RESEARCH DESIGN

The research design used for this study is Pre experimental one group pre test- post test design [4].

Study setting and study population: The study was conducted in Al Shifa College of Paramedical Sciences, Perinthalmanna [5].

Sample size: 60 Paramedical students in Al Shifa College of Paramedical Science at Perinthalmanna [6].

Sampling technique: The sampling technique was non probability convenient sampling technique [7].

Study variables: In this study the independent variable is Video Assisted Teaching Program regarding Post Exposure Prophylaxis of Blood Borne Diseases. In this study the dependent variable is knowledge of Paramedical students regarding Post Exposure Prophylaxis of Blood Borne Diseases. The demographic variables selected for this study were age, gender, year of study, area of residence and source of information.

Pilot study: Pilot study was done in EMS College of Paramedical Sciences, Perinthalmanna from 31/1/2017 to 06/2/17. The pilot study revealed the appropriateness of methodology and comprehensibility of the tool and practicability of the intervention. The data collected was amenable to statistical analysis. Considering the feasibility and practicability of the study and as there were no modifications, the investigator proceeded with the main study [8].

DATA COLLECTION PROCESS

The formal permission for data collection was obtained from Principal, Al- Shifa College of Nursing and Principal, Al- Shifa College of Paramedical Sciences. The researcher conducted the main study during the month of February. Participants were selected based on non probability convenient sampling method. Purpose of study was explained to the participants for the co operation towards the study. After collecting demographic data, structured knowledge questionnaire was used to collect data from samples. Questions were included from definition of blood borne diseases, etiological factors, PEP and its management. Video Assisted Teaching Program was given on the same day. Video covered the contents regarding definition of post exposure prophylaxis of Blood Borne Diseases and the steps of PEP of Blood Borne Diseases (HIV and HCV). The duration of the program was 1hour. The same tool was used to collect the post test data on Day 7. The time taken by each participant to complete the tool was 25-30 minutes. All respondents were co-operated with the researcher during the data collection process.

STATISTICAL ANALYSIS

Statistical analysis was done by using both descriptive and inferential statistics. The analysis was done at 0.05 level of significance. Frequency and percentage distribution were used to study the demographic variables of Paramedical students. Mean and standard deviation were used to determine the pre test and post test knowledge score. Inferential statistics Z test was used to compare the effectiveness of Video Assisted Teaching Program on knowledge regarding Post Exposure Prophylaxis of Blood Borne Diseases among Paramedical students. Chi square test was used to determine the association between knowledge regarding Post Exposure Prophylaxis of Blood Borne Diseases and selected demographic variables such as age, gender, year of study, area of residence and source of information [9].

RESULTS

Section I: Distribution of demographic characteristics and its association with knowledge on PEP of Blood Borne Diseases among Paramedical students.

Majority of samples (55%) belongs to the age group of 17- 18 years, 43% of subjects belonged to the age group of 19-20 years and 2% of subjects in the age group of above 20 years. With respect to gender, 88% of the subjects were females. Regarding year of study, half of the subjects are from first year B. Sc. MLT (50%) and the other half are from second year B. Sc. MLT (50%). With regard to area of residence, 68% of subjects are from urban area and 32% of subjects are from rural area. Forty five percent of subjects have previous knowledge regarding post exposure prophylaxis of blood borne diseases from health professional, twenty one percent of subjects have previous knowledge regarding post exposure prophylaxis of blood borne diseases from peer group and seventeen percent each from printed media and electronic media.

Table 1 depicted that there was no significant association of pre test knowledge score and demographic variables.

Section II: Assessment of level of knowledge regarding Post Exposure Prophylaxis of Blood Borne Diseases.

Assessment of pre test level of knowledge of Paramedical students revealed that 58(97%) of subjects have poor knowledge level and 2(3%) of students have average knowledge regarding Post Exposure Prophylaxis of Blood Borne Diseases. Assessment of post test level of knowledge of Paramedical students revealed that 38(63%) of subjects have average knowledge level and 22(37%) of students have good knowledge regarding Post Exposure Prophylaxis of Blood Borne Diseases.

Section III: Effectiveness of Video Assisted Teaching Program on knowledge regarding Post Exposure Prophylaxis of Blood Borne Diseases among Paramedical students.

The study findings revealed that the mean pre test level of knowledge of Paramedical students is 3.9 with a standard deviation of 2.34. So, there is a need for Video Assisted Teaching Program on Post Exposure Prophylaxis of Blood Borne Diseases among Paramedical students. The mean post test score is 24 with a standard deviation of 2.64 and obtained value of $Z = 44.6$ ($p = 0.001$). By conventional criteria, this difference is considered statistically highly significant. This result supports the research hypothesis H_1. There for the research hypothesis is accepted.

Table 1. Frequency and Percentage distribution of samples based on demographic variables.

Sl. No	Demographic variables	Samples		Knowledge	
		f	%	Chi square	P value
	AGE IN YEARS				
1	a. 17-18	33	55		
	b. 19-20	26	43	0.0644	0.97
	c. >20	1	2		
	GENDER				
2	a.Male	7	12	2.95	0.085
	b.Female	53	88		
	YEAR OF STUDY				
3	a.First	30	50	0	1
	b.Second	30	50		
	AREA OF RESIDENCE				
4	a.Rural	19	32	0.321	0.57
	b.Urban	41	68		
	SOURCE OF INFORMATION				
5	a.Health professional`	27	45		
	b.Printed media	10	17	1.473	0.68
	c.Electronic media	10	17		
	d.Peer groups	13	21		

Table 2. Effectiveness of Video Assisted Teaching Programme on knowledge regarding Post Exposure Prophylaxis of Blood Borne Diseases

Knowledge score	Mean	SD	Confidence interval (95%)	'Z' value	*p* value
Pre test	3.9	2.34	3.3 – 4.5	44.6	
Post test	24	2.64	23.3 – 24.7		0.001**

DISCUSSION

The present study evaluated the effectiveness of Video Assisted Teaching Program on knowledge regarding Post Exposure Prophylaxis of Blood Borne Diseases and found that the Video Assisted teaching program was effective in improving the knowledge of Paramedical students.

The study findings revealed that the mean post test knowledge score(24) of Paramedical students is significantly greater than their mean pre test knowledge score (3.9) and calculated Z value (44.6) was statistically highly significant at 0.05 level with a *p* value 0.001. Hence it is evident that the Video Assisted teaching programme is effective in improving the knowledge level of Paramedical students regarding Post Exposure Prophylaxis of Blood Borne Diseases. Study also revealed there was no significant association between pre test level of knowledge and selected demographic variables. ($p>0.05$).

The present study was supported by the quasi experimental study conducted to assess the effectiveness of Video Assisted teaching programme on Needle Stick Injury regarding knowledge and Attitude among Staff nurses working in Krishna Hospital, Karad. One group pre test post test research design was used for the study. Convenient sampling technique was used and 50 Staff nurses who were working in clinical area were included in the study. Structured knowledge questionnaire and 3 point attitude rating scales were developed to assess the effectiveness of Video Assisted teaching programme on Needle Stick Injury. The result revealed that the overall pretest mean knowledge and attitude score regarding Needle Stick Injury observed to be 9.5 and 23.22 which was increased in post test to 15.16 and 34.64 respectively. Where 't' test value knowledge (t=13.337 at $p<0.0001$), attitude (t= 8.059 at $p<0.0001$), which is considered to be extremely significant of knowledge and there was no significant difference in attitude change. So, there is improvement in knowledge regarding needle stick injury after administering Video Assisted teaching programme [10].

CONCLUSION

The study concluded that the Video Assisted Teaching Program regarding Post Exposure Prophylaxis of Blood Borne Diseases was an effective method to increase the knowledge level of Paramedical students regarding Post Exposure Prophylaxis of Blood Borne Diseases.

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