EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING BIOMEDICAL WASTE MANAGEMENT AMONG PARAMEDICAL STUDENTS

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ABSTRACT

All generation of infectious waste must have proper waste management programme for its disposal. Hospital waste management of utmost importance for the safety of laboratory personnel as well as for the community. The preset study was aimed to evaluate the effectiveness of planned teaching programme on knowledge regarding biomedical waste management among paramedical students in selected collages of malappuram. The study was conducted among 30 paramedical students. Initially the pretest knowledge on biomedical waste management is assessed after that the planned teaching programme given for the 30 subjects. Pre-experimental one group pretest-posttest design was chosen for the study. The data was collected by using a socio demographic profile and structured knowledge questionnaire. Findings revealed that 76.6% have average knowledge and 23.3% have poor knowledge in pre-test. 33.3% have good knowledge, 63.3% have average knowledge and 3.3% have poor knowledge in post test.

Keywords: Structured teaching programme, Knowledge, Biomedical waste management, Paramedical students.

Introduction

A hospital is an institution which produce many types of materials such as pathological waste, chemical waste, cooperation solid waste, re-entering it hazardous for the environment and public. At these years the management of hospital waste was delegated to the hands of nurses, paramedical students, doctors, sweepers and sanitary works. The effect associated with environmental hazards, air pollution, water pollution, soil pollution etc. Therefore the study has been conducted with on objectives to evaluate the knowledge regarding biomedical waste management among paramedical students[1].

Any waste which is generated during the diagnosis, treatment or immunization of human beings or animals or in research activities pertaining there to or in the production or testing of bological[2].

Biomedical waste or hospital waste has assumed great importance in the world once because of the serious hazards it poses to the environment in general and public. Biomedical waste is receiving greater attention due to recent regulation and inadequate management of waste can be associated with risk to the health care workers. The present study was conducted to assess the quantities and proportions of different constituents of waste, their handling treatment

and disposal method in different health care settings. Various health care units surveyed using a modified survey questionnaire for waste management. Hazards associated with poor biomedical waste management and short coming in the existing system were identified the development of biomedical waste management policies, plans and protocol are recommended. In addition to establish training programs on proper waste management in health care workers[1].

Statement of the problem

A study to evaluate the effectiveness of structured teaching programme on knowledge regarding biomedical waste management among paramedical students in a selected collage at Malappuram.

Objectives

- To assess the pre-test knowledge on biomedical waste management among paramedical students.

- To evaluate the effectiveness of structured teaching programme on knowledge regarding biomedical waste management among paramedical students.

- To find out the association of pre-test knowledge on biomedical waste management among paramedical students with demographic variable.

METHODOLOGY

A quantitative research approach, pre-experimental one group pre-test post-test design was used for the study. The study population consist of paramedical students of MIMS Collage of Allied Health Science at Malappuarm. The sample size was 30. Tool used were baseline proforma include demographic data tool and structured knowledge questionnaire.

The pilot study was conducted to conform the feasibility of the study. The main study was done on 30 subjects in selected collage at malappuram. The pretest was done which is followed by a planned teaching programme regarding biomedical waste management to first year paramedical students. Posttest conducted on seventh day to evaluate the effectiveness of planned teaching programme on knowledge regarding biomedical waste management and was measured using structured questionnaire. The obtained data were analyzed and interpreted based on the objectives.

RESULT

Analysis of data collection was done in accidence with the objectives of the study.

Table: 1- socio demographic characteristics of subjects. Frequency and percentage distribution of subjects based on age, gender, residence, previous knowledge on biomedical waste management and its source

N=30

Demographic variable	Frequency (f)	Percentage (%)
Age		
18	14	46.66
19	10	33.33
Above 20	6	20
Gender		
Male	4	13.33
Female	26	86.66
Residence		

Urban	21	70
Rural	9	30
Previous knowledge on BMW		
Yes	20	67
No	10	33
Source of information		
Text book	14	47
Lectures	4	13
Magazines	1	3
Internet	1	3
No	10	33

Table 2:   Level of knowledge of paramedical students regarding biomedical waste management before and after structured teaching programme   N=30

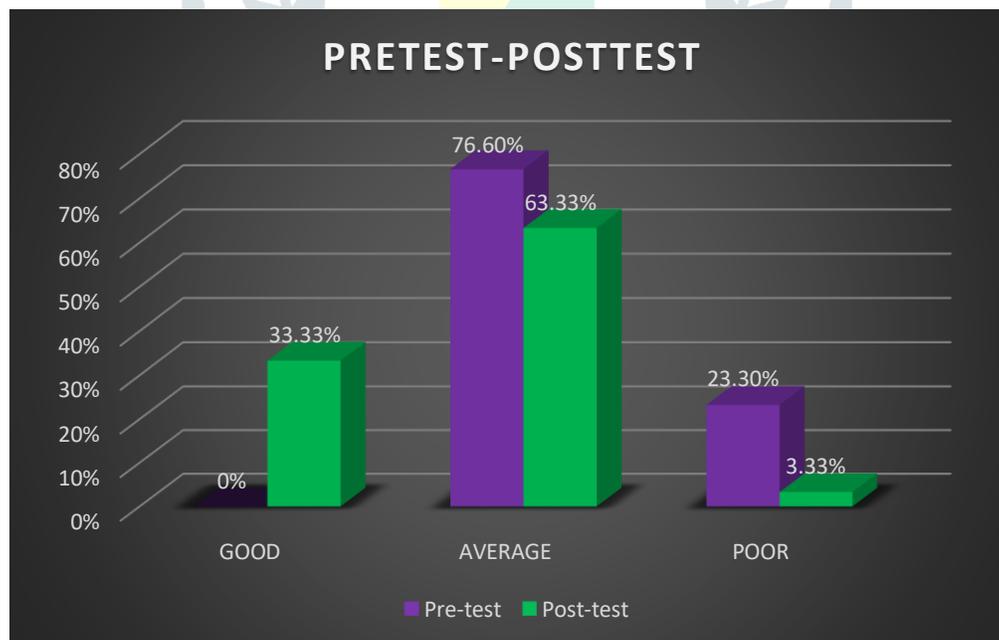| Level of knowledge	Pre-test		Post test	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Good (21-30)	0	0	10	33.33
Average (11-20)	23	76.6	19	63.33
Poor (0-10)	7	23.3	1	3.33
Total	30	100	30	100

Figure 1: Bar diagram representing the level of knowledge paramedical students regarding biomedical waste management before and after structured teaching programme.

Table 3: Comparison of pre-test and post-test knowledge by paired t test

N=30

Tests	Mean	Standard deviation	Mean difference	't' value
Pre test	12.77	2.85		
Post test	19.4	3.77	6.63	8.927

The mean pre-test knowledge score is 12.76 and mean post-test score is 19.4. Paired t-test was used to compare the pre-test and post-test scores. As the calculated test statistic value 8.927 is higher than table value 2.05 at 29 degree of freedom (p<0.05). So the null hypothesis is rejected and research hypothesis was accepted. Thus it can be interpreted that there is a significant difference in pre-test score and post-test scores of knowledge regarding biomedical waste management among paramedical student and the structured teaching programme was effective.

Discussion

The present study objective was effectiveness of structured teaching programme on knowledge regarding biomedical waste management. The result revealed that there is significant difference in mean pre-test knowledge score is 12.76 and mean post-test scores 19.4. Paired test was used to compare the pre-test and post-test scores. As the calculated test statistics value 8.927 is higher than table value 2.05 at 29 degree of freedom (p<0.05). Hence the structured teaching programme was effective in improving the knowledge level of subjects about biomedical waste management.

The present study result is comparable to the findings of other study which is conducted by Sheikh Javed Ahmad, Dr.M.S. Vinsi on the effectiveness of structured teaching programme on knowledge regarding biomedical waste management in staff nurse in Indore. The research design was pre experimental one group pre-test post-test design. No probability convenient sampling method are used for the selection of the sample. The instrument for data collection was a structured questionnaire. Total 30 staff were participated from Indoor hospital.. Pre-test was administered to the group followed by structured teaching programme which took about 20minutes. Post-test was taken after one week of administration of structured teaching programme. The finding of the study showed that pre-test mean knowledge score 13.1 out of 30 whereas posttest mean knowledge score was 22.3 out of 30. There for, the difference of pretest and post-test mean knowledge score of staff nurses was statistically significant. Hence it was concluded that structured teaching programme regarding biomedical waste management had significant impact on knowledge of staff nurse[3].

Conclusion

The conclusion drawn from the study are there is difference mean knowledge score before and after structured teaching programme and knowledge regarding biomedical waste management improved after the intervention. The study revealed that structured teaching programme on biomedical waste management was effective intervention for the paramedical students

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