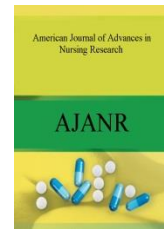




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EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING BIOMEDICAL WASTE MANAGEMENT AMONG HEALTH TEAM MEMBERS OF SELECTED PHC IN UDAUPUR

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ABSTRACT

Background of the study: Health care institutions and hospitals generate biomedical waste which can introduce various infections and injuries to the healthcare workers, patients and harm the surrounding environment. For proper management of biomedical waste Government of India has introduced the biomedical waste management and Handling rules in 1998, unfortunately health care workers awareness regarding biomedical waste segregation, handling and management is minimal hence, the study addresses the issues related to it.

Goals: This examination is proposed to 1. Determine the existing knowledge of health team members on biomedical waste management using a structured knowledge questionnaire 2. To evaluate the effectiveness of structured teaching programme (STP) in terms of gain in knowledge scores of health team members. 3. To find out the association between pre-test knowledge scores of health team members on biomedical waste management with selected demographic variables. **Conclusion:** The present study revealed that the health team members have lack of knowledge regarding biomedical waste management and the overall findings of the study revealed that there was a highly significant increase in the knowledge of health team members on biomedical waste management following the administration of the STP. Therefore it was concluded that the structured teaching programme was highly effective in improving the knowledge of health team members on biomedical waste management.

INTRODUCTION

Waste is a change of form of a particular item from one shape to another. It is useful to the first user but with its transformation after its use, some of the items may be useful to subsequent users. If subsequent utilization is harmful, it should be removed with such precautionary measure keeping it out of reach for others.

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But, the trouble with throwaway society like ours is that there is no such place as 'away'. What we think we have is liable to come back to us.[1]

Medical waste is responsible for serious health hazards. Though the persons involved in scavenging and housekeeping are handling this aspect, the existing status of biomedical waste management cannot be said satisfactory due to many shortcomings and constraints. No specific guidelines and parameters are being followed or implemented by the staff concerned. They are poorly



educated and belong to low category workers, operating without proper and adequate guidance and supervision.[2]

A primary health centre is a service oriented residential establishment that provides medical care facilities comprising of observational, diagnostic therapeutic preventive and rehabilitative services for persons suffering from or susceptible to be suffering from any kind of disease or injury. The basic concept of waste management in a primary health centre does not differ from hospital, hotels, school and catering establishment since the primary health centre renders the same type of basic services. But some wastes generated in the PHC are too hazardous to be treated negligently and any carelessness in the management of these wastes in a hospital tends to spread of infection and contamination of the entire living environment prevailing in the PHC. The delay in the recovery and overburden of weak patients and immune compromised patients endanger the patient's survival and also generate health hazards to the health personnel and others working in and around the PHC. [3]

Today nursing is considered as a professional discipline that includes the art of applying scientific knowledge to the practice. Primary health centers and hospitals generate a vast amount of medical wastes each year. Surprisingly until recent times not enough attention has been paid to the disposal of the bio medical waste generated. Poor disposal of waste is of paramount importance because of its infectious and hazardous characteristics. [4]

NEED FOR THE STUDY

Nurses and health team members as a professional is now accountable for its competence and performance. This has seen the birth of the language "outcomes". Outcome is a mechanism to evaluate quality, improve effectiveness and link practices to professional accountability.

Many of our PHCs have neither a satisfactory waste disposal system nor a waste management and disposal policy. The disposal of waste is entrusted to junior most staff from the housekeeping and class IV workers without any supervision. Even pathological wastes are observed to be disposed off in the available open ground around the PHC with scanty regards to aesthetic and hygienic considerations. [5]

In a study pattern of waste in the Indian cities, the quantity of refuse varied from 0.48 to 0.06 Kg/capita / day. On an average the volume of total solid waste generated in the Indian hospitals and the PHCs is estimated to range between 1 to 5 Kg. [6]

Health team members are the largest occupational group in any health care agency. By virtue of their job responsibilities they are frequently exposed to the biomedical waste. The health team members risk of

exposure to health hazard and the health team members as a cause of iatrogenic infections to the patients are equally challenging issues to the health team members all over the world. If the health team members are aware of the risks and proper management techniques they can effectively handle the same challenge. Early recovery of patients and health of the staff members on clean, healthy and safe surrounding atmosphere. Thus the researcher felt it as a need to educate the health team members regarding biomedical waste management as an effective strategy to improve the prevailing health care[7]

STATEMENT OF THE PROBLEM

"Effectiveness of structured teaching programme on knowledge regarding biomedical waste management among health team members of selected PHC in Udaipur"

OBJECTIVES OF THE STUDY

1. Determine the existing knowledge of health team members on biomedical waste management using a structured knowledge questionnaire.
2. Find the effectiveness of structured teaching programme in terms of gain in knowledge scores of health team members.
3. Find the association between pre-test knowledge scores of health team members on biomedical waste management with selected demographic variables.

HYPOTHESIS

H₁: The mean post-test knowledge scores on biomedical waste management of health team members who have undergone structured teaching programme will be significantly higher than their mean pre test knowledge scores.

H₂: There will be a significant association between the pre-test knowledge score of health team members on biomedical waste management with selected demographic variables.

MATERIALS AND METHODS

an evaluative approach was found to be appropriate to describe the effectiveness of structured teaching programme on biomedical waste management among health team members. Pre-experimental, i.e., one group pre-test post-test design was adopted for the study. Here only one group was observed twice, before and after introducing the independent variable

Subjects were selected according to the selection criteria. Informed consent was obtained from the sample. Purposive sampling technique was found appropriate to select 50 health team members working in the selected PHC at Udaipur, the data was gathered using a structured knowledge questionnaire. Content validity of the questionnaire was Pre-testing and the reliability of the



questionnaire were done. The apparatus was seen as reliable ($r=0.85$).

SAMPLING CRITERIA:

Inclusion criteria

Health team members who are

1. Willing to participate in the study
2. Available during the time of data collection

Exclusion criteria

Health team members who are:-

Attended some education programme related to biomedical waste management.

RESULTS

The data gathered were summarized in the master sheet and both descriptive and inferential statistics were used for analysis. Findings revealed that the post test knowledge score (24.98 ± 3.32) was higher than the pretest knowledge score (14.96 ± 3.29).

Paired 't' test was used to find the effectiveness. The calculated 't' value in knowledge (21.36 , $P < 0.005$) and was greater than the table value (1.68). This showed that the gain in the knowledge was significant after administering structured teaching programme.

Association between pre-test knowledge with demographic variables revealed that there was no significant association between the pre-existing knowledge with these demographic variables on biomedical waste management

IMPLICATIONS

The findings of the study have implications on nursing practice, nursing training, nursing administration and nursing research.

NURSING PRACTICE

- Health colleagues will help in the best possible planning of bio medicinal waste administration.
- It will help in planning and conducting direction training program on biomedical waste administration.
- It prescribes and give satisfactory offices to the health care work force for biomedical waste administration.
- It administers in handling methodology ought to be done for biomedical waste administration.
- Helps to get ready for incidental just as arranged health mindfulness battle.
- Insisting the health care suppliers for labeling and keeping pictures at the isolation point regarding shading coding.
- Helps to screen the best possible isolation at the point of age.
- Helps in direction training programs.

NURSING TRAINING

- The educational plan of various nursing projects should incorporate the subject on biomedical waste administration to make them to gain proficiency with the methods of safe transfer of waste and shield them from hazards.
- In-administration and continuing instruction projects might be led for the staff to improve the knowledge on biomedical waste administration.
- Motivate the staff and understudy nurses to actualize safe transfer of waste methodology in their clinical area.
- Audio visual guides regarding biomedical waste administration ought to be prepared

NURSING ADMINISTRATION

- Educating the nursing and other health work force on biomedical waste administration.
- It gives satisfactory offices and required supplies.
- Nurse administrator ought to emphasize on prevention of word related hazards by recommending intermittent health checkups and vaccination.
- Develop standard conventions for squander the board.
- Develop approaches on safe handling of waste from the point of waste age till transportation.

NURSING RESEARCH

- A study might be led safe practices of nursing work force regarding waste administration at occasional intervals.
- A comparative study can be directed on bigger sample to generalize the findings.
- A study might be done on the issue confronted, acknowledgment of technique of treatment and transfer of clinic squander.
- A study on nurse's job in prevention of word related hazards can be directed

LIMITATIONS OF THE STUDY

- Only the selected PHC was selected for the study because of constrained time for data assortment.
- This study didn't utilize a control group thus the investigator had no control over the occasions that occurred between the pre-test and post test.
- A structured questionnaire was utilized to gather information on knowledge regarding biomedical waste administration; the reactions were, therefore limited.
- Samples were selected from one PHC. So generalization of findings is confined to selected PHC.
- Lack of random sampling technique hinders the generalization of results.
- No endeavor was made to evaluate the



improvement practice of health colleagues regarding biomedical waste administration.

RECOMENDATIONS

In view of the findings of the present study suggestions are offered for further researchers:

- The study can be imitated in another PHC.
- A near study can be led to evaluate the knowledge of health colleagues regarding biomedical waste administration in clinic and PHC.

- A huge scale study should be completed to generalize the findings.

- The practice of the health colleagues regarding biomedical waste administration can likewise be included in this study

- A comparative study might be led by using a control group.

CONFLICT OF INTEREST

There were no conflicts of interest reported.

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