Research Article

A study to assess the knowledge and practices of nurses regarding biomedical waste management in selected hospitals of Latur

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Abstract

A quantities descriptive study to assess the knowledge and practice regarding Bio Medical Waste Management among nurses in selected hospital Latur. Through non-probability convenience sampling technique. There were 100 Nurses were selected for the study. The data was collected by using structured interview questionnaire. The results shows that (>75%) 8 had high knowledge (51-75%)19 had average knowledge (0-50%) 73 were had low knowledge score regarding biomedical waste management and the mean was 11.8 with the SD of 5.27 practices on Biomedical waste management (>70%)17 were had adequate practice (41-70%) 20 were had adequate practices and (0-40%) 63 had inadequate practices the mean score of practice was 5.49 with the SD of 2.09. Significant association was found between the attitude and age, sex, professional qualification, experience, type of hospital and available facilities. Significant relationship was identified between the knowledge and practices.

Keywords: Knowledge, practices, biomedical waste.

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1. Introduction

The WHO regional office for Europe convened a working group on hospital waste management in collaboration with Norwegian government, at Bergen from 28th June to 1st July, 1983 which was the first time where medical specialist's hospital engineers. Hospital administrators from nineteen European countries were participated. The purpose of the meeting was to review recent developments in the handling, transport, treatment and disposal of waste from health care establishment and to prepare guidelines for a code of practice to be used by administrators, engineers and others in industrialized countries [2].

In South-East region, Hospital waste management to the become a serious concern, largely due to reports in the print and audiovisual media which brought into limelight the plight of rag pickers who rummage through the waste and segregate materials which are sent for recyclinng4
Bio medical waste is any waste, which is generated during diagnosis, treatment or immunization of human beings or animals [3].

Healthcare waste is generally defined as, "all waste generated by health facilities, such as hospitals, clinics, laboratories and also includes waste from centenary facilities". Although healthcare waste comprises a very small portion of the entire waste stream, it deserves special, attention because of the hazard it can pose to human health, if not managed properly. It is also complex because of the variety of wastes generated by health care facilities, waste requiring special attention includes, those that are potentially infectious, sharps Eg. Needle scalps, other objects capable of puncturing the skin, plastic waste generated from health care establishments, pharmaceutical waste and a variety of chemically hazardous waste used in laboratories etc [1].

The cross sectional survey was done in pune and pimpri chinchwad during 2002-2003, the findings were about 60 percent of the healthcare establishment admitted and recorded 4-5 cases of used needle pricking every day. Lack of awareness and ineffective handling were only adding to the risk factors of the nursing and housekeeping staff [5].

Biomedical waste management is a recent trend in proper wastage disposal. Our country is conducting many programmes and activities to enrich the health care professionals. In Latur up to now no systematic study is dealt in this aspect related to waste management by professionals. During the clinical experience the

investigator observed the improper waste management in hospital. So the investigator is interested to assess the knowledge and practice of nurses regarding biomedical waste management and creates awareness among the nurses. Hence the investigator is interested to conduct the research project in the present study area [6].

2. Material and Methods

Research Approach:
Quantitative research approach

Research Design:
A Descriptive research design

Criteria for sample selection:
The sampling frame structured by the researcher includes the following criteria.

Inclusion criteria:
The nurses who are working in MIMSR Hospital Latur.
The nurses who are willing to participate in the study.

The nurses who were studied either RGNM or B.B.Sc. Nursing

Exclusion Criteria:
Nurses who were selected for the pilot study
Nurses who were not willing to participate in the study

Sample Size:
100 Nurses were considered as a sample for the present study

Limitations:
The study was limited to nurses who were working in selected hospitals

The study was limited to the nurses and midwifery RGNM or B.B.Sc Nursing

The study was limited to the nurses who were willing to participate in the study.

Method of date collection:
Structured interview schedule was made to the assess the knowledge and practice observed checklist was used for assessing the practices regarding biomedical waste management.

3. Results and Discussion

Percentage distribution of the nurses based on their knowledge on Biomedical Waste Management

Knowledge score	Frequency	Percentage	Mean	SD
Low 0-50 %	73	73%		
Average 51-75%	19	19%	11.8	5.27
High Above 76 %	8	8%		

This shows the percentage distribution of the nurses knowledge on biomedical waste management. Totally 30 item was prepared assess the knowledge. Each item with correct response was carried one mark. According to the score nurse were divided into high (76%) 8 have high knowledge average (51-75%) 19 had average knowledge and Low (50 %) 73 were knowledge score mean was 11.08 with the standard deviation 5.27.

The nurses were having low knowledge regarding biomedical waste management. The effect of improper waste management must be explained and the nurses must be motivated towards proper biomedical waste management.

Percentage distribution of the nurses based on their Practice on Biomedical waste management

Practice Score	Frequency	Percentage	Mean	SD
Inadequate 0-40 %	63	63		
Moderate adequate 41-70 %	20	20	5.49	2.09
Adequate above 71 %	17	17		

It describes the percentage distribution of the nurses based on their practices on biomedical waste management. Totally 14 items were constructed to assess the practices on biomedical waste management the nurses were had adequate practice, (41-70%) 20 were had moderately adequate practices and (0-40%) 63 were had inadequate practices.

Conclusion

Among 100 Nurses very negligible percentage of the nurses had high knowledge (8) in the practice score only 17 percentages of the nurses had adequate practices. Continuing education would help the nurses to keep the up to date knowledge and which will be helpful for them to follow good practices. Significant association was identified between the knowledge and practice. The nurses' knowledge, attitude and practices on biomedical waste management depend upon each other. Nurse's knowledge and practices scores were not satisfactory. So that they need to be educated on biomedical waste management and their knowledge and practice should be improved to achieve better care.

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