



International Journal Of
**Recent Scientific
Research**

ISSN: 0976-3031
Volume: 7(6) June -2016

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THE OFFICIAL PUBLICATION OF
INTERNATIONAL JOURNAL OF RECENT SCIENTIFIC RESEARCH (IJRSR)
<http://www.recentscientific.com/> recentscientific@gmail.com



ISSN: 0976-3031

Available Online at <http://www.recentscientific.com>

International Journal of Recent Scientific Research
Vol. 7, Issue, 6, pp. 12217-12219, June, 2016

**International Journal of
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Research Article

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ARTICLE INFO

Article History:

Received 05th March, 2016

Received in revised form 21st April, 2016

Accepted 06th May, 2016

Published online 28th June, 2016

Key Words:

Bio medical waste, knowledge, nursing students.

ABSTRACT

Health care institutions are the essential part of our life nowadays, but the bio medical waste generated in these institutions can be hazardous. So, the proper disposal of these toxic wastes is vital because improper disposal can lead to the disease transmission. This study was undertaken to assess the knowledge of the B.Sc. (H) nursing students of AIIMS, Rishikesh. It was found that the 89% of the students had the average knowledge, 8% had the good knowledge and 4% had the poor knowledge about the bio medical waste management. Study concluded that although most of the students had the knowledge of BMW and its management but regular training or the reinforcement of the bio medical waste management practices is required for the students.

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INTRODUCTION

Many types of waste is generated in the hospital e.g. general waste, human anatomical waste, animal waste, microbiology and biotechnology waste, waste sharps, discarded medicines, cytotoxic drugs, solid waste (tubing's, catheters, IV sets, items contaminated with the blood and body fluids; cotton, plaster casts, dressings etc.), liquid waste and chemical waste¹. It is of utmost importance to segregate these wastes at the point of generation and proper disposal of it afterwards. It not only controls the infection but also prevents the unauthorized reuse. In every hospital there is some policy for the management of the bio-medical waste. The personnel working in the hospital, be it doctors, nurses, physiotherapists, students (Nursing/Medical), nursing orderlies or sweepers must be aware of the policy for segregation and disposal of bio medical waste. If the bio-medical waste is not dealt properly, it can pose certain hazards to the human beings.

Need of the study

Nursing students of various batches are posted in the hospital for their clinical duties. They are the beginners for providing the nursing care to the patients. They must have the knowledge of BMW and must practice it in their respective clinical areas.

ShamimHaider, SnehaKumari, VivekKashyap, ShaliniSunderam, Shashi Bhushan Singh (2015) conducted a study on knowledge and practice regarding biomedical waste management among staff nurses and nursing students of Rajendra Institute of Medical Sciences, Ranchi. They concluded that the overall knowledge of study participants was

good but still they need good quality training to improve their current knowledge about BMW².

Adequate knowledge of the health hazards of waste generated in the hospital, usage of proper techniques of handling the waste helps in the safe disposal of hazardous hospital waste and protects our community from the adverse effects of the bio medical waste. So this study was conducted with the main objective of assessing knowledge of nursing students regarding the biomedical waste management.

Problem statement

A study to assess the knowledge of Bio-medical waste management among B.Sc. (Hons.) Nursing students of AIIMS, Rishikesh.

Objective

To assess the knowledge of bio medical waste management among the B.Sc. (Hons.) Nursing students.

METHODOLOGY

Research approach: survey approach was adopted for the study.

Research design: descriptive survey was used for the study.

Population: B.Sc. (Hons.) Nursing students

Setting: AIIMS, Rishikesh

Inclusion criteria

- B.Sc. (Hons.) Nursing First, second and third year students.
- Students who were willing to participate in the study.

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Exclusion criteria

- Students who were absent during the data collection process.

Sample size: Total 159 students of B.Sc. (Hons.) Nursing; 51 students of first year, 58 students of second year and 50 students of third year.

Sampling technique: Purposive sampling technique was used.

Tool: A structured questionnaire consisting of 12 questions on knowledge of bio medical waste management was used to collect the data.

Data collection procedure: The questionnaire was distributed to the students of three years after obtaining the consent. The data was collected in the month of March, 2016.

Major findings of the study

Table 1 Level of knowledge on bio medical waste management of nursing students

N=159

Categories	Number of students	Percentage of students
Good (80-100%)	12	7.54
Average (40-80%)	141	88.67
Poor (<40%)	06	3.77

Table 1.shows that the majority of the students 89% (141) had the average knowledge, 8% (12) had the good knowledge and 4% (06) had the poor knowledge about the bio medical waste management.

Table 2 Level of knowledge on bio medical waste management of B.Sc. (H) Nursing first year students

N=51

Categories	Number of students	Percentage of students
Good (80-100%)	08	15.68
Average (40-80%)	42	82.35
Poor (<40%)	01	1.96

Table 2.shows that the majority of the students 82% (42) had the average knowledge, 8% (16) had the good knowledge and 2% (01) had the poor knowledge about the bio medical waste management.

Table 3 Level of knowledge on bio medical waste management of B.Sc. (H) Nursing Second year students

N=58

Categories	Number of students	Percentage of students
Good (80-100%)	02	3.44
Average (40-80%)	53	91.37
Poor (<40%)	03	5.17

Table 3.shows that the majority of the second year students 91.3% (53) had the average knowledge, 3.44 % (02) had the good knowledge and 5.17% (03) had the poor knowledge about the bio medical waste management.

Table 4 Level of knowledge on bio medical waste management of B.Sc. (H) Nursing Third year students

N=50

Categories	Number of students	Percentage of students
Good (80-100%)	02	04
Average (40-80%)	46	92
Poor (<40%)	02	04

Table 4. shows that the majority of the third year students 92% (46) had the average knowledge, 4 % (02) had the good

knowledge and 4% (02) had the poor knowledge about the bio medical waste management.

Implications

Time to time exposure of the nursing students to the knowledge or awareness programmes on bio medical waste management is essential so that they remain updated to the BMW practices.

Recommendations

1. A similar study can be conducted among staff nurses.
2. Similar study can be conducted among the house keeping staff.
3. A comparative study can be conducted to find out the incidence of needle stick injury among the staff nurses or the nursing students.
4. A study can be conducted to assess the practice of nursing students regarding the bio medical waste management.

DISCUSSION

Proper management of the waste generated in the hospital is important as it poses a real trouble for the health professionals, community and the environment. The health workers including the students must be aware of the categories of the bio medical waste and their proper disposal. This awareness is essential for the nursing students because they are the new learners in the hospital; engaged in providing care to the patients. They must know about the segregation and disposal of the waste generated during direct or indirect patient care. If they are aware of BMW rules and regulations; they can keep a watch on the housekeeping staff and nursing orderlies, whether proper disposal of the waste is done by them or not.

In the present study it was found that the nursing students due to the continuous reinforcement of bio medical waste management practices in class room and hospital area most of them had the average knowledge of bio medical waste management practices.

Many similar kind of studies have been conducted previously by various researchers. Findings of a few of them are given as following:-

VijayammaAjmera and Dr. Jayalkshmi L. S conducted a study to Assess the Knowledge Regarding Bio- Medical Waste Management among B.Sc Nursing Students of Selected Nursing Colleges of Udaipur (Raj) and concluded that The findings shows that high level of knowledge among respondents was 61.67%, moderate level of knowledge among 33.33% and low level of knowledge was 5% among respondents regarding BMW management³.

A study was done by VaneshMathur, S Dwivedi, MA Hassan, and RP Misrato assess knowledge, attitude, and practices of doctors, nurses, laboratory technicians, and sanitary staff regarding biomedical waste management. They found that the Doctors, nurses, and laboratory technicians have better knowledge than sanitary staff regarding biomedical waste management. Knowledge regarding the color coding and waste segregation at source was found to be better among nurses and laboratory staff as compared to doctors⁴.

References

1. Jacob Annamma. R Rekha. TrachandSonalijadhav. (2015). Policies for segregation and disposal of bio medical waste. Clinical Nursing procedures: The art of Nursing practice. 3rd ed. JAYPEE the health sciences publishers. New Delhi. Pp 147.
2. ShamimHaider, SnehaKumari, VivekKashyap, ShaliniSunderam, Shashi Bhushan Singh. A study on knowledge and practice regarding biomedical waste management among staff nurses and nursing students of Rajendra Institute of Medical Sciences, Ranchi. *Indian journal of community health*. 2015. Vol 27, No 1.
3. VijayammaAjmera. Dr. Jayalkshmi L. S. A Study to Assess the Knowledge Regarding Bio- Medical Waste Management among B.Sc Nursing Students of Selected Nursing Colleges of Udaipur (Raj). *International journal of science and research*. April 2016. Volume 5 Issue 4: 1734-1738.
4. Vanesh Mathur. S Dwivedi. MA Hassan. RP Misra Knowledge, Attitude, and Practices about Biomedical Waste Management among Healthcare Personnel: A Cross-sectional Study. *Indian J Community Med*. 2011 Apr-Jun; 36(2): 143–145. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3180941/>

How to cite this article:

Shaina Sharma and Vasantha Kalyani.2016, Bio Medical Waste Management. *Int J Recent Sci Res*. 7(6), pp. 12217-12219.

T.SSN 0976-3031



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