



Knowledge Regarding Hospital Waste and Its Management Among B. Sc. Nursing students: A Cross Sectional Study

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ABSTRACT

Hospital is the place where the patient gets well and recovers from diseases. A modern hospital is a complex multidisciplinary system which consumes thousands of items for delivery of medical care and part of physical environment. All these products consumed in the hospital leave some potentially hazardous and products that is hospital waste / bio medical waste. This study was aimed to provide awareness about hospital waste and its proper disposal among B Sc Nursing students. A cross sectional study was employed involving 40 B Sc Nursing students. Data were collected using structured knowledge questionnaires and result showed that 32 (80%) of samples had Adequate knowledge and 08 (20%) samples had moderate knowledge regarding hospital waste management. The data shows the association between knowledge score of B.Sc. Nursing students and selected demographic variables. The calculated Chi Square Value gender & previous exposure to educational program is less than table Value ($\chi^2 = 3.841$). Hence it was concluded that association was found only for gender & previous exposure to educational program with knowledge score of respondents.

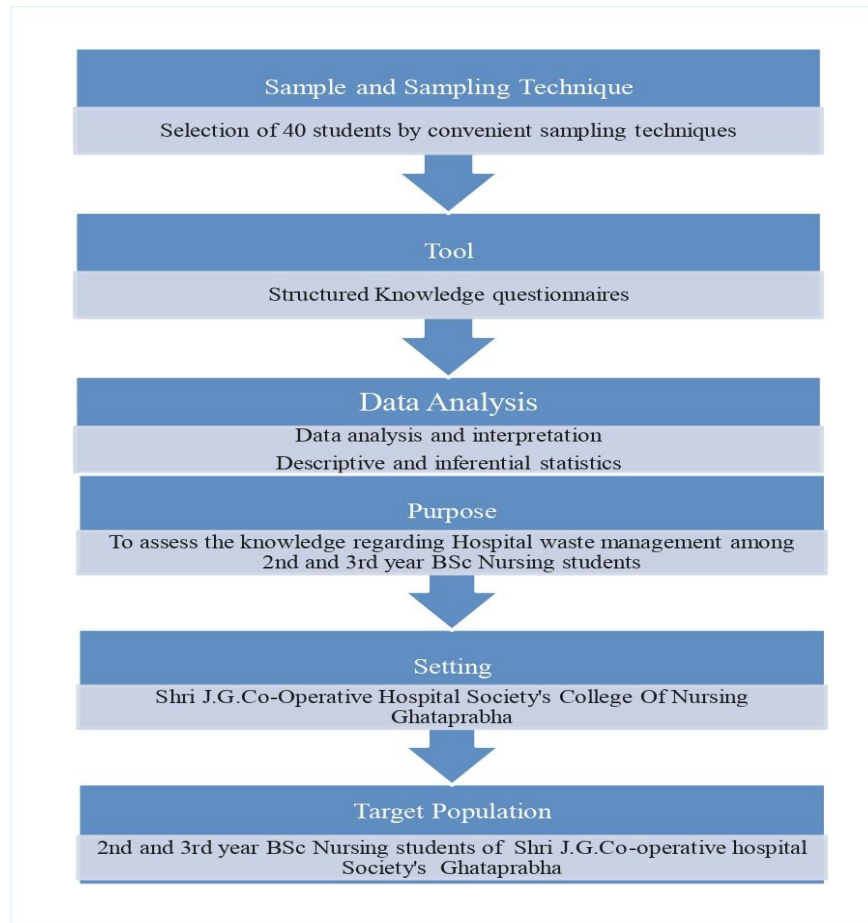
Introduction

Biomedical waste consists of solid liquids, sharps and laboratory waste that are potentially infectious or dangerous. It differs from other types of hazardous wastes such as industrial waste. Biomedical waste is waste generated during diagnosis, treatment or rehabilitation of human beings or animals or in research activities, pertaining thereto, or in the production and testing of biological and is contaminated with human fluids¹. Though 75-80% of wastes generated from hospitals are non- infectious, 20-25% is hazardous². It is potential health hazards, to health workers, public, flora and fauna of the area. The government of India has given specifications for hospital waste management under the environment (Protection) Act Biomedical waste (Management and handling) Rules 1998.³ The safe and effective disposal of this waste starts with the health care practitioner. There is a very real need to understand by

Nurses & medical staffs how the cost, time, energy, material & environmental impact arising from the generation & disposal of waste in health care settings. Another descriptive study was conducted on knowledge of biomedical waste management among B.Sc. Nursing students, the major findings of the study were out of 60 subjects 26 had poor knowledge, 28 had average knowledge and 6 had good knowledge regarding biomedical waste management. This study finding revealed that there is no significant association between the level of knowledge regarding biomedical waste management with their selected demographic variables like age, area of living, gender, previous knowledge.⁴

Method: A cross sectional study was conducted to assess knowledge regarding hospital wastes its management among 40 B.Sc. Nursing students. The subjects were selected by convenient sampling technique and structured knowledge questionnaires were administered.

Fig No-1 Schematic Presentation of Research Design

**Results:**

Demographic profiles of participants

Table No 1: Classification of respondents on demographic characteristics.

(N=40)

Sl. No	Demography		Frequency	Percentage
1	Age	18 - 20 years	16	40%
		21 – 23 years	24	60%
2	Gender	Male	14	35%
		Female	26	65%
3	Religion	Hindu	20	50%
		Christian	16	40%
		Muslim	2	5%
		Others	2	5%
4	Class	2 nd year	22	55%
		3 rd year	18	45%
5	Previous exposure to educational program.	No exposure	2	5%
		Attend conference	14	85%
		Read in article	24	10%

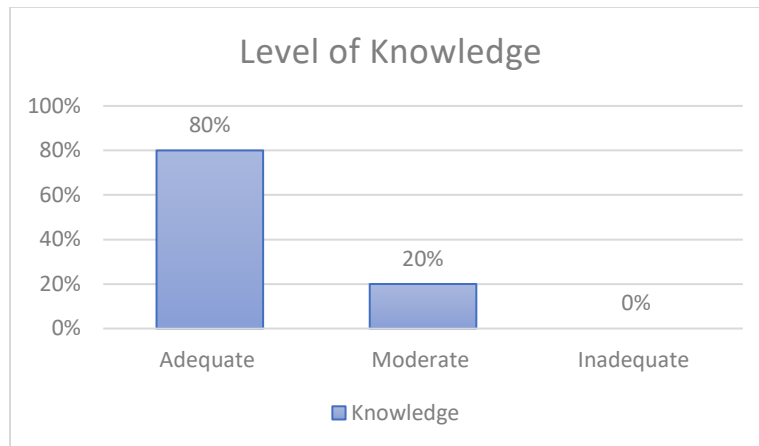


Fig No-2: Bar diagram shows level of knowledge

The data presented in the Fig No-2 shows that 32 (80%) of samples had Adequate knowledge and 08 (20%) samples had moderate knowledge regarding hospital waste management.

Table No:2 Association between knowledge score on hospital waste management with demographic variables.

(N = 40)

Demographic Variables		<15	>15	X ²	df	Inference
Age	18 – 20 years	6	10	0.82	1	NS
	21 – 23 years	8	16			
Gender	Male	10	4	4.05	1	S*
	Female	4	22			
Religion	Hindu	10	12	0.375	1	NS
	Other than Hindu	4	14			
Class	2 nd year B. Sc (N)	10	12	0.375	1	NS
	3 rd year B. Sc (N)	4	14			
Previous exposure to educational program.	No Exposure	2	0	6.11	1	S*
	Exposure	12	26			

The data presented in the Table No: 2. shows the association between knowledge scores of B. Sc Nursing students with selected demographic variables. The calculated X² Value of gender & previous exposure to educational program is less than table Value (X² = 3.841). Hence it was concluded that association was found only between knowledge scores of respondents with gender & previous exposure to educational program.

Ethical Consideration:

The main study was conducted after obtaining permission from concerned authorities of Shri. J.G.Co-operative Hospital, Society's college of nursing Ghataprbaha and obtained consent from subjects then Self structured knowledge questionnaire schedule was administered to B.Sc Nursing students.

Conclusion

Adequate knowledge about the health hazard of hospital waste and proper technique, methods of handling the waste and practice of safety measures can go a long way toward the safe disposal of hazardous hospital waste and protect the community from various adverse effects of the hazardous waste. With this background, the study was conducted with the main objective of assessing the knowledge of B.Sc Nursing students regarding hospital waste management.

Recommendations:

1. Similar study can be conducted on large samples.
2. Similar study can be conducted with different settings.
3. Similar study can be conducted by using different research design.

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