



## A STUDY TO ASSESS THE LEVEL OF KNOWLEDGE ON BIOMEDICAL WASTE AMONG NURSING INTERNS IN SELECTED COLLEGE OF NURSING AT KANHIPURAM DISTRICT, TAMILNADU".

### Community Medicine

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### ABSTRACT

A descriptive study to assess the level of knowledge on Biomedical Waste among nursing interns in a selected college of nursing at Kanchipuram. The objectives were to assess the level of knowledge of Biomedical Waste among nursing interns of a selected College of Nursing. Also, to find out the association between level of knowledge on Biomedical Waste and selected demographical variables such as age, sex, educational status, occupational status, income status and sources of information of nursing interns. The sampling technique was non probability convenient sampling technique with the sample of 50 nursing interns and questionnaire was formulated to assess the knowledge. The variable was assessing the level of knowledge of nursing interns on Biomedical Waste. The investigators used demographic variable proforma, with a structured interview schedule to collect data. The collected data was tabulated and analysed. Descriptive and inferential statistics were used. Nursing interns were having 38% adequate knowledge and 60% nursing interns having moderately adequate knowledge and 2% nursing interns having inadequate knowledge. It is concluded that health education for the interns can improve their level of knowledge.

### KEYWORDS:

#### INTRODUCTION

Biomedical Waste is any waste (solid or liquid) that is generated in the diagnosis, treatment or immunization of human being or animal which carriers of higher potential for infection and injury than any other type of infection the important waste generating sources are government and private hospitals, nursing home, clinic blood bank, laboratories and research organization etc....Inadequate and inappropriate handling of health care waste have serious public health consequences and significant impact on the environment approximately 7590% of Biomedical Waste is non hazardous and as harmless, the remaining 10-25% is hazardous and can be injured to human and animal and deleterious to environment. Both these types are mixed together then the whole waste is going to become harmful. It is estimated that annually about 0.33 million ton of hospital waste is generated in India and waste generation rate ranges from 0.5 to 2.0kg/bed/day.

#### MATERIAL AND METHODS

**RESEARCH APPROACH:** Quantitative Descriptive approach.

**RESEARCH DESIGN :** Non experimental - Descriptive research design.

**SETTING OF THE STUDY:** The study was conducted in the selected College of Nursing, Kanchipuram District, Tamil Nadu

**POPULATION:** Population for the study were the nursing interns from a selected College of Nursing in Kanchipuram district.

**SAMPLE SIZE:** A sample size of 50 nursing interns

**SAMPLING TECHNIQUE:** Purposive sampling technique was used.

#### CRITERIA FOR SELECTION OF SAMPLE:

##### Inclusion criteria

- Both male and female were included in the study
- Who could read and write Tamil or English.
- Who were present during the time of study.
- Who were willing to participate.

##### Exclusion criteria

- Who were not present during the time of study.
- Who were not willing to participate during study period.

#### DEVELOPMENT AND DESCRIPTION OF THE TOOL:

It consisted of 3 sections

**Section A:** Assessment of demographic characteristics of nursing interns.

**Section B:** Identification of the level of knowledge on Biomedical Waste among nursing interns.

**Section C:** Association between knowledge on Biomedical Waste with selected demographic variables among nursing interns.

**METHOD OF SCORING AND INTERPRETATION:** Each correct answer carried one mark and wrong answer carried '0' mark. According to the scores obtained by the samples, it was categorized as follows by the investigator.

- 2% - Inadequate knowledge
- 60% - moderately adequate knowledge
- 38% - adequate knowledge.

**METHOD OF DATA COLLECTION:** The data was collected using structured interview schedule.

**RESULTS AND DISCUSSION:** The collected data were entered in data sheet and analyzed using descriptive and inferential statistics. The findings showed that there was no significant association between demographic variables (age, sex, educational status, occupation status, income status and sources of information) and their knowledge score at  $p < 0.05$ .

**Table: Association between the level of knowledge on biomedical waste among nursing interns with their demographic variables**

Demographic Variables	Category	No. of sample	Level of knowledge			Chi square test
			Inadequate	Moderate	Adequate	
Age	20-21 years	29	1	20	8	X <sup>2</sup> = 931.99 P=5.991 Not significant
	Above 21 years	21	0	10	11	
Gender	Male	3	0	1	2	X <sup>2</sup> =707.21 P=5.991 Not significant
	Female	47	1	29	17	
Educational status	Primary education	2	1	1	0	X <sup>2</sup> =1102.3 P=5.991 Not significant
	Secondary education	-	-	-	-	
	Tertiary education	48	0	29	19	

<b>Occupational status</b>	Government employee	3	0	3	0	X <sup>2</sup> =512.59 P=12.592Not significant
	Private employee	7	0	6	1	
	business	4	1	2	1	
	Unemployed	36	0	19	17	
<b>Income status</b>	2000-4000	16	0	12	4	X <sup>2</sup> =480.79 P=9.488Not significant
	4000-6000	16	0	8	8	
	6000-8000	18	1	10	7	
<b>Source of information on BMW</b>	Friendsand neighbours	3	0	3	0	X <sup>2</sup> =97.877 P=9.488Not significant
	Healthcare professionals	42	0	24	18	
	Media	5	1	3	1	

Not significant\* 0.05

**Table:** Depicts the associated between the socio demographic variables and the level of knowledge on biomedical waste among nursing interns. The result shows that the not significant association level of knowledge. The other variable has no significant level of knowledge.

### CONCLUSION

The study result showed that 38 % of nursing interns had adequate knowledge, 60 % had moderate knowledge and 2% had inadequate knowledge. The results also revealed that there was no significant association between level of knowledge and the demographic variables like age, sex, educational status, occupational status and sources of information. This result insists upon the importance of continuing education programme and updating current changes in Biomedical Waste for nursing interns.

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