# Effectiveness of Video Assisted Teaching Program on Segregation and Handling of Biomedical Waste Among Health Care Workers.

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Abstract:- Biomedical waste management has recently emerged as an issue of major concern not only to hospital, nursing home authorities but also to the environment. World Health Organization states that 85% of hospital wastes are actually non-hazardous where as 10% are infectious and 5% are non-infectious but they are included in hazardous wastes. OBJECTIVES : To assess the pre-existing knowledge regarding segregation and handling in biomedical wastages, plan a structured teaching programme on segregation and handling in biomedical wastages and to assess the post existing knowledge regarding segregation and handling in biomedical wastages. METHODOLOGY: design is Non experimental qualitative research design and the approach is Descriptive approach .RESULTS: Majority ten (33.3%) workers are says that infectious waste or hazard materials that may harm people, (36.7%) are says that all the above are the hazard of biomedical waste and eighteen (60%) peoples are says that all the above are the collect and dispose. Majority twenty two (73.4%) are workers says that all the above are the major colors code used in biomedical waste management.

**Keywords:-** Biomedical Waste Management, Hazard Materials, Video Assisted Teaching, Segregation & Non-Hazardous.

## I. INTRODUCTION

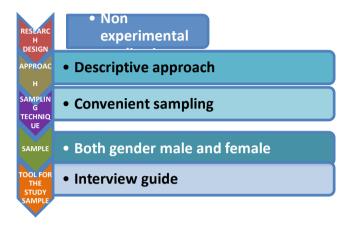
The biomedical wastages generated from health care unit depend upon a number of factors such as waste management methods, types of health care unit, occupancy of health care unit, specialization of health care ratio of reusable items in use, a availability of infrastructure and resources etc. The proper management of biomedical waste has become a worldwide humanitarian topic today. The harmful effects to the environment including human beings which are caused by the "Hospital waste" generated during the patient care. India and other developing countries has shown lack of known and poor practice of biomedical waste. Hence this study was undertaken to know about the segregation the and handling of biomedical waste in our hospital, to identify the practice and to take necessary steps for rectification.

This was an observational descriptive hospital based cross study. The study group included. The 337 health care personnel which included doctors (residents), Nurses, Laboratory, Technicians and Multipurpose workers, The study was done using a pre-tested semi structured questionnaire. The data was analyzed using software SPSS 20 version. Proportion were used for interpretation .It should that (50% of nursing staff and <25% of MPWs) had the knowledge of colour coding and segregation. There was about poor knowledge regarding disposal of sharps among technicians and MPWs. I also brought our noticed that only 50% of doctors, 26% of the lab technicians have undergone training in biomedical waste management. None of the MPWs had receiving training regarding biomedical waste management. They have good knowledge regarding the disease transmitted through improper biomedical work handling. Shah and Ganguli (2000) In this study on conducted that the most vital component of the waste management plans that have been formulated is to bring about a transformation in the mind sets and develop a system and culture, training and persistent motivation of the health care staff. The study revealed effort of several departments in a health care establishment such as housekeeping, engineering, laundry, kitchen, and security besides nursing surgical, laboratory and administrative departments is needed for achieving this. Patil and pokhrel (2002) In this study on conducted biomedical waste management in Indian hospitals. The study was meant to assess the compliance with biomedical waste management rules (management and handling), 1998 in biomedical waste management in a belgaum. The persons in this hospitals were found adequately trained to take precautionary measures while handling the hazardous biomedical wastes. The hospital was found to be fully complying with biomedical waste management rules while segregation, collection, transport and disposal of biomedical wastes. The proportion of non-infectious waste and infectious waste generated was found to be having high disparity (non-infectious-520kg/day; infectious 101kg/day). The study findings revealed found that the hospital was extending support the clinics and other hospital in a neighborhood by collecting and incinerating waste generated by them.

#### II. OBJECTIVES

- ❖ To assess the pre-existing knowledge regarding segregation and handling in biomedical wastages.
- ❖ To plan a structured teaching programme on segregation and handling in biomedical wastages
- ❖ To assess the post existing knowledge regarding segregation and handling in biomedical wastages

## III. RESEARCH METHODOLOGY



## IV. DATA ANALYSIS & INTERPRETATION

The data obtained was classified and presented under the following section.

- 1. Frequency and percentage distribution of the samples based on demographic variables such as age, gender, educational status, marital status, monthly income, family types, religion, and the health care workers about the biomedical waste.
- **2.** Frequency and percentage distribution of the clinical variables based on the effectiveness of video assisted teaching program on segregation and handling of biomedical waste among health care workers.
- 3. Association of pre interventional the effectiveness of video assisted teaching program on segregation and handling of biomedical waste among health care workers.

TABLE 1.1: FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE DEMOGRAPHIC VARIABLES - AGE, SEX.

S.NO	DEMOGRAPHIC VARIABLES	FREQUENCY	PERCENTAGE
		<b>(f)</b>	%
1	Age		
	a)26-30years	3	10%
	b)31-35years	11	36.6%
	c)36-40years	9	30%
	d)41-45years	7	23.4%
2	Sex		
	a)Male	13	43.4%
	b)Female	17	56.6%

Table 1.1 reveals that eleven (36.6%) health care workers in the group of 31-35 years of age and seventeen (56.6%) of health care workers are females.

TABLE 1.2 FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE DEMOGRAPHIC VARIABLES - EDUCATIONAL STATUS AND MARITAL STATUS.

S.NO	DEMOGRAPHIC VARIABLES	FREQUENCY	PRECENTAGE
		<b>(f)</b>	%
3	Educational status		
	a)Noformal education	11	36.6%
	b)Primary education	19	63.4%
	c)Higher school education	0	-
	d)Graduate	0	-
4	Marital status		
	a)Single	11	36.6%
	b)Married	19	63.4%
	c)Widowhood	-	-
	d)Divorced	-	-

Table 1.2 reveals that majority nineteen (63.4%) of the health care workers had the primary education and were married.

TABLE 1.3 FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE DEMOGRAPHIC VARIBALES - INCOME AND TYPES OF FAMILIES.

S.NO	DEMOGRAPHIC VARIABLES	FREQUENCY (f)	PERCENTAGE %
5	Monthly income a)<5000 b)5001-8000 c)8001-10000	18 12 -	60% 40% -
6	Types of family a)Nuclear b)Joint	20 10	66.7% 33.3%

Table 1.3 reveals Shows that majority eighteen (60%) of the health care workers had monthly income and majority twenty (66.7%) of the health care workers are nuclear family.

TABLE 1.4 FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE DEMOGRAPHIC VARIABLES - RELIGION AND THE HEALTH CARE WORKERS &DO YOU KNOW ABOUT THE BIOMEDICAL WASTE MANAGEMENT.

S.NO	DEMOGRAPHIC VARIABLES	FREQUENCY (f)	PERCENTAGE %
7	Religion		
	a)Hindu	18	60%
	b)Muslim	9	30%
	c)Christian	3	10%
	d)Others specify	0	-
8	Do you know about the biomedical waste management		
	a)Through education	7	23.3%
	b)Newspaper/Magazine	2	6.7%
	c)Media	8	26.3%
	d)Health professionals	13	43.3%

Table 1.4 reveals that majority eighteen (60%) belongs to hind religion and majority thirteen (43.3%) of them are aware about the biomedical waste management.

TABLE 2.1.1 FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE CLINICAL VARIABLES –MEANING, TYPES , HAZARDS OF BIOMEDICAL WASTE AND THE BIOMEDICAL WASTES CAN BE COLLECTED AND DISPOSED.

S.NO	CLINICAL VARIABLES	FREQUENCY	PERCENTAGE
		<b>(f)</b>	%
1	What is the meaning of biomedical		
	waste.		
	a)Infectious waste or hazards material	10	33.3%
	that may harm people		
	b)Hospital waste	7	23.4%
	c)Waste generated while providing	4	13.3%
	health care		
	d)All the above	9	30%
2	What are the types of biomedical wastes		
	a)Hazard waste	7	23.3%
	b)Infectious waste	6	20%
	c)Non-infectious waste	5	16.7%
	d)All the above	12	40%
3	What are the hazard of biomedical		
	waste		
	a)Cross infection	7	23.4%

	b)Spread of communicable disease	10	33.3%
	c)Nosocomial infection	2	6.6%
	d)All the above	11	36.7%
4	How the biomedical waste can be		
	collected and deposed		
	a)Use of appropriate containers	7	23.4%
	b)Use of appropriate methods of	3	10%
	dispose		
	c)Disinfection of materials	2	6.6%
	d)All the above	18	60%

Table 2.1.1 reveals that majority ten (33.3%) workers are says that infectious waste or hazard materials that may harm people, Majority twelve (40%) are people says that all the above are the types of biomedical wastes, Majority eleven (36.7%) are says that all the above are the hazard of biomedical waste and Majority of eighteen (60%) peoples are says that all the above are the collect and dispose.

TABLE 2.1.2 FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE CLINIVAL VARIABLES BASED OF THE SAMPLES ARE MEANING OF BIOMEDICAL WASTE AND DIFFERENT STEPS OF BIOMEDICAL WASTE.

S.NO	CLINICAL VARIABLES	FREQUENCY	PERCENTAGE
		<b>(f)</b>	%
5	What is the meaning of biomedical		
	waste management		
	a)Treatment of infectious waste	6	20%
	b)Safe transport of waste to the	11	36%
	disposal site		
	c)Recycling of non-infectious waste	5	14%
	d)All the above	9	30%
6	What are the different steps followed		
	biomedical waste		
	a)Reduction-segregation-storage-	9	30%
	transportation-treatment		
	b)Segregation-storage-transportation-	7	23.4%
	treatment-reduction		
	c)Transportation-segregation-storage-	6	20%
	treatment-reduction		
	d)All the above	8	26.1%

Table 2.1.2 reveals that majority of eleven (36%) are workers says that safe transport of waste to the disposal site, Majority of nine (30%) followed the reduction-segregation-storage-transportation-treatment.

TABLE : 2.1.3 FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE CLINICAL VARIABLES BASED ON THEIR IMPORATNCE OF BIOMEDICAL WASTE MANAGEMENT AND ADVANTAGES OF BIOMEDICAL WASTE MANAGEMENT.

S.NO	CLINICAL VARIABLES	FREQUENCY	PERCENTAGE
		<b>(f)</b>	%
7	What are the importance of biomedical		
	waste management		
	a)To protect the health care workers	7	23.4%
	b)To keep the environment cleaning	3	10%
	c)To prevent infection	9	30%
	d)All the above	11	36.6%
8	What are the advantages of biomedical		
	waste management		
	a)To prevent infections	10	33.3%
	b)To discard the wastages in a proper	2	6.7%
	and systemic way		
	c)To prevent the infections to the health	9	30%
	care workers		
	d)All the above	11	30%

Table 2.1.3: reveals that majority eleven (36.6%) are workers says that all the above has the importance of biomedical waste management.

TABLE 2.1.4 FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE CLINICAL VARIABLES

	CLINICAL MARIABLES		
S.NO	CLINICAL VARIABLES	FREQUENCY	PERCENTAGE
9	What are the types of hospital waste		10.00
	a)Degradable	4	13.3%
	b)Non-degradable	4	13.3%
	c)Human waste	3	10%
	d)All the above	19	63.4%
10	What are the types of containers used in		
	biomedical waste management.		
	a)Disinfectant containers	4	13.3%
	b)Puncture proof containers	6	20%
	c)Plastic bag containers / biodegradable	11	36.7%
	d)All the above	9	30%
11	What are the major colour codes used in		
11	biomedical waste management		
	a)Yellow-solid waste, cotton, human and animal	4	13.3%
	waste	4	13.370
		2	10%
	b)Red- infectious plastic waste	3	
	c)Black- cytotoxic drugs, chemical waste	1	3.3%
	d)All the above	22	73.4%
	T		
12	What is the meaning of segregation of waste		
	a)Separation of waste		
	b)Gathering of waste	15	50%
	c)Disposal of waste	7	23.4%
	d)None of the above	6	20%
	·	2	6.6%
13	What are the purposes of segregation of waste		
	a)To promote infectious		
	b)To gather waste	4	13.4%
	c)To prevent contamination	8	26.6%
	d)None of the above	15	50%
	d) voice of the above	3	10%
14	How the wastes are segregated		1070
17	a)Separation of harmless waste from harmful	8	26.6%
	_	o	20.0%
	waste		20.20/
	b)Separation of harmless waste from harmless	6	20.2%
	waste	1.4	45.504
	c)Both a and d	14	46.6%
	d)None of these	2	6.6%
15	What are the wastes discarded in yellow colour		
	container		
	a)Human anatomical waste	4	13.3%
	b)Expired drugs	8	26.6%
	c)cytotoxic drugs	4	13.5%
	d)All the above	14	46.6%
16	What are the wastes discarded in red colour		
-	container		
	a)Toxins	5	16.6%
	b)Solid waste	6	20%
	c)Both A and B	5	50%
1.7	d)None of the above	4	13.4%
17	What are the wastes discarded in a black colour		
	container	_	60
	a)Chemical waste	6	20%
	b)Incinerator waste	1	3.4%
	c)Kitchen waste	6	20%

	d)All the above	17	56.6%
18	What are the wastes discarded in a blue colour		
	container		
	a)Glass vial	2	6.6%
	b)Blades	2	6.6.%
	c)Needle	5	16.6%
	d)All the above	21	70.2%
19	What are the measures used in handlings of		
	biomedical waste		
	a)Wearing the gloves	1	3.4%
	b)Wearing the apron	2	6.6%
	c)Wearing the mask	3	10%
	d)All the above	24	30%
20	What are the safety measure should be followed		
	for segregation and handling of biomedical wastes		
	a)Use of gloves		
	b)Use of appropriate containers	3	10%
	c)Both A and B	5	16.6%
	d)None of the above	12	40%
		10	33.4%

**TABLE 2.1.4**: Shows that majority nineteen (63.4%) are workers says that all the above are of types of hospital waste, Majority eleven (36.7%) are workers says that plastic bag containers/ biodegradable waste, Majority twenty two (73.4%) are workers says that all the above are the major colours code used in biomedical waste management, majority fifteen (50%) are workers says that separation of wastes, Majority fifteen (50%) are workers says that to prevent contamination, Majority fourteen (46.6%) are workers says that both separation of harmless waste from harmful waste and none of these, majority fourteen (13.3%) are workers says that all the above wastes are discarded in yellow colour container, Majority six (20%) are workers says that solid waste are discarded in red colour container, Majority seventeen (56.6%) are workers says that are all the above wastes are discarded in black colour container, Majority twenty one (70.2%) are workers says that all the above waste are discarded blue colour container, majority are twenty four (30%) workers says that all the above measures to be used in handling of biomedical waste, Majority twelve (40%) workers are says that both a and b (use of gloves and use of appropriate containers).

## **SECTION-III**

TABLE 1.1 ASSOCIATION BETWEEN THE LEVEL OF EFECTIVENESS OF DEMOGRAPHIC VARIABLES SUCH AS AGE, SEX:

	Demographic variables		Level of effectiveness					
S.No		Inade	equate	Adeq	luate	Mode	rate	Chi-square
		F	P%	F	P%	F	P%	value
1)	Age							$\chi 2 = 43.459$
	26-30years	1	3.33	0	-	2	6.6	P=12.59
	31-35years	5	16.6	2	6.6	4	13.3	(S)
	36-40years	6	20	2	6.6	1	3.33	
	41-45years	5	16.6	0	-	2	6.6	
2)	Sex							$\chi^2 = 3.1146$
	Male	6	20	1	3.33	6	20	P=5.99
	Female	13	43.3	1	3.33	3	10	(NS)
3)	Educational status							$\chi^2 = 69.38$
	Noformal education	6	20	-	-	5	16.6	P=5.99
	Primary education	12	40	2	6.6	5 5	16.6	<b>(S)</b>
	Higher school education							
	Graduate							
4)	Marital status							$\chi 2 = 4.694$
	Single	7	0.002	0	-	3	10	P=5.99
	Married	11	36.6	2	6.6	7	0.002	(NS)
	Widowhood	18	60	2	6.6	10	33.3	

	Divorced							
5)	Monthly income							$\chi 2 = 0.4181$
	< 5000	12	40	1	0.3	5	16.6	P=5.99
	5001-8000	7	23.3	1	0.3	4	13.3	(NS)
	8001-10000	-	-	-	-	-	-	
6)	Types of family							$\chi 2 = 18.453$
	Nuclear	11	36.6	2	6.6	7	23.3	P=9.49
	Joint	7	23.3	1	0.3	2	6.6	(S)
7	Religion							$\chi 2 = 1.098$
	Hindu	3	10	1	3.3	14	46.6	P=5.99
	Muslim	2	6.6	0	-	7	23.3	(S)
	Christian	0	-	0	-	3	-	
	Others specify	-	-	-	-	-	-	
8	Do you know about the							$\chi^2 = 2.704$
	biomedical waste management							P=12.59
	a) Yes b)No							(S)
	Through education	1	3.3	0	-	1	3.3	·
	News paper/Magazine	1	3.3	0	-	1	3.3	
	Media	1	3.3	0	-	7	23.3	
	Health professionals	3	10	1	3.3	10	33.3	

## **TABLE-1.1:**

- ➤ Reveals that there is a statistically significant association found between the level of effectiveness program on segregation and handling of biomedical waste such as age.
- ➤ Reveals that there is no statistically significant association found between the level of effectiveness program on segregation and handling of biomedical waste such as sex.
- ➤ Reveals that there is a statistically significant association found between the level of effectiveness program on segregation and handling of biomedical waste such as educational status.
- ➤ Reveals there is no statistically significant association found between the level of effectiveness program on segregation and handling of biomedical waste such as marital status.
- ➤ Reveals that there is no statistically significant association found between the level of effectiveness program on

- segregation and handling of biomedical wastes such as monthly income.
- ➤ Reveals that there is statistically association found between the level of effectiveness program on segregation and handling of biomedical wastes such as types of family.
- ➤ Reveals that there is statistically association found between the level of effectiveness program on segregation and handling of biomedical wastes such as religion and biomedical waste management.

## POST TEST

ASSOCIATION OF POST INTERVENTIONAL THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAM ON SEGGREGATION AND HANDLING OF BIOMEDICAL WASTE AMONG HEALTH CARE WORKERS

## TABLE 1.1 ASSOCIATION BETWEEN THE LEVEL OF EFFECTIVENESS OF DEMOGRAPHIC VARIABLES

S.no	Demographic variables	Level of effectiveness						
		Inadequate		Adequate		Moderate		Chi-square
		F	P%	F	P%	F	P%	Value
1	Age 26-30years 31-35years 36-45years 41-45years	2 4 2 0	6.6 13.3 6.6	0 0 1 0	3.3	1 7 6 7	3.3 23.3 20 23.3	χ2 =9.975 P=9.49 (NS)
2	Sex Male Female	3 5	10 16.6	0 0		10 14	33.3 46.6	$\chi^2 = 0.282$ P=5.99 (S)
3	Educational status Noformal education Primary education Higher school education Graduate	1 4 -	3.3 13.3	1 0 -	3.3	9 15 -	30 50 -	$\chi^2 = 2.3297$ P=5.99 (S)
4	Marital status Single Married Widow Divorced	2 3 -	66 10 - -	1 0 - -	3.3	8 16 -	26.6 53.3	χ2 =1.253 P=5.99 (S)
5	Monthly income <5000 5001-8000 8001-10000	5 0 -	16.6 - -	0 0 -	- - -	15 10 -	50 33.3	$\chi 2 = 5.140$ P=5.99 (S)
6	Types of family Nuclear Joint	5 0	16.6 -	0	3.3	16 8	53.3 26.6	χ2 =4.601 P=5.99 (S)
7	Religion Hindu Muslim Christian Others specify	10 7 1	33.3 23.3 3.3	2 0 0	6.6 - -	6 2 2	20 6.6 -	χ2 =12.14 P=12.59 (NS)
8	Do you know about the biomedical waste  Through education Newspaper/Magazine Media Health professionals	3 1 6 8	10 3.3 20 26.6	0 1 0 1	3.3	4 0 2 4	13.3 - 6.6 13.3	χ2 =9.622 P=12.59 (NS)

<sup>&</sup>gt; Reveals that there is no statistically association found between the level of effectiveness program on segregation and handling of biomedical waste such age.

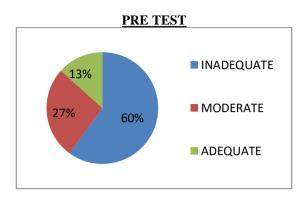
Reveals that there is statistically association found between the level of effectiveness program on segregation and handling of biomedical waste such as sex.

Reveals that there is statistically association found between the level of effectiveness program on segregation and handling of biomedical waste such as educational status and marital status.

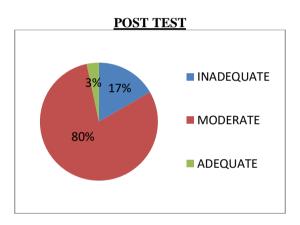
<sup>&</sup>gt; Reveals that there is statistically association found between the level of effectiveness program on segregation and handling of biomedical waste such as monthly income and types of family

> Reveals that there is no statistically significant association found between the level of effectiveness program on segregation and handling of biomedical waste such as religion and biomedical waste management.

# FIG;1- FREQUANCY AND PERCENTAGE DISTRIBUTION OF THE SAMPLES BASED ON THE PRE INTERVENTION KNOWLEDGE ON SEGGREGATION AND HANDLING OF BIOMEDICAL WASTE.



FIG;2- FREQUANCY AND PERCENTAGE DISTRIBUTION OF THE SAMPLES BASED ON THE POST INTERVENTION KNOWLEDGE AFTER VIDEO ASSISTED TEACHING ON SEGGREGATION AND HANDLING OF BIOMEDICAL WASTE .



# NURSING IMPLICATIONS: NURSING PRACTICES

Nurses should be motivated towards creating awareness on segregation and handling of biomedical wastes.

Nurses should be motivated towards the preparation of video teaching models.

Nurses in all settings should provide the basic protective equipment for the workers, who are involved in the biomedical waste management.

## NURSING RESEARCH

The study will be valuable reference for future research students.

The nurse researcher can develop new strategies to import effectiveness among health care workers regarding the segregation and handling of biomedical wastes.

The nurse researcher can adopt various teaching programs conduct research in biomedical waste management.

## NURSING EDUCATION

Nurse educator can teach the steps of biomedical wastes and demonstrate in hospital settings.

Nurse educator can encourage the health care workers to educate about this segregation and handling of biomedical wastes in hospital settings.

## NURSING ADMINISTRATION

Nursing administrator should collaborate with the hospital workers, nurses, health care professionals and health care workers with specialized level regarding biomedical wastes. Nurse administration can provide adequate information materials or booklet the health care safety.

#### V. DISCUSSION

The findings related to demographic variables showed that majority 36.6% of the samples were in the age group of 31-35 years. Majority 43.4% of the samples were in the sex (male). Majority 63.4% of the samples were in the primary education. Majority 63.4% of the samples were in the marital status.

Majority 60% of the samples are monthly income. Majority 66.7% of the samples are nuclear family.

The discussion was based on the objective specified in the study.

- Majority 33.3% meaning of biomedical wastes are infectious waste or hazards material that may harm people.
- ➤ 40% of the types of biomedical wastes are hazard waste, infectious waste, non-infectious waste.
- ➤ 36.7% are the hazard of biomedical waste are cross infection, spread of communicable disease, nosocomial infection.
- ➤ 60% are the biomedical waste can be collected and disposal are use of appropriate containers, use of appropriate methods of dispose, disinfection of materials.
- ➤ 36% are the meaning of biomedical waste management are treatment of infectious waste, safe transport to the disposal site, recycling of non-infectious waste.
- ➤ 26.1% are different steps followed biomedical waste are reduction-segregation-storage-transportation-treatment, segregation-storage-transportation-treatment-reduction, and transportation-segregation-storage-treatment-reduction.
- ➤ 36.6% are the importance of biomedical waste management are to protect the health care workers, to keep the environment cleaning, to prevent infection.
- ➤ 33.3% are the advantages of biomedical waste management is to prevent infection.
- ➤ 63.4% are the types of hospital waste are degradable, nondegradable, human waste.
- ➤ 30% are the types of container used in biomedical waste management are disinfectant container, puncture proof container, plastic bag container/biodegradable.
- ➤ 73.4% are the major colour codes used in biomedical waste management are yellow-solid waste, cotton, human and animal waste, red-infectious plastic waste, black-cytotoxic drugs, chemical waste.
- > 50% are the meaning of segregation of waste is separation of waste.
- ➤ 50% are the purposes of segregation of waste is to prevent infection.
- ➤ 46.6% are the wastes are segregated are both a and d (separation of harmless waste from harmful waste) and none of these.
- ➤ 46.6% are wastes discarded in yellow colour container are human anatomical waste, expired drugs, cytotoxic drug.
- ➤ 50% are the wastes discarded in red colour container are both a and b (toxins, solid waste)
- > 56.6% are the wastes discarded in a black colour container are chemical waste, incinerator waste, kitchen waste.
- ➤ 70.2% are the wastes are discarded in a blue colour container are glass vial, blades, needle.
- ➤ 30% are the measures used in handling of biomedical waste are wearing the gloves, wearing the apron, wearing the mask.
- ➤ 40% are the safety measures should be followed for segregation and handling of biomedical wastes are both a and b (use of gloves and use of appropriate containers).

## VI. CONCLUSION

The study was done to assess the effectiveness of structured teaching program on segregation and handling of biomedical waste among health care workers at a private Hospital at Chennai. The objective of the study was to assess the level of effectiveness and to create awareness to associate the level of demographic variables. The findings of the research project revealed that the samples the have inadequate knowledge segregation and handling of biomedical waste. Thus the researcher decided to educate the health care workers using Video assisted teaching to create awareness regarding biomedical wastes management.

### REFERENCES

- [1]. Lewis, Bucher etal , Medical Surgical Nursing Assessment and Managemnt of clinical problems, South Asian , 2 nd edition, Volume II, PP-1033-1034.
- [2]. BT Basavanthappa ,Medical Surgical Nursing ,3 rd edition , vol-2 , Jaypee brothers medical publishers pvt Ltd, 2015 ,PP- 1180.
- [3]. Polit.F Demise and Hunglers, P.Bernadette (1999) "Nursing Research and Principles and Methods" 6<sup>th</sup> edition ,Philadelphia , Lipincott Williams and wikins.
- [4]. Brunner& Suddarth, **Textbook of Medical and SurgicalNursing**, Philadelphia; J.B. Lippincott Company, PP -1248.
- [5]. Rao Sunder P.S.S and Richard (1996) "An Introduction to Biostatistics-A Manual for students in Health Science" 3rd edition New Delhi: Prentice Hall of India Private Ltd.
- [6]. **WHO**: Healthy Aging, Practical pointers on Keeping Well, WHO Western Pacific Religion.