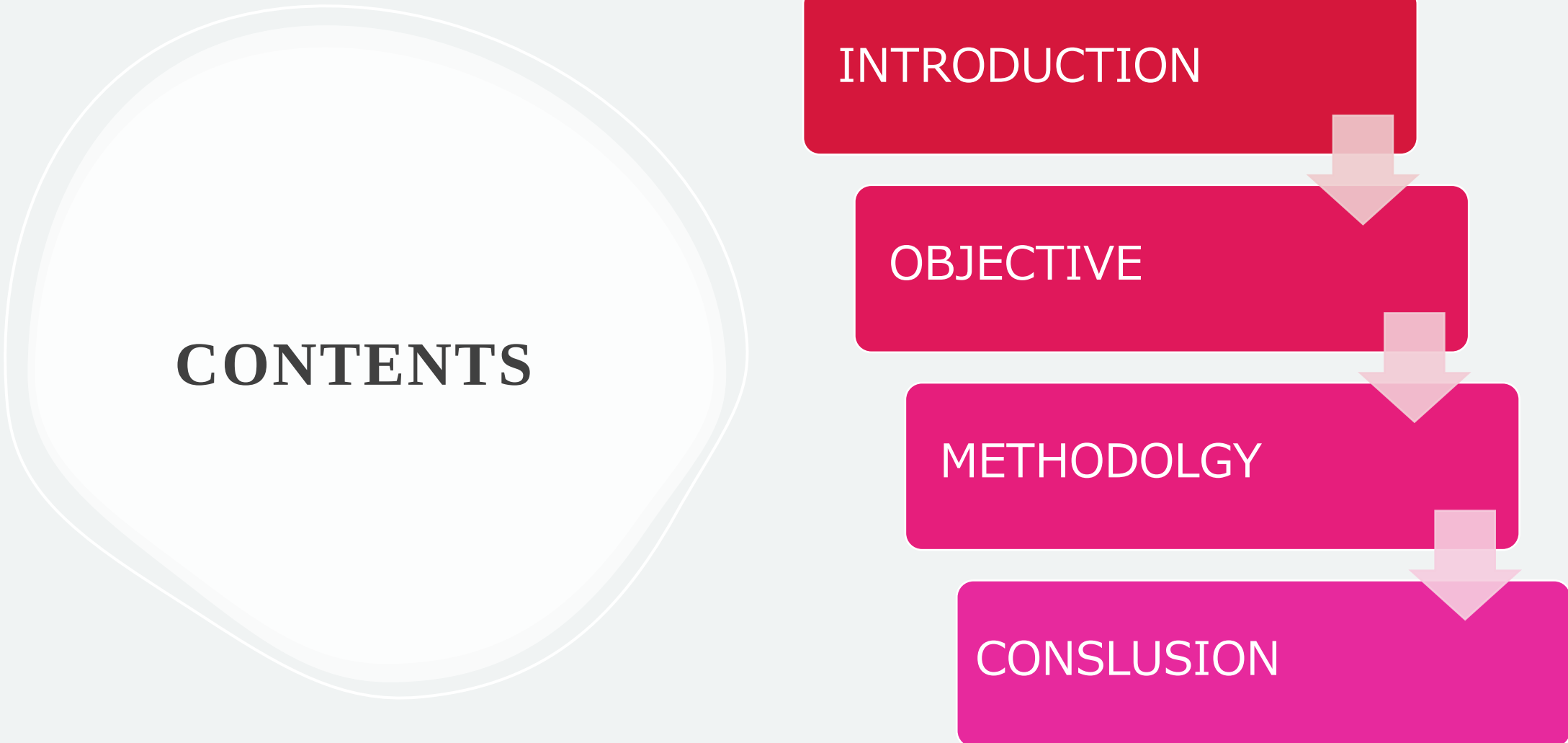


**REVIEW OF MALPRACTICES IN
HANDLING BIOMEDICAL WASTE
IN HOSPITALS IN PRIVATE
SHCOS IN RURAL SETUPS OF
RAJASTHAN: A CROSS
ANALYSIS**

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INTRODUCTION

OBJECTIVE

METHODOLGY

CONSLUSION



INTRODUCTION

- Any waste generated during the diagnosis, treatment, or immunization process is classified as biomedical waste. humans or animals...or during related research activities, or in the creation of biological tests (preparation from organisms, microorganisms, or metabolic products for diagnosis, treatment, or research).
- If not adequately managed, biomedical waste generated in a hospital is highly infectious and can constitute a potential source of infection transmission. Therefore, to streamline the handling of biological waste, a proper protocol must be followed.
- This study aims to identify the gaps in biomedical waste management operations from waste generation to collection and storage to transportation.
- Biomedical waste is defined. as "any waste that is generated during the designation, treatment, or protection of mortals or animals, or during the analysis activities pertaining to it, or within the production of biological (preparation from organisms, microorganisms/product of metabolism for designation, treatment, or research)".the govt. of Bharat has created correct handling and disposal of this class of waste a statutory demand with the publication gazette notification no. 460 dated 27th July 1998 and therefore the latest updated one on 28 March 2016.

- **The provisions square measure equally applicable to our service hospitals and thence there is a necessity for all the service medical, dental, nursing officers, alternative paramedical employees and safaiwalas.to be conscious of the fundamental principles of handling, treatment, and disposal of medicine waste.**
- **The composition of the medicine waste is specified Non-hazardous waste includes 85% of the waste and unsafe waste constitutes .V-J Day of it.**
- **Of the V-J Day of the venturesome waste, five-hitter is venturesome however not infective and 100% is venturesome and infective. medicine waste is rising as a difficulty of utmost concern because the advancements happening within the medical facilities have hyperbolic the waste generation per patient within the health care units worldwide**



METHODOLOGY

Research Questions



What is the current process flow for BMW management in the hospital?



What are the gaps present in the process?



What are the causes for the gaps present in the process?



What value additions can be done to cover the gaps present in the process?

Eligibility Criteria

All pondering individual among the different factions of staff were included into the study

There are 111 eligible Participants, which were taken for the sampling of study

Staff two hospital are involved



OBJECTIVE



This study examines the current biomedical waste management process flow and identifies gaps at many stages of the process, including waste generation, collection, storage, and transportation

It also pinpoints the causes of the gaps and provides ways to improve the process

Study duration

The study was conducted for a period of 3 months from January 2021 to March



Bio-Medical Waste Management

Awareness Bio-Medical Management

Greeting

i hope and pray that you all are fine as a part of my academic curriculum, i need to complete my dissertation project. So, I have created this google form in order to study and Analyses the ASSESSMENT OF THE MALPRACTICES IN BIOMEDICAL WASTE MANAGEMENT in Hospital. You are request to kindly spare few minutes and fill out this form.

Thank You

*Required

Designations/ पदनाम *

Your answer

Department/ विभाग *

Your answer

DATA COLLECTION

To meet the objective of the paper, a primary cross-sectional study is conducted with descriptive and explorative research design

To get the information of individuals semi structured questionnaire is designed with Three sub-category Eighteen questions in the google forms and shared with 100 numbers of participants present in the hospital Among them, 50 participants revert with in the stipulated time

The data are collected from the google forms from 25th of January 2021 to 25th of March 2021 and analyzed in the SPSS 21.0 version with bivariate analysis such as chi-square and cross tabulation

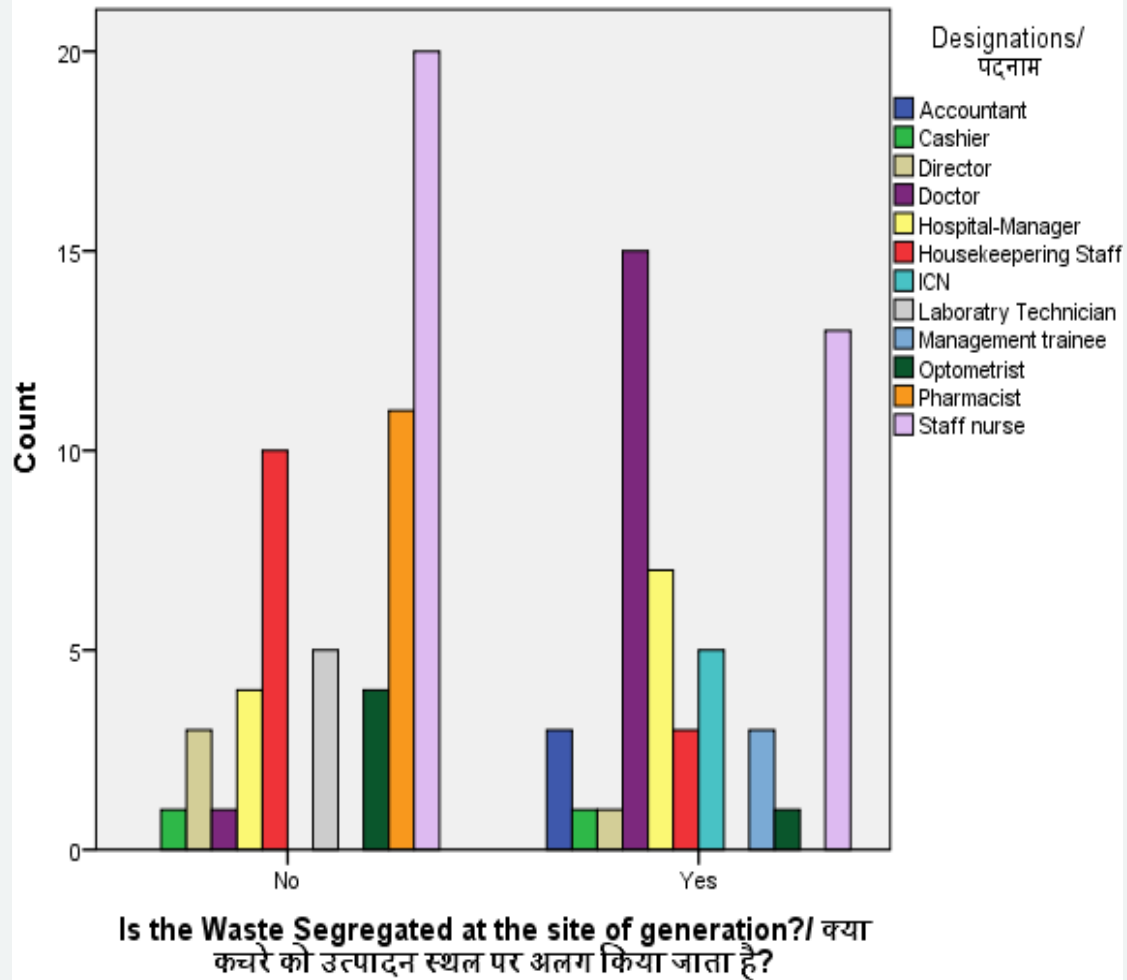


RESULTS

Statical Methods

The data was analysis using the MS-Excel, SPSS. The Chai-square test was performed to study the association between the difference Group related to their understanding and attitude toward Biomedical Waste Management

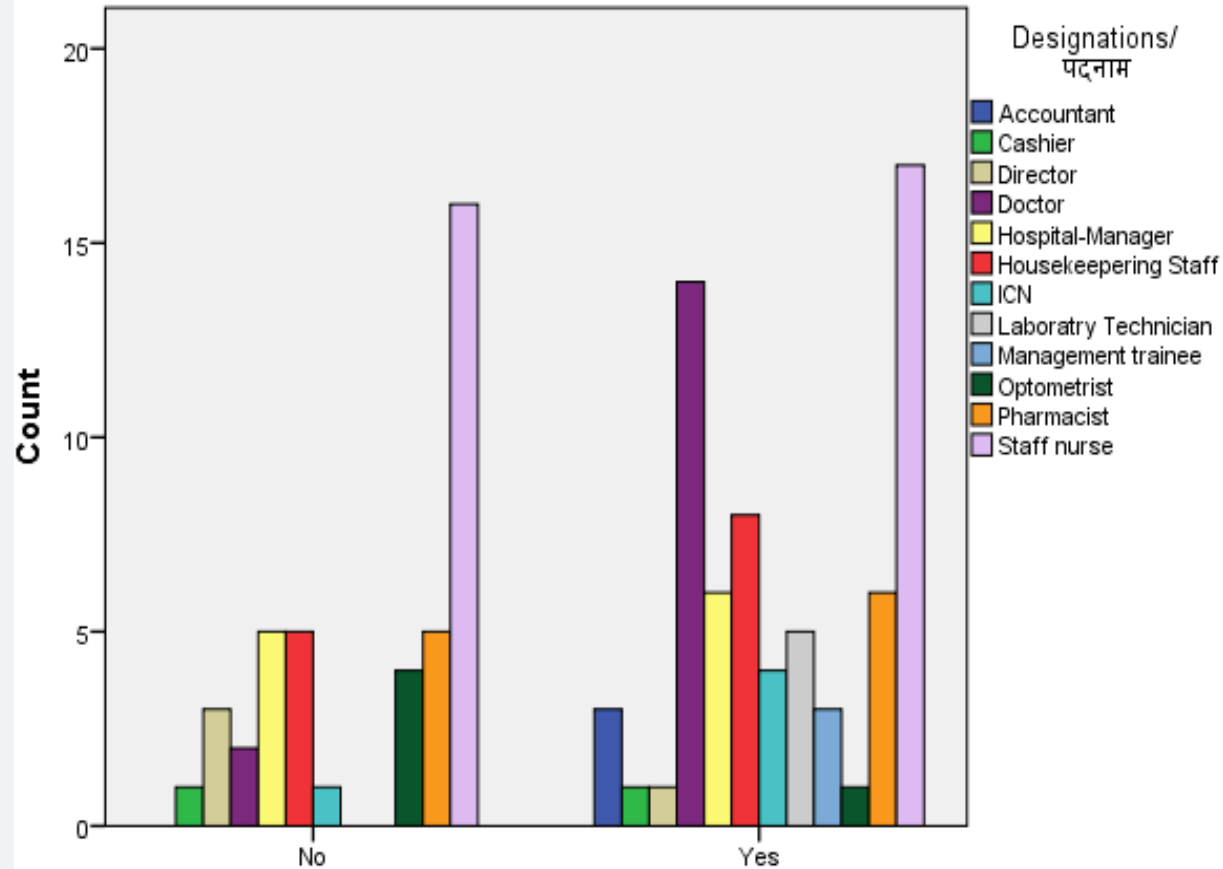
Bar Chart



Is the Waste Segregated at the site of generation

The crosstabulation of designation and is the waste segregated at the site of generation. It demonstrates the result that out of 111 responses, 59 are unaware about it.

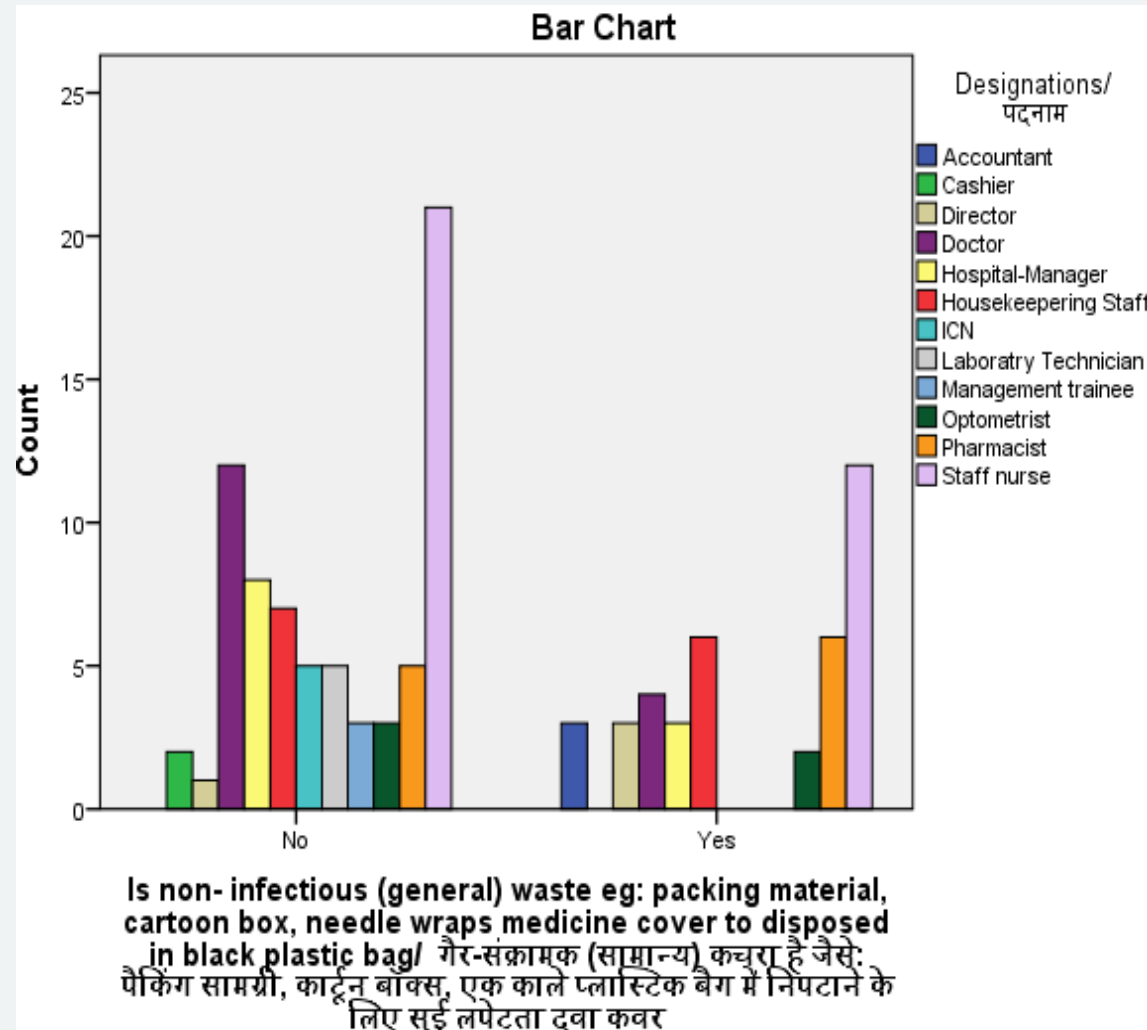
Bar Chart



Is the sharp infectious waste (needles, Blades, broken glass etc) to be disposed in white/ blue puncture proof container / क्या नुकीले संक्रामक कचरे (सुई, ब्लेड, टूटे काच आदि) को सफेद/नीले रंग के पंचर प्रूफ कंटेनर में डाला जाना है

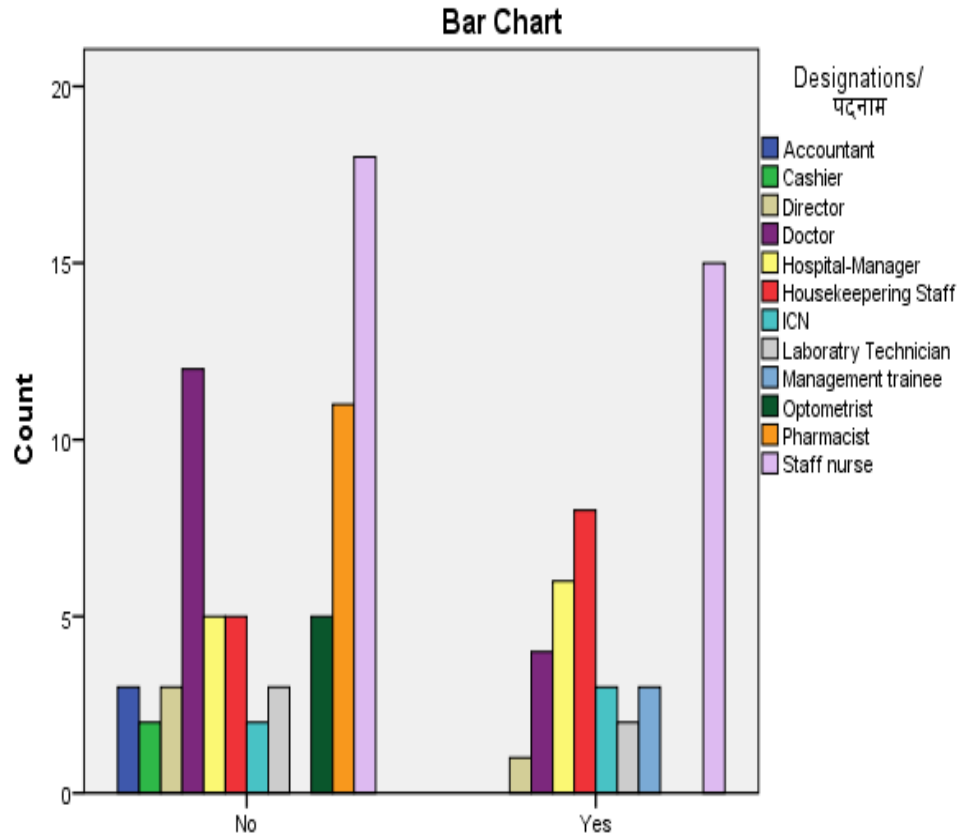
Is the sharp infectious waste (needles, Blades, broken glass etc) to be disposed in white/blue puncture proof container

The crosstabulation of designation and is the sharp infectious waste (needles, Blades, Broken Glass) to be disposed in white/blue puncture proof container. It demonstrates the result that out of 111 responses, 42 are unaware about it.



Is non- infectious (general) waste e.g.: packing material, cartoon box, needle wraps medicine cover to disposed in black plastic bag?

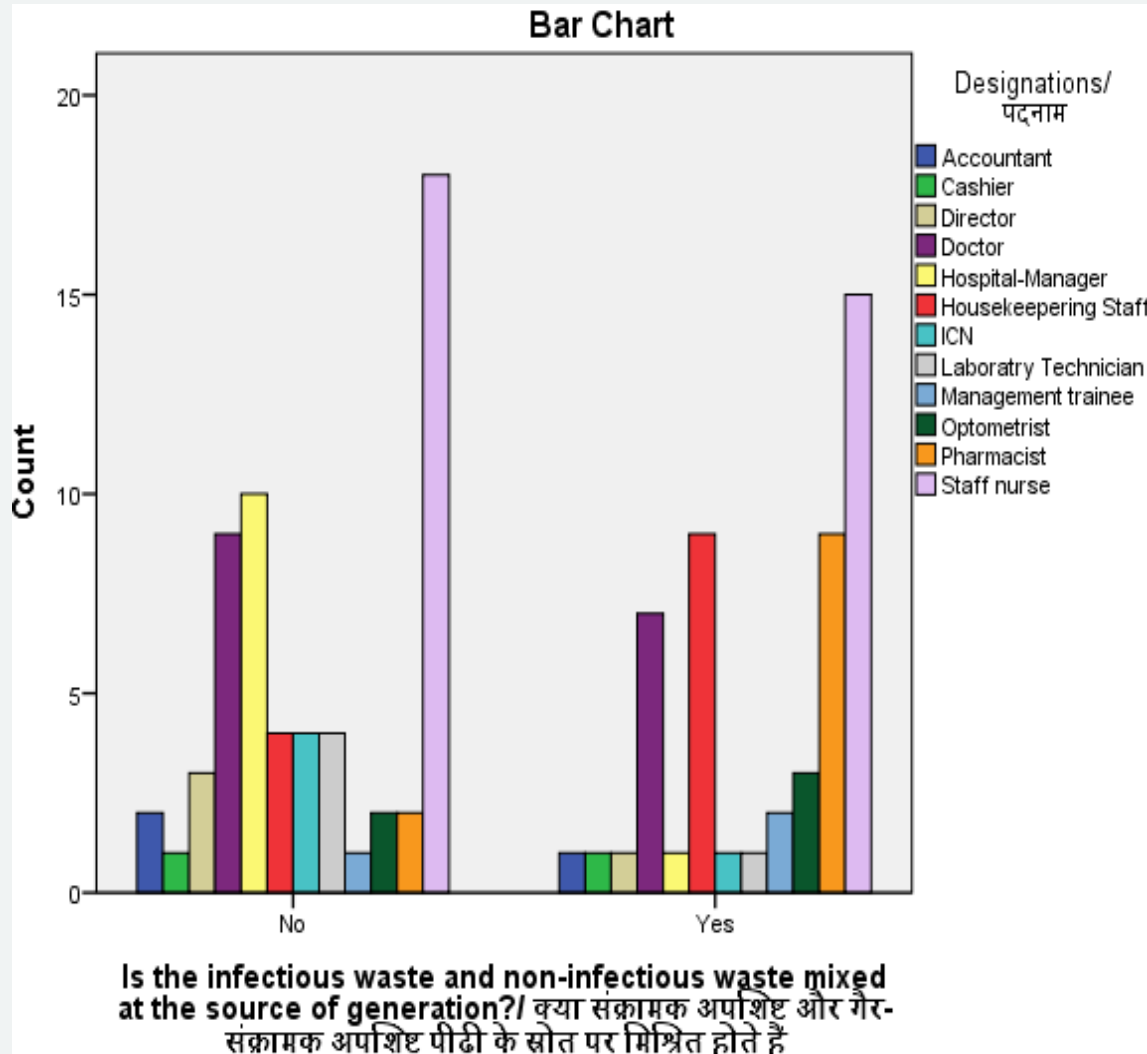
The crosstabulation of designation and is non- infectious (general) waste e.g.: packing material, cartoon box, needle wraps medicine cover to disposed in black plastic bag. It demonstrates the result that out of 111 responses, 72 are unaware about it



Is the non- sharp infectious waste (infected plastics, syringe, dressing, gloves, masks, urine bag) to be disposed in red plastic bin/ क्या गैर-तीक्ष्ण संक्रामक अपशिष्ट (संक्रमित प्लास्टिक, सिरिज, ड्रेसिंग, दस्ताने, मास्क, मूत्र बैग) को लाल प्लास्टिक बिन में निपटाया जाना है

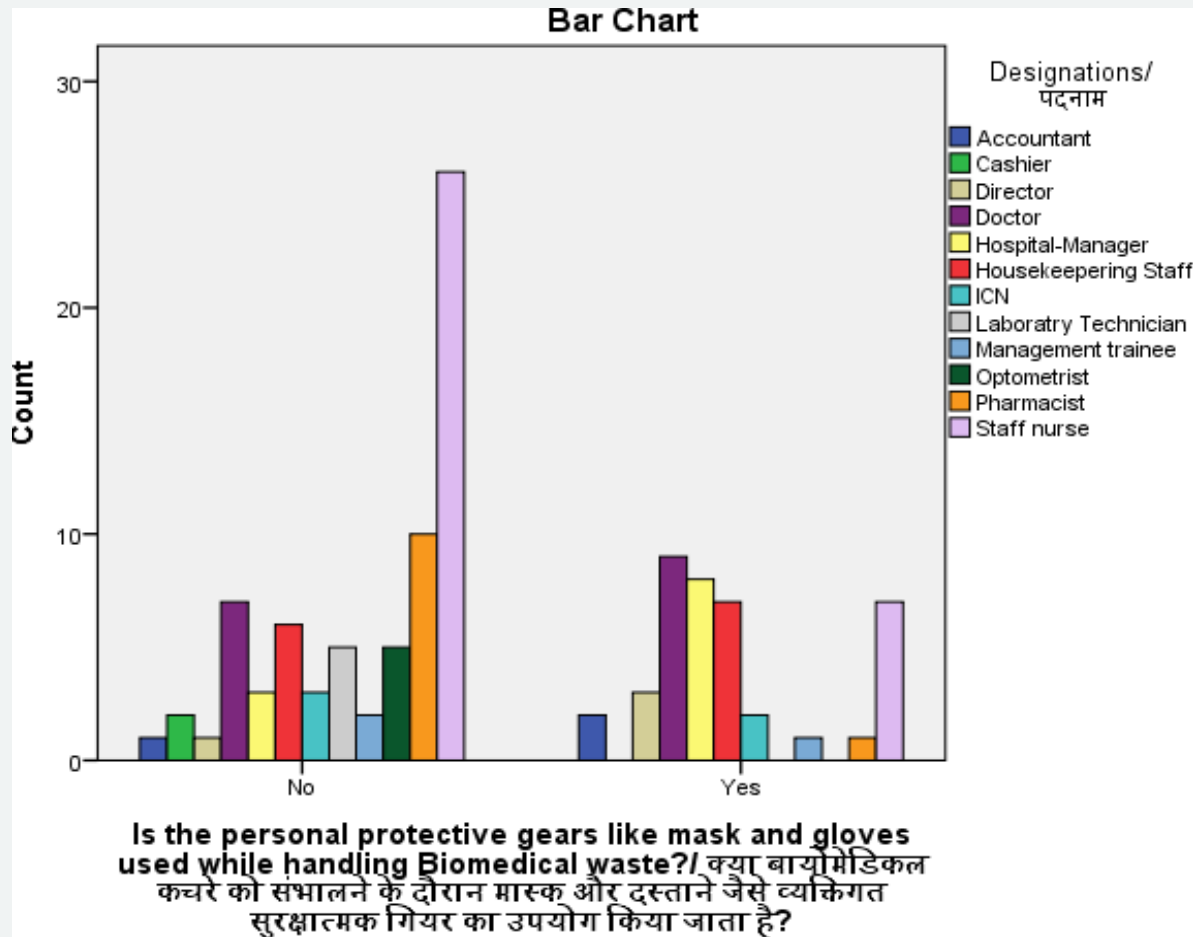
Is the non- sharp infectious waste (infected plastics, syringe, dressing, gloves, masks, urine bag) to be disposed in red plastic bin?

The crosstabulation of designation and is the non- sharp infectious waste (infected plastics, syringe, dressing, gloves, masks, urine bag) to be disposed in red plastic bin. It demonstrates the result that out of 111 responses, 69 are unaware about it.



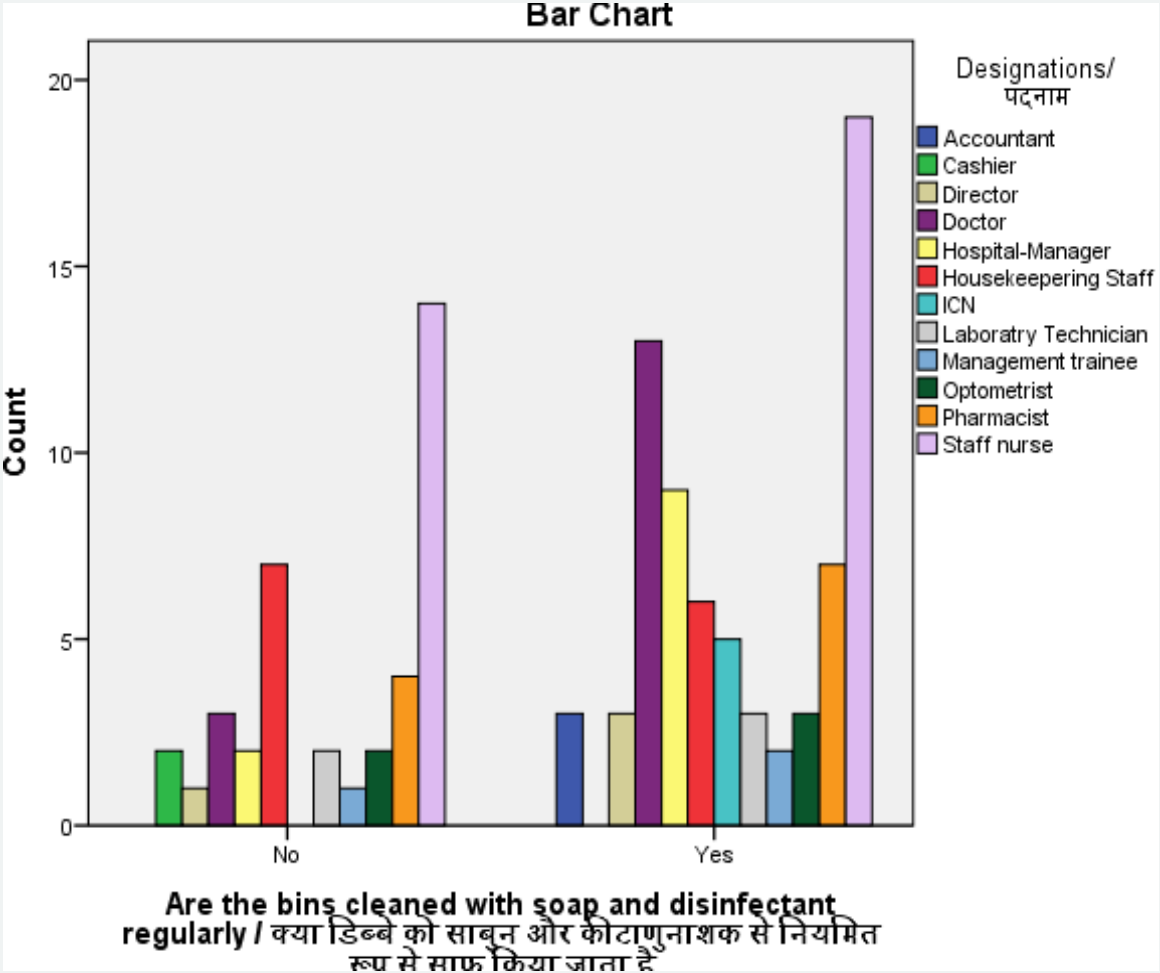
Is the infectious waste and non-infectious waste mixed at the source of generation

The crosstabulation of designation and is the infectious waste and non-infectious waste mixed at the source of generation. It demonstrates the result that out of 111 responses, 60 are unaware about it.



Is the personal protective gears like mask and gloves used while handling Biomedical waste?

The crosstabulation of designation and is the personal protective gears like mask and gloves used while handling Biomedical waste? it demonstrates the result that out of 111 responses, 71 are unaware about it.

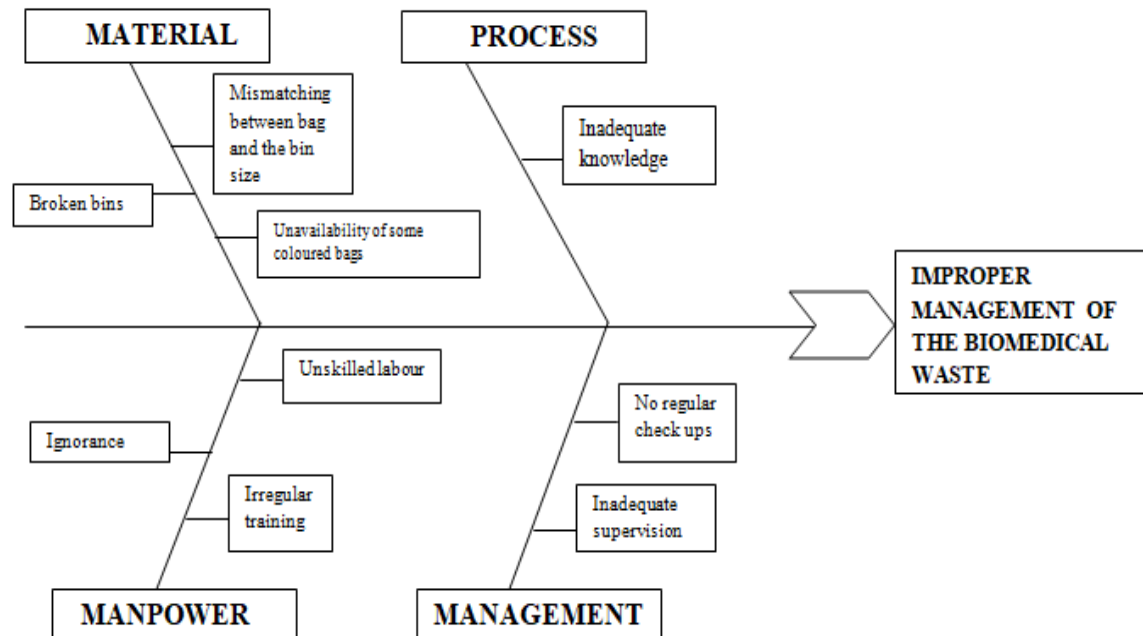


Are the bins cleaned with soap and disinfectant regularly

The crosstabulation of designation and are the bins cleaned with soap and disinfectant regularly It demonstrates the result that out of 111 responses, 38 are unaware about it.

Fishbone analysis (Ishikawa diagram):

The fishbone study indicates nine key reasons of gaps. These reasons are based on staff observations and some questions.



Value addition

GAP ANALYSIS

DATE OF GAP ANALYSIS: January 2021 from March 2021

PROJECT NAME: REVIEW OF MALPRACTICES IN HANDLING BIOMEDICAL WASTE IN HOSPITALS IN PRIVATE SHCOS IN RURAL SETUPS OF RAJASTHAN: A CROSS ANALYSIS.

OBJECTIVES OF PROJECT:

1. To map the current biomedical waste management process flow.
2. To identify gaps at various stages of the process, such as trash generation, collection, storage, and transportation
3. To determine the causes of the gaps.
4. To make suggestions for adding value to the process.

ACTIONS	GAPS DISCOVERED	REPERCUSSIONS	ACTIONS TO BE CARRIED OUT
1.	Waste kept on the shelf	Infection spread	Staff training and review should be done on a regular basis.
2.	During waste processing, no personal protective equipment is used.	Infection spread.	Staff training that is up to date
3.	The wrong color bag was placed in the wrong bin.	As a result of waste mixing, incorrect disposal occurs.	Staff training that is up to date
4.	Wrong waste with the incorrect color coding	Improper disposal	Staff training and correct segregation are essential.
5.	Bins that are not covered	Infection spread	Bins must be well covered.
6.	Garbage dumped outside the bin	Infection spread	A regular check should be performed, as well as thorough personnel training.
7.	The trash is tossed on top of or outside of the bag.	Infection spread	A regular check should be performed, as well as thorough personnel training
8.	Outside the bin, garbage is dangling.	Infection spread	A regular check should be performed, as well as thorough personnel training
9.	Moreover 3/4 of the bin's capacity had been filled.	Possibilities of bin overfilling	A regular check should be performed, as well as thorough personnel training
10.	The waste collection bags are suspended from the sides of the patient trolley.	Infection spread	Review on a regular basis
11.	The bins aren't cleaned on a regular basis.	Infection spread	Staff training and review should be done on a regular basis.

CONCLUSION

A gap analysis approach was used to conduct an observational study on "Review of present procedures in biomedical waste management." Between January and March 2021, private SHCOS in rural Rajasthan will map the 'As is' process and then uncover the gaps that exist by comparing the ideal to the existing, at the levels of management

- Waste generation and isolation
- Waste collection and storage
- Waste transportation

The study could find 11 major gaps in the biomedical waste management:

1. Bins that are not covered

2. Incorrectly colored bag in incorrect bin

3. Incorrect waste color labelling

4. Garbage dumped outside the container

5. Waste is thrown on top of or outside of the bag.

6. Garbage dangling from the trash

7. More than 3/4 of the bin's capacity had been filled.

8. Waste that has been placed on the shelf

9. When handling trash, no personal protective equipment is worn.

10. The waste collection bags are hung from the sides of the patient trolley.

11. The trash cans are not cleaned on a regular basis.

For the above gaps, a fish bone analysis was performed, and it was discovered that the key root causes for the gaps can be:

1. Bins that have been broken

2. Colored plastic bags are not readily available.

3. The trashcan and the plastic bag are of different sizes.

4. The staff's expertise of biological waste is insufficient, management principles

5. Low-wage workers

6. Unusual trainings

7. The staff's irrational attitude

8. There are no regular checkups

Further, some value additions are reported to the organization to consider



Thank you