



A Study to Assess the Knowledge and Compliance of Biomedical Waste Management rule 2016 Among Staff Nurse Working in P.B.M Hospital, with View to Develop Information Booklet.

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Abstract

Biomedical waste management means properly disposing and management to protect the environment, general public & workers specially health worker.

Objective 1) to assess the knowledge of Bio medical waste management rule 2016 among staff nurse. 2) To assess the compliance of Bio medical waste management rule 2016 among staff nurse. 3) To find out the correlation between the knowledge and compliance of BMW rule 2016 among staff nurse. A descriptive research design Non experimental co relational design was used with 100 sample size. R was 0.89. High (above 21%) nursing staff had average, (43%) had good and low (36%) had poor knowledge. NURSING STAFF had adequate knowledge regarding biomedical waste management rule-2016, color coding, and general waste, standard for incineration & standard for autoclave.

Keywords

Assess knowledge, bio medical waste management, staff nurse, information booklet.

Introduction

Life goal is to achieve high standards, High standards can be achieved from good health, Good health can be achieved from safest living, safest living can be achieved From cleanliness and avoiding hazards. Bio-Medical waste includes all the waste generated from the Health Care Facility which can have any adverse effect to the health of a person or to the environment in general if not disposed properly.

Objective

- 1) to assess the knowledge of Bio medical waste management rule 2016 among staff nurse.
- 2) To assess the compliance of Bio medical waste management rule 2016 among staff nurse.
- 3) To find out the correlation between the knowledge and compliance of BMW rule 2016 among staff nurse.

Materials and Methods

A Descriptive survey approach is used to assess the knowledge of nursing staff regarding biomedical waste management rule-2016. The data collected in-between 26/08/2019 to 02/09/2019 including 100 Staff nurses. 43 staff nurses work from I.P.D, 26 staff nurses work form ICU, 16 staff nurses work form causality, emergency department and 15 staff nurses work form O.P.D. working in PBM hospital, Bikaner.

Research & Method

A DESCRIPTIVE RESEARCH design is used. Research implies without any manipulation of the variables or control over the research setting. The data collected at a single point of time.

Study setting

Association group of Govt. Hospital of P.B.M, Bikaner.

The sample size and sampling technique

Simple random sampling technique was used for sample selection. All the staff nurses who working under selected P.B.M hospital, Bikaner the population of research study and first 100 were selected for the final study.

Criteria for sampling selection

Inclusion Criteria

Staff nurses those working in P.B.M hospital.

Staff nurse who are willing to participate in this study.

Exclusion Criteria: -

- Staff nurses those not fulfilling the inclusion criteria

Variable under study

Dependent Variable:

Knowledge & compliance of bio medical waste management rule 2016 among staff nurse.

Independent variable: Age, gender, professional qualification, total experience, working area and attended any orientation programmer of B.M.W. of staff nurses.

Population of the study: all the staff nurses working under selected P.B.M hospital, Bikaner.

Description of the tool: The Structured Questionnaire schedule comprised of three sections:

- SECTION A: Consist of socio demographic characteristics of respondent seeking information such as age, gender, and professional qualification, total experience, working area and attended any orientation programmer of B.M.W.
- SECTION B: Evaluation of the effectiveness of Compliance regarding biomedical waste management rule 2016 through check list.
- SECTION C: Evaluation of the effectiveness of knowledge regarding biomedical waste management rule 2016 through self structure question.

Criterion measure:

staff nurses workers knowledge regarding B.M.W rule 2016 was assessed using Self structured Questionnaire schedule below 50% poor, 50% to 75% Average and Above 75% Good Knowledge. Each right answer was awarded one mark and wrong answer was awarded zero mark.

Reliability of the tool:

Reliability was assessed by collecting data from 10 staff nurses workers in satellite hospital, calculated by test retest method using chi- squate test formula. The reliability was $r = 0.89$. It was statistically significant and thus reliable.

Plan of data analysis: the data obtained was analyzed in terms of achieving the objectives of the study using descriptive and inferential statistics.

- Descriptive statistics include calculation of Mean, Median, and Standard deviation to describe the measures of central tendency of the data.
- Inferential statistics was done using chi square test to test the relationship of knowledge with selected variables.
- P value less than or equal at 0.05 level was considered statistically significant.

Result and Discussion

To Assess The Knowledge Of Bio Medical Waste

Management Rule 2016 Among Staff Nurse

Maximum possible score was 25. Table no. 1 depicts that the distribution of knowledge score of staff nurses workers according to B.M.W rule 2016 ranged from 11 - 22. Mean knowledge score of the scores obtained by staff nurses workers was 16.6, Mean percentage was 66.16%, Median was 17 and SD was 2.77.

AREA	Max possible score	Max obtained score	Min obtained score	Mean	Mean %	Median	SD
Knowledge regarding B.M.W RULE-2016	25	22	13				

Table 1: Shows Mean, Median and SD of Knowledge scores of staff nurses workers according to B.M.W rule 2016

Table No. 2 and Figure 1 shows Maximum 59% of STAFF NURSES workers had Average knowledge, 38% of STAFF NURSES workers had good knowledge and least 3% of STAFF NURSES workers had poor knowledge regarding Biomedical waste management rule-2016. It can be concluded that more than half of STAFF NURSES workers had average knowledge biomedical waste management rule-2016. This emphasized that STAFF NURSES workers need to improve their knowledge regarding biomedical waste management rule-2016.

KNOWLEDGE SCORE			
Level of knowledge	Range	Frequency	Percentage
poor	Below 50%	36	36%
Average	50% to 75%	43	43%
High	Above 75%	21	21%

Table 2: Shows STAFF NURSES workers knowledge scores according to biomedical waste management rule-2016

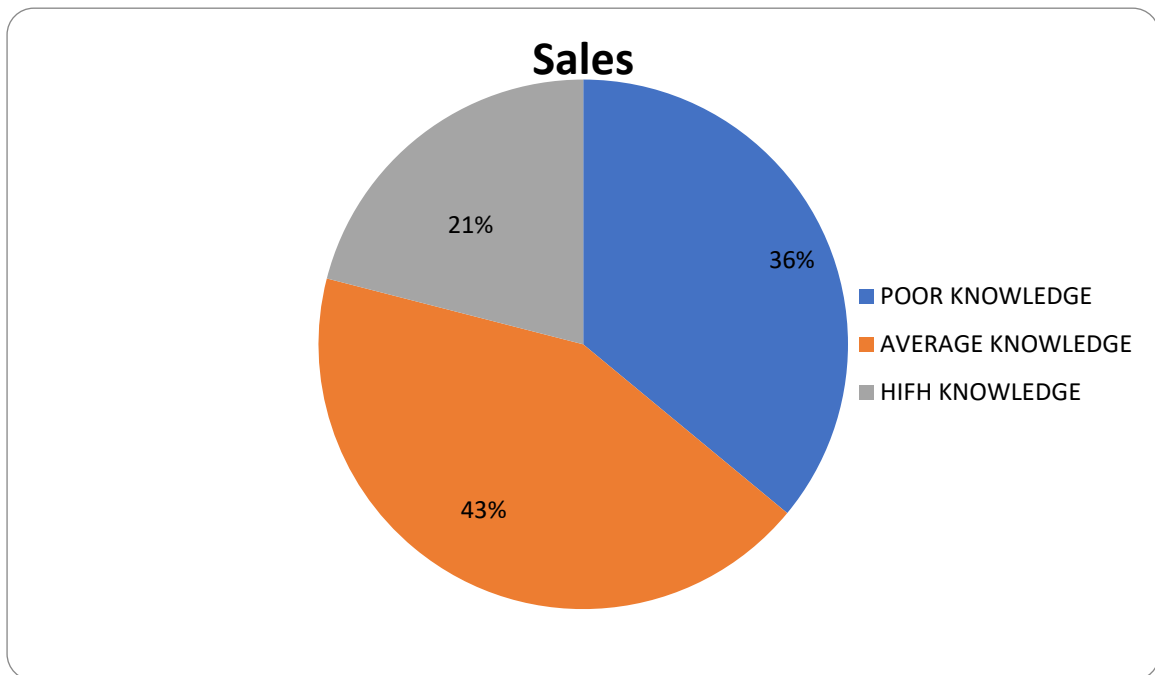


Fig 1: Shows Percentage distribution of STAFF NURSES workers knowledge score according to biomedical waste management rule-2016

Section II:) To assess the compliance of Bio medical waste management rule 2016 among staff nurse.

Table show the percentage distribution of the nurse’s compliance on biomedical waste management rule 2016. Totally 10 items was prepared to assess the compliance of the staff nurse. Each item with correct response was carried one mark. According to the scores, nurses were divided into high (above53%), average (40%) and low (7%).

Nurses had high knowledge (53%).The nurses had average knowledge (40%) and the nurses had low knowledge (7%).The compliance score mean was 0.70198 with the standard deviation 0.0876.

COMPLIANCE						
KNOWLEDGE	FREQUENCY	PERCENTAGE	MEAN	MEDIAN	S.D	
LOW	7	7%				
AVERAGE	40	40%				
HIGH	53	53%				

Table 2: STAFF NURSES workers compliance scores according to biomedical waste management rule-2016.

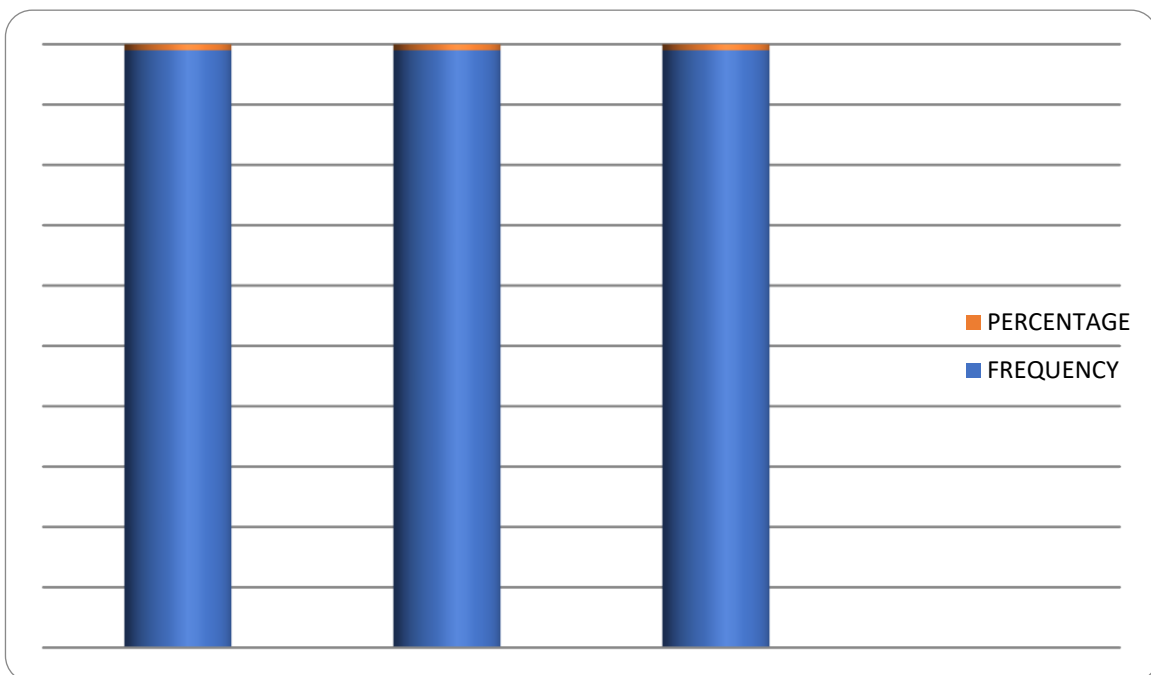


Fig 2: Shows Percentage distribution of STAFF NURSES workers compliance score according to biomedical waste management rule-2016.

Section III:) To find out the correlation between the knowledge and compliance of BMW rule 2016 among staff nurse:

Table shows the correlation between the knowledge and compliance . The knowledge and compliance correlation value was $r=0.99$. It shows that statistically highly positive correlation between the nurse's knowledge and compliance on biomedical waste management rule 2016.

The chi test was used to analyze the difference in scores of staff nurse in effectiveness of

Biomedical waste management rule 2016. Highly significant difference ('chi test'=0.99) was observed of staff nurse regarding effectiveness of B.M.W rule 2016.

PAIRED CORRELATION		CORRELATION
PAIR 1	KNOWLEDGE & COPLIANCE	0.99%

Table 3: STAFF NURSES workers compliance scores according to biomedical waste management rule-2016.

Conclusion

The nurse's knowledge and compliance on biomedical waste management rule 2016 depend upon each other. Nurses' knowledge and compliance scores were not satisfactory. So they need to be educated on B.M.W.M rule 2016 and their knowledge and compliance should be improved to achieve better care.

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