# "A STUDY TO ASSESS THE KNOWLEDGE AND PRACTICE REGARDING BIOMEDICAL WASTE MANAGEMENT AMONG PARAMEDICAL WORKERSIN SELECTED PRIMARY HEALTH CENTER AT AYODHYA DISTRICT."

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**ABSTRACT-**

➢ **Aim-**The present study aims at determine theknowledgeandpracticeregardingbiomedical waste management among paramedical workers.

➢ **Introduction-** Thewasteproducedinthecourse ofhealthcareactivitieshavehigher potential for infection and injury than any injury than any othertypeofwaste.Thereforeitisessentialtohavesafe andreliablemethodfor its handling. Inadequate and inappropriate handling of health carewastemayhaveseriouspublichealthconsequenc esandasignificantimpact on the environment. Appropriate management of health care wasteneeds a crucial component of environment health protection.

➢ **Objectives-**

• To assess the knowledge regarding Biomedical waste managementamongParamedicalworkersin selectedPHC.

• To assess the practice regarding Biomedical waste managementamongparamedical workers in selectedPHC.

• Tofindouttherelationshipbetweenknowledgeandpr acticeregardingbiomedicalwastemanagement.

• To find out the association between the knowledge of paramedicalworkers and selected demographic variables like age, sex, religionandoccupationstatus,income and experience,training.

• To find out the association between the practice on biomedicalwastemanagementofparamedicalworke rsandselecteddemographicvariableslikeage,sex,rel igion,andoccupation,incomeand experience and training.

➢ **Methodology-** The quantitative research approach with descriptive design was used inthisstudy.Thepurposeofthestudytoassesstheknowledge andpracticeofbiomedicalwastemanagementamongparam edicalworkers.Semistructuredquestionnairetoassessthek nowledgeregardingbiomedicalwaste management verbal response / checklist to assess the practice ofbiomedical waste management. The Inferential descriptive statistics wasused.

➢ **Result-**Evaluate and associate the knowledge with

selected demographic variables. The mean 19.433 of post-test score was more than the mean 13.200 of pre-test score of paramedical workers. There is **total enhancement occur** is 6.515. The comparison of Pre-test and post-test knowledge on BMW among paramedical workers had significant **association** with t value (6.515) at p< 0.05 Level of significance.

➢ **Conclusion-** From the above findings the investigator would like to concludethat majority of paramedical workers have moderate level of knowledge;but none of them having adequate level of practices. It was noticed thattheprimaryhealthcenterswerenotprovidingadequatefacilitiestopracticebio-medicalwastemanagement.Inprimaryhealth centeralso motivate them to do practice of biomedical wastemanagement.

## 1. INTRODUCTION

*"Never tell people how to do things Tell them what to do and they will surprise you with their ingenuity"*

Thewasteproducedinthecourseofhealthcareactivitieshavehigher potential for infection and injury than any injury than any othertypeofwaste.Thereforeitisessentialtohavesafeandreliablemethodfor its handling. Inadequate and inappropriate handling of health carewastemayhaveseriouspublichealthconsequencesand asignificantimpact on the environment. Appropriate management of health care wasteneeds a crucial component of environment health protection and it shouldbecomeanintegralfeatureofhealthcareservices.

Biomedicalwastemeansisanywastegeneratedduringthediagnoses, treatment or immunization of human beings or in researchactivity.Thewasteproducedinthecourseofhealthcareactivitiescarriesa higher potential for infection and injury than any other type of waste.Biomedicalwastegeneratedinthehospitalfallsunder twomajorcategories.Non-hazardousandbiohazardousconstituentsofnon-hazardous waste and non- infected plastic card board, packaging material,paperetc.,

Amajorhospitalcontributessubstantiallytothequantumofbiomedicalwastegeneratedthemsmallerhospitals ,nursinghomes,clinics,pathological laboratories, blood banks etc and also contribute amajorchunk.No effort needs to be spared to ensure implementing strategies forsafe&soundmanagementofhospitalwaste.

## 2. REVIEWOFLITERATURE

**Pandit NB etal(2009)** cross sectional study was conducted in a Pnamukh Swami medical college if P.Gujarat in involving 30 hospital with more than 30 beds were randomly selected from Sabarkantha District the doctors and auxiliary staff of those 30 hospitals were the study population the result showed that Doctor's were aware of risk of HIV and Hepatitis B and C whereas Auxiliary staff (ward boys, Ayabens, sweepers) had very poor knowledge.

**Gupta S. Boojh(2008)** conducted a study in Babrampus hospital Lucknow.The study was conducted in Lucknow at the infectious and non-infectious waste are dumped together with in the hospital premises resulting in a mixing of the two which are then disposed of withmunicipal waste at the dumping sites in the city. All type of wastes are collected in common bins places outside the patients wards for disposal of this waste the hospital depends on the generosity of the Lucknow municipal corporation. Whose employees generally collect it every 2 or 3 days. The hospital does not have any Treatment facility for infectious waste.

**Usha prabakar and Neelam makhija(2008)** conducted a study to assess the knowledge on Biomedical waste management among 30 nursing personal in Delhi. The study finding revealed that 66% were having knowledge on Biomedical waste generation 77.7% were having knowledge on Biomedical waste category and segregation 92.22% were having knowledge regarding Biomedical waste transportation 70% had knowledge on needle disposal 70% had knowledge on universal precaution.

## 3. RESEARCH STATEMENT

" A STUDY TO ASSESS THE KNOWLEDGE AND PRACTICE REGARDING BIOMEDICAL WASTE MANAGEMENT AMONG PARAMEDICAL WORKERS IN SELECTED PRIMARY HEALTH

CENTER AT AYODHYA DISTRICT."

## 4. AIM OF THE STUDY

The present study aims at determine theknowledgeandpracticeregardingbiomedical waste management among paramedical workers.

## 5. OBJECTIVES

- To assess the knowledge regarding Biomedical waste managementamongParamedicalworkersin selectedPHC.
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## 6. HYPOTHESIS

- There is a significant relationship between the knowledge and practice of paramedical workers regarding Biomedical waste management.
- There is a significant association between the knowledge and selected variable such as age, sex, religion, marital status and occupation income, and training.
- There is a significant association between the practice and selected variable such as age, sex, religion, marital status and occupation income, and training.

## 7. RESEARCH METHODOLOGY

| Research Approach | Quantitative Approach |
|---|---|
| Research Design | Pre -Experimental research design |
| Research Setting | PHC Block Bikapur Tehsil Rudauli,District Ayodhya. |
| Population | All Paramedical Staffs of Tehsil Rudauli,District Ayodhya. |
| Target population | All Paramedical Staffs of Selected PHC |
| Sample Size | The sample size was 50. |
| Sample Technique | Simple random sampling |

## 8. DESCRIPTION OF TOOL
### PART–I

Itconsistsofdemographicvariablessuchasage,sex,religion ,education,occupation,yearof experienceand Training.

### PART–II

It consists of 25 multiple choice questions to assess the level ofknowledge paramedical workers regarding biomedical waste managementunder the following area such as definition, segregation, Treatment andmanagement.

## 9. ANALYSIS & INTERPRETATION DATA
### Section 1

| S N o. | Demographic data | Category | Fre que ncy (N) | Percent age (%) |
|---|---|---|---|---|
| 1 | Age (in years) | 21-25 | 29 | 29% |
| | | 26-30 | 34 | 34% |
| | | 31-36 | 37 | 37% |
| | | 37 & above | 36 | 20% |
| 2 | Sex | Male | 16 | 16% |
| | | Female | 85 | 86% |
| 3 | Marital status | Unmarried | 30 | 30% |
| | | Married | 70 | 70% |
| 4 | Monthly | Below Rs. | 39 | 30% |

| | income in the family(in rupees) | 10,000 | | |
|---|---|---|---|---|
| | | Rs.10,001-Rs.20,000 | 47 | 50% |
| | | Rs. 20,001-Rs.30,000 | 14 | 30% |
| | | Rs. 30,001& above | 47 | 63% |
| 5 | Religion | Hindu | 76 | 46.6% |
| | | Muslim | 07 | 53.3% |
| | | Sikh | 03 | 60% |
| | | Christian | 13 | 40% |
| 6 | Training | Yes | 100 | 100% |
| | | No | 00 | 00% |
| 7 | Years of experience | 1-5 | 48 | 60% |
| | | 6-10 | 40 | 53% |
| | | 11 & above | 14 | 40% |
| | | Others | 0 | 00% |
| 8 | Occupation | GNM | 37 | 40% |
| | | LT | 23 | 30% |
| | | ANM | 25 | 50% |
| | | Pharmacist | 15 | 40% |

The data presented in the above table shows that 29(29%) samples were between 21-25 years, 34(34%) samples were between the age group of 26-30 years and 37(37%) samples were between the age group of above 31 years. About sex 16(16%) samples were males and 84(84%) samples were females. In marital status 30(30%) samples were unmarried and 70(70%) samples were married. Among religion Majority (76%) samples were Hindu's, 13(13%) samples were Christian's and 7(7%) samples were Muslim's. Regarding experience, 48 (48%) samples

were 1-5 years of paramedical workers, 40(40%) of samples were 6-10 years and above 12(12%) of samples were above 10 years. In occupation 37(37%) samples were general nurse and midwives, 23(23%) samples were Lab technician, 25(25%) samples were ANM, 15(15%) samples were Pharmacist. About income 39(38%) samples were below 7,000, 47(48%) samples were 7001-12,000, 14 (14%) were Above 12,000. In training majority (100%) samples were attended the Biomedical waste management training.

## Section2

**Correlation co-efficient of Knowledge and practiceregarding biomedical waste management amongparamedicalworkers.**

| S. No | Category | Correlation co-efficient 'r' |
|---|---|---|
| 1. | Knowledge | 0.515 |
| 2. | Practice | |

TableIndicatethatthereisapositivecorrelationbetweenknowledgeandpractice(r=0.515),

Tofindouttherelationshipbetweenknowledgeandpractice correlation was used. The positivecorrelation was found between knowledge and practice. Hence it wasinterpretedthatparamedicalworkerswhohadadequate knowledgefollowedsatisfiedlevelofpractice.

## Section – 3

**Association between practice and demographic variables of paramedical workers.**

**N=100**

| Demographic variables | | Satisfied level of practice | Moderate level of practice | Inadequate level of practice | X2 |
|---|---|---|---|---|---|
| **Age (in years)** | 21-25 | 0 | 28 | 1 | |
| | 26-30 | 0 | 24 | 10 | 8.78 # |
| | 31-36 | 0 | 25 | 12 | |
| | 37 &above | 0 | 26 | 12 | |
| **Sex** | Male | 0 | 10 | 7 | |
| | Female | 0 | 67 | 16 | 3.8# |
| **Marital status** | Unmarried | 0 | 26 | 4 | |
| | Married | 0 | 46 | 24 | 3.6# |
| **Monthly income in the family (in rupees)** | Below Rs.10,000 | 0 | 32 | 7 | |
| | Rs.10,001-Rs.20,000 | 0 | 35 | 12 | |
| | Rs.20,001-Rs.30,000 | 0 | 12 | 2 | 3.395# |
| | Rs.30,001& above | 0 | 12 | 2 | |
| **Religion** | Hindu | 0 | 58 | 16 | 11.7 * |
| | Muslim | 0 | 06 | 2 | |
| | Shikh | 0 | 06 | 1 | |
| | Christian | 0 | 12 | 8 | |
| **Training** | Yes | 0 | 77 | 23 | 0# |
| | No | 0 | 0 | 0 | |
| **Years of experience** | 1-5 | 0 | 38 | 10 | |
| | 6-10 | 0 | 31 | 9 | |
| | 11 &above | 0 | 8 | 4 | 2.9# |
| | Others | 0 | 0 | 0 | |
| **Occupation** | GNM | 0 | 37 | 1 | |
| | LT | 0 | 18 | 5 | 15.8 * |
| | ANM | 0 | 14 | 11 | |
| | Pharmacist | 0 | 09 | 6 | |

* Significant

# Not significant

Table shows that association between practice and demographic variable of paramedical workers regarding biomedical waste management. The result shows that thecalculated value for practice and demographic variable such as religion, occupation of paramedical workers regarding biomedical waste management is greater than the table value. So it is concluded that there is a significantassociation between practice and demographic variable such as religion,occupation ofparamedical workers regarding biomedical waste management. Thecalculated valueis less than the tabulated value forage, sex, maritalstatus, income, years of experience, and training of paramedical workersregarding biomedical waste management. So there is no associationbetween practice and demographic variables such as age, sex, marital status, income, years of experience, and training of paramedical workers regarding biomedical waste management.

## 10. DISCUSSION

Thereisnosignificantassociationbetweenpracticeanddemographic variables. The result shows that the calculated value

islessthantabulatedvalueforage,sex,maritalstatus,yearofe

xperience income and Training ofparamedical workers. So there isno association between practice and demographic variable such as age,sex,maritalstatus,yearofexperienceincomeandtrainin gofparamedical workers. Hence the research enables to **reject the nullhypothesis.**

Itmaybeduetoinadequatefacilities.Eventhought heyliketopracticetheirincome,Religion,arethisabsolutely forthemto practice.

## 11. CONCLUSION

From the above findingsthe investigator would like to conclude that majority of paramedical workers have moderate level of knowledge; but none of them having adequate level of practices. It was noticed that the primary health centers were not providing adequate facilities to practice bio-medical waste management. The concerned authorities should also be vigilant and providing the proper facilities such as dust bin in different colors for the disposal of hospital waste material. The medical officer should create awareness among paramedical workers regarding bio medical waste management in primary health center and also motivate them to do practice of biomedical waste management; The success of the various scheme implemented by the Government through the medical department in eradicating certain diseases depend on thebasic implementation of bio-medical waste management. In primary health center and also motivate them to do practice of biomedical waste management.

### 12. NURSING IMPLICATION

- Nursingeducation
- Nursingadministration
- Nursingresearch

### 13. RECOMMENDATIONFORFURTHERRES EARCH

Onthebasisofpresentstudyfollowingrecommendationwerema de.

- Asimilarstudycouldbedonewithlargesamples.
- Anexperimentalstudycouldbeconductedwithstruct uredteachingprogramonknowledgeandpractice.

- Asimilarstudy conducted in the hospital,nursing homes and clinics.
- Asimilarstudycouldbedoneonlongitudinalbasis.
- Asimilarstudymaybeconductedtofindouttheincid enceofinfectiousdiseaserelatedtobiomedicalwast e management.
- AsimilarstudycouldbeconductedwithHealthcarepro viders.

### 14. REFERENCE

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