

Knowledge, Attitude and Practices of Health Workers regarding Medical Waste Management in Entebbe Regional Referral Hospital, Wakiso District. A Cross-sectional Study.

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Abstract



Background:

The purpose of the study was to assess the knowledge, attitude, and practices of health workers regarding medical waste management in Entebbe Regional Referral Hospital, Wakiso District.

Methodology:

The study adopted a cross-sectional study design with a simple random technique as a sampling technique. Data were collected from 50 respondents using a semi-structured questionnaire written in the English language as a data collection tool; later analyzed manually using a scientific calculator, coded and entered into a computer, and presented in tables and figures for easy presentations.

Results:

All the study participants had ever heard about medical waste management, (60%) were aware of the medical waste management rules and regulations followed in Uganda, (70%) knew 48 hours as the maximum storage period for medical wastes, and (90%) knew segregation, collection and storage transportation, treatment, and disposal as the steps involved in the management of wastes, (50%) knew yellow color code for infectious and (70%) knew gloves as the personal protective equipment used during medical waste management, (94%) of respondents agreed that it is necessary to follow wastes management rules and regulations all the time, (and 52%) were willing to report safety violations done by their fellow workmates regarding waste management and (62%) perceived segregation of hospital wastes to be time-consuming. (90%) of respondents were fully vaccinated for common pathogens.

Conclusion:

Satisfactory knowledge was associated with favorable attitudes of health workers regarding medical waste management.

Recommendation:

Entebbe regional referral hospital administration should allocate the tasks and responsibilities to focal persons to properly monitor the medical waste management based on guidelines since the study discovered that some health workers were not following color coding while disposing of medical wastes.

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1 Background of the study

An assessment of waste generation rate data from around the world shows that about 0.5 kg per bed per day is produced in hospitals. However, this figure, and the underlying composition of the waste, varies enormously depending on the local context, with higher-income countries generating far higher levels of waste and plastic, for example, often making up more than half of all medical waste. Because of this huge diversity, there is no single best solution to dealing with medical waste (United Nations Environment Program, 2022).

In 2015, a joint assessment by WHO/UNICEF found that just over half (58%) of sampled facilities from 24 countries had adequate systems in place for the safe disposal of health care waste (WHO & UNICEF, 2016).

Africa is estimated to have had 67,740 health facilities and produces approximately 282,447 tonnes of medical waste every year. This type of waste accounted for 10–25% of HCW, including chemical or pharmaceutical waste (3%), body part waste (1%), sharps (1%), radioactive and cytotoxic waste, and broken thermometers (less than 1%). General wastes do not pose a risk of injury or infection due to the conditions under which they are generated (Udofia et al., 2015).

In India, medical waste management rules were enacted in the year 2016 and amended in 2018. The data from Central Pollution Control Board (CPCB), India indicated that 28,468.85 tonnes of bio-medical waste during COVID-19 for the last six months between June to November (Aastha, 2022).

The last most comprehensive estimation of medical waste generation from health facilities across the provinces of South Africa was done in 2006 and it showed that public facilities generated more waste than private and Gauteng and Kwazulu-Natal provinces generated more waste than other provinces. There has been a progressive increase in the quantity of medical waste being generated across South Africa from 42,000 tons per annum in 2007 to 45,000 tons per annum in 2013 (South Africa Department of Health, 2016).

In Uganda, approximately 20% of all health care wastes are estimated to be hazardous and 1% is estimated to be sharps waste. The largest component of HCW (80%) is a non-hazardous waste. However, this can cause a nuisance or create breeding sites of disease vectors like flies and rats. It includes

domestic waste, office or compound sweepings and wrappings, and containers of medicines. Infectious has living organisms in it that are capable of causing disease. Pathological these are parts of the human body that are removed because they are diseased, usually for identifying the cause of disease. Sharps objects that can penetrate the skin easily and include needles/syringes. Pharmaceuticals are Related to manufacturing, dispensing, and disposing of unusable medicines and consumables (USAID, 2013).

2 Methodology

Study design

A descriptive cross-sectional study design was employed to assess the knowledge, attitude, and practices of health workers regarding infectious waste management in Entebbe Regional Referral Hospital. Quantitative approaches were used. This type of study design was preferred because it was less costly and less time-intensive than other designs.

Study area

The study was conducted in Entebbe Regional Referral Hospital in Entebbe town, Wakiso District, approximately 44 kilometers (27mi), by road, southwest of Mulago National Referral Hospital. The coordinates of the hospital are: 0°03'50." N, 32°28'18.0" E. The new facility has a private fee-for-service wing and a public, free-service wing. Other services include pediatrics, radiology, laboratory, maternity, immunization, general surgery, internal medicine, orthopedics, and operating rooms. Patients served come from Wakiso District, Mpigi District, Entebbe Town, and the neighboring islands in Lake Victoria. The facility receives an average of 200 patients on daily basis.

Study population

The study targeted health workers in Entebbe Regional Referral Hospital, Wakiso District who were present during the period of data collection.

Sample size determination

The sample size was calculated using Kish and Leslie formula (1965)

The sample size was, therefore, be calculated as;

$$n = Z^2 p (1-p)$$

$$d^2$$

Where; n= Minimum Sample size

z = is the z-value at $\alpha = 0.05$ corresponding to 1.96 approximately 2

p = proportion of pregnant mothers who regularly attended antenatal care

By convention this proportion $p = 0.5$ if there is no literature found in the study area.

d = the proposed precision of the study = 0.1

Therefore, $22 \times 0.5 (1 - 0.5)/0.12$

$n=100$

Therefore, the target sample size of respondents would be 100 respondents but due to time constraints; 50 respondents were considered.

Selection criteria

Inclusion criteria

All respondents who consent and were available at the time of data collection were included in the study.

Exclusion criteria

All respondents who didn't consent, on annual vacation, sick leave, and delivery vacation were excluded from the study.

Study variables

Dependent variable

Medical waste management was the dependent variable.

Independent variables

Knowledge, attitude, and practices regarding medical waste management among health workers were independent variables.

Sampling technique

A simple random sampling method was used to recruit the respondents to the study. The technique was preferred because it gives a representative sample and produces less or no bias in sampling.

Data collection tool

Data were collected using questionnaires handed to the respondents and they contained open and close-ended questions. The questionnaires were administered by the researcher and written in the English language. This data collection tool was suitable for the study due to its flexibility and the researcher was able to obtain information from a large number of respondents within the shortest period.

Pretesting the research tool

Before the questionnaire was used, it was first pretested from Mulago National Hospital among 10% of the sample because of similar services to find out the feasibility of the study tools and validity of data to be collected about objectives. At-

tention was given according to wording, structure, sequence, and overall presentation of the items in the questionnaires.

Data collection procedure

An introductory letter was obtained from the principal tutor of Kampala School of Health Sciences and presented to the hospital medical superintendent of Entebbe regional referral hospital to seek permission for the study. Once permission was granted, the researcher and her assistants introduced themselves to respondents preferably in their departments to seek their consent; a list of all the health workers in each department was made, and by simple random sampling, through writing the numbers 1 to 61 and 62 to 120 of the health workers on small pieces of paper, putting them in a small box, shaking and those who consent were allowed to pick, those who picked 1 to 61 were considered for the study. The criteria were followed up per each department until the required sample of the respondents was attained.

Quality control

Questionnaires were collected and cross-checked for completeness, accuracy cleared then stored for safe analysis under lock and key and therefore they were opted to be used.

To ease the data collection process, two research assistants were trained for three days before the actual study and tested on the use of the questionnaire, interpretation, and ability to speak and interpret the questions.

Standard operating procedures for COVID 19 such as wearing face masks, social distancing, hand washing, and sanitizing were strictly followed and implemented during the data collection process.

3 Data analysis and presentation

The data was analyzed manually using tally sheets and numerical data computed using calculators. A micro-soft word computer program was used to present findings in tables and figures for easy interpretation of study findings.

Ethical considerations

A letter of introduction was obtained from the Principal of Kampala school of Health Sciences to the medical superintendent of Entebbe Regional Referral Hospital to seek permission and assistance in carrying out the research. Once permission was

granted, before interviewing participants, each participant was explained the objectives of the study and was requested to make an informed consent before collection of any information. Respondents were given a clear explanation of the absence of incentives, assurance of confidentiality of their responses, and freedom to quit the study at any point if they wished so. The researcher also assured the respondents that there were risks they would be exposed to throughout their participation in the study.

4 Study Findings

5 Demographic data

From the table 1, more than half of the respondents (66%) were females by gender whereas the minority (34%) were males.

Study findings showed that most of the respondents (42%) were within the age bracket of 33-39 years whereas the least (8%) were within the age bracket of 18-24 years.

Results related to tribes showed that more than half of the respondents (44%) were Baganda whereas the least (2%) were Batoro.

As regards professional background, most of the respondents (30%) were nursing assistants whereas the least (2%) were doctors.

The study also revealed that the majority of the respondents (60%) had worked for 5 years and above at this facility whereas the least (6%) had worked for less than a year at this facility.

Knowledge of Health Workers Regarding Medical Waste Management

Findings obtained from 50 respondents revealed that all the study participants had ever heard about medical waste management.

From the figure 1, most of the respondents (60%) were aware of the medical waste management rules and regulations followed in Uganda whereas the least (2%) were not aware.

From the table 2, the majority of the respondents (70%) reported 48 hours as the maximum storage period for medical waste whereas the minority (4%) reported 1 hour as the maximum period for medical waste.

From the table 3, almost all respondents (90%) knew segregation, collection and storage transportation, treatment, and disposal as the steps involved in the management of wastes whereas the least (2%) didn't know.

From the table 4, half of the respondents (50%) knew the yellow color code for infectious whereas the least (14%) knew red for highly infectious.

From the figure 2, the majority of the respondents (70%) knew gloves as the personal protective equipment used during medical waste management whereas the minority (2%) knew clinical coats.

6 Attitude of Health Workers Regarding Medical Waste Management

From the table 5, most of the respondents (44%) reported that the waste handler should be responsible for medical waste management whereas the least (4%) reported that the government should be responsible for medical waste management.

From the figure 3, nearly all respondents (94%) agreed that it is necessary to follow medical waste management rules and regulations all the time whereas the least (6%) disagreed.

From the figure 4, more than half of the respondents (64%) reported that they would like to have training programmed to enhance the management of medical waste in the hospital whereas at least (4%) disagreed.

From the table 6, more than half of the respondents (64%) were not satisfied with the ways through which their fellow health workers manage medical wastes whereas the least (36%) were satisfied.

From the figure 5, most of the respondents (52%) were willing to report safety violations done by their fellow workmates regarding waste management whereas the least (48%) were willing.

From the table 7, most of the respondents (62%) perceived the segregation of hospital wastes to be time-consuming whereas the least (12%) noted that segregation of hospital wastes is hectic.

7 Practices of Health Workers Regarding Medical Waste Management

From the figure 6, almost all respondents (90%) were fully vaccinated for common pathogens whereas the least (48%) were not fully vaccinated.

From the figure above, the majority of respondents (70%) reported that they had ever received

Table 1. Shows the distribution of respondents according to demographic data (N=50)

Gender	Frequency(f)	Percentage (%)
Male	18	36
Female	32	62
Total	50	100
Age (years)		
18-24	4	6
25-32	8	16
33-39	21	42
40-45	17	34
Total	50	100
Tribe		
Muganda	26	52
Mutoro	1	2
Ateso	4	6
Others	19	30
Total	50	100
Qualification		
Nursing Assistant	15	30
Enrolled nurse	8	16
Enrolled Midwife	5	10
Pharmacy technician	3	6
Doctor	2	4
Laboratory Technician	3	6
Others	14	28
Total	50	100
Working experience		
Less than a year	3	6
1-2 years	7	14
3-4 years	10	20
5 years and above	30	60
Total	50	100

Table 2. Shows the distribution of respondents according to their knowledge about the maximum storage period for medical wastes (N=50)

Response	Frequency (f)	Percentage (%)
1 hour	2	4
2 hours	3	6
24 hours	10	20
48 hours	35	70
Total	50	100

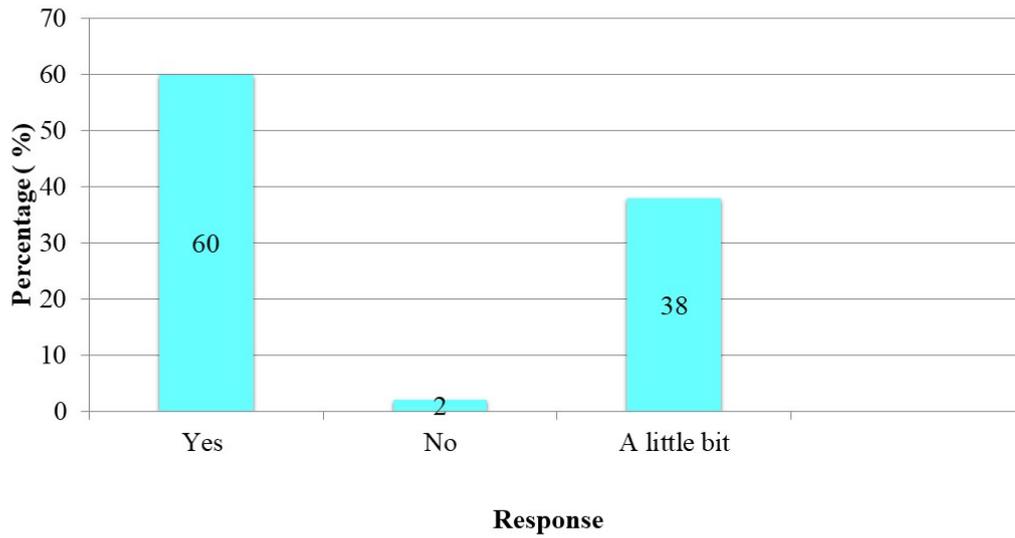


Figure 1. Shows the distribution of respondents according to whether they were aware of the medical waste management rules and regulations followed in Uganda

Table 3. Shows the distribution of respondents according to their knowledge about steps involved in the management of wastes in health facilities (N=50)

Response	Frequency (f)	Percentage (%)
Segregation, collection and storage transportation, treatment and disposal	45	90
Collection, Transportation and disposal	4	8
I don't know	1	2
Total	50	100

Table 4. Shows the distribution of respondents according to their knowledge about the bin color codes for different wastes streams (N=50)

Response	Frequency (f)	Percentage (%)
Black for non-infectious wastes	10	20
Yellow infectious	25	50
Red for highly infectious	7	14
Safety box for sharps	8	18
Total	50	100

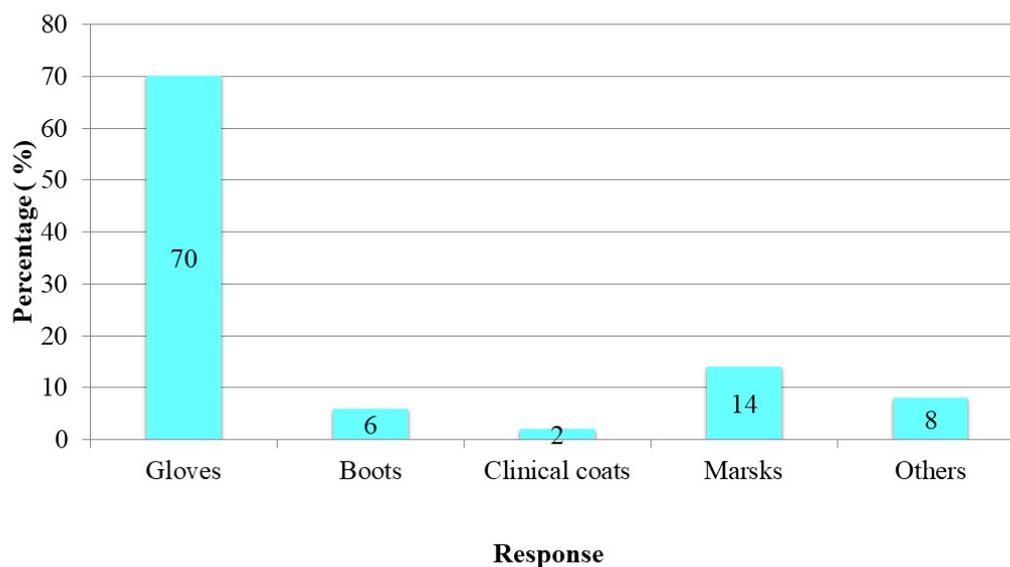


Figure 2. Shows the distribution of respondents according to the personal protective equipment used during medical waste management

Table 5. Shows the distribution of respondents according to whom do they think should be responsible for medical waste management (N=50)

Response	Frequency (f)	Percentage (%)
Government	2	4
Waste handlers	22	44
Everyone	10	20
Health facility	16	32
Total	50	100

Table 6. Shows the distribution of respondents according to whether they were satisfied with the ways through which their fellow health workers manage medical wastes (N=50)

Response	Frequency (f)	Percentage (%)
Yes	18	36
No	32	64
Total	50	100

Table 7. Shows the distribution of respondents according to how they perceive segregation of hospital wastes (N=50)

Response	Frequency (f)	Percentage (%)
Time consuming	31	62
Easy process	13	26
Hectic	6	12
Total	50	100

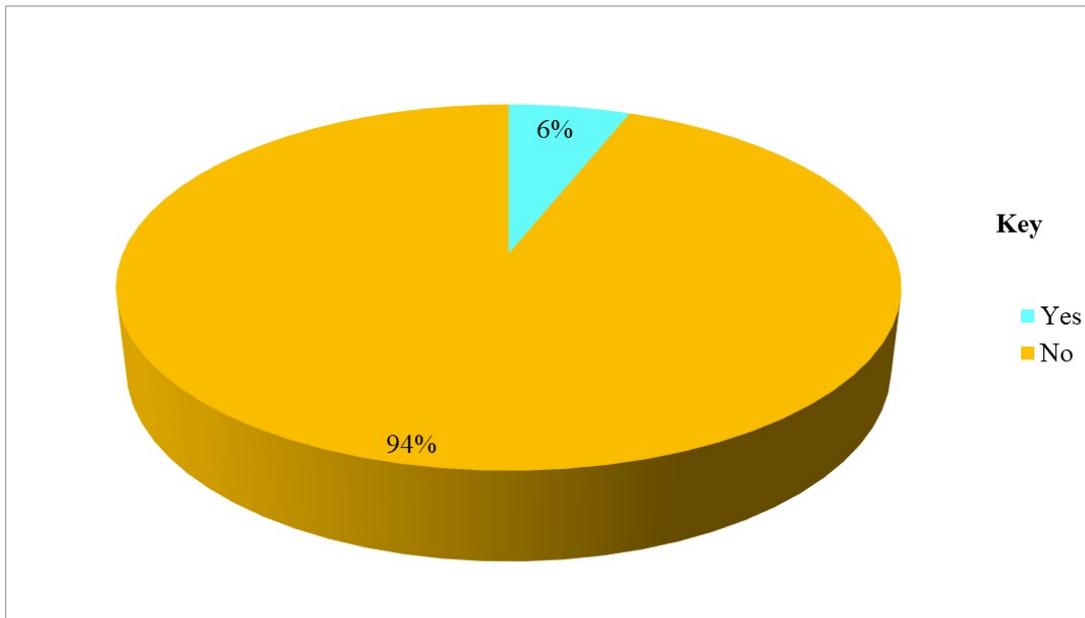


Figure 3. Shows the distribution of respondents according to whether they think it is necessary to follow medical waste management rules and regulations all the time(N=50)

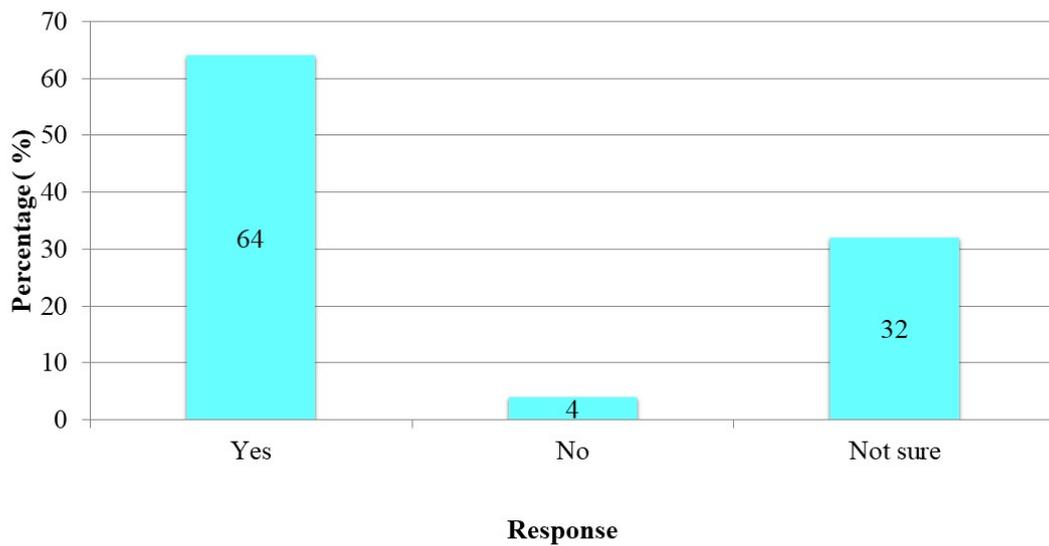


Figure 4. Shows the distribution of respondents according to whether they would like to have training programmed to enhance management of medical wastes in this hospital

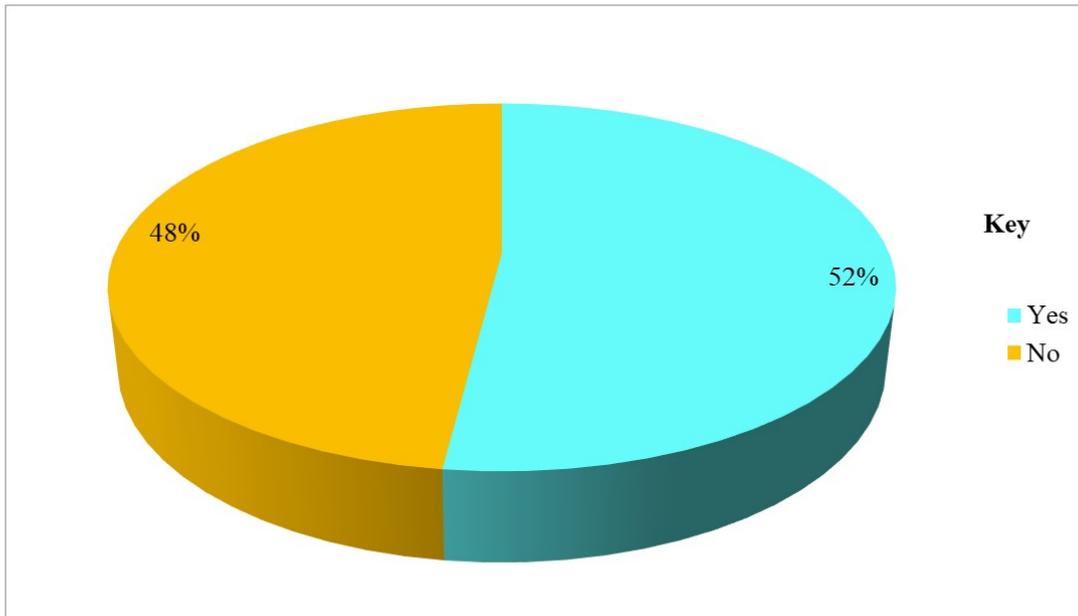


Figure 5. Shows the distribution of respondents according to whether they feel free to report safety violation done by their fellow workmates regarding medical waste management

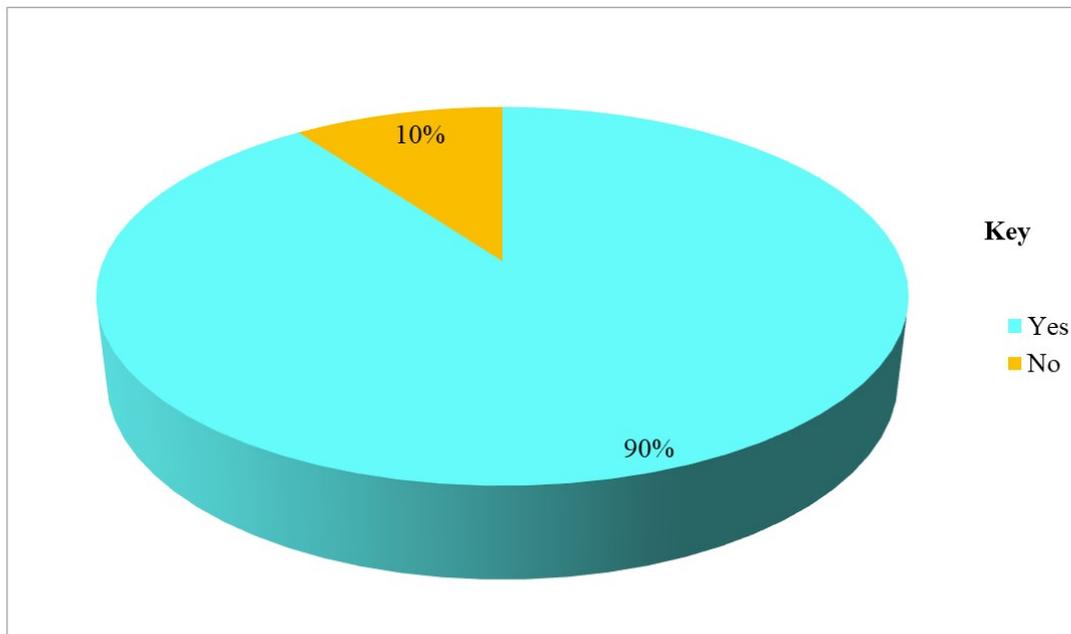


Figure 6. Shows the distribution of respondents according to whether they were fully vaccinated for common pathogens

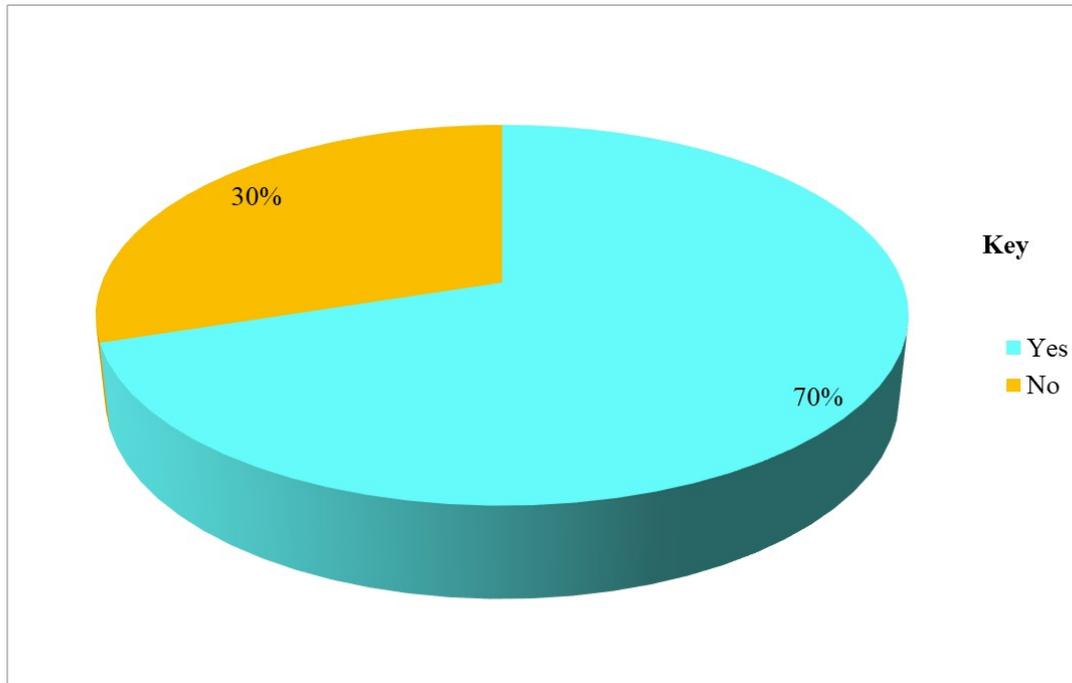


Figure 7. Shows the distribution of respondents according to whether they had ever received enough in service training in regards to medical waste management

enough in-service training in regard to medical waste management whereas the minority (30%) had never.

From the figure 8, most of the respondents (52%) reported that sometimes they follow color coding while disposing of medical wastes whereas the least (4%) don't follow color coding while disposing of medical wastes.

From the table 8, the majority of the respondents (78%) had pictorial pinned adverts regarding medical waste disposal in their department whereas the least (22%) never had.

From the table 9 more than half of the respondents (70%) reported incineration as the medical waste disposal technique followed at the facility whereas the least (2%) reported burying on the hospital ground.

From the table 10, most of the respondents (66%) reported that they had enough color-coded containers in their department whereas the least (32%) reported that they don't have enough color-coded containers in their departments.

8 Discussion:

Knowledge of health workers regarding medical waste management

Findings obtained from 50 respondents revealed that all the study participants had ever heard about medical waste management. This signifies that a substantial number of study participants were well conversant about the study background. Study results were in agreement with Gawad et al (2020), where results showed that all 100% of respondents had ever heard about medical waste management.

The study revealed that most of the respondents (60%) were aware of the medical waste management rules and regulations followed in Uganda. This is attributed to the fact management rules and regulations are part of the medical ethics health workers follow and therefore, the probability of being aware was expected to be beyond average. The study findings were inconsistent with Adekunle et al, (2018), where 42.2% of the participants knew a few biomedical waste rules and regulations followed in the country.

Findings obtained from 50 respondents showed that the majority of the respondents (70%) reported 48 hours as the maximum storage period for medical wastes. This is evidenced by the fact that health workers had attained different professional and they were most likely to be informed about the maximum storage period from different

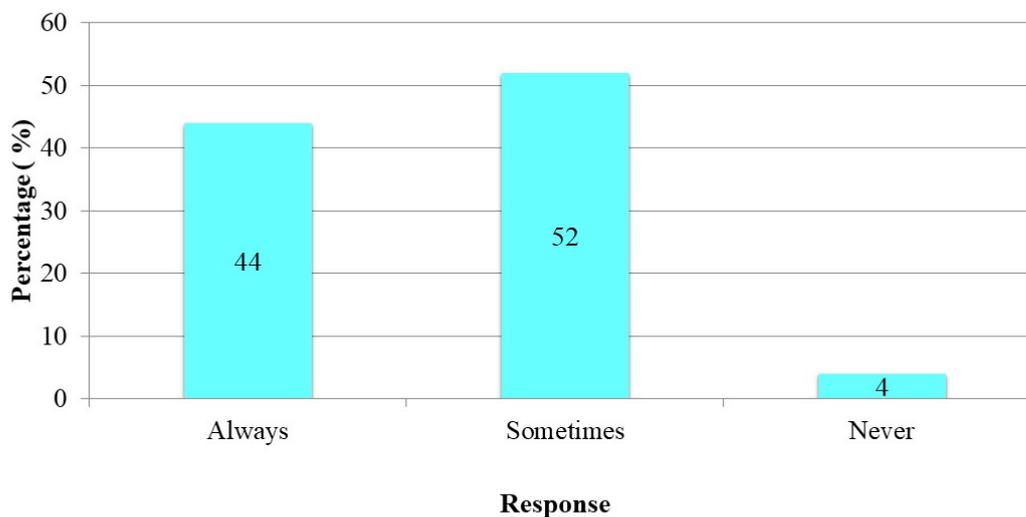


Figure 8. Shows the distribution of respondents according to how often they follow color coding while disposing medical wastes

Table 8. Shows the distribution of respondents according to whether they had pictorial/ pinned adverts regarding medical waste disposal in their department (N=50)

Response	Frequency (f)	Percentage (%)
Yes (Provide evidence to the researcher)	39	78
No	11	22
Total	50	100

Table 9. Shows the distribution of respondents according to disposal technique for medical waste followed at this facility (N=50)

Response	Frequency (f)	Percentage (%)
Taken to municipal Land fill	14	28
Buried at the hospital ground	1	2
Incineration	35	70
Total	50	100

Table 10. Shows the distribution of respondents according to whether they had enough color coded containers in their department (N=50)

Response	Frequency (f)	Percentage (%)
Yes	33	66
No	17	32
Total	50	100

sources of information. The study results were in line with Ravi et al (2015), where findings showed that (50.2%) of the respondents knew that waste can be stored for a maximum of 48 hours.

Furthermore, almost all respondents (90%) knew segregation, collection and storage transportation, treatment, and disposal as the steps involved in the management of wastes. The study results were in agreement with Thamari et al (2021), where results showed that 85.2% of participants had a good level of knowledge about the steps involved in the management of MW.

Results from the study showed that half of the respondents (50%) knew the yellow color code for infectious. This indicates an average number of participants were oriented about color codes for infections. The study results were in line with Ahmed et al (2018), where results related to color-coding segregation of biomedical waste showed that (71.8%) of nurses knew the yellow color code for infectious wastes.

As regards PPE, the majority of the respondents (70%) knew gloves as the personal protective equipment used during medical waste management. This could be a result of the fact that health workers always use gloves as a preventive way for hospital-acquired infections that result from poor management of medical wastes. The study results were consistent with Sylvain et al (2020), where results showed that (60%) of the respondents knew gloves as the personal protective equipment used during medical waste management.

The attitude of health workers regarding medical waste management

However, most of the respondents (44%) reported that the waste handler should be responsible for medical waste management. This could be attributed to the fact that health workers were afraid of hospital-acquired infections from medical waste. The current findings were not in line with Anirban et al (2021), where results indicated that 42.4% strongly felt that everyone in the workplace should be responsible for BMW.

Nearly all respondents (94%) agreed that it is necessary to follow waste management rules and regulations all the time. This denotes that health workers perceived to be at risk of infections that result from poor management of waste and therefore, they were most likely to agree and follow the waste management rules. This is in line with Krithiga et al (2020), where (93.0%) of the partici-

pants agreed that strict implementation was necessary for proper HCW Management in a health facility setting.

The study revealed that more than half of the respondents (64%) reported that they would like to have training programmed to enhance the management of medical waste in the hospital. This implies that a substantial number of participants had perceived continuous professional development for medical waste to be essential for the prevention of hospital-acquired infections. The study results were quite similar to findings obtained from a study that was done by Ahmed et al (2018), where (100%) of participants agreed that voluntary programs are important for upgrading the knowledge about biomedical waste.

Nevertheless, more than half of the respondents (64%) were not satisfied with the ways through which their fellow health workers manage medical waste. This specifies that their fellow workmates possessed poor medical disposal habits as the study is yet to ascertain. The study results were consistent with Gumoshabe (2018), where (60%) of the respondents were not satisfied with the ways through which their fellow workmates dispose of medical wastes.

In addition to that, most of the respondents (52%) were willing to report safety violations done by their fellow workmates regarding waste management. This confirms that study participants had positive attitudes towards the prevention of hospital-acquired infections. This was not in line with a study that was done by Thamari et al (2021), where (43.4%) of the participants had an unfavorable attitude toward reporting of needle stick management is a must during work,

Interestingly, most of the respondents (62%) perceived the segregation of hospital wastes to be time-consuming. This could be attributed to the fact that a significant number of participants are always busy and due to the long line of patients they perceive segregation to be time-consuming. The study results were inconsistent with Ravi et al (2015), where a total of 18.3% of the respondents felt that BMW management efforts increase the financial burden on management.

Practices of health workers regarding medical waste management

Findings revealed that almost all respondents (90%) were fully vaccinated for common pathogens. This indicates that a considerable number of study

participants had protected themselves against the spread of occupational infections that could result from medical wastes. The study results were in disagreement with Sylvain et al (2020), where more than half of the participants (59.0%) were not vaccinated against diseases attributable to biomedical waste management.

The study further revealed that the majority of respondents (70%) reported that they had never received enough in-service training regarding medical waste management. This indicates that the hospital management is more vigilant about the promotion of continuous professional development that equips health workers with updated skills and knowledge for proper management of medical wastes. This is in agreement with Ravi et al (2015), where results indicated that (87.5%) of the subjects had undergone a training program on BMW management.

In addition, most of the respondents (52%) reported that sometimes they follow color coding while disposing of medical wastes. This implies that health workers don't always follow color coding while disposing of medical wastes since they perceived it to be time-consuming. Findings differ from Anirban et al (2021), where results revealed that (52.8%) HCWs followed the colour coding of containers according to the type of waste during the disposal of BMW all the time.

The study further revealed that the majority of the respondents (56%) had pictorial pinned adverts regarding medical waste disposal in their department. Therefore, this indicates that hospital administration effectively ensures that staff is continuously sensitized about infection prevention as the measures and steps put in place to lessen the rate of infections from medical wastes. The study results were in line with Thimari et al (2021), where results revealed that 46.3 % of the respondents had BMW disposal charts in the departments.

Results from the study showed that more than half of the respondents (70%) reported incineration as the medical waste disposal technique followed at the facility. This indicates that the hospital administration implements proper management of waste. The study results were in disagreement with Krithiga et al (2020), where results showed that the most disposal technique followed by the hospital/institution was taking wastes to Municipal landfills as reported by 42.2%.

The study also showed that most of the respondents (66%) reported that they had enough color-coded containers in their department, therefore, the researcher had to make clear observations about this, and surely most of the departments had enough color-coded containers. Findings were in line with Esayas et al, (2021), where results regarding the availability of color-coded containers, (60%) reported that they had enough color-coded containers.

9 Conclusion

From the study findings, the following conclusions were drawn by the researcher:

The study discovered that study participant exhibited good knowledge regarding medical waste management since all the study participants had ever heard about medical waste management, (60%) were aware of the medical waste management rules and regulations followed in Uganda, (70%) knew 48 hours as the maximum storage period for medical wastes, (90%) knew segregation, collection and storage transportation, treatment and disposal as the steps involved in the management of wastes, (50%) knew yellow color code for infectious and (70%) knew gloves as the personal protective equipment used during medical waste management.

The study also established that even though a substantial number of participants perceived color segregation to be time-consuming, the study participants possessed a fairly satisfactory attitude regarding medical waste management because (94%) of respondents agreed that it is necessary to follow wastes management rules and regulations all the time and (52%) were willing to report safety violation done by their fellow workmates regarding waste management.

Based on overall results from practices, the study revealed that even though most of the study participants sometimes follow color coding while disposing of medical wastes but generally fair practices of health workers regarding medical waste management were observed since (90%) were fully vaccinated for common pathogens, (70%) reported that they had ever received enough in-service training in regards to medical waste management, (56%) had pictorial pinned adverts regarding medical waste disposal in their department, (70%) reported incineration as the medical waste disposal technique

followed at the facility and (66%) reported that they had enough color-coded containers in their department.

Conclusively, the study discovered that satisfactory knowledge was associated with favorable attitudes of health workers regarding medical waste management but because participants sometimes followed color coding while disposing of medical waste fair practice was observed which prerequisites to be improved for better implementation of proper medical waste management in the hospital.

Recommendations

The ministry of health should set the development and implementation of new updated national policies and guidelines should be considered regarding medical waste management. With obliging continuous professional developments towards medical wastes management since not all the study participants were well conversant with management rules and regulations followed in Uganda.

In addition, Entebbe regional referral hospital administration should allocate the tasks and responsibilities to focal persons to properly monitor the medical waste management based on guidelines since the study discovered that some health workers were not following color coding while disposing of medical wastes.

Since the study area was a government-based health facility with a high population of patients, the researcher recommends the provision of enough color-coded bins and charts about the waste categories to influence the success of the medical waste segregation.

Also, the healthcare workers in Entebbe regional referral hospital must be sensitized on the management of medical waste with an emphasis on the consequences of inappropriate waste management practices by the hospital administration.

10 Acknowledgement

First and foremost, I thank the Almighty Allah for giving me life and support in all the tough situations I underwent through during my academic journey.

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11 List of Abbreviations and Acronyms

- BMW :Bio Medical Wastes
- COVID19:Corona Virus Discovered of 2019
- ERRH : Entebbe Regional Referral Hospital.
- HCFs : Health-Care Facilities
- HCWM: Health-Care Waste Management
- HCWs : Health-Care Wastes
- KAP : Knowledge, attitude and practices
- MoH :Ministry of Health
- MW: Medical Waste
- MWHs : Medical Waste Handler
- MWM :Medical Waste Management
- PPE:Personal Protective Equipments
- UAHEB: Uganda Allied Health Examination's Board
- WHO: World Health Organization

Definition of Key Terms

Attitude: Refers to what opinion or feeling of health workers towards medical waste management.

Biomedical wastes: Any solid waste that is generated in the diagnosis, treatment, or immunization of human beings.

Hazardous : These are wastes with properties that make it dangerous or capable of having a harmful effect on human health or the environment.

Health worker : A person who works in health-care or social care

Infectious wastes: This refers to any solid and or liquid waste including its container and any intermediate product which is generated during the diagnosis, treatment or immunization of human beings or animals or in research pertaining there to or in the production or testing thereof.

Knowledge: For this particular study, knowledge refers to the awareness of guidelines regarding medical waste management.

Medical waste : These are wastes generated by healthcare facilities like physician's offices, hospitals, dental practices and any other related practice.

Needle stick injury: A needle stick injury is an accidental stab wound from a needle (or others sharp object) that may result in exposure to or other body fluids.

Non-hazardous wastes: These are wastes with properties that make it dangerous or capable of having a harmful effect on human health or the environment.

Nosocomial infections: Are infections acquired during the process of process of receiving health care that was not present during the time of admission.

Practices: Refers to the application of knowledge and rules regarding medical waste disposal.

Pharmaceutical wastes: It includes expired or unused pharmaceutical products spilled or contaminated pharmaceutical products, surplus drugs, vaccines or sera and many others.

Waste disposal: Refers to the disposal of medical waste according to waste management policies and guidelines considering international and national standards.

Waste management: This means the activities that are involved in handling wastes which include waste collection, segregation, storage, treatment transport to final disposal site and final disposal.

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