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Research Article

NURSING MECHANISM IN DISPOSING OF MEDICAL WASTE IN HEALTH FACILITIES

¹Norah.A.Alzahrani, ²Jameela.E.Allheani, ³Eman.S.Albarkatee, ⁴Fawzia.A.Alharbi,
⁵Roqaiyah.M.Alnasheri, ⁶Bandar.M.Almuqati, ⁷Mona.T.Alnemari, ⁸Amal.H.Aallhyanei,
⁹Aisha.S.Shingary, ¹⁰Othman.S.Allhebi, ¹¹Manal.S.Alqourashy, ¹²Mahdi.A.Alyamani,
¹³Nora.A.Maghrabi.

¹Nursing Specialist at Al-Noor specialized Hospital

²Nursing technician at the primary healthcare center in Al-Rayyan

³Nursing technician at the primary healthcare center in Asfan

⁴Nursing technician at King Abdulaziz University Hospital

⁵Nursing technician at King Abdulaziz University Hospital

⁶Nursing technician at the primary healthcare center in Al-Mansour

⁷Nursing technician at the primary healthcare center in Al-Nawariya

⁸Nursing technician at the primary healthcare center in Al-Nawariya

⁹Nursing technician at the Occupational Health Clinic at King Abdulaziz Hospital

¹⁰Nursing technician at King Abdulaziz Hospital in the holy capital

¹¹Nursing technician at medical complex in Al-Shumaisi

¹²Nursing technician at the primary healthcare center in Kudi& Alhijrah

¹³Nursing technician at the primary healthcare center in Shariaa

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Abstract:

The aim of the study is the importance of having a written mechanism for the nursing staff to dispose of medical waste in health facilities (health centers or hospitals), the importance of having a secured and approved guide on medical waste by the Ministry of Health, the importance of having a trained nursing staff with high resistance to how to deal with illness and medical waste. In health facilities, the importance of having a place to store medical waste in a safe place, until it is disposed of by the Medical Waste Company (SEPCO). A questionnaire was created via the Google Drive website, and distributed to male and female health practitioners via the social networking site (WhatsApp), where responses to the questionnaire were obtained after a period of 5 months, where 850 questionnaires were distributed and 750 responses were received by those targeted. from research.

Keywords: Nursing mechanism, disposal of medical waste, health facilities

Corresponding author:

Norah.A.Alzahrani,

Nursing Specialist at Al-Noor specialized Hospital

QR code



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INTRODUCTION:

Medical waste is waste that is potentially infectious or biodegradable ⁽¹⁾. Medical waste may include waste generated from a medical facility or laboratory and waste generated from research centers and laboratories that contain biomolecules or organic organisms that are not permitted to be released into the environment. The United States Environmental Protection Agency ⁽²⁾ defined it as: “Any waste produced by medical treatment, including hospitals, medical laboratories, and experimentation centers or units animals and medical clinics. Healthcare waste is defined as: “All waste generated by all healthcare facilities, including hospitals, health centers, clinics, nursing stations, medical research centers, medical laboratories, blood banks, and other institutions that provide isolated or simple health services, such as home dialysis, and nursing homes for the elderly,” ⁽³⁾. The World Health Organization ⁽⁴⁾ defined it as: “All waste resulting from Healthcare facilities, research centers, and medical laboratories, and also includes waste generated from secondary and miscellaneous sources, such as waste resulting from health care at home such as dialysis in home, self-administration of insulin, and care centers for homeless people in need of physical care.” sharp tools are considered medical waste that must be disposed of, whether they are contaminated or not, due to the possibility of them being contaminated with blood and causing wounds when destroyed incorrectly and incorrectly. Medical waste is a type of biological waste. Medical waste may be solid or liquid. Examples of infectious medical waste include contaminated blood, sharps, unwanted microorganisms, discarded body parts, other human and animal tissues, used bandages and gloves, and other medical tools that may have been exposed to direct contact with... Blood or body fluids. Laboratory waste that exhibits one of the above-mentioned characteristics, and sharps waste, includes contaminated needles, scalpels, scalpels, whether used or unused that were discarded, and other tools capable of penetrating the skin. Medical waste is generated from medical and biological sources and activities, such as diagnosis, prevention, and treatment. The most common places for producing such waste are hospitals, health clinics, nursing homes, medical research laboratories, veterinary clinics, dental clinics, home health care, and funeral homes. In medical institutions, waste is called medical waste or clinical waste. Medical waste is distinguished from other ordinary waste or general waste, and it is also different from types of hazardous waste such as chemical waste, radioactive waste, or industrial waste. Medical institutions produce hazardous waste, both chemical and radioactive. While some of this waste is usually not infectious, it requires proper disposal.

Some waste is considered doubly hazardous, such as tissue samples preserved in formalin. Disposing of this waste is an environmental issue, as many medical wastes fall under the classification of hazardous or infectious, which may lead to many infectious diseases. The 1990 US Agency for Toxic Substances and Disease Registry report concluded that the general public is unlikely to be adversely affected by medical waste generated in traditional health care. It was found, however, that medical waste from this field may lead to injuries and exposure to risks for doctors, nurses, and all workers in healthcare institutions through contact with medical waste resulting from professional activity. Moreover, there is an opportunity for the general public to be exposed to the dangers of this waste, such as exposure to illicitly used needles outside healthcare institutions or in-home healthcare situations ⁽⁵⁾. The role of doctors, nurses, and technicians is the objective of medical waste management, as medical waste. Generated during the work of doctors and nursing teams, the International Committee of the Red Cross summarizes the most important tasks of doctors, nurses, and technicians as follows ⁽⁶⁾, and ⁽⁷⁾.

2-MATERIAL AND METHODS:

The study started in (the holy city of Mecca in Saudi Arabia), began writing the research and then recording the questionnaire in May 2022, and the study ended with data collection in October 2022. The researcher used the descriptive analytical approach that uses a quantitative or qualitative description of the social phenomenon (Nursing mechanism in disposing of medical waste in health facilities). This kind of study is characterized by analysis, reason, objectivity, and reality, as it is concerned with individuals and societies, as it studies the variables and their effects on the health of the individual, society, and consumer, the spread of diseases and their relationship to demographic variables such as age, gender, nationality, and marital status. Status, occupation ⁽⁸⁾, And use the Excel 2010 Office suite histogram to arrange the results using: Frequency tables Percentages ⁽⁹⁾. A questionnaire is a remarkable and helpful tool for collecting a huge amount of data, however, researchers were not able to personally interview participants on the online survey, due to social distancing regulations at the time to prevent infection between participants and researchers and vice versa (not coronavirus participation completely disappearing from society). He only answered the questionnaire electronically, because the questionnaire consisted of thirteen questions, all of which were closed. The online approach has also been used to

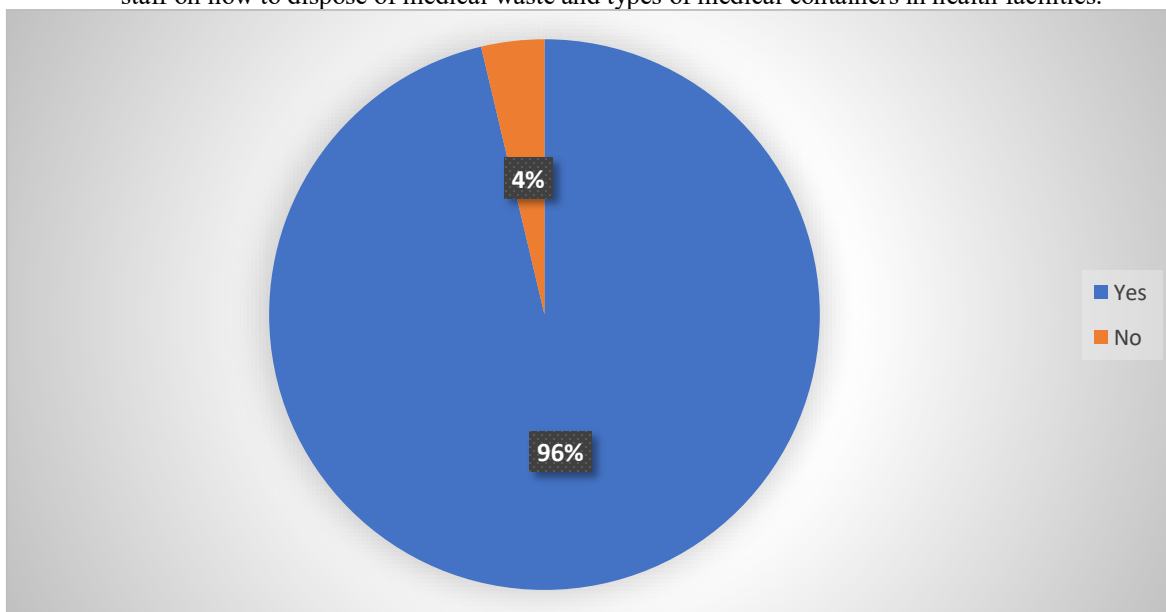
generate valid samples in similar studies in Saudi Arabia and elsewhere ⁽¹⁰⁾

3- RESULTS:

This questionnaire was distributed to the research participants via the social network WhatsApp, and they agreed to participate 100%, as the ages of the participants were as follows: from the ages of 25-34, their percentage was 27.8%, and the percentage of those aged from 35-44 years was 42.6%, the percentage of those aged 45-54 years was 20.4%, and the percentage of those aged 55-60 years was 9.3%. As for their gender, it was as follows: 74.1% males and 25.9% females. As for their professions, they were as follows: nursing 68.1%, laboratory 2.4%, radiology 0%, doctor 4%, health services administrator 14.9%, health informatics 10.6%. The educational status of these people was as follows: Intermediate certificate 2.5%, secondary school certificate 5%, diploma certificate 41.5%, university certificate 43.4%, master's certificate 5.1%, doctoral certificate 2.5%. When moving to the responses to the research questionnaire, they were as follows: the first question is: Do you know the meaning of medical waste? The answer was yes 94.4%, and no 5.6%. As for the second question, it was about: Do you know how to dispose of medical waste in health facilities? The percentage of those who said yes was 90.7%, and no was 9.3%. The third question: Do you, as a health practitioner, have knowledge of how to dispose of medical waste in

health facilities? The percentage of those who said yes was 87%, and the percentage of those who said no was 13%. As for the fourth question: Does the nursing staff have a known and specific mechanism for how to dispose of medical waste in health facilities? The percentage of those who answered yes was 92.6%, and those who said no was 7.4%. The fifth question: Has the nursing staff been trained on how to dispose of medical waste in health facilities? Yes, 84.9%, and no 15.1%. The sixth question: Has the nursing staff been trained on how to deal with medical waste in health facilities? Yes 86.8%, No 13.2%. As for the seventh question, it was about: Has the nursing staff been trained on the types of medical containers for medical waste and the difference between them in health facilities? Yes 96.3%, no 3.7%. The eighth question: Has the nursing staff been trained on how to deal with spilled materials from medical waste in health facilities? Yes 88.7%, and no 11.3%. The ninth question: What is the type of medical waste that is dealt with in health facilities? The answers were: needles, I don't know, sharps, medical waste and sharps, liquids, solids and sharps, sharp and blunt, sharps and infectious and non-infectious waste, yellow container or sharps container. As for the last question, it was: Is there a relationship between the disposal of medical waste and the application of quality standards in health facilities? The percentage of those who said yes was 94.2%, and the percentage of those who answered no was 5.8%. (figure No.1).

Figure No.1 : Opinions and trends of health practitioners and practices regarding the subject of training nursing staff on how to dispose of medical waste and types of medical containers in health facilities.



4-DISCUSSION:

We conclude from this study that, there is a very great interest in disposing of waste in a scientific way without causing harm to the environment or humans, as SEPCO is responsible for getting rid of it. The nursing staff has a clear, specific, written method approved by the Ministry of Health, and they have trained in it at a rate of 96.3%.

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