Level of and Factors Associated with Health Care Waste Management Practices Among Healthcare Workers in Gulu City

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Abstract

Background: Healthcare waste management (HCWM) is critical in minimizing risks of infectious diseases such as HIV/AIDS and Hepatitis B and C. Despite global guidelines, healthcare facilities in low- and middle-income countries face significant challenges, including inadequate infrastructure, poor training, and limited resources. In Uganda, particularly in Gulu City, improper waste disposal methods such as dumping, burning, and burying are prevalent, posing serious health and environmental risks.

Objective: This study evaluated the level of HCWM practices among healthcare workers in Gulu City, Northern Uganda, and socio-demographic, individual, and health system factors influencing these practices.

Methodology: A mixed-methods design was used, incorporating quantitative surveys with 364 healthcare workers and qualitative key informant interviews across 10 healthcare facilities. Data were analyzed using logistic regression for quantitative data and thematic analysis for qualitative data.

Results: Proper HCWM practices were observed among 81.9% of participants, with high compliance in waste segregation (89.3%), daily disposal (88.5%), and personal protective equipment (PPE) usage (86.3%). Key determinants of waste management practices included training (AOR=2.29, p=0.041), interdepartmental collaboration (AOR=2.69, p=0.004), availability of waste bins (AOR=0.29, p=0.003), and age (AOR=0.26, p=0.044). Qualitative findings emphasized the importance of role modeling, teamwork, and stakeholder partnerships.

Conclusion: Gulu City demonstrates strong adherence to HCWM practices, positioning it as a regional leader. However, systemic challenges such as insufficient infrastructure, limited training for younger staff, and resource shortages persist.

Recommendations: Continuous training programs, mentorship initiatives, improved waste management infrastructure, and fostering collaboration are essential to sustain and enhance HCWM practices. A multifaceted approach integrating training, resource allocation, and stakeholder engagement is critical to mitigating health and environmental risks due to inappropriate waste management practices.

Keywords: Level, Factors Associated, Health Care, Waste Management Practices, Healthcare Workers, Gulu City.