

Assessing the knowledge, attitude and practice on waste management among Mangosuthu University of Technology female students residing at Beverly Hills Residence.

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Abstract

Introduction: Waste management remains a critical concern in university settings, where both domestic and sanitary waste are generated in large quantities.

Study Objective: This study aimed to explore the knowledge, attitudes, and practices of waste management among female students residing at Mangosuthu University of Technology.

Methodology: A cross-sectional qualitative study was conducted with 66 randomly selected participants using structured questionnaires. Environmental checklists assessed hygiene conditions and waste infrastructure. Data were analyzed with Microsoft Excel, and Chi-squared tests evaluated associations between knowledge and practice, and attitude and practice.

Results: Of the 66 participants, 89.39 % were aware of waste-related health risks and proper disposal methods. However, consistent practice was lacking. Only 42.42 % recognized their ethical responsibility in waste management, with some viewing it solely as the duty of caretakers. Using the Chi-squared test, no significant association was found between knowledge and practice. Conversely, a significant link was observed between attitude and practice indicating that students with stronger beliefs in proper disposal were more likely to engage in correct waste management behaviors. Environmental assessments revealed poorer hygiene conditions during weekends compared to weekdays, with overfilled waste bins highlighting gaps in maintenance and oversight.

Conclusion: Despite possessing basic knowledge and positive attitudes toward waste management, students' practical application is inconsistent. Environmental assessments pointed to hygiene and resource gaps across floors.

Recommendations: The study recommends targeted educational initiatives, improved waste infrastructure, and policy development to enhance sustainable waste practices within university residences. These measures could support a cleaner, healthier living environment and promote long-term behavioral change.

Keywords: Waste management, knowledge, attitude, practice, tertiary institution, Mangosuthu University of Technology