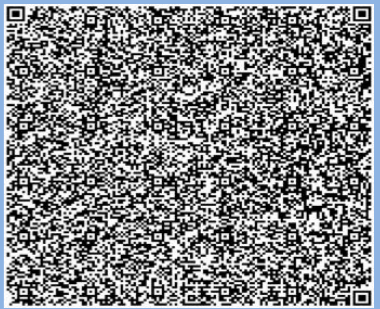


PROMOTING SUSTAINABILITY THROUGH DENTAL WASTE MANAGEMENT IN ZAMBIA.



AUTHOR

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INTRODUCTION

The Lancets Commission finds that pollution is the largest environmental cause of disease and death in the world today. One interesting yet overlooked source of pollution is dentistry. The environmental and health consequences of dental waste especially affect vulnerable populations, as these populations face stark environmental and health disparities. Improper disposal of dental waste leads to needle stick injuries or spread of infection for direct users and anyone finding the products after disposal. Globally, there exists very few waste management training courses in dental schools and Zambia is not an exception. Currently, the only two dental training institutions in Zambia do not have a dental waste management course in place. Indeed it is an opportune to incorporate environmental education from the start and set a precedent of sustainable dental practices.

OBJECTIVE

This project aimed at assessing the effectiveness of implementing a dental waste management training course for students at Dental Training School in Lusaka, Zambia with the ultimate aim of integrating the course into the official curriculum.

METHODOLOGY

A pre- and post-course waste audit was carried out to weigh the amount and type of waste that is produced at the clinical site on a typical working day before and after implementing the course. The course which is already developed, was delivered in form of 5 modules. A pre- and post-course survey was administered to assess the students' knowledge before and after delivering the course. Results were analyzed using SPSS Software.

RESULTS

There was an increase of 63% in the participants' knowledge of examples of infectious waste post participating in the course. There was also an increase of 37% in the knowledge of best management practices for plastic waste post participating in the course.

Age

	N	%
16-20	17	35.4%
21-25	31	64.6%

Gender

	N	%
MALE	12	25.0%
FEMAL E	36	75.0%

Occupation

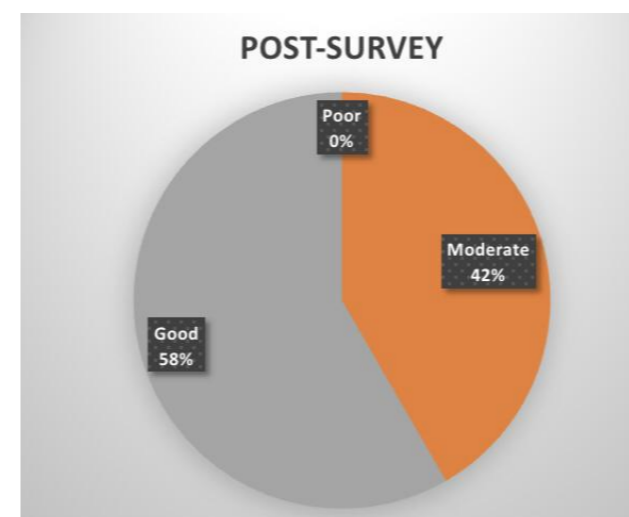
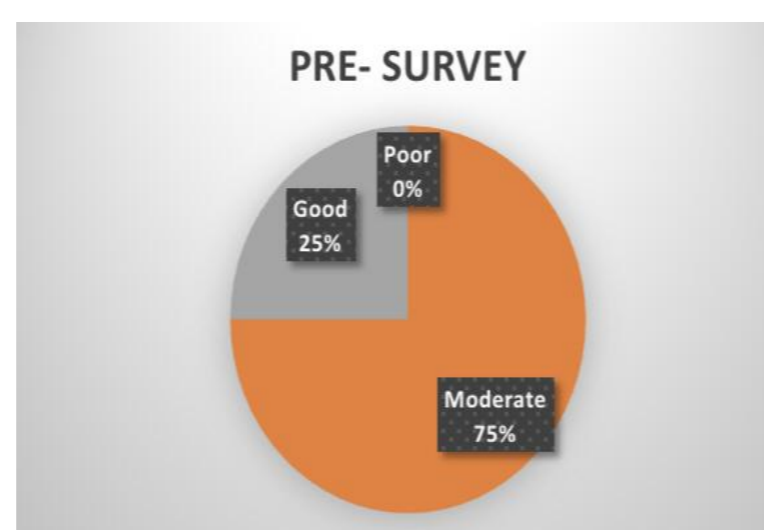
	N	%
DENTAL THERAPIST	8	16.7%
DENTAL STUDENT	40	83.3%



TYPE OF WASTE	PRE-WASTE AUDIT	POST-WASTE AUDIT
DOMESTIC	1.3kg	0.7kg
INFECTIOUS	1.7kg	0.9kg
HAZARDOUS	0kg	0kg
TOTAL:	3kg	1.6kg

ANALYSIS

The study shows an improvement in knowledge and a reduction in the amount of waste produced. Without such training, dental students are unequipped to reduce their negative health and environmental impacts once they enter the workforce.



CONCLUSION

Waste management has significant impact on public and environmental health today. Knowledge on dental waste management is essential in the dental profession in order to enable practitioners to minimize cross-infections, production of hazardous waste, and promote the use of more environmentally friendly alternatives.