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**UNIVERSITY**

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# COLLEGE OF POSTGRADUATE STUDIES

## 2022/2023 PhD Thesis Abstract

### Department of Public Health

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**RT:** Effect of Peer-Led Educational Intervention on Occupational- Risk Prevention Practices among Medical-Waste Handlers in Selected Tertiary Hospitals in South-West, Nigeria

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**AB:** Occupational risk of injuries and infections from handling hazardous medical wastes among healthcare professionals and allied workers remains a concern globally. Despite the introduction of occupational health services and infection control practices in the hospital system, studies have shown that medical-waste handlers have higher propensity for exposure to needle stick injuries which can extend to various diseases. Review of literature has shown that with good infection control practices the risks can be significantly minimized. These practices can be controlled through various interventions including peer-led educational interventions which have been shown to positively impact health behaviours. Peer-led educational intervention approach has not been documented in literature for occupational-risk reduction among medical-waste handlers in South-West, Nigeria. Therefore, this research examined the effect of peer-led educational intervention on occupational-risk prevention practices among medical-waste handlers in selected tertiary hospitals in South-West, Nigeria.

Quasi-experimental research design was employed. Two tertiary hospitals namely Olabisi Onabanjo University Teaching Hospital and Federal Medical Centre in Ogun and Lagos states respectively were utilized. The population was 405 medical-waste handlers. Sample size of 100 was determined using Cochran's formula. Participants from each hospital were grouped into

Experimental Group (EG: 50) and Control Group (CG: 50). Participants were recruited using systematic sampling technique selecting every 3<sup>rd</sup> person on the work register per ward. Six medical-waste handlers were trained for two hours within four days to serve as peer educators. The EG was engaged in peer-led occupational-risk education for two hours weekly for four weeks, while CG was engaged in retirement education once. A structured and validated questionnaire with Cronbach's alpha coefficients ranging from 0.69 to 0.85 was used to collect data at baseline and 12<sup>th</sup> week follow-up. The response rate for both groups was 100%. Data were analysed using descriptive (mean and standard deviation) and inferential statistics (t-test) at 5% level of significance. Cohen's Effect Size (ES) was computed to determine the magnitude of the intervention in EG.

Findings showed that the mean score at baseline of occupational-risk prevention practices for EG was  $16.92 \pm 4.49$  and for CG was  $14.38 \pm 4.45$ . There was a significant difference ( $t = -8.03, p < 0.05$ ) in mean scores for occupational-risk prevention practices between baseline ( $16.92 \pm 4.49$ ) and 12<sup>th</sup> week follow-up ( $20.82 \pm 4.49$ ) in EG. However, there was no significant difference ( $t = 1.48, p > 0.05$ ) in mean scores for occupational-risk prevention practices between baseline ( $14.38 \pm 4.45$ ) and 12<sup>th</sup> week follow-up ( $11.12 \pm 3.20$ ) in CG. Furthermore, the magnitude of change attributable to the intervention for EG showed a large ES (0.96) of occupational-risk prevention practices at 12<sup>th</sup> week follow-up 95% CI ( -1.27 to 0.65).

In conclusion, peer-led educational intervention was effective in promoting occupational-risk prevention practices among medical-waste handlers of tertiary hospitals in South-West Nigeria. It was recommended that tertiary hospitals in Nigeria should adopt routine peer-led educational interventions to improve occupational-risk prevention practices among medical-waste handlers.

**Keywords:** Medical waste handlers, Occupational-risk, Prevention practices, Peer-led education, South West Nigeria, Tertiary hospitals

**Word Count:** 480

*Abbreviations: RFN: Researcher's Full Name, RD: Researcher's Department, RS: Researcher's School, RE: Researcher's Email, RAE: Researcher's Alternate Email, RP: Researcher's Phone Contact, RT: Registered Title, MS: Main Supervisor, ME: Main Supervisor's E-mail Address, SP: Main Supervisor's Phone Contact, CS: Co-Supervisor, CE: Co-Supervisor's E-mail Address, CP: Co-Supervisor's Phone Contact, AB: Abstract*

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