

SUMMARY OF ABSTRACT

1. **Title of the research: Evaluation of Primary Intervention on Knowledge and Preventive Practices for Onchocerciasis and Related Visual Impairment Among Adults in Osun State.**
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6. **Degree: PhD Public Health (Epidemiology and Biostatistics)**
7. **Abstract:**

Abstract

Background: Onchocerciasis is a neglected tropical disease of public health importance due to its debilitating symptoms. It is the second leading cause of infectious blindness, worldwide. Human behavior towards a disease is influenced by the knowledge, attitude and perception, therefore, evaluating primary interventions on onchocerciasis would provide insights to long term strategies that can be adopted to lower the incidence of onchocerciasis. The main objective of this study was to evaluate primary preventive intervention on knowledge and preventive practices for onchocerciasis and the related visual impairment among adults in Osun State.

Materials and Methods: Ethical clearance was obtained from the Osun State Ministry of Health. The study was a community based quasi-experimental intervention study where mixed method of data collection (quantitative and qualitative method) were used. A total of 600 consenting respondents, aged 20years and above were included in the study.

Respondents were equally divided into endemic (intervention) and non-endemic (control) group based on the secondary data obtained from Osun State Ministry of Health. A multi-stage sampling technique was used to select the respondents for the quantitative data while the focus group discussion respondents were purposively selected. Prevalence was assessed with skin snip microscopic examination, polymerase chain reaction, nodular rate and ocular findings. Quantitative data was collected with pre tested; semi structured interviewer administered questionnaire while approved focus group discussion guide tool was used for the qualitative data collection. Community based context-specific health education sessions were administered in the intervention group and post intervention respondent level of knowledge, attitudes and preventive practices were reassessed in both groups. Statistical analysis was performed using thematic analysis of QDA Miner software for the qualitative data while Statistical Program for Social Science (SPSS) version 25.0 was used for quantitative data analysis. Chi-square was used to determine the statistical significance of observed differences between the intervention and control groups while T-test was used for continuous variables. A p-value of <0.05 were considered to be statistically significant.

Results: At the pre intervention stage, only 67 (22.3%) in non-endemic regions believed that it can be transmitted by black fly while 36 (12.0%) have same believe in endemic region, qualitative result reported participants linked transmission of onchocerciasis to contact with contaminated water. Poor knowledge was observed among the respondents between non-endemic and endemic groups (57% vs 80% respectively), Similarly, poor attitude and risky practices were found between non-endemic and endemic groups (62% vs 72% and 64% vs 78% respectively at the pre-intervention stage. There was statistically

significant difference in the knowledge, attitude and preventive practices, post primary intervention ($p < 0.05$). Molecular analysis showed higher prevalence and sensitivity (31.0% and 99.7% respectively) than microscopic (2.3% and 40% respectively). Corneal lesions occur more frequently in all the communities (52.7%).

Conclusion: Educational exposure led to statistically significant improvements across knowledge and favorable attitude. Given the high corneal involvement, there is need for regular ocular screening and early intervention programs. The high molecular prevalence and sensitivity shows a potential for community transmission chains to persist undetected with conventional microscopic diagnostic.

Keywords: Onchocerciasis, Education, Intervention, Knowledge, Preventive practices.