Impact of Tungiasis on acquisition of basic education among children aged 5-14 years in Murang'a County, Kenya

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Abstract

Background

Millions of school age children all over the world are out of school due to various reasons which range from disabilities caused by diseases, natural calamities, insecurity, and poor infrastructure to lack of basic amenities. Tungiasis is a neglected disease that is caused by female Tungiasis flea,Tungapenetrans that embeds on the hosts' epidermis. This Study was carried out to determine Tungiasis prevalence among school age children 5-14 years and to relate the disease status to acquisition of basic education.

Methodology

A cross-sectional descriptive research design in which 200 households were systematically randomly selected from which a maximum of two children aged 5-14 years were recruited adding to a total of 384 children. Questionnaires, interview guide, observation check list and physical examination guide were used to collect data. Data analysis was

carried out using SPSS version 21 software.Correlations and regression tests, Wald chi square test were carried out in addition to descriptive statistics.

Results

A total of 347 children aged between 5-14 years participated in the study from a sample of 384 children drawn from 200 households. Prevalence of Tungiasis at household level was at 37 %(74 households) while among children the prevalence was at 44 %(153), out of whom 63% (97) were male and 37% (56) were female. It was shown that children who were younger aged below 11 years were vulnerable to Tungiasisat p- value 0.048. Family size and Tungiasis status have a negative Pearson relationship -0.01. However the relationship is not statistically significant (p –value 0.979). Thisstudy found that, children suffering from Tungiasis were likely to repeat same class even more than one time (p-value 0.007).Tungiasis status was found to influence the ability of children to attend school at p value 0.001.

Conclusion

Tungiasis is prevalent among the children aged between 5-14 years in endemic areas. Chronic Tungiasis that had lasted for more than 1 year was common among children.SevereTungiasis caused morbidity among children, low rate of school attendance andcaused high dropoutrates. Acquisition of basic education can be improved by addressing and managing Tungiasiswhich would improve school attendance, retention and dropout rates.

Key words:disability,time,Tungiasis,child and basic education