

Prevalence of depression among people with podoconiosis in Cameroon

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Background

Podoconiosis is a form of lymphoedema characterised by swelling of the lower leg and feet. It is associated with long-term exposure to irritant red clay tropical soils that occur in places where ancient volcanic deposits have weathered at high altitude and where there is heavy rainfall [1, 2].

Other forms of lower leg lymphoedema include lymphatic filariasis (LF) and leprosy. Unlike podoconiosis, these are caused by parasites and bacteria respectively.

Recent nationwide mapping in Cameroon found overall prevalence of lymphoedema to be 0.8%, of which the majority - 62.5% - were podoconiosis cases [3]. This amounts to an estimated 41,556 podoconiosis cases in Cameroon [4].

In addition to the physical disability associated with podoconiosis and lymphoedema of other cause [5], the mental disorder and distress that often accompanies these conditions [6, 7] significantly adds to the burden imposed on affected individuals, their families and communities, doubling burden of disease measures [8]. Previous studies have reported depression rates to be 12.6% for podoconiosis in Ethiopia [6], and 20.0% for LF in Nigeria [9].

Objectives

To assess the prevalence of depression amongst people with podoconiosis and lymphoedema of other cause in Cameroon.

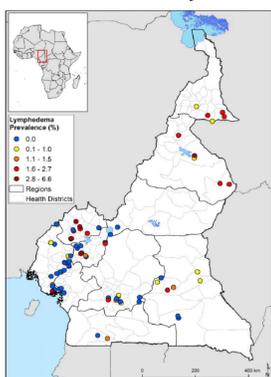
Methods

This research was part of a larger study to determine the prevalence and geographical distribution of podoconiosis in Cameroon [3]. A population-based cross-sectional survey was conducted to identify people with podoconiosis or lymphoedema of other cause, using a multi-stage cluster sampling design with stratification by risk of podoconiosis.

The larger study was conducted in 40 districts (70 villages) across all ten regions of Cameroon. 10,178 individuals from 4,603 households were assessed, of which those identified as having lymphoedema (n=83) were included in this study.

All 83 participants with lymphoedema were given physical examinations/tests and completed details about their clinical history in a questionnaire to reach a diagnosis. The questionnaire also included demographic and socio-economic information, as well as the Patient Health Questionnaire (PHQ-9) as a measure of depression. The PHQ-9 involves asking how often the person has been affected by a set of nine problems over the last two weeks.

To determine depression prevalence, the mean PHQ-9 score was calculated. PHQ-9 scores were categorised as follows: no depression (0-4), mild (5-9), moderate (10-14), moderately severe (15-19), and severe (20-27) depression. A stepwise linear regression model was employed to assess the association between socio-demographic factors and depression.



Results

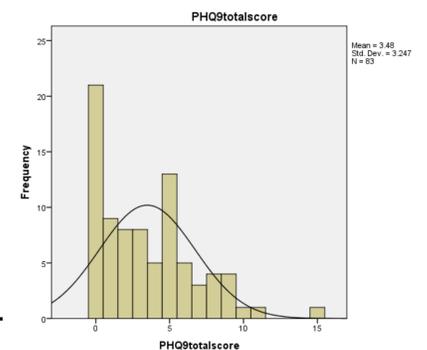
Of the 83 participants included in this study, 52 (62.7%) had podoconiosis, and 31 (37.3%) had lymphoedema of other cause.

In regards to depression prevalence, the mean PHQ-9 score amongst participants was 3.48 (SD=3.25), ranging between 0 and 15 (out of a possible score of 27). The figure below shows the frequencies of PHQ-9 scores.

32 people with lymphoedema (38.6%) were classified as having at least mild depression, with 29 (34.9%) having mild, 2 (2.4%) moderate, and 1 (1.2%) moderately severe depression. Amongst people who scored above the cut-off score of 5, the mean PHQ-9 score was 6.88 (SD=2.31).

There were no significant differences in levels of depression between people with podoconiosis (mean=3.38, SD=3.5) and those with lymphoedema of other cause (mean=3.65, SD=2.82) ($p=0.73$).

The only significant predictor in the regression model was employment ($B=-1.86$, $p<0.05$; $R^2=0.07$).



Conclusions

Depression prevalence rates were high amongst people with podoconiosis and lymphoedema of other cause in Cameroon. This research provides support for the integration of psychosocial interventions into packages of care for the management of lymphoedema.

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