

Housing Insecurity and Mental Health Outcomes: Evidence from a Cross-Sectional Study in Kenya's Informal Settlements



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Introduction

- ❖ Sub-Saharan Africa is estimated to make up 10% of the global burden of mental disorders.
- ❖ Over one billion people live in informal settlements in Sub-Saharan Africa, including Kenya, where over 27% of the population lives in urban areas.
- ❖ Within informal settlements in this region, housing insecurity, characterized by inadequate amenities, overcrowding and poor infrastructure, has deleterious health consequences for residents.
- ❖ Therefore, our study aims to assess
 - The relationship between Housing Insecurity and depressive symptomatology
 - The relationship between Housing insecurity and generalized anxiety disorder

Methods

Study Setting:

- ❖ Data were collected from three informal settlements in the Kisumu region of the Nyanza Province in Kenya (N=1010)

Outcome Variables:

- ❖ Depression: measured using the WHO-5 Well-being Index.
 - Score > 12 = clinical depression
- ❖ Anxiety: measured using the Generalized Anxiety Disorder-7 Scale
 - Score > 14 = severe anxiety

Independent Variable:

- ❖ Housing Insecurity
 - Latent construct of 17 items to create a scale with a range of 0-17 and a coefficient alpha of 0.82

Control Variables:

- ❖ Demographic Factors
 - Number of children under five, district of residence, religion
- ❖ Housing Characteristics
 - Housing type, building materials, housing satisfaction

Data Analysis:

- ❖ Descriptive: we determined the sample distribution for all outcome and control variables.
- ❖ Bivariate:
 - Used complementary log-log link regression to assess the relationship between predictor variables and depression and anxiety symptomatology.
- ❖ Multivariate:
 - Used generalized linear models with a complementary log-log link function to assess the independent effect of housing insecurity on depression and anxiety symptomatology while concurrently controlling for the effect of other predictors.
 - Significant covariates ($p < 0.05$) of depression and anxiety symptomatology in the bivariate analysis were included in the multivariable logistic regression.

Results



Figure 1: Number of people experiencing housing insecurity in the Manyatta, Nyalenda and Obunga informal settlements in the Kisumu region of the Nyanza Province in Kenya. Over 50% of the population in each settlement experiences housing insecurity.

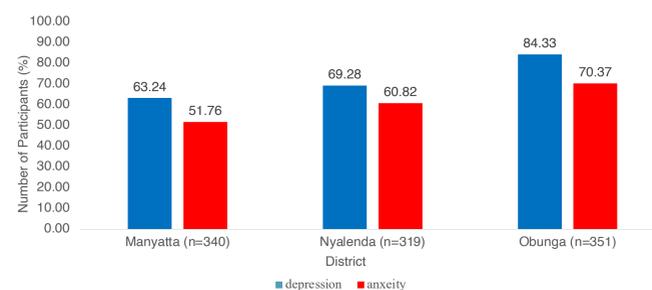


Figure 2: Proportion of participants experiencing depression and anxiety in three informal settlements in the Kisumu region of the Nyanza Province in Kenya. Over 50% of the population in each informal settlement experiences symptomatology of depression and anxiety (n=1010).



Figure 3: Variables significantly associated with depressive symptomatology at the bivariate level ($p < 0.05$). Determined from generalized linear regression.



Figure 4: Variables significantly associated with anxiety symptomatology at the bivariate level ($p < 0.05$). Determined from generalized linear regression.

Results

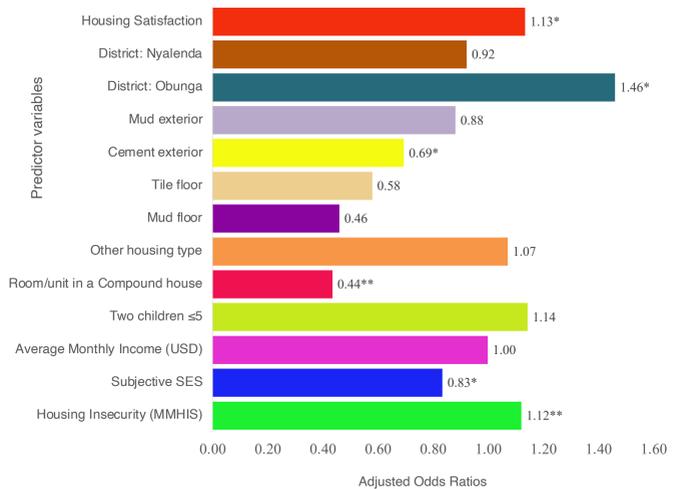


Figure 5: Clustered bar chart showing explanatory variables significantly associated with the relationship between housing insecurity and depression symptomatology at the multivariate level.

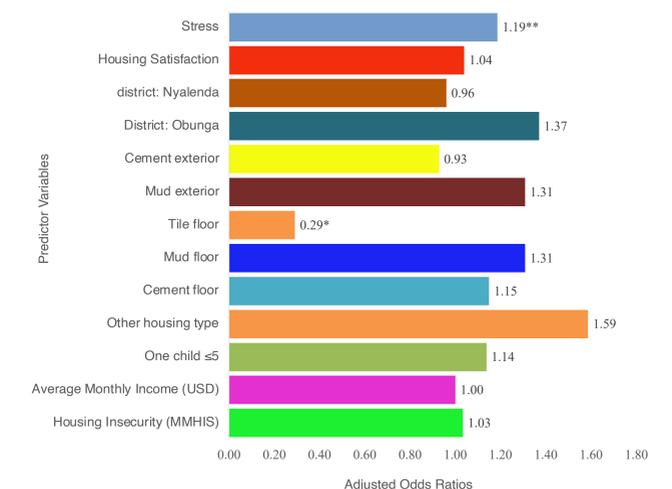


Figure 6: Clustered bar chart showing explanatory variables significantly associated with the relationship between housing insecurity and anxiety symptomatology at the multivariate level.

Conclusions

- ❖ Housing insecurity has deleterious mental health consequences, particularly leading to an increase in depressive and anxiety symptomatology in Kenyan Informal Settlements
- ❖ Higher socioeconomic status (SES) was associated with lower depressive symptomatology but a higher likelihood of anxiety symptomatology.
- ❖ Living in specific areas, like Obunga, was associated with higher depression and anxiety symptomatology.
- ❖ Compound housing decreased the likelihood of depression but increased the likelihood of anxiety symptomatology. With cement housing exteriors linked to lower depression symptomatology and metal sheets to increased anxiety symptomatology.
- ❖ Thus, context-specific programming related to improving mental health outcomes and housing insecurity should be developed, with particular emphasis on building material, district of residence and socioeconomic status.

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