



The untold plight of mental health and substance use in African Emergency Department populations: a cross-sectional study at East Africa's largest public hospital.

Authors: F. Ogudebe¹, T. Iheanacho², T. Slade³, F. Chumo⁴, M. Wambua⁵, C. Ngaruiya⁶.

1 Yale University, School of Nursing, New Haven/US, 2 Yale University School of Medicine, New Haven/US, 3 University of Pennsylvania, Philadelphia/US, 4 Yale University, New Haven/US, 5 Kenyatta National Hospital, Accident & Emergency Department, Nairobi/KE, 6 Yale School of Medicine, Department of Emergency Medicine, New Haven/US



Background

According to the 2017 Global Burden of Disease study, in Kenya, NCDs are among the leading causes of death, and depressive disorders rank 4th for morbidity.

This is the first study assessing burden of NCDs and depression in the ED setting in this region.

Study Objectives

- To assess burden of NCDs including hypertension, diabetes and mental health (depression) in Kenyan Casualty Department patients.
- To assess lifestyle risk factors contributing to NCDs in Kenyan Casualty Department patients.
- To provide knowledge to inform development of hospital protocols/ clinical policies, educational interventions for practitioners on management of depression, substance use and NCDs in the emergency setting.

Methods

- Cross-sectional pilot study, at the Kenyatta National Hospital ED, the largest public hospital in Kenya and in East Africa.
- Target sample size was 10% of the estimated total number of presentations.
- Inclusion criteria: 18-69 years old willing and able to provide consent
- Exclusion criteria: Unable or unwilling to provide consent (including due to illness or mental health crisis).
- The WHO Stepwise approach to Surveillance (STEPS) and Patient Health Questionnaire (PHQ-9) tools were used.

Results

Sample Size	734 (79.5%)
PHQ- 9	
Moderately - severe depression	298 (40.6 %)
Severe Depression	74 (10.1 %)
Tobacco	
Ever used tobacco?	272 (37.3 %)
Current tobacco use? (At least once every week)	123 (16.8 %)
Alcohol	
Ever consumed alcohol?	451 (61.5 %)
Current alcohol use?	425 (58.0 %)

Description	Odds Ratio, 95% CI
Older age associated with a PHQ-9 score of severe.	OR 1.0, (95% CI 1.0-1.1).
Having less than primary education associated with depression (as compared to secondary education or above).	OR 2.4, (95% CI 1.1-5.6).
Suicidal ideation associated with being divorced/widowed,/ or separated (as compared to singles).	OR 2.8, (95% CI 1.2-6.6).
PHQ-9 score of severe associated with having used tobacco.	OR 1.85, (95% CI 1.0-3.3)
Having suicidal ideation “nearly everyday” associated with ever using tobacco (as compared to no suicidal ideation).	OR 3.7, (95% CI 1.3-11.0),
PHQ-9 score of severe associated with daily drinkers.	OR 9.0 (95% CI 2.3-35.3)

Conclusions

- A high burden of NCDs exists among patients in the Casualty Department, including leading cancer risk factors tobacco and alcohol
- A high burden of depression in the ED population, and one that is comparable to or supersedes that of the general population.
- Treatment targeting NCD risk factors, depression and substance use in Casualty Department patients is minimal

Future Directions

- Development of educational interventions on mental health and substance use targeting A&E patients.
- Development of clinical protocols/ guidelines targeting NCDs and NCD risk factors in Kenyan A&E patients (patient, staff)
- Efforts to reduce the burden of substance use and depression among those with NCD's should include care plans that implement screening and treatment for both.

References

- Alwan A, MacLean DR, Riley LM, d'Espaignet ET, Mathers CD, Stevens GA, et al. Monitoring and surveillance of chronic non-communicable diseases: progress and capacity in high-burden countries. *The Lancet* 2010; 376(9755):1861-1868.
- Matheka DM, Nderitu J, Vedanthan R, Demaio AR, Murgor M, Kajana K, et al. Young professionals for health development: the Kenyan experience in combating non-communicable diseases. *Global Health Action* [Internet]. 2013;6:10.3402/gha.v6i0.22461. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3837302/>
- Moeti M. Noncommunicable diseases: an overview of Africa's new silent killers. *WHO African Health Monitor* 2008; 8:2-5.
- WHO | Global status report on noncommunicable diseases 2010 [Internet]. [cited 2014 Nov 20]. Available from: http://www.who.int/nmh/publications/ncd_report2010/en/

Acknowledgements

Yale Hecht-Albert Global Health Pilot Innovation Award for Junior Faculty