

Mapping Patterns of Relationships among Organizations Providing Intimate Partner Violence Services in a Kenyan Informal Settlement: Social Network Analysis

Armine Kalbakian, Columbia University, Mailman School of Public Health, Class of 2024;
Mentors: Christine Musyimi, PhD, Africa Mental Health Research and Training Foundation;
Kathleen Pike, PhD, Columbia University Columbia-WHO Center for Global Mental Health

Research Question: What are the different inter-organizational relationships among various organizations offering IPV services in Kibera, Kenya?

BACKGROUND

Intimate partner violence is a global human rights issue with far-reaching impacts on public health. In Kenya, IPV prevalence ranges between 45% to 68% (Mugoya et al., 2015). Informal settlements, such as Nairobi's Kibera Slum, have higher prevalence than the rest of the country (Ringwald et al., 2022). Though multi-sectoral responses are promising means of addressing IPV (Swart, 2012; Winter et al., 2020), there is limited research on existing collaborations among organizations offering IPV services in Kibera. Mapping these relationships could strengthen organizations' capacity to empower women and reduce stigma, thereby leading to greater reporting, overriding past underestimates of IPV prevalence and low policy prioritization.

DESCRIPTION OF ORGANIZATION

Africa Mental Health Research and Training Foundation (AMHRF) is a non-governmental organization based in Nairobi, Kenya. In partnership with the Columbia-WHO Center for Global Mental Health, this institution has led research on mental health and related issues in Kenya and the East Africa region at large. Through this work, AMHRF aims to create evidence-based approaches to influencing policy and programs responding to community mental health and substance use problems.

FIGURES

Figure 1: Sociogram for Full Integration Network

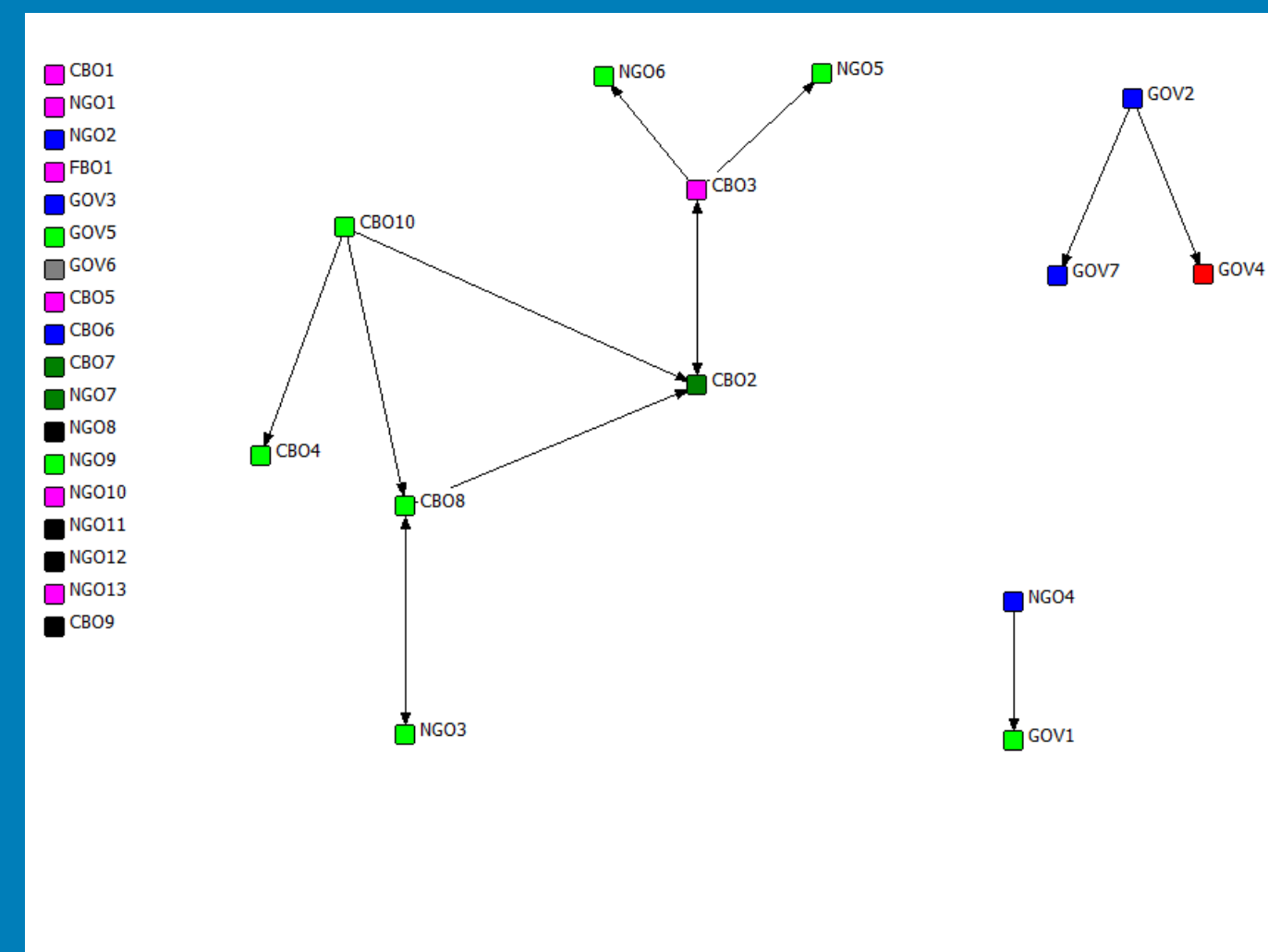
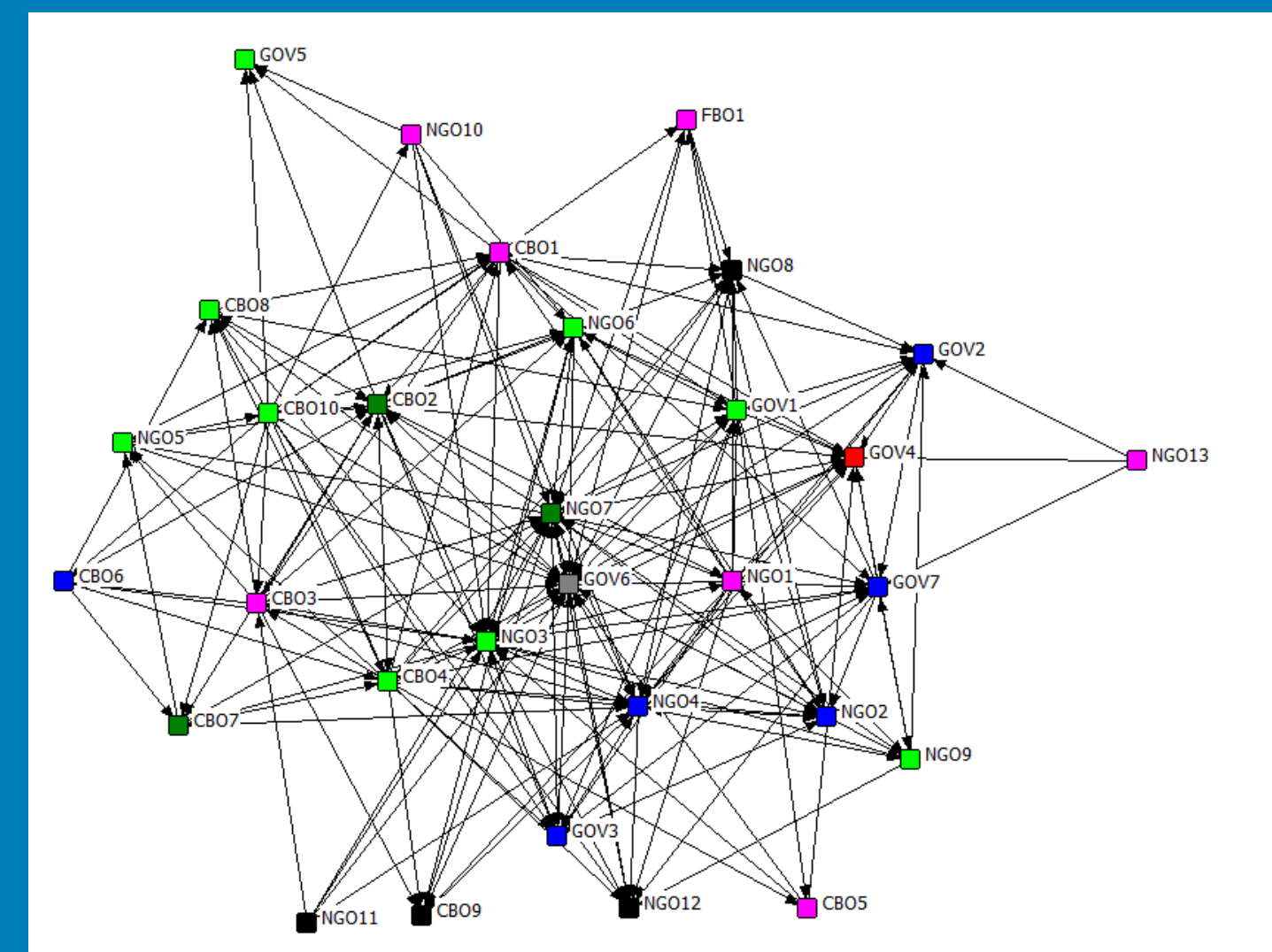


Figure 2: Sociogram for Communication Network



METHODS

UCINET version 6.769 was used to run a social network analysis of the inter-organizational section of the questionnaire data. This software was used to generate adjacency matrices for each type of organizational relationship or social tie inquired about in the questionnaire. Six distinct matrices were created: full integration, partnership, collaboration, coordination, cooperation, and communication. The NetDraw feature was used to create sociograms mapping out each network. UCINET was used to generate the following whole network and organization-specific centralization measures for each network: number of ties, average degree, network density, degree centralization, out-degree centrality, in-degree centrality, and betweenness. SPSS Statistics software was used to generate descriptive statistics and frequencies of various organizational attributes, as well as ANOVA and logistic regression analyses.

The Communication network, followed by the Cooperation network, had the highest number of ties, average degree, and network density scores. The Cooperation network had the highest degree centralization, followed by the Communication network. The Partnership network had the lowest number of ties, average degree, and network density.

DISCUSSION

The Full Integration, Partnership, Collaboration, and Coordination networks' lower centrality measures indicate that they would benefit from efforts to strengthen these relationships among the various organizations. Creating more integrated IPV services may help cover gaps in coverage for individuals living in hard-to-reach areas, such as urban informal settlements in urban areas, where there is limited access to resources and fragmented care (Nguyen et al., 2016). Though lower degree centrality scores may be indicative of equally influential and homogenous roles between organizations in the examined networks, the density measures make it apparent that most networks had limited ties to one another. Failing to implement coordinated care targeted to IPV drives up costs and misses the opportunity to efficiently address overlapping issues such as substance abuse, child abuse, and recurring IPV within the same families (García-Moreno et al., 2015). Thus, it is of the utmost importance to implement coordinated IPV care to foster greater community and stakeholder buy-in, shared organizational accountability, and a socio-ecological approach to ameliorating IPV and promoting public health in Kibera and globally (Greene et al., 2021).

REFERENCES

Borgatti, S.P., Everett, M.G., & Freeman, L.C. (2003). *Ucinet for Windows: Software for SocialNetwork Analysis*. Harvard, MA: Analytic Technologies.
García-Moreno, C., Hagerty, K., d'Oliveira, A. F. L., Kooze-McLain, J., Colombini, M., & Feder, G. (2016). The health system's responses to violence against women. *The Lancet*, 389(9977), 1567-1579.
Greene, M. C., Barco, C., Rhee, S., Ventevogel, P., Lindfors, S., Nantso, A., Borz, A., Mwaribo, J. K. K., Tol, W. A., & McGovern, T. M. (2021). Multilevel Determinants of Integrated Service Delivery for Intimate Partner Violence and Mental Health in Humanitarian Settings. *IJERPH*, 18(23), 12484.
Mugoya, G. C., T. W. W. T. H., & Eneli, K. G. (2015). Sociocultural and Victimization Factors That Impact Attitudes Toward Intimate Partner Violence Among Kenyan Women. *Journal of Interpersonal Violence*, 30(19), 2051-2071.
Nguyen, Q. U. P., Piyin, N., Kiba, M., Muthoni, E. M., Mutunga, D. M., Rajab, J., & Miller, E. (2016). The Health Care Sector Response to Intimate Partner Violence in Kenya: Exploring Health Care Providers' Perceptions of Care for Victims. *Violence and Victims*, 31(5), 888-900.
Ringwald, B., Kabibu, M., Ochung, G. B., Thangmeyer, M., Zúñiga, G., Phillips-Howard, P. A., & Digolo, L. (2022). Experiences and Perpetration of Recent Intimate Partner Violence Among Women and Men Living in an Informal Settlement in Nairobi, Kenya: A Secondary Data Analysis. *Journal of Interpersonal Violence*, 37(1-2), NP423-NP448.
Swart, E. (2012). Gender-Based Violence in a Kenyan Slum: Creating Local, Woman-Centered Interventions. *Journal of Social Service Research*, 38(4), 427-438.
Winter, S. C., O'Leary, L. M., & McKeehan, S. (2020). Intimate partner violence: A key correlate of women's physical and mental health in informal settlements in Nairobi, Kenya. *PLoS ONE*, 15(4), e0233894.