


Promoting HIV-Related Behavioral and Social Science Research Training in Africa: A Case of Uganda

Raymond Felix Odokonyero ¹, Khamisi Musanje^{2,3}, Ruth Mpirirwe², Charles Patrick Namisi^{4,5}

¹Department of Psychiatry, School of Medicine, College of Health Sciences, Makerere University, Kampala, Uganda; ²Clinical Epidemiology Unit, School of Medicine, College of Health Sciences, Makerere University, Kampala, Uganda; ³Department of Educational, Social and Organizational Psychology, School of Psychology, College of Humanities and Social Sciences, Makerere University, Kampala, Uganda; ⁴Department of Epidemiology and Biostatistics, School of Public Health, College of Health Sciences, Makerere University, Kampala, Uganda; ⁵Dean's Office, School of Medicine, Uganda Martyrs' University, Mother Kevin Postgraduate School, Kampala, Uganda

Correspondence: Raymond Felix Odokonyero, Makerere University, College of Health Sciences, Makerere University, Kampala, Uganda, Email rodokonyero@gmail.com



Abstract: HIV/AIDS is a major contributor to morbidity and mortality in Sub-Saharan Africa (SSA). Several gaps in HIV/AIDS care persist despite advancements in bio-medical care approaches. Socio-behavioral approaches have been identified to have the capacity to plug these gaps. This calls for HIV-related behavioral and social science research (BSSR) capacity building. Adopting BSSR in HIV may provide insights into the HIV care continuum that is contextual and cost-effective and reveal the missing layer in the fight against HIV on the African continent. The Makerere University Behavioral and Social Sciences Research (Mak-BSSR) program has responded to the call to strengthen capacity in BSSR. This commentary is a call to promote, support, and sustain the collaborations needed to integrate behavioral and social science research into HIV in SSA.

Keywords: behavior, social science, research, training, HIV/AIDS, Uganda

HIV/AIDS remains a major contributor to morbidity and mortality in Sub-Saharan Africa (SSA).¹ Despite global advances such as “test and treat”, uptake of services is still sub-optimal in SSA with perceived low risk and stigma reported among the factors that require urgent research focus.² Consequently, millions of deaths and new infections persist annually, with recent trends showing variations in gender and age.³ Moreover, countries in SSA such as Uganda, still grapple with gaps in HIV/AIDS care such as; one-third of newly identified HIV-positive adults having the advanced disease - two-thirds of whom are women, men, and adolescents lagging behind women in terms of viral suppression,³⁻⁶ and a general stagnation in the gains from bio-medical approaches, despite government’s efforts in ensuring availability of antiretroviral treatments (ART).⁷ Recent studies suggest that these prevailing gaps may not be addressed using bio-medical approaches but rather using socio-behavioral approaches.^{4,6}

Situating HIV/AIDS as a behavioral and social disease is important in the comprehensive management of the entire care continuum.⁸ Therefore, promoting BSSR in HIV care is imperative in SSA where strong cultural systems, varying social constructions of HIV, and human resource shortages abound.⁸ Studies from the developed world have argued for integrating evidence-supported social behavioral approaches into bio-medical research to provide better HIV care outcomes.^{4,6} However, such integration has been slow and less deliberate in SSA. Moreover, where such attempts have been made, they have run parallel to the HIV programs.^{9,10}

Adopting BSSR in HIV may provide insights into the HIV care continuum that is contextual and cost-effective and reveal the missing layer in the fight against HIV on the African continent.¹¹ Understanding community practices and translating them into public health interventions should be an integral strategy to address the regional inequities in HIV



service delivery in SSA.¹² However, achieving the integration of BSSR into HIV care in SSA requires investment in research and human capital. Yet, in countries such as Uganda, the promotion and integration of BSSR has been limited by factors such as, low funding, low prioritization, low community engagement, and limited expertise in BSSR. To improve the integration of BSSR into the fight against HIV, funding organizations and researchers ought to prioritize capacity building in BSSR and intensify collaborations between high-income countries (HICs) and sub-Saharan Africa (SSA).¹³

In Uganda, capacity-building efforts by HIV organizations such as the Infectious Diseases Institute (IDI) and Makerere University Joint Aids Program (MJAP), have trained clinicians and researchers from several health institutions in the country¹⁴ but most of these trainings have insufficiently integrated behavioral and social sciences within the HIV continuum of care. This could be partly due to limited behavioral and social science-oriented perspective, as well as the non-learner-centered nature of such training. Therefore, a deliberate approach in which training programs target young researchers in SSA to specifically build their competence in BSSR might be an effective HIV prevention and care strategy.

Recently, a collaboration between Makerere University College of Health Sciences and the University of California, San Francisco in the USA started the Makerere University Behavioral and Social Sciences Research (Mak-BSSR) program that seeks to strengthen capacity in BSSR. The Mak-BSSR program is a five-year program funded by the National Institutes of Health (NIH), National Institutes of Health on Alcohol Abuse and Alcoholism (NIAAA), National Institute of Mental Health (NIMH) and Fogarty International Center (FIC). It is hosted by the school of medicine of Makerere University College of Health Sciences in Kampala, Uganda. The program aims to strengthen scientific leadership and expertise in HIV research, foster cross-disciplinary collaborations, and promote the integration of BSSR in ongoing and new HIV research projects. Ultimately, the program seeks to strengthen BSSR-informed and evidence-based decision-making in HIV care, by training and mentoring early-career researchers in BSSR in the context of HIV in Uganda. The program offers three fellowship tracks. The first track is a three-year Ph.D. in Health Sciences track that was recruited in two cohorts. The second track is the two-year Master's degree fellowship in a wide range of fields such as; Health Services Research, Public Health, Sociology/ Anthropology, Gender Studies, Clinical Psychology, Counselling, Clinical Epidemiology and Biostatistics, Organizational Psychology, and other Biomedical /Health related field. The last track is the one to two-year non-degree fellowship track.

The Mak-BSSR program is unique because during the three years of the Ph.D. training track, for example, fellows together with their supervision team comprising of a combination of BSSR experts and biomedical scientists, actively participate in selecting from among the most priority topics of research in HIV/AIDS including research that seeks to reduce the incidence of HIV/AIDS, develop new HIV therapies with better safety and ease of use, HIV-associated comorbidities, co-infections and complications, and cross-cutting topics including basic research, health disparities, and training. In so doing, BSSR answers critical questions about HIV/AIDS in Uganda. For example, why men and adolescents are not suppressing HIV compared to women, why advanced HIV persists in the era of "test and treat", how effective intensified adherence counseling is, why HIV/AIDS in Uganda and Africa persists yet we have the tools to end it, and how Covid-19 has influenced patient care, among others. To answer some of these critical questions, the first Ph.D. cohort (four candidates) of the Mak-BSSR program is examining issues related to stigma and HIV care continuum (CPN), alcohol use and young people living with HIV (RFO), adaptation of new psychosocial therapies to improve ART adherence (KM), and an exploration of pre-exposure prophylaxis (PrEP) delivery models among key populations (RM). Additionally, this cohort aims to establish a sustainable Community of Practice for behavioral and social science research in Uganda beyond the Mak-BSSR program. Some early successes of the program include; monthly journal clubs, quarterly works-in-progress sessions, twenty research projects spread all around the country (seven of which are completed), and four annual BSSR courses running for the third year consecutively. The program also boosts both local and international inter-University collaborations which provide a large pool of BSSR faculty to mentor and supervise the fellows. Through continued mentorship from both Makerere University and the University of San Francisco, regular skills training, and collaborations on research projects between the various University departments of the fellows, this group is poised to enhance capacity for BSSR in HIV in Africa. Through continued mentorship and collaborations, BSSR training is poised to enhance capacity for BSSR in HIV in Africa. This comment paper is a call to

action to promote, support, and sustain collaborations needed to integrate behavioral and social science research into HIV in SSA, as the region searches for answers to several challenging HIV/AIDS questions that persist.

Acknowledgments

We acknowledge the Makerere Behavioral and Social Science Research (Mak-BSSR) programme which is funded by the National Institutes for Health (NIH), National Institutes of Health on Alcohol Abuse and Alcoholism (NIAAA), National Institute of Mental Health (NIMH), and Fogarty International Center (FIC), Grant number: D43TW011304 (Kamya, Camlin, and Katahoire). We also thank the following mentors: Moses Kamya, Anne Katahoire, Fred Semitala, Joan Nangendo, Moses Sempala, and Rhoda Namubiru at Makerere University; as well as, Judith Hahn and Carol Camlin at the University of California, San Francisco.

Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis, and interpretation, or in all these areas; took part in drafting, revising, or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

Funding

No funding was received for this work.

Disclosure

The authors declare that they have no competing interests in this work.

References

1. Sartorius B, VanderHeide JD, Yang M, et al. Subnational mapping of HIV incidence and mortality among individuals aged 15–49 years in sub-Saharan Africa, 2000–2018: a modelling study. *Lancet HIV*. 2021;8(6):e363–e375. doi:10.1016/S2352-3018(21)00051-5
2. Musheke M, Ntalasha H, Gari S, et al. A systematic review of qualitative findings on factors enabling and deterring uptake of HIV testing in Sub-Saharan Africa. *BMC Public Health*. 2013;13(1):1–6.
3. Bekker LG, Beyrer C. Africa, and AIDS: still much work to be done. *Lancet HIV*. 2021;8(6):e315–e316.
4. Gaist P, Stirratt MJ. The roles of behavioral and social science research in the fight against HIV/AIDS: a functional framework. *JAIDS*. 2017;75(4):371–381.
5. Petersen M, Balzer L, Kwarsiima D, et al. Association of implementation of a universal testing and treatment intervention with HIV diagnosis, receipt of antiretroviral therapy, and viral suppression in East Africa. *JAMA*. 2017;317(21):2196–2206.
6. Goodenow MM, Gaist P. Importance of HIV/AIDS-related behavioral and social sciences research at the NIH and beyond. *J Acquir Immune Defic Syndr*. 2019;82(2):S84.
7. Parkhurst JO. Evidence, politics and Uganda's HIV success: moving forward with ABC and HIV prevention. *J Int Dev*. 2011;23(2):240–252.
8. Dean HD, Fenton KA. *Addressing Social Determinants of Health in the Prevention and Control of HIV/AIDS, Viral Hepatitis, Sexually Transmitted Infections, and Tuberculosis*. Los Angeles, CA: Sage Publications Sage CA; 2010.
9. Coates TJ, Kulich M, Celentano DD, et al. Effect of community-based voluntary counseling and testing on HIV incidence and social and behavioral outcomes (NIMH Project Accept; HPTN 043): a cluster-randomised trial. *Lancet Global Health*. 2014;2(5):e267–e277.
10. Kurth AE, Spielberg F, Cleland CM, et al. Computerized counseling reduces HIV-1 viral load and sexual transmission risk: findings from a randomized controlled trial. *J Acquir Immune Defic Syndr*. 2014;65(5):611.
11. Kyaddondo D, Wanyenze RK, Kinsman J, Hardon A. Disclosure of HIV status between parents and children in Uganda in the context of greater access to treatment. *J Soc Aspect HIV/AIDS*. 2013;10:S37–S45.
12. Koss CA, Charlebois ED, Ayieko J, et al. Uptake, engagement, and adherence to pre-exposure prophylaxis offered after population HIV testing in rural Kenya and Uganda: 72-week interim analysis of observational data from the SEARCH study. *Lancet HIV*. 2020;7(4):e249–e261.
13. Mudra Rakshasa-Loots A. Equity in HIV mental health research: a call to action. *Mol Psychiatry*. 2022;2:1–5.
14. Keuroghlian AS, Mujugira A, Mayer KH. Healthcare worker training to improve quality of care for sexual and gender minority people in sub-Saharan Africa: learning from efforts in Uganda. *J Int AIDS Soc*. 2021;24:e25728.

Advances in Medical Education and Practice

Dovepress

Publish your work in this journal

Advances in Medical Education and Practice is an international, peer-reviewed, open access journal that aims to present and publish research on Medical Education covering medical, dental, nursing and allied health care professional education. The journal covers undergraduate education, postgraduate training and continuing medical education including emerging trends and innovative models linking education, research, and health care services. The manuscript management system is completely online and includes a very quick and fair peer-review system. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <http://www.dovepress.com/advances-in-medical-education-and-practice-journal>