



Efficacy of a Bundled Psychosocial Intervention on HIV Linkage and Retention in Care for Street Children and Youth in Uganda: A Prospective Cohort Study

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Abstract

Street children and youth (SCY) experience disproportionately high HIV prevalence and face substantial barriers to initiating and remaining in care, often due to mental health challenges and unstable living conditions. This prospective cohort study evaluated the effectiveness of an integrated mental health and HIV (MH-HIV) intervention on improving linkage to and retention in care among SCY in Kampala, Uganda, between 2023 and 2024. Participants were assigned to either an intervention cohort (IC; n=85) receiving a bundled MH-HIV package including trust-based outreach, on-the-spot mental health first aid and screening, peer support, trauma-informed counseling, same-day ART initiation, and structured support groups or a standard-of-care cohort (SC; n=80) receiving routine HIV counseling and testing. Primary outcomes were ART initiation within 30 days of diagnosis and retention in care at six months. Participants in the IC were significantly more likely to initiate ART promptly (aHR = 3.42; 95% CI: 2.05–5.72; $p < 0.001$) and had higher retention at six months (78.8% vs. 45.0%), yielding an absolute risk difference of 33.8% (95% CI: 18.9–48.7; $p < 0.001$) and a number needed to treat of 3. The IC also showed greater improvement in depressive symptoms (mean PHQ-9 change 5.6; 95% CI: –7.3 to –3.9; $p < 0.001$). These findings suggest that integrated MH-HIV interventions can substantially enhance care outcomes for SCY and should be prioritized in efforts to meet UNAIDS 95-95-95 targets in vulnerable populations.

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