Peer-Led Medication Adherence for Individuals with HIV/AIDS: A Randomized Controlled Trial
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Abstract
This randomized controlled trial (RCT) study examined the effects of a multi-faceted, treatment adherence program designed for people living with HIV/AIDS. The University of Illinois Medication Adherence Program Services (MAPS) project provides personalized medication adherence education grounded in Health Beliefs Model (HBM) theory and included services such as: individualized regimen review, treatment planning, and service within local communities. Outcomes from the study provide information regarding the impact of specialized, individually-tailored medication services on adherence overall, peer-delivery of these medication support services, the impact of co-morbidities including mental health, substance use, and unemployment, and factors that promote community integration among people with HIV/AIDS.

Methods
The UIC MAPS study used an RCT design. Individuals with HIV/AIDS were randomly assigned to receive the MAPS intervention from a trained medication specialist who was either 1) a peer living with HIV/AIDS or 2) a traditional provider who was not HIV-infected. Intervention services were delivered within the community in participants' natural settings. The 1-hour MAPS meetings lasted for 12 weeks/3 months. Participants completed interviews at two time points: baseline (T1); at the time they entered the study) and again 3-months later (T2; immediately following the last MAPS session). Results presented here focus on data related to the impact of the intervention (i.e., baseline to 3-month follow up) and evaluate outcomes for proportion of missed dosages taken, increased adherence over the previous 7 days (p<0.01). On average, proportion of dosages taken as directed increased approximately 5% baseline to follow up.

Results
Based on initial analyses, results demonstrate significant improvements in medication adherence. Specifically, study participants significantly increased the proportion of regimen dosages taken as prescribed over the previous 7 days (p<0.01). In addition, participation in the UIC MAPS intervention also resulted in reported reductions in barriers to HIV/AIDS-related care. Further, individuals who received the intervention from peer providers, that is, individuals also living with HIV/AIDS, had substantially larger reductions in care barriers.

Next, the results suggest that the knowledge and life experiences of others with HIV/AIDS can have significant impact on use of services and care. As demonstrated in other studies of peer support or self-help, indigenous experiences from individuals with "lived experience" goes beyond traditional provider-client roles. These findings also demonstrate that with appropriate training and support, individuals living with HIV/AIDS and co-occurring mental health issues also can successfully deliver intervention services and foster the same improvements as traditional providers.

A Comment from a UIC MAPS Participant:
"I think the big thing for me is the myth that people in the AIDS service delivery system believe that all the mental health concerns are taken care of and vice versa. There's a big gap between the two systems...So people fall through the cracks that way...I guess the major point is that both systems need to know each other better in order to help people access services on either side."

A 39-year old individual living with bipolar disorder and HIV.

Conclusion
Results suggest that the UIC MAPS medication adherence program intervention has significant, positive effects on regimen adherence using outcomes characterized using Centers for Disease Control and Prevention (CDC) standards (i.e., dosages taken correctly; therapeutic at 95% or above). In addition, participation in the UIC MAPS intervention also resulted in reported reductions in barriers to HIV/AIDS-related care. Further, individuals who received the intervention from peer providers, that is, individuals also living with HIV/AIDS, had substantially larger reductions in care barriers.

First, the finding related to medication adherence demonstrates the efficacy (internal validity) of the model. However, despite these significant improvements, they continue to fall below the CDC standard of 95% adherence or above for therapeutic effects. Further, additional research regarding the effectiveness (external validity) of the MAPS intervention is still crucial.

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