Antiretroviral Therapy Use and Adherence among PLWHAs who have Panic Disorder

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Background: Mental disorders are twice as common in persons living with HIV/AIDS (PLWHA) than the general population and are associated with decreased adherence to antiretroviral therapy (ART). However, there are few studies exploring the relationship between individual mental disorders and HIV adherence outside of depression. Among these disorders is anxiety, of which approximately sixteen percent of PLWHAs are estimated to be afflicted. Within the spectrum of anxiety disorders, panic disorder is five times more common in PLWHA than the general population. The objective of this study is to investigate the association between panic disorder, ART use, and adherence in an urban HIV outpatient setting.

Methods: In an observational cohort study of HIV-infected persons in care in Baltimore, MD, we prospectively assessed alcohol use, illicit drug use, panic, depressive symptoms, ART use, and medication adherence at six month intervals using audio computer assisted interviews (ACASI). Our outcomes of interest were ART use, defined as the use of ART at the time of the interview, and self-reported ART adherence using a visual analog scale, with <90% defined as non-adherent. Current panic disorder was assessed using the 4 panic items from the Patient Health Questionnaire (PHQ). Individuals were classified as having panic if they responded positively to all items. Depressive symptoms were characterized via the PHQ with a score greater than 8 being classified as positive. Alcohol use was classified as hazardous, moderate or none, per NIAAA guidelines and illicit drug use was defined as current, past, or never use. We used generalized estimating equations to analyze the association between the independent variables and outcomes. Analyses were adjusted for age, sex, race, drug use, alcohol use, and depressive symptoms.

Results: Between June 2010 and September 2012, 1533 individuals participated in 3292 ACASI interviews. 63.1% were male and 83.7% were African-American with a mean age of 40.6 years. 15.5% of participants were current drug users and 5.9% of individuals engaged in hazardous drinking. Depressive symptoms were endorsed by 9.5% of participants. The overall prevalence of current panic disorder was 5.9% with 91.5% of individuals on ART at the time of the visit and 75.9% of participants with greater than ninety percent adherence. Panic disorder was negatively associated with ART use (AOR 0.64; 95% CI 0.41 to 1.01) but was not associated with decreased adherence (AOR: 0.79; 95% CI 0.53 to 1.16) when adjusted for depressive symptoms, alcohol, and illicit drug use.

Conclusions: Panic disorder was associated with decreased ART use independent of depressive symptoms, alcohol, or illicit drug use. Panic disorder was not associated with adherence. Future work should continue to delve into the determinants of ART usage in people with panic disorder as well as the relationship between ART usage and adherence with psychiatric intervention. Given the potential for disrupted medical treatment that may contribute to disease progression, early clinical detection and management, including social and psychological support and the development of coping strategies and stress management techniques, are of tantamount importance to patient success in the management of HIV.
Community-based versus random digit dialing samples in chronic disease prevalence estimates among older Black men in New York City

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Background: Accurate assessment of the prevalence of chronic diseases and health behaviors among underserved populations is essential for addressing disparities. Previous research suggests probabilistic sampling modalities such as random digit dialing (RDD) may yield different epidemiologic estimates than diverse venue-based sampling in minority populations. We aimed to compare these sampling approaches in older black men in New York City (NYC).

Methods: A short survey was administered to Black men age 50 and over intercepted in community-based venues including barbershops, mosques, churches, soup kitchens, and social service agencies throughout New York City as part of eligibility screening for two large randomized-control trials. Survey data included self-reported hypertension, diabetes, high cholesterol and history of timely colorectal cancer (CRC) screening. We used descriptive statistics to calculate prevalence rates within our community-based sample, and compared them to estimates from the NYC Community Health Survey (CHS), a population-based RDD survey.

Results: Among 4,888 survey respondents recruited from community-based sites, prevalence rates for self-reported hypertension, diabetes and high cholesterol were 58.6%, 21.1% and 31.3% respectively. Prevalence rates for hypertension, diabetes and high cholesterol among black men over 50 in the CHS were 55.9%, 26.5% and 43.5%. Compared to 75% of black men >50 in the CHS, only 48.0% of the community-based sample reported having ever having had a screening colonoscopy. Differences in prevalence estimates between the CHS and the community-based sample were statistically significant for diabetes, high cholesterol and history of CRC screening (p<0.0001). In the venue-based sample, over 9% of the screened individuals did not have a working telephone. Almost one third of the venue-based sample had less than a high school education compared to only 20% of the CHS sample. However, demographic variables did not explain the difference in self-reported prevalence estimates for diabetes, high cholesterol, or high blood pressure or in self-reported CRC screening history.

Conclusions: The prevalence of certain chronic diseases and health behaviors among older Black men recruited from community-based settings in NYC differed substantially from population-based estimates. This marked discordance is particularly important for CRC screening; since black men have the highest CRC mortality rates, potentially due to lack of timely screening. Research is needed to improve health assessment in black men who may not be captured by conventional population-based survey methods.
Housing First among homeless persons with concurrent disorders among participants of the Vancouver At Home Study

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**Background:** There have been no randomized controlled trials of Housing First among chronically homeless persons with concurrent disorders. We, therefore, examined the relationship between substance use and residential stability among homeless adults with current mental disorders who participated in The Vancouver At Home study.

**Methods:** The Vancouver At Home study is part of a multi-site pragmatic, randomized controlled trial of a Housing First intervention among homeless individuals with mental illness in five Canadian cities. Participants were eligible if they were 19 years of age or over, met criteria for a current mental disorder on the MINI 6.0 Neuropsychiatric Interview, and were absolutely homeless or precariously housed. We used the Residential Time-Line Follow Back Inventory to derive our primary outcome variable, residential stability, which we defined as the number of days in stable residences after randomization up to their 12 months visit. Substance dependence was identified at baseline using the MINI 6.0. At baseline self-reported frequency of substance use over the past month was captured using the Maudsley Addiction Profile. We dichotomized frequency of substance use to capture daily substance use versus less than daily or none; this variable was used to reflect severity of substance use and its potential impact on daily function. Mental health symptoms and severity were collected through the Colorado Symptom Index. Two negative binomial regression models were fit to examine independent association between the residential stability and the primary independent variables substance dependence and daily substance use.

**Results:** A total sample of 497 participants were recruited between October 2009 and June 2011 with 58% (N=288) meeting criteria for substance dependence and 29% (N=143) reporting daily substance use. The follow-up rate at one year was 96%. There was no difference in the number of days stably housed by substance dependence (182.1 versus 185.6 days, p = 0.787). We found no significant association between substance dependence and residential stability (Adjusted IRR 0.94; 95% CI 0.68 – 1.30) or between daily substance use and residential stability (Adjusted IRR 0.86; 95% CI 0.61 – 1.22) after adjusting for the type of housing intervention, employment, sociodemographics and mental health.

**Conclusions:** People with mental disorders may achieve similar levels of housing stability from Housing First regardless of whether they experience concurrent substance dependence. In contrast to some interventions for homeless persons, HF does not require abstinence from drugs among clients. These findings raise important questions regarding the role and relevance of patient choice in the context of health service delivery and program design.
Picture Good Health: A Church-Based, Photovoice Intervention for Latinos with Diabetes

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Background: Clinical trials assessing the impact of church-based programs on diabetes outcomes among Latinos are lacking. We compared the effect of a low-intensity (LI) versus high-intensity (HI) church-based diabetes self-management intervention on clinical outcomes among low-income Latino adults.

Methods: Using CBPR, we partnered with two Latino churches in an urban, low-income neighborhood. We recruited adults with self-reported diabetes, who were non-pregnant and English or Spanish-speaking from community and church events in Chicago. Participants were randomized to the LI or HI intervention group and followed for 6 months. In the LI group, participants received mailed metabolic assessments (MMA) and a 90-minute lecture on diabetes self-management at the church. In the HI group, participants received MMA and were invited to an 8-week church-based intervention of weekly diabetes self-management classes led by lay leaders trained in motivational interviewing. In weekly photovoice exercises, participants discussed photos of their lives with diabetes and shared challenges and successes in self-care. Patient navigators assisted participants in finding a physician and connected them to local resources. The primary outcome was change in A1c. Secondary outcomes included change in LDL, blood pressure, BMI, diabetes self-care, self-rated health, and self-empowerment.

Results: One-hundred participants enrolled and were randomized. Their mean age was 54 ± 12 years and 81% were female, 98% were Latino, 70% only spoke Spanish at home, 87% had a household income below $30,000, and 51% were uninsured. Average baseline A1c was 8.0% ± 2.0. HI participants attended an average of 4.6±3.3 classes; 82% of LI participants attended the lecture. The 6-month follow-up rate was 80%. Both groups improved in 3 self-care measures from baseline to 6-months, but the HI group had improvements in 6 more self-care areas, including mean days in past week eating a healthy diet (1.06 days, 95% CI:0.13-1.99), eating high fat diet (-1.20, 95% CI:-1.84--0.56), days exercising (1.21, 95% CI:0.36-2.07), days checking feet (1.15, 95% CI:0.25-2.05) and a trend for days adhering to medication regimen (0.72, 95% CI:-0.03-1.47). Improvements in 2 diet and exercise measures remained significant for the HI group when assessing for change by group over time. All participants significantly improved their self-rated health status (1.55 mean increase, 95% CI:1.15-1.95) and diabetes self-empowerment (0.22 mean increase, 95% CI:0.01-0.43) but differences between groups were not significant. There was a significant overall decrease in A1c at 3-months (-0.31%, 95% CI:-0.62--0.01) which was not sustained at 6-months (-0.15%, 95% CI:-0.54-0.25); differences between groups over time were not significant. There were no significant changes in other secondary outcomes within or across arms. There was a trend for the HI group to have less contact with their physician during the study period (-1.08±-4.06 total visits and calls, p=0.10) compared to baseline than the LI group (-0.10±3.23, p=0.77). Interventions were well-received in both groups.

Conclusions: Among low-income Latino adults with diabetes, a church-based intervention can improve diabetes self-care, self-empowerment, self-rated health and, in the short-term, A1c. A high intensity intervention may improve more aspects of diabetes self-care and be a lower-cost substitute for an additional physician visit.
Perceptions of Clinical Research Among Persons with Sickle Cell Disease

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Background: There is only one FDA-approved disease-modifying therapy available to treat sickle cell disease (SCD); therefore participation of individuals with SCD in clinical trials of new therapies is vital to improve the health of this population. Unfortunately, many clinical investigators report difficulty in recruiting sufficient numbers of SCD patients to participate in trials, and a number of major studies in SCD have closed down due to insufficient enrollment. Despite this, little is known about the attitudes that persons with SCD have about clinical trials. We examined attitudes towards clinical trials among persons with SCD, and the extent to which demographic, attitudinal, clinical characteristics, previous clinical trial history, and perceptions of the quality of prior healthcare experiences is associated with SCD patient attitudes.

Methods: Using audio self-interviews, we administered questionnaires to SCD patients receiving ambulatory care at two urban hospital centers in Baltimore, MD and Washington, DC. Independent variables were patient demographics (age, sex, receipt of medical assistance, household income, and education), patient attitudes (trust in medical professionals and distrust in the healthcare system), the perception of the severity of their own SCD compared to others, previous participation in a clinical trial, and quality of prior healthcare experiences (Stewart et al.’s Interpersonal Processes of Care measure). Outcomes were the respondent’s attitudes towards clinical research and clinical trials as measured by a modified version of the Perceptions of Participation in Clinical Research scale.

Results: 279 SCD patients participated in our study (response rate of 92.5%). Respondents were 97% black, 53% female, and had a mean age of 34.9 years. Most (74.9%) respondents reported having being asked to participate in a clinical trial; of those, most (67.5%) also reported participating in a clinical trial at some point in their life. Most SCD patients (84%) agreed or strongly agreed that clinical trials are a necessary way to learn about treatments, 81% agreed or strongly agreed that it is important for people to take part in clinical trials, 77% agreed or strongly agreed that participation in a clinical trial can help them and their family, and 92% agreed or strongly agreed that participation in a clinical trial can help future generations. In a regression model, previous participation in a clinical trial and having the perception that one’s SCD was not as severe as others both independently predicted having more positive attitudes toward clinical trials.

Conclusions: Contrary to what is commonly and anecdotally reported, we found very positive attitudes toward clinical trials among persons with SCD. In our study, patients who perceived that their SCD was less severe than others, and patients who have previously taken part in clinical trials, reported the most positive attitudes towards clinical trials. These results suggest that difficulties that are encountered in recruiting SCD patients to take part in clinical trials may be less likely due to SCD patient attitudes, and perhaps more likely due to the logistical requirements/burdens of participation, to researcher attitudes and/or their methods of approaching potential participants, or to research design considerations (such as overly stringent or inappropriate inclusion/exclusion criteria).
Descriptive Study of African American Men Successful at Long-term Weight Loss Maintenance

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Background: Overweight and obesity are highly prevalent in African American men: 70% of non-Hispanic Black men have a BMI > 25. However, there is limited data regarding weight loss and maintenance among this high risk group.

The purpose of the current analysis is to describe a sub-sample of African American men who participated in a larger study about African American weight loss maintenance. The parent study (DK064898) identified a large sample of African American adults who intentionally achieved clinically significant weight loss of 10% and maintained that weight loss for at least 1 year and compared them to individuals who achieved 10% weight loss but regained the weight.

Methods: A cross-sectional study design was used. Participants were recruited through various modalities. Eligible participants were asked to complete survey instruments about themselves and their weight history including demographic and weight characteristics, weight-loss and maintenance approaches. Participants completed the International Physical Activity Questionnaire. Responses from individuals who maintained weight and those who regained weight were compared using t-tests. All analyses were completed using STATA.

Results: One thousand two hundred eighty African Americans completed surveys in the parent study. Of those, 133 were men (47 weight-loss maintainers and 86 weight-loss regainers). The average age for men was 42 years. Male weight-loss maintainers lost an average of 25% of their body weight and maintained ≥ 10% weight loss for an average of 6.8 years.

Men who maintained most or all of the weight they lost reported limiting carbohydrates (42.4% vs 22.7%, p≤ .05) or using a food exchange or point system diet (15.6% vs 4.0%, p≤ .05) for initial weight loss when compared to those who regained weight. More male maintainers chose walking for physical activity for their initial weight loss than did regainers (77.8% vs 47.7%, p ≤ .010). They also reported exercising at home (52.8% vs 23.1%, p ≤ .010), outside in their neighborhood (38.9% vs 18.5%, p ≤ .05), or during breaks on the job (33.3% vs 13.9%, p ≤ .05) more frequently than did male weight-loss regainers. In terms of current maintenance habits, male weight-loss maintainers reported eating at fast food restaurants < 1 time weekly more often than male regainers (59.6% vs 30.2%, p ≤ .001). Likewise, more male maintainers are currently engaging high levels of physical activity as measured by the International Physical Activity Questionnaire when compared to regainers (66.6% vs 32.6%, p ≤ .001).

Conclusions: Although small, this sample of African American men successful at long-term weight loss offers preliminary findings about weight-loss and maintenance in this understudied group. These limited findings suggest that low carbohydrate and/or exchange/point diet programs and walking in routine daily settings are relevant for initial weight loss in this group. Maintenance was associated with limiting fast food and engaging in high levels of physical activity. In clinical practice, providers may consider discussing one or more of these specific strategies for weight loss and maintenance with African American men.