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Substance Abuse and Medication Adherence Among HIV-Positive Women with Histories of Child Sexual Abuse

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Abstract

Substance abuse increases the risks for infections and impairs medication adherence among HIV/AIDS patients. However, little is known about the characteristics of substance abuse and its impact on medication adherence among HIV-positive women with a history of child sexual abuse (CSA). In the present study, 148 HIV-positive women with a history of CSA completed a structured interview assessing CSA severity, psychological status, substance abuse, medication adherence, and sexual decision-making. Severity of CSA was significantly associated with substance use but not with adherence. Participants who had used hard drugs and who had lower self-esteem and adherence self-efficacy reported significantly lower levels of adherence. Additional research on how CSA experiences impact health behaviors is needed to help develop culturally congruent interventions to reduce risk behaviors and facilitate better medication adherence for this vulnerable population.

Keywords

substance abuse; medication adherence; depression; anxiety; HIV/AIDS; child sexual abuse

INTRODUCTION

Recently attention has been given to female substance abusers due to the increasing rate of HIV/AIDS among this population (Cottler *et al.*, 1998). While the actual number of female drug users is not known, research suggests that the population of female drug users is diverse in life situations, perceptions of risks, patterns of drug use, and demographics

(Blumenthal, 1998). Further, it has been suggested that women use drugs for multiple reasons, including as a method to cope with stress.

Among women diagnosed with HIV/AIDS, 39% were infected through injection drug use (IDU), including 41% European American, 38% African American, and 38% Latina (CDC, 2002). The increased risk of HIV/AIDS among substance abusing women, especially among those with multiple partners, has been well documented (Cohen *et al.*, 1994). Variables associated with the increasing HIV/AIDS rates for this population include IDU or sex with an injection drug user, crack cocaine use, and sex with multiple partners (Longshore and Anglin, 1995). Substance abuse increases HIV sexual risk taking among women through several mechanisms. Female drug users are more likely to have a male sex partner who was an injection drug user (IDU). Women who are dependent upon their partners for drugs were also at higher risk for HIV infection, because they are less able to negotiate safer sex practices (Amaro *et al.*, 1990). Also, psychiatric disorders among women, including depression, anxiety and panic disorders, may place them at increased risk for substance use and HIV infection.

Histories of violence, including physical and sexual abuse, are also considered risk factors for substance abuse (Ross-Durow and Boyd, 2000; Wyatt *et al.*, 1993). Women abused as children are more likely to have a problem with alcohol and to engage in drug use (Lodico and DiClemente, 1994). Drugs may be used to cope with long-term emotional effects and intrusive images associated with child sexual abuse (CSA), including PTSD. Also, compared to women without histories of abuse, women with these histories are more likely to experience depression, which is in turn related to both alcohol and drug problems (Morrill *et al.*, 2001).

Histories of CSA may also directly or indirectly affect HIV-positive women's ability to adhere to their treatment regimen. Also, women with histories of CSA may be less satisfied with and less likely to have strong social support systems, which can facilitate appointment attendance and medication compliance (Catz *et al.*, 1999). Most research has focused on CSA per se, while little research has investigated how *severity* of CSA may influence substance abuse and medication adherence. Abuse that is more severe or that occurs over a longer period of time may have a more destructive impact on self-regulation, resulting in greater substance abuse and poor adherence to medications. More severe abuse may also result in greater trauma (Myers *et al.*, 2004), which can lead to greater attempts to use drugs or alcohol to escape painful intrusive images and more difficulties adhering to medications.

Studies have found that adherence to HIV medication is lower among persons with lifetime drug use (Samet *et al.*, 1992), and current drug use (Celentano *et al.*, 1998). Lucas *et al.* (2002) tracked changes in adherence across periods of abstinence and periods of use and has provided persuasive evidence on the role of drug use in adherence. The switch from nonuse to use was associated with declines in adherence while the switch from use to nonuse was associated with improved adherence. Thus, while lifetime drug use may serve as a marker for elevated current risk of low adherence, measures of current or recent use (past month or past year) may be more likely to reflect the patient's ongoing risk of low adherence. It is therefore essential to distinguish the effects of lifetime and current drug use on adherence.

The current study reports the characteristics of substance abuse and medication adherence among a cohort of HIV-positive women with histories of CSA. In addition, we investigated variations of substance abuse and medication adherence across demographics and psychological status; the effects of severity of CSA on substance use and medication adherence; and the association between substance abuse and medication adherence. Severity of CSA has been defined in a number of ways (Wyatt *et al.*, 2004), including number of incidents, the duration of abuse, the relationship of the perpetrator, and the type of abuse. The current study investigated which dimensions of CSA severity have the strongest associations with substance abuse and medication adherence.

METHODS

Participants

HIV seropositive women were screened and enrolled for the Women's Health Project (WHP) (Myers *et al.*, 2004; Wyatt *et al.*, 2004), a 4-year intervention study conducted from 1999 to 2003 to enhance decision-making, decrease sexual and drug risks, increase adherence, and improve psychological adjustment for HIV-positive women with a history of CSA.

Women were recruited from Los Angeles County and surrounding areas between 2000 and 2003. Recruitment sites included community-based clinics, county hospitals, ethnic- and AIDS-specific organizations, and drug rehabilitation centers. HIV-positive participants responded to flyers, print advertisements, and personal contacts. HIV status was confirmed by enzyme linked immunoabsorbent assay (ELISA) and confirmed by Western Blot. A serology battery was also run to assess immune function as indexed by CD4 and CD8 count and CD4/CD8 ratio. In order to determine whether or not a woman had a history of CSA, women were asked nine screening questions prior to study enrollment that assessed sexual experiences against their will before the age of 18 with an adult or someone at least 5 years older. These nine questions assessed CSA including fondling, frottage, attempted or completed intercourse, anal penetration, penetration of the finger into vagina or anus, and oral copulation to either victim or perpetrator. Also, these nine questions were administered as a group: the women were asked to respond "Yes" if they had experienced any of the nine acts. A total of 398 women responded to the recruitment efforts, with 163 meeting eligibility criteria. Baseline interviews were administered to 148 participants; 12 potential participants were no-shows and 3 participants died before the completion of the intervention. Each participant was interviewed face-to-face by an ethnically matched trained female interviewer at the location of her choice, including her home, UCLA, or Drew Medical Center. For this analysis, baseline data from the 148 women were used: 80 African American, 9 European American, and 59 Latinos. For baseline assessments, women were compensated \$25.

Measures

Women were administered the Revised Wyatt Sex History Questionnaire (WSHQ-R), a 478-item structured interview that assessed demographics, psychological status, substance abuse, medication adherence, and sexual decision-making. The WSHQ-R also assessed current and lifetime consensual and nonconsensual sexual experiences regardless of sexual orientation,

as well as common sexual experiences within the context of a primary relationship. For the Spanish speaking Latinas, the interviewer was bilingual/bicultural. The WSHQ-R included the use of “show cards” to control for literacy and response bias to socially unacceptable questions. For the purpose of this analysis, variables were limited to demographic characteristics, severity of CSA, psychological status, substance abuse, and medication adherence.

Demographic Characteristics—*Age* was determined by birth date. *Race/ethnicity* was based on self-identification, and *education* included the number of years of formal schooling. *Employment* was coded as not working (0) and working full- or part-time (1). *Marital Status* was coded as single (0) and married or living with a partner (1). *Number of children* and *number of family members* living together were also assessed.

Severity of CSA—Four dimensions of CSA severity were assessed: number of incidents by different perpetrators; duration, as assessed by the amount of time across all incidents of CSA; relationship of perpetrator: extrafamilial, intrafamilial, and both; type of abuse, categorized as: (a) one or two incidents of less severe abuse (i.e., fondling and frottage); (b) one incident of severe abuse (i.e., forced oral or anal sex, attempted or completed rape, or penetration of the finger into the vagina or anus); (c) one less severe abuse incident and one severe abuse incident; and (d) two or more incidents of severe abuse (Myers *et al.*, 2004).

Depression—Depression was measured by the 20-item Center for Epidemiological Studies-Depression Scale (CES-D) (Radloff, 1977). Participants were asked to rate the occurrence of various feelings on a four-point scale ranging from rarely (1) to most of the time (4). The CES-D yields an overall depression score with higher scores signifying more depressive symptomatology.

Anxiety—The anxiety subscale from the Symptom Checklist-90-Revised (SCL-90-R) instrument was used to screen for anxiety symptomatology (Derogatis *et al.*, 1973). The anxiety subscale consisted of 15 items, measured on a five-point Likert scale ranging from not at all (0) to extremely (4), with higher scores signifying more anxiety symptomatology.

Self-esteem—Self-esteem was assessed with six items, measured on a four-point Likert scale ranging from strongly disagree (1) to strongly agree (4) (Rosenberg and Simmons, 1971) with higher scores signifying higher self-esteem.

Self-efficacy—Self-efficacy of adhering to health care providers' treatment recommendations was assessed with seven items, e.g., “I am able to stick to my treatment plan for HIV,” “I am able to follow my health care provider's suggestions exactly” and “I was able to take my medication the way my health care provider told me to take them,” measured on a four-point Likert scale ranging from strongly agree (1) to strongly disagree (4), with higher scores $\alpha = .90$.

Substance use—Participants were asked if they *ever* used noncrack cocaine, crack cocaine, heroin, or had ever injected any drug. We selected these indicators of “hard drug” use to be consistent with past research (Longshore and Anglin, 1995). For a measure of

current drug use, participants were asked if they used noncrack cocaine, crack cocaine, heroin, or injected drugs, as well as inhalants (i.e., glue, spray cans, gasoline), marijuana or hashish, hallucinogens (i.e., LSD, mescaline, peyote), amphetamines (i.e., crystal, methadone, morphine, codeine, demerol, dilaudid, percodan, opium), tranquilizers (i.e., valium, librium), PCP or angel dust, synthetic drugs (i.e., fentanyl, synthetic H), ecstasy/MDMA, or tobacco in the past 4 weeks. *Problem drinking* in the past year was assessed using the Alcohol Use Disorders Identification Test (AUDIT). The AUDIT consists of 10 items identifying problem drinking. Scores could range from 0 to 40. Our measure of problem drinking was based on an AUDIT score ≥ 8 (Conigrave *et al.*, 1995). Current alcohol use was assessed for the past 4 weeks.

Medication adherence—Medication adherence was measured for past 1, 2, 3, and 14 days from the baseline. Participants were asked about the number of missed doses for each medication. Adherence measures, ranging from 0 (not adherent at all) to 1 (perfectly adherent), were constructed as percent of prescribed doses taken, 1 minus the percent of missed doses. Dichotomous optimal adherence (defined as 90% or greater and 100%) were created from continuous adherence measures. Ninety percent and 100% were chosen, because self-report could overestimate adherence and adherence at these levels from self-report demonstrate high likelihood to obtain viral suppression (Liu *et al.*, 2004).

Statistical Analyses

Descriptive statistics of patient characteristics, substance abuse, and medication adherence were obtained. Bivariate analyses of the relationship between substance abuse, medication adherence, and patient characteristics were calculated with appropriate tests of two-group *t*-test and two-way table Chi-square (Fisher exact test was used for small cell sizes). Multivariate logistic regressions for predicting the probability of optimal adherence were fitted to evaluate the relationship of medication adherence with substance abuse and patient characteristics. The predictors of adherence were selected based on bivariate relationships with adherence along with clinical and psycho-social rationales. Goodness-of-fit measure of receiver operating characteristic (ROC) statistics, which measures the discriminating power of a logistic regression model, was reported for the adherence model.

RESULTS

The 148 participants enrolled at baseline had a mean age of 40 ($SD = 8$). Slightly over half of the participants (57%) had an education of high school or above. Most (95%) of the participants were not working outside the home and the majority of women (59%) lived without a partner. Fifty-four percent of the women were African American followed by Hispanic (40%) and European American (6%). European American women were not included in analyses examining ethnic differences in substance use and adherence, because the sample included only nine European American women. The mean number of children these women had was 2.1 with a range of 0–10. The number of people these women were living with ranged from 0 to 8 with a mean of 2.1 ($SD = 1.8$).

Psychological Distress and CSA

Results indicated moderate to severe levels of depression ($M = 40$ ($SD = 13$), high levels of anxiety ($M = 14.7$ ($SD = 14$)), and moderate self-esteem ($M = 19.9$ ($SD = 3.7$)), in comparison to community norms. No norms were available for adherence self-efficacy, as this scale was devised for the current study. However, item ratings averaged a 3 on a 4-point scale, indicating moderate to high adherence self-efficacy, ($M = 22.5$ ($SD = 4.3$)). The women reported just under two sexual abuse incidents by different perpetrators, ($M = 1.8$, range 1–6). Results indicated high variability in duration of abuse, with a mean of 2 years. Of the women, 34% reported extrafamilial CSA, 43% reported intrafamilial CSA, and 24% reported both. Of the women, 18% reported one or two incidents of less severe abuse, 40% reported one incident of severe abuse, 18% reported one less severe incident and one severe incident, and 24% reported two or more incidents of severe abuse.

Substance Use

The prevalence of drug use was high among this cohort. The percent of women who had *ever* used noncrack cocaine, crack cocaine, and heroin were 61% ($n = 89$), 53% ($n = 77$), and 27% ($n = 39$), respectively, while 27% ($n = 40$) reported *ever* having used injection drugs. In the *past 4 weeks*, only 2.7% of the women used noncrack cocaine and crack cocaine, but 45% ($n = 66$) used at least one illegal drug. The mean AUDIT score was 2.3 ($SD = 5.5$) with a range of 0–33, and 6.8% ($n = 10$) met the criterion for problem drinking.

There were some variations of substance use across the different participant characteristics. Women who were married or living with a partner had significantly lower rate of current alcohol use (13%) than women living alone (29%), $\chi^2(df = 1) = 5.05$, $p < .05$. Women with current alcohol use or problem drinking in the last year lived with significantly fewer family members ($M = 1.61$) than women without ($M = 2.26$) ($t(69) = 2.23$, $p < .05$ for current alcohol use and $t(13) = 2.72$, $p < .05$ for last year problem drinking. They also had fewer children ($M = 1.66$) than women without current alcohol use or problem drinking ($M = 2.95$), $t(78) = 4.56$, $p < .01$. African American women were more likely than Latinas to report histories of crack (66% versus 29%), $\chi^2(df = 1) = 17.84$, $p < .01$ and noncrack cocaine use (71% versus 41%), $\chi^2(df = 1) = 12$, $p < .01$, and current drug (53% versus 27%), $\chi^2(df = 1) = 9.0$, $p < .01$ and alcohol use (29% versus 10%), $\chi^2(df = 1) = 7.10$, and $p < .01$. Women with drug use were significantly older on average than women without drug use and the differences in mean age ranged from 2 to 4.3 years, although this difference was significant only for histories of heroin ($t = -2.01$, $df = 129$ and $p < .05$) and injection drug use ($t = -1.93$, $df = 118$ and $p < .05$). There were no significant effects of depression, anxiety, or self-esteem on substance use. However, those who had ever used heroin or had injected drugs had significantly lower adherence self-efficacy scores ($M = 19.9$ and 21.2), $t(131) = 2.05$, and $p < .05$ than those without such substance use histories ($M = 22.1$ and 23.0), $t(132) = 2.28$, and $p < .05$.

Associations were also found between some dimensions of CSA severity and substance abuse. Women with histories of crack cocaine use reported a longer duration of CSA ($M = 2.42$ years) than women without such histories ($M = 2.10$ years), $t(144) = -2.14$, $p < .05$. The association of duration of CSA with histories of heroin use and noncrack cocaine use

were marginally significant ($M = 2.54$ and 2.17 years for those with and without heroin use histories $t(55) = -1.96, p = .055$). However, current drug or alcohol use was not significantly associated with any dimensions of CSA severity. Relationship to perpetrator and types of CSA were not significantly associated with current or past substance or alcohol use.

Medication Adherence

The means (SD) of adherence for the past 1, 2, 3, and 14 days from baseline were 91% (26%), 91% (28%), 93% (25%), and 88% (22%), respectively. The percent of participants with adherence greater or equal to 90% were 88, 90, 92, and 73%, for 1, 2, 3, and 14 days, respectively. The percent of participants with adherence equal to 100% were 88, 90, 92, and 59% for 1, 2, 3 and 14 days, respectively.

Substance use was associated with lower levels of medication adherence, as shown in Table I. The difference was marginally significant only for the relationship between history of heroin use and 90% adherence: patients who had used heroin were 18% less likely to have adherence more than 90% compared to those who had never used heroin ($\chi^2(df = 1) = 3.51, p = .06$). Findings for other lifetime indicators of hard drug use were not statistically significant but were consistent in showing poorer adherence among lifetime users. On the other hand, current drug use, problem drinking, and current alcohol use were not significantly associated with adherence. There were significant variations of levels of medication adherence by patient characteristics such as education and psychological status. As shown in Table II, women with abuse histories who had high school and above education were 18% more likely to have adherence more than 90%. Participants with better psychological status had higher medication adherence levels. As shown in Table II, participants with adherence over 90% reported significantly higher self-esteem (20.4 versus 18.2); $t(43) = -2.50, p < .05$) and adherence self-efficacy (24.1 versus 19.9); $t(40) = -4.71, p < .001$) than those with adherence less than 90%. Participants with 100% adherence likewise reported higher self-esteem (20.58 versus 18.67); $t(114) = -2.83, p < 0.01$) and adherence self-efficacy (24.6 versus 20.7); $t(78) = -5.27, \text{ and } p < .001$) than those with less than complete adherence. However, adherence was not significantly associated with any of the dimensions of CSA severity.

Using multivariate logistic regression, 14 days adherence more than 90% was modeled as a function of patient demographics (age and employment), current drug use, last year problem drinking, current alcohol use, psychological status (depression, anxiety, self-esteem, and self-efficacy), number of sexual abuse incidents, and lifetime heroin use. Although, possibly due to statistical power, lifetime heroin use was not statistically significant, lifetime heroin use had a odds ratio of 0.45, 95% CI = (.015, 1.39). Self-efficacy about adherence was a significant predictor of adherence with an odds ratio of 1.29, 95% CI = (1.1, 1.5). The goodness-of-fit measure of receiver operation characteristic (ROC) statistics for the logistic regression model was 0.795, which is much better than chance alone (50%).

DISCUSSION

Women with histories of sexual abuse, particularly CSA, are vulnerable to certain risks, such as alcohol and drug abuse (Wyatt *et al.*, 1993). In addition, health issues such as being

HIV-positive and dependent upon antiretroviral medication may further augment the vulnerability. As a result, this unique population deserves special investigation. The current study suggested that aspects of the women's early sexual abuse experiences and current environment may influence their substance use, and that their substance abuse histories and psychological vulnerabilities may impact medication adherence.

Severity of CSA experiences was associated with substance use histories. Greater numbers of CSA incidents by different perpetrators were associated with histories of crack cocaine use, and longer duration of CSA was associated with histories of noncrack cocaine, crack cocaine, and heroin use. Severity of CSA has been defined in a number of ways (Myers *et al.*, 2004), but in this sample, the duration of CSA had the strongest association with drug use. Long-term CSA may be especially traumatic and difficult to cope with, and may thus be more likely to result in use of hard drugs. A history of hard drug use may reflect long-standing difficulties in coping with the adverse emotional sequelae of CSA. However, in Myers *et al.*'s 2004 analysis based on the same sample, experiencing intrafamilial abuse or both intrafamilial and extrafamilial abuse, was the strongest predictor of PTSD symptoms, and number of incidents by different perpetrators was associated with sexual trauma symptoms: duration of abuse was not a significant predictor of either PTSD or sexual trauma symptoms. Additional research is needed to understand why different dimensions of CSA severity influence substance use versus trauma symptoms.

Possibly because of compromised health and other HIV-related problems such as stigma, most of the women were not employed and lived alone. Women who were married or lived with a partner, who lived with more family members, or had more children had lower rates of current alcohol use. This is consistent with findings suggesting lower distress and substance use among women who were married or living with a primary partner, compared to women who were single or who had multiple partners (Roberts *et al.*, 2003). Living with family may have provided the women in the current study with a social network and a sense of family responsibility, including responsibility for caring for their children, which may have profoundly impacted their behavior. Social support may be a particularly important protective factor among women with CSA histories.

The women in this cohort reported high levels of depression and anxiety, and the majority of the women had drug use histories, particularly histories of cocaine use. Compared to the general population, this cohort reported significantly lower alcohol use (Stevens *et al.*, 1998). The women in this cohort were unique when compared to the general population of substance abusing women. In this cohort of HIV-positive women with histories of CSA, those who had substance use histories were older than those who had never used drugs or alcohol. Further, while substance abuse is generally associated with worse psychological status, the relationship between substance use and psychological health in the current sample was significant only for adherence self-efficacy. The weak association between substance use and psychological status may be due to difficulties with accurately measuring psychological distress for women with substance abuse histories, or due to insufficient statistical power.

This group of women reported that they had good medication adherence. The adherence level for the past 14 days was lower than the adherence levels within the past three days indicating the reliability of the report. However, as reported in many medication adherence studies (Liu *et al.*, 2001), self-reported medication adherence usually overestimates patient's true adherence level as much as 10–20%. Therefore, further evaluation by other methods such as Medication Event Monitoring System (MEMS) and drug level from blood draw is needed (Liu *et al.*, 2001). Consistent with the literature (Roberts *et al.*, 2003), higher education was significantly associated with better adherence. Higher self-esteem and self-efficacy also seemed to facilitate the ability to adhere to complicated HIV medication regimens.

As shown in other populations, hard drug use has a negative impact on medication adherence (Mellins *et al.*, 2002), with the effect of histories of heroin use most profound. The marginal significance could be due to the relative small sample size of the cohort. Histories of drug abuse also significantly affected adherence self-efficacy, suggesting that having a drug abuse history may undermine women's confidence that they can follow their doctor's treatment recommendations.

There were a number of limitations of the analyses. First, consistent with literature (Liu *et al.*, 2001), self-reported medication adherence measures usually overestimate patients' true adherence level, which could mask the extent of the impact of substance abuse on adherence. Second, our current drug use measure combined a miscellany of drug types. The weak association between adherence and current drug use may be due to the low rate of current use of hard drug such as cocaine and heroine, and high rate of current tobacco use. Future research should examine how different dimensions of severity of CSA influence the degree of trauma experienced and how this trauma can influence substance abuse and other health behaviors. CSA severity was not associated with alcohol use or medication adherence in this sample, but future research should investigate whether it influences health behaviors such as adherence through its effects on substance use.

This study indicated that HIV-positive women with histories of CSA were affected by social vulnerabilities and risks, including a lack of education, unemployment, economic disadvantages, depression, social isolation, and drugs and alcohol. Further, many of these vulnerabilities were associated with poor medication adherence. Research with large multi-ethnic samples is needed to better understand ethnic/racial differences among seropositive women with CSA histories and explain why African Americans had higher substance use. This research would help to identify possible economic, cultural, or environmental factors that play a critical role in decreasing sexual and drug risks, and psychological distress. Research examining how characteristics of CSA affect substance abuse and adherence will help to develop culturally congruent interventions to reduce risk behavior and to increase medical adherence in a highly vulnerable population of HIV seropositive women with histories of CSA.

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Table 1

Relationship Between Past 14 days Adherence and Substance Abuse

	Adherence			Adherence			χ^2 (df)
	< 90%	90%		< 100%	100%		
Ever injection drug use	39 (12/31)	24 (20/85)	2.62 (1)	36 (17/47)	22 (15/69)	2.91 (1)	
Ever crack cocaine use	63 (19/30)	48 (41/85)	2.03 (1)	59 (27/46)	48 (33/69)	1.31 (1)	
Ever noncrack cocaine use	67 (20/30)	58 (49/85)	0.75 (1)	5 (30/46)	57 (39/69)	0.87 (1)	
Ever heroin use	40 (12/30)	22 (19/85)	3.51 (1)	33 (15/46)	23 (16/69)	1.24 (1)	
Past year problem drinking	73 (81/111)	80 (4/5)		6 (3/47)	3 (2/69)	0.82 (1)	
Current any drug use	55 (17/31)	52 (44/85)	0.09 (1)	47 (22/47)	43 (30/69)	0.13 (1)	
Current alcohol use	26 (8/31)	21 (18/85)	0.3 (1)	28 (13/47)	19 (13/69)	1.25 (1)	

Note: Table entries refer to percentage of participants in each substance use category with adherence above 90% or equal to 100%. Numbers in parentheses refer to number of participants.

Table II

Bivariate Relationship Between Past 14 days Adherence and Patient Characteristics

Measures	Adherence			$\chi^2/n(df)$	Adherence			$\chi^2/n(df)$
	< 90%	90%			< 100%	100%		
Education								
High school and up	43 (13/30)	65 (55/84)		4.50 (1)	52 (24/46)	65 (45/69)		1.79 (1)
Work status								
Full/part time	10 (3/31)	4 (3/85)		1.75 (1)	6 (3/47)	4 (3/69)		0.24 (1)
Marital status								
Married/live with partner	39 (12/31)	40 (34/85)		0.02 (1)	34 (16/47)	43 (30/69)		1.04 (1)
Race/ethnicity								
African American	58 (18/31)	54 (46/85)		2.31 (2)	5 (26/47)	55 (38/69)		1.58 (2)
Hispanic	42 (13/31)	39 (33/85)			43 (20/47)	38 (26/69)		
Age (mean±SD)	39.7±7.8	40.7±8.7		-06 (113)	40.2±7.4	40.6±9.1		-0.23 (113)
Number of children	3.1±1.8	2.6±1.9		1.22 (113)	2.7±1.8	2.7±2.0		-0.24 (113)
Family members	2.4±1.8	2.0±1.8		1.19 (114)	2.3±1.8	2.0±1.7		0.84 (114)
Depression	39.4±13.1	39.07±13.2		1.49 (114)	43.4±12.7	42.49±12.6		1.39 (114)
Anxiety	13.9±14.4	13.59±14.1		1.62 (114)	18.8±13.4	17.64±14.4		1.50 (114)
Self-esteem	20.4±3.2	20.58±3.2		-2.50 (43)*	18.2±4.3	18.67±4.1		-2.83 (114)*
Self-efficacy	19.9±4.4	24.1±3.3		-4.71 (40)*	20.7±4.1	24.6±3.2		-5.27 (78)*
Number of incidents	1.6±0.7	1.8±0.9		1.56 (114)	1.68±0.8	1.62±0.8		-0.44 (114)
Duration of incidents	2.19±0.9	2.35±0.9		0.88 (114)	2.17±0.9	2.32±0.9		0.84 (114)

Note: Table entries refer to percentage of participants in each category. Numbers in parentheses refer to number of participants.

* $p < .05$.