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Predicting Positive Attitudes About Quitting Drug and Alcohol Use Among Homeless Women

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Two separate path models for alcohol and drugs were tested in which psychosocial, environmental, and sociodemographic variables predicted behavioral and substance abuse related factors as well as the key outcome of positive attitudes about quitting drugs ($N = 620$) or alcohol ($N = 526$) in a sample of 709 homeless women. A positive attitude about quitting alcohol was predicted by more Addiction Symptoms, fewer Positive Effects from using alcohol, and not having a partner who uses alcohol. A positive attitude about quitting drugs was predicted by more Drug Problems, greater Drug Use in the Past 6 Months, more Active Coping, more education, less Emotional Distress, not having a partner who uses drugs, and fewer Addiction Symptoms. Implications of the results for drug and alcohol interventions are discussed.

Women who use drugs and alcohol are overrepresented among homeless populations (Stein & Gelberg, 1995). Moreover, co-occurrence of drug and alcohol misuse is common; the majority (61%) of homeless women with a lifetime alcohol problem also report a history of drug abuse (Smith, North, & Spitznagel, 1993). The deleterious health impact of long-term drug and alcohol use includes increased risk for unprotected sexual behavior and sexually transmitted diseases (Sutherland, Bybee, & Sullivan, 1998), criminal involvement and impaired social relationships (Longshore, Hsieh, & Anglin, 1993), depression (Galaif, Nyamathi, & Stein, 1999), and victimization (Bassuk et al., 1997; Gelberg, 1996). Drug and alcohol use among homeless women has been associated with childhood physical, emotional, and sexual abuse (Clark, Wells, & Foy, 1996); family dysfunction; and resulting feelings of low self-esteem (Roll, Toro, & Ortolá, 1999).

When feelings of personal control—a critical component of effective coping (Skinner, Zimmer-Gembeck, & Connell, 1998)—are inadequate, an individual is more likely to succumb to substance use when faced with encouragement by substance-using friends and family (Neaigus et al., 1994). Once drug and alcohol use has begun, similar factors predict ongoing use, for example, dysfunctional social support from substance-using family and

friends, greater depression, and less positive coping behaviors (Galaif et al., 1999). Persistent drug and alcohol use likewise perpetuates homelessness, as it may interfere with a woman's capacity to compete for scarce resources such as housing, jobs, or physical and mental health care services (Robertson, 1991).

It is thus important to identify key correlates of homeless women's attitudes toward quitting alcohol and drug use. In these populations, motivation to quit and motivation to enter substance use treatment have been found to predict treatment retention and reduction in substance use (De Leon, Melnick, & Tims, 2001). However, research on the correlates of these motivational constructs remains underdeveloped (Longshore, Grills, Anglin, & Annon, 1998). Such research is particularly important in view of the rapid dissemination of *motivational interventions*, in which cognitive and emotional correlates of readiness for change are directly targeted (Miller, 1999).

Theoretical Framework

The theoretical framework underlying this study of homeless women is the Comprehensive Health Seeking and Coping Paradigm (CHSCP; Nyamathi, 1989), which has guided our investigations of drug-using, homeless, and impoverished adults for more than 10 years. It was adapted from Lazarus and Folkman's (1984) stress and coping paradigm and Schlotfeldt's (1981) health-seeking paradigm. In our current model, five components are proposed as correlates or predictors (or both) of a positive attitude about quitting substance use: (a) psychosocial variables (high self-esteem, low emotional distress, social support from nondrug users), (b) behavioral components (high active coping, low avoidant coping), (c) one environmental factor (low childhood physical, sexual, and emotional abuse), (d) substance abuse related variables (high perceived addiction symptoms, less positive effects of using drugs or alcohol, lack of a partner who uses drugs), and

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(e) sociodemographic variables (older age, ethnicity). The socio-demographic variables have been linked to drug abstinence and are thought to be moderators through the psychosocial, behavioral, and substance abuse-related factors.

Psychosocial Domain

Self-esteem has been found to be associated with positive health practices (Muhlenkemp & Sayles, 1986) and adherence to treatment regimens (Golin, DiMatteo, & Gelberg, 1996). Furthermore, receiving social support from people who are not drug users has been found to be associated with more active coping, lower levels of anxiety and depression, and less likelihood of drug and alcohol use (Nyamathi, Leake, Keenan, & Gelberg, 2000). Among homeless women, low self-esteem has been associated with drug or alcohol use (Collins & Messerschmidt, 1993); moreover, homeless women who were least likely to demonstrate improvement in depression and emotional distress, personal and environmental concerns, use of avoidant coping, and social support were more likely to maintain drug use (Nyamathi, Bennett, & Leake, 1995). Thus, we expected that women with low emotional distress, high self-esteem, and social support from nonsubstance users would be more motivated to quit drug or alcohol use.

Behavioral Domain

Use of drugs may also represent an avoidant style of coping (Clark et al., 1996; Gil-Rivas, Fiorentine, & Anglin, 1996). However, continued expectations of favorable effects of drug and alcohol use (e.g., enjoyment of the high, enhanced perception of social connectedness, and reduction of negative emotional states) are associated with a greater likelihood of continued use or abuse, a lower likelihood of seeking treatment, and greater difficulty with cessation (Jones, Corbin, & Fromme, 2001). Relationships also exist between active coping and health protective behavior (Stein & Nyamathi, 1999), particularly when the individual's stage of readiness is assessed or matched with personality style (Conrod, 2000).

Environmental Domain

Homeless women frequently report high rates of adult physical and sexual victimization (Bassuk et al., 1997; Wenzel, Ebener, Koegel, & Gelberg, 1996); furthermore, childhood victimization has also been shown to have a profound impact on their drug and alcohol use (Bassuk et al., 1997; Gil-Rivas et al., 1996). Although a family history of substance use is associated with daily drug and alcohol use, family closeness has a protective effect against daily alcohol use (Nyamathi, Bayley, Anderson, Keenan, & Leake, 1999).

Sociodemographic Domain

African Americans and Latinos are overrepresented among homeless populations (Wenzel et al., 1996) and are vulnerable because of poverty, racism, and other sources of stress (Torres, 1993). Older women may have used drugs for longer periods of time and thus find it harder to quit (Nyamathi et al., 1995).

Summary

To date, little is known about the various correlates and predictors of homeless women's positive attitudes about quitting drugs and alcohol. People with low motivation to quit drugs and alcohol may acquire a positive attitude if counseling protocols include early motivational intervention efforts that are designed to increase one's desire to quit (Prochaska & Norcross, 1994). This study is unique in that it identifies correlates and predictors of positive attitudes about quitting problem drug and alcohol use by homeless women. Knowledge of correlates and predictors of positive attitude to quit drugs or alcohol may increase our understanding of what motivates severely impoverished women to quit substance use and signal possible strategies needed to more effectively motivate those who are less ready to quit substance abuse.

Method

Participants

Participants in this study were obtained from a larger sample of 1,311 homeless women residing in 47 traditional and sober living shelters or obtained through outreach from these sites in the downtown and surrounding areas of Los Angeles. Women were considered eligible if they were (a) age 18 or over and (b) homeless. A homeless woman was defined as one who had spent the previous night in a shelter, hotel, motel, or home of a relative or friend and was uncertain as to her residence in the next 60 days, or who stated that she did not have a home or house of her own in which to reside.

Among the original sample of 1,311 women, 730 reported that they had a serious problems with drugs, alcohol, or both, and who also had responded to further questioning about their attitudes toward quitting drugs or alcohol. We derived two samples from the 709 women who had complete data on all items used in this study: (a) an alcohol problems sample and (b) a drug problems sample. Sample development was based on responses to three questionnaire items that asked which drugs were at present causing their first, second, and third most serious problems. The alcohol problems sample consisted of women who reported alcohol as any one of their three most serious problems ($N = 526$); the drug problems sample consisted of women who reported any drug other than (or in addition to) alcohol as one of their most serious problems ($N = 620$; 437 women who reported both types of problems were included in both samples). Demographic characteristics of the derived drug and alcohol problem samples are reported in Table 1. Because there was a substantial amount of overlap between the two samples, they were very similar. Despite this overlap, the alcohol sample was slightly older and was about 54% Black, 24% White, and 21% Latina, whereas the drug sample was about 47% Black, 25% White, and 27% Latina.

Procedure

Data were collected between 1994 and 1996 so we could examine attitudes toward initiation and continuation of substance use among homeless women. Research staff consisted of female African American, Latina, and Caucasian nurses and outreach workers extensively trained in working with homeless and drug-addicted women. Initial contacts in shelters were made through letters to site directors. Homeless women residing within the participating shelters or obtained through outreach were then recruited through presentations provided by research staff personnel to groups of women or on a one-on-one basis. All women interested in participating in the study notified the project nurses and outreach workers. Those who met the inclusion criteria were informed of the study and were required to read

Table 1
Demographics for Alcohol and Drug Problem Groups

Demographic variable	Alcohol group (N = 526)	Drug group (N = 620)
Age (years) ^a		
18–25	15.8	20.2
26–35	47.5	43.0
>36–45	36.7	36.8
Education (years) ^b		
<12	46.8	45.8
12	33.1	37.6
≥13–16	20.1	16.6
Race		
Black	54	46.9
White	24	25.3
Latina	20.9	26.6
Other	1.1	1.2
Total	100.0	100.0

Note. All table values are percentages. Women who reported both alcohol and drug problems are included in both groups.

^a Ms = 33.3 for the alcohol group and 32.9 for the drug group. ^b Ms = 11.2 for the alcohol group and the drug group.

and sign a written informed consent document. Only 4% of women who met the eligibility criteria declined to participate.

After informed consent was obtained, appointments were made for interviews to be conducted in a variety of places considered convenient by the participants. Nurses or outreach workers, matched to the participant's ethnicity, administered a face-to-face structured interview, which took approximately 60 min to complete. The questionnaire was available in both English and Spanish. Women received \$10 for their time. The human subjects protection committee of the University of California, Los Angeles, approved the study.

Measures

The latent variables were based on responses to multi-item instruments within the survey that were hypothesized and designed a priori to reflect and represent the constructs of the CHSCP model and other constructs of interest in the current study. Items within the instruments were factor analyzed using maximum likelihood estimation. Items that loaded significantly together and explicitly represented their hypothesized factors were used in the latent variable analyses reported below. Further scale construction is described in more detail below. Most scales were pilot tested using focus groups to determine their intelligibility and their sensitivity to the culture and living conditions of homeless women (Nyamathi & Lewis, 1991). Content validity of the majority of scales and measures used in the interviews was established through review and consensus of a 12-member expert panel experienced in the areas of AIDS, ethnic-racial diversity, measurement issues, and coping.

Psychosocial and Environmental Variables

Self-esteem was measured using a revised version of the Coopersmith (1967) Self-Esteem Inventory. Participants indicated whether self-esteem items were true (2) or false (1). The internal consistency for this scale in the current study was .81. Because we wanted most constructs in the model to be represented as latent factors, we summed inventory items randomly to create three indicators. These indicators are labeled *self1*, *self2*, and *self3*.

Social support was measured by five items from the RAND Course of Homelessness Study (Burnam & Koegel, 1989). These items elicited information on a 1-to-5 scale about how often respondents had nondrug using friends, family, or partners available to: (a) have a good time with,

(b) provide them with food or a place to stay, (c) listen to themselves talk about themselves or their problems, (d) accompany them to an appointment to provide moral support, and (e) show their love or care.

Emotional distress was measured by the Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983), the Mental Health Index (MHI-5; Stewart, Hays, & Ware, 1988), and the Life Satisfaction Index (Nyamathi et al., 2000). Items were transformed, if necessary, so that higher scores meant more distress. We summed 18 items from the BSI scales for depression, anxiety, and hostility to create one indicator. Each item of the BSI is rated on a 5-point scale of distress ranging from *not at all* to *extremely*. Internal consistency coefficients for these three subscales have ranged from .84 to .88 (Nyamathi, Galaif, & Leake, 1999). The MHI-5, which measures psychological well-being, contains five items with responses made on a 6-point scale that ranges from *all of the time* to *none of the time*. The MHI-5 has well-established reliability and validity and has been shown to detect significant psychological disorders, including major depression, general affective disorders, and anxiety disorders (Berwick et al., 1991). Reliability for the MHI-5 in this sample was .84. *Life satisfaction* was measured by a series of faces with expressions ranging from very happy to very sad. Participants were asked to circle a number under the face that most closely resembled how they felt about their life in general, from *delighted* (1) to *terrible* (7).

Childhood abuse was assessed with three items that had a yes–no response format: (a) “Were you ever sexually abused as a child (i.e., before age 18 or before you started living on your own)?”; (b) “Were you ever physically abused as a child?;” and (c) “Were you ever verbally or emotionally abused as a child?”

Behavioral Variables

Coping style was assessed by 17 items from the Medical Outcomes Study Modes of Coping Battery (Sherbourne, Hays, Ordway, DiMatteo, & Kravitz, 1992). This instrument assessed various coping strategies used by the participant in response to physical health problems, emotional problems, or other problems she had faced in the past 6 months. The items were rated on a 5-point Likert scale that ranged from *never* to *very often*. The two main factors that emerged from factor analysis were hypothesized to reflect Active Coping and Avoidant Coping. Three items represented Avoidant Coping: “withdrew from other people,” “took it out on others,” and “slept more than usual.” An item concerning escapist drug and alcohol use was not used to avoid an overlap with other indicators in the model. Active Coping was indicated by several items. To keep a manageable number of indicators; we summed them to create three composites, labeled Composite 1, Composite 2, and Composite 3. A representative item is “tried to keep busy.”

Abuse-Related Variables

Substance abuse problems were assessed with four items that were worded similarly for alcohol problems and drug problems. Substance-relevant items were used in the separate analyses of participants with alcohol problems and those with drug problems. The women rated on 1-to-5 scales whether they believed they had an abuse problem and, if so, how serious their problem was. The sum of 10 negative effects of their alcohol/drug use rated no–yes was used as another indicator, and a sum of problems caused by their alcohol/drug use was the fourth indicator (scores could range from 0 to 4).

Use of substances over the past 6 months was indicated by one item from the Drug History Form (Simpson, 1992) that was scaled from 1 to 9, ranging from *no use* (1) to *use 4 or more times per day* (9). Substances included on the form were alcohol, inhalants, marijuana, hallucinogens, crack/freebase, other cocaine, heroin, street methadone, other opiates, amphetamines and methamphetamine, and barbiturates. Test–retest reliability for daily narcotic use and abstinence is in an acceptable range of .63–.71 (Anglin et al., 1996).

Addiction symptoms were scaled no–yes and included reporting that (a) it took participants longer to get over the effects of their substance use, (b) they were using more than they wanted, and (c) they needed more to get the same high.

Positive effects of alcohol and drug use were scaled no–yes and included reporting that (a) they enjoyed the high from their substance use, (b) their substance use helped them forget their problems, and (c) it was fun and relaxing to use substances.

One no–yes question assessed whether the participant's partner used drugs.

Sociodemographic Measures

We included years of education, and dummy codes for Black and Latina ethnicity (1 or 0), as further covariates and predictors. Age was originally included, but it was not significantly associated with other variables in the model and was dropped in the interest of keeping the model relatively parsimonious.

Positive Attitude About Quitting Outcome Latent Variable

Two items were used to indicate a positive attitude about quitting and the strength of the participant's attitude to quit substance use. First, on a scale that ranged from 1 (*no desire to quit*) to 5 (*a great desire to quit*), the women were asked to assess their desire to quit drugs or alcohol. Second, on a scale that ranged from 1 (*not at all successful*) to 5 (*very successful*), they were asked to rate how successful they would expect to be at quitting drugs or alcohol.

Analyses

We performed the latent-variable analyses using the EQS structural equations modeling program (Bentler, 2001). Goodness of fit of the models was evaluated statistically with the adjusted Satorra–Bentler robust chi-square (S-B χ^2), the robust comparative fit index (RCFI), and the root mean square error of approximation (RMSEA). We used robust statistics because the data were multivariately kurtose with a normalized estimate of 23.28 for the drug model and 16.18 for the alcohol model (Bentler & Dudgeon, 1996). The RCFI ranges between 0 and 1 and compares the improvement of fit of a hypothesized model to a model of complete independence among the measured variables, while adjusting for sample size. Values of .95 or greater are desirable for the RCFI (Hu & Bentler, 1999). The RMSEA is helpful as an additional tool to evaluate fit because it indicates the size of the residuals. Values less than .06 indicate a relatively good fit between the hypothesized model and the observed data (Hu & Bentler, 1999).

Models

Preliminary confirmatory factor analyses. We performed an initial confirmatory factor analysis (CFA) with each hypothesized latent construct predicting its proposed manifest indicators for each model. All latent constructs correlated freely. This analysis assessed the adequacy of the proposed factor structures of the two models and the relationships among the latent and manifest variables. For completeness, we included the demographic manifest variables in these models. To improve the fit of the CFA models, covariances between the error residuals of measured variables were considered for inclusion if they were reported as significant by the Lagrange Multiplier test (Chou & Bentler, 1990) and if they made sense theoretically and logically.

Predictive structural equation models. Once the factor structure was confirmed, we tested fully mediated models in which the demographic variables and the background constructs of Childhood Abuse, Self-Esteem, Social Support, and Emotional Distress predicted Avoidant and Active Coping styles. In turn, coping styles predicted the substance abuse related

variables of Substance Abuse Problems, past 6-month use of the substance, Addiction Symptoms, Positive Effects, and partner use of drugs. Then, the substance-abuse related variables predicted Positive Attitude About Quitting. At this point, further paths among the constructs that were not included in the initial mediated model that were reported as significant by the Lagrange Multiplier test were gradually added, and all nonsignificant paths were gradually deleted until only significant paths remained.

Results

CFA

In Table 2, the means, standard deviations, and factor loadings for the variables in each model that form the latent constructs are reported. All manifest variables loaded significantly ($p < .001$) on their hypothesized latent factors. The same correlated error residual was added to each of the models. This was a correlated error residual between whether the women believed they had an abuse problem and how serious their problem was ($r = .50$ for the alcohol model and $r = .37$ for the drug model). After the addition of this one supplementary correlation, the fit indexes for the CFA models were adequate for each group and indicated that the hypothesized factor structures were plausible: alcohol model, S-B $\chi^2(528, N = 526) = 1,068.82$, RCFI = .95, RMSEA = .044; drug model, S-B $\chi^2(528, N = 620) = 998.99$, RCFI = .96, RMSEA = .038.

Correlations among all of the latent variables and the demographics are reported in Table 3. The correlations for the alcohol group are below the diagonal, and the correlations for the drug group are above the diagonal. The correlations were generally in the hypothesized directions and were similar in their relationships in both the alcohol and drug groups. It is interesting that one divergence centers around the relationship between Addiction Symptoms and a Positive Attitude About Quitting. There was a significantly positive relationship between Addiction Symptoms and a Positive Attitude About Quitting among participants who had a problem with alcohol ($.29, p < .001$), whereas there was a negative relationship between Addiction Symptoms and Positive Attitude About Quitting for the drug problems group ($-.10, p < .05$). In addition, participants with a more positive attitude about quitting in the drug group were better educated, were more likely to be Black, less likely to be Latina, reported higher self-esteem and greater social support, less emotional distress, more active coping, greater drug use in the last 6 months, and fewer positive effects of drug use, and they were less likely to have a partner who used drugs. Participants in the alcohol problems group that reported a greater positive attitude about quitting and more education were less likely to be Latina and reported greater social support, more active coping, greater use in the last 6 months, fewer positive effects of drug use, and they were less likely to have a partner who used drugs.

Predictive Structural Equation Models

Alcohol model. The fully mediated model fit well, but the fit indexes indicated a significant decrement in fit over the fully saturated CFA model (mediated alcohol model: S-B $\chi^2[572, N = 526] = 1,288.32$, RCFI = .94, RMSEA = .049), which suggested that other significant relationships were necessary to include in the model. Significant paths were gradually added, and nonsignificant

Table 2
Factor Loadings, Means, and Standard Deviations of Measured Factors

Factor	Alcohol group (<i>N</i> = 526)			Drug group (<i>N</i> = 620)		
	<i>M</i>	<i>SD</i>	Factor loading	<i>M</i>	<i>SD</i>	Factor loading
1. Childhood Abuse (1–2; coefficient $\alpha = .61$ [alcohol group], $.62$ [drug group])						
Sexual abuse	1.3	0.5	.46	1.3	0.5	.48
Physical abuse	1.3	0.5	.70	1.3	0.5	.69
Verbal abuse	1.5	0.5	.61	1.5	0.5	.64
2. Self-Esteem (1–2; $\alpha = .87, .84$)						
Self 1	1.5	0.3	.85	1.4	0.3	.83
Self 2	1.5	0.3	.84	1.4	0.3	.79
Self 3	1.5	0.3	.80	1.5	0.3	.77
3. Social Support (1–5; $\alpha = .97, .97$)						
Good time	2.6	1.6	.91	2.3	1.6	.92
Provide help	2.5	1.6	.89	2.3	1.6	.90
Listen	2.6	1.6	.97	2.4	1.6	.96
Accompany	2.5	1.6	.94	2.3	1.6	.94
Show love	2.8	1.7	.96	2.5	1.7	.96
4. Emotional Distress ($\alpha = .80, .80$)						
Life satisfaction (1–7)	3.7	1.6	.71	3.9	1.6	.72
Brief Symptom Index (18–90)	38.9	16.4	.78	39.5	17.2	.80
Mental Health Index (6–30)	15.9	5.6	.80	16.7	5.6	.75
5. Avoidant Coping (1–5; $\alpha = .64, .55$)						
Withdrew	3.4	1.2	.76	3.4	1.2	.65
Took out anger on others	2.9	1.3	.50	2.9	1.3	.44
Time alone	3.4	1.3	.62	3.4	1.3	.54
6. Active Coping (1–5; $\alpha = .81, .81$)						
Composite 1	3.0	0.9	.81	2.9	0.9	.80
Composite 2	2.9	0.9	.77	2.7	0.9	.73
Composite 3	3.7	0.9	.73	3.5	0.9	.76
7. Substance Abuse Problems ($\alpha = .82, .84$)						
Believe has a problem (1–5)	4.4	1.2	.68	4.4	1.1	.69
How serious (1–5)	4.1	1.3	.74	4.1	1.2	.74
Negatively affected (0–10)	6.4	2.6	.77	6.3	2.6	.71
Alcohol/drugs cause problems (0–4)	2.2	1.3	.61	2.5	1.3	.80
8. Use Past 6 Months (1–9)	5.9	3.2	—	6.6	3.1	—
9. Addiction Symptoms (1–2; $\alpha = .91, .84$)						
Time getting over effects	1.5	0.5	.85	1.7	0.5	.76
Use more than wanted	1.5	0.5	.85	1.6	0.5	.79
Needed more	1.5	0.5	.92	1.7	0.5	.83
10. Positive Effects (1–2; $\alpha = .70, .72$)						
Enjoy high	1.8	0.3	.69	1.7	0.4	.71
Forget problems	1.8	0.4	.70	1.7	0.4	.68
Fun, relaxed	1.7	0.3	.60	1.7	0.3	.65
11. Partner Uses Drug (1–2)	1.3	0.5	—	1.4	0.5	—
12. Positive Attitude About Quitting (1–5; $\alpha = .91, .88$)						
Desire rating	3.1	1.9	.92	3.9	1.6	.89
Success expectation	2.9	1.8	.75	3.6	1.7	.89

Note. Numbers in parentheses are possible ranges. All factor loadings are significant, $p \leq .001$.

paths and covariances were dropped from the model until only significant paths remained. The outcome of this procedure is depicted in Figure 1. The fit is quite good and is not significantly different from the saturated model (final alcohol path model: S-B $\chi^2[581, N = 526] = 1,139.87$, RCFI = .95, RMSEA = .043). Significant predictors of Positive Attitudes About Quitting included more addiction symptoms, fewer Positive Effects, not having a partner who used drugs, and not being Latina. In addition, we assessed indirect effects that were channeled through the significant direct predictors. There were significant indirect effects on

Positive Attitudes About Quitting from Active Coping, more education, less Childhood Abuse, and more Social Support.

Drug model. As in the case of the alcohol model, the fully mediated model fit well, but the fit indices indicated a significant decrement in fit over the fully saturated CFA model (mediated drug model: S-B $\chi^2[572, N = 620] = 1,271.86$, RCFI = .94, RMSEA = .044). This again meant that other significant relationships were necessary to include in the model. Significant paths were gradually added, and nonsignificant paths and covariances were dropped from the model until only significant paths re-

Table 3
Correlations Among Constructs and Demographic Variables in the Confirmatory Factor Analysis

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Education	—	.26***	-.42***	.01	.24***	.14***	-.05	.09*	.28***	-.01	.04	.02	-.16***	-.18***	.33***
2. Black	.27***	—	-.57***	-.10*	.18***	.06	-.04	-.02	.29***	.03	.04	-.01	-.11**	-.19***	.25***
3. Latina	-.45***	-.56***	—	-.03	-.08*	-.04	-.22***	-.22***	-.12**	-.18***	-.04	-.15***	-.09*	.03	-.25***
4. Childhood Abuse	.07	-.04	-.14**	—	.18***	-.01	.33***	.30***	-.02	.24***	.07	.24***	-.17***	.05	-.02
5. Self-Esteem	.22***	.14***	-.09*	-.22***	—	.31***	-.68***	.49***	.53***	-.42***	-.18***	-.41***	-.46***	-.40***	-.37***
6. Social Support	.17***	.05	-.10*	-.04	.34***	—	-.32***	-.09	.33***	-.04	-.03	-.08*	-.22***	-.41***	.35***
7. Emotional Distress	-.11*	-.07	-.17***	.30***	-.73***	-.39***	—	.53***	-.48***	.48***	.20***	.48***	.52***	.47***	-.41***
8. Avoidant Coping	.07	-.01	-.20***	.27***	-.50***	-.12*	.55***	—	-.14*	.36***	.26***	.30***	.20***	.13**	.01
9. Active Coping	.36***	.28***	-.27***	.01	.51***	.35***	-.48***	-.18***	—	-.09*	-.02	-.18***	-.43***	-.50***	.57***
10. Substance Abuse															
Problems	.04	.06	-.31***	.32***	-.41***	.01	.43***	.38***	-.07	—	.56***	.75***	.55***	.13**	.08
11. Use, last 6 months	-.13**	-.06	-.02	.01	.31***	-.26***	.40***	.16*	-.31***	.24***	—	.39***	.19***	.10**	.13**
12. Addiction Symptoms	-.09*	-.07	-.05	.07	-.49***	-.25***	.56***	.25***	-.32***	.44***	.53***	—	.56***	.23***	-.10*
13. Positive Effects	-.13**	-.09*	-.09	.23***	.41***	-.05	-.36***	.20***	-.28***	.77***	.21***	.29***	—	.41***	-.29***
14. Partner Uses Drugs	-.27***	-.13**	.12**	.02	-.43***	-.42***	.50***	.16*	-.45***	.10*	.33***	.34***	.24***	—	-.54***
15. Positive Attitude About Quitting	.14***	.07	-.17***	-.06	.06	.07*	-.02	-.02	.15***	-.02	.14***	.29***	-.29***	-.25***	—

Note. Correlations for the alcohol group ($N = 526$) are below the diagonal; those for the drug group ($N = 620$) are above the diagonal. * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

mained. The final path model is depicted in Figure 2. The fit is quite good and is not significantly different from the saturated model (final drug path model: $S-B \chi^2[580, N = 620] = 1053.70$, RCFI = .96, RMSEA = .036). Significant predictors of Positive Attitudes About Quitting included more Drug Problems, greater alcohol use in the last 6 months, fewer Addiction Symptoms, not having a partner who used drugs, less Emotional Distress, more Active Coping, greater education, and not being Latina. Furthermore, there were additional significant indirect effects from Active and Avoidant Coping, being Black, more education, Childhood Abuse, Social Support, and less Emotional Distress.

Discussion

In this study we evaluated the role of multiple psychosocial, behavioral, environmental, substance abuse related, and sociodemographic factors in predicting a positive attitude about quitting alcohol or drug use among homeless women. The psychosocial, behavioral, environmental, and sociodemographic factors, as guided by the CHSCP theoretical framework, collectively were similarly associated with a positive attitude in quitting alcohol or drugs. However, distinct differences were also observed between the two samples, especially in the impact and influence of substance abuse related problems and addiction symptoms.

Alcohol Model

The alcohol model identified four significant direct predictors of a positive attitude about quitting alcohol use. These included more Addiction Symptoms, fewer Positive Effects from using alcohol, not having a substance-abusing partner, and not being Latina. The influences of addiction symptoms and recognizing fewer positive effects of alcohol were unique to alcohol use as opposed to our findings about drug use. This suggests that, especially in the case of alcohol misuse, unpleasant symptoms of addiction and fewer positive effects of use are particularly relevant to a desire to quit and greater estimation of success at quitting. When alcohol is used in moderation, addiction symptoms are usually absent. Feelings of well-being arising from alcohol use that are related to a perceived increase in self-esteem and greater social connectedness may be enticing; however, alcohol use may increase beyond a moderate level, resulting in addiction symptoms and an increasing need to consume more alcohol to achieve a sense of well-being. Helping women with alcohol problems realize that their alcohol use is out of control may be an important self-protective mechanism that should be fostered by health care professionals who work with vulnerable populations. However, we also found that lower self-esteem, less active coping, and greater childhood abuse were related to greater perceived positive effects of alcohol. These data thus suggest that among vulnerable populations, both situational circumstances, such as childhood victimization, as well as inadequate personal and behavioral skills, may promote a perception that alcohol use is positive and provides a welcome escape, resulting in less likelihood of quitting or even contemplating quitting.

Health care professionals must be adept in assessing and addressing personal and social inadequacies and in providing early warnings to problem drinkers regarding their need to consider quitting alcohol. This recognition and communication process is particularly important, as alcohol problems were not significantly

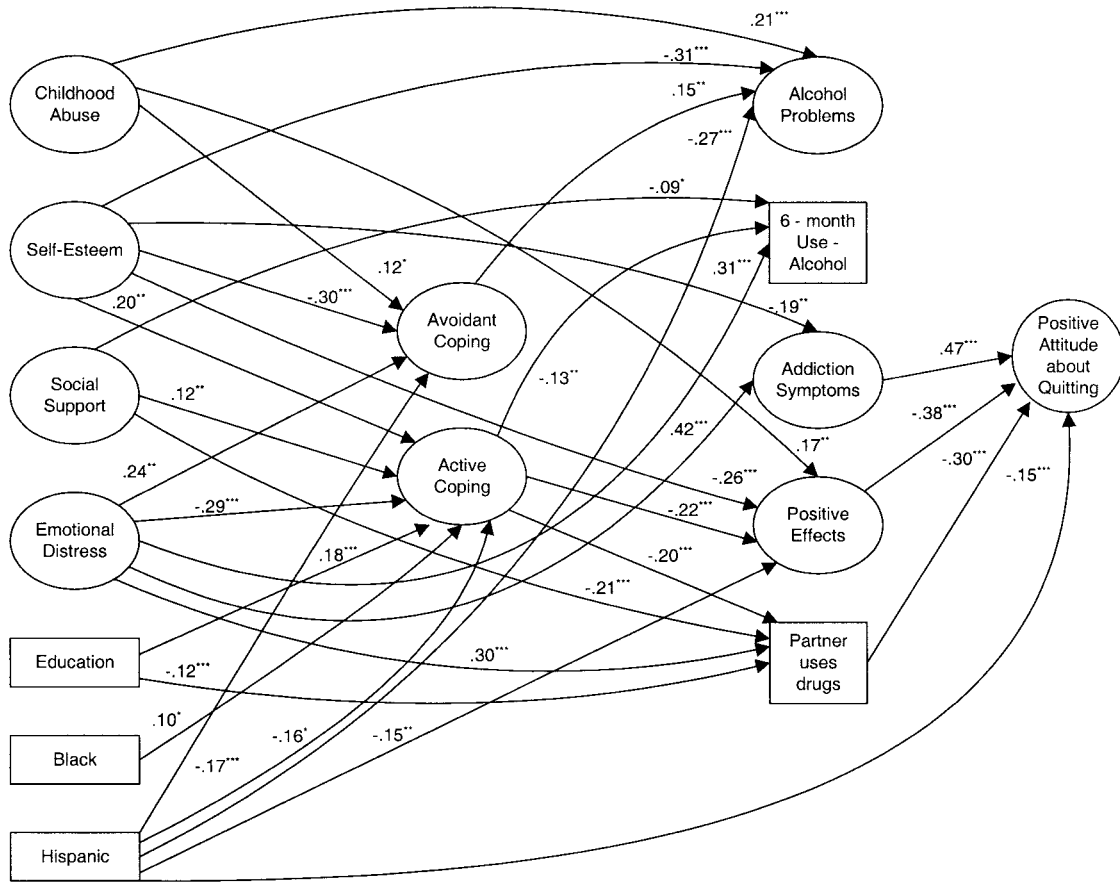


Figure 1. Significant regression paths in the structural equation model predicting Positive Attitude About Quitting Alcohol ($N = 526$). Regression coefficients (represented as one-way arrows) are standardized. Circles represent latent variables, and rectangles represent measured variables. * $p < .05$. ** $p < .01$. *** $p < .001$.

associated with a positive attitude about quitting. Thus, among at-risk populations, regardless of the perceptions of the seriousness of the alcohol problem, when alcohol consumption becomes addictive, the influence of other extenuating factors should be assessed. Thus, interventions addressing the salient issues of emotional distress and low self-esteem, the negative impact of childhood victimization, and the maladaptive use of coping mechanisms in homeless women abusing alcohol should be considered.

Less social support, more emotional distress, and avoidant coping were found to be associated with alcohol use. A positive attitude about quitting either alcohol or drugs was negatively influenced by having a partner who was currently using drugs. These findings suggest that intervention strategies designed to build effective coping strategies and assist women in connecting with positive social support in their community are warranted (Brewer, Catalano, Haggerty, Gainey, & Fleming, 1998; Nyamathi et al., 2000). Thus, it seems particularly relevant that when the individual is contemplating quitting use of alcohol or drugs, obtaining support from individuals who provide caring and trust should be sought rather than the support of a substance using friend or partner. This is especially the case because a substance-using partner was associated with a more negative attitude about quitting alcohol.

Drug Use Model

The drug use model identified eight significant direct predictors of a positive attitude about quitting drug use. The strongest predictor of a positive attitude about quitting drugs was participants' reporting that drug use gave them problems. This result is particularly interesting because of the contrast with our companion analysis in which alcohol problems did not significantly predict a positive attitude about quitting alcohol. Also, in contrast to the alcohol model, fewer Addiction Symptoms were associated with a more positive attitude about quitting. It is possible that they were fearful of painful and difficult withdrawal symptoms during the quitting process. Additional significant predictors included greater Drug Use in the Past 6 Months, more Active Coping, more education, less Emotional Distress, and not having a partner who uses drugs. Again, Latinas were less likely to have a positive attitude about quitting drug use.

Emotional distress and addiction symptoms negatively affected a positive attitude about quitting drugs. Specifically, the greater participants' emotional distress and addiction symptoms, the lower their positive attitude about quitting drugs. These results differ from those of the alcohol model, in which addiction symptoms promoted a positive attitude about quitting alcohol and emotional distress did not have a direct influence on a positive attitude about quitting alcohol.

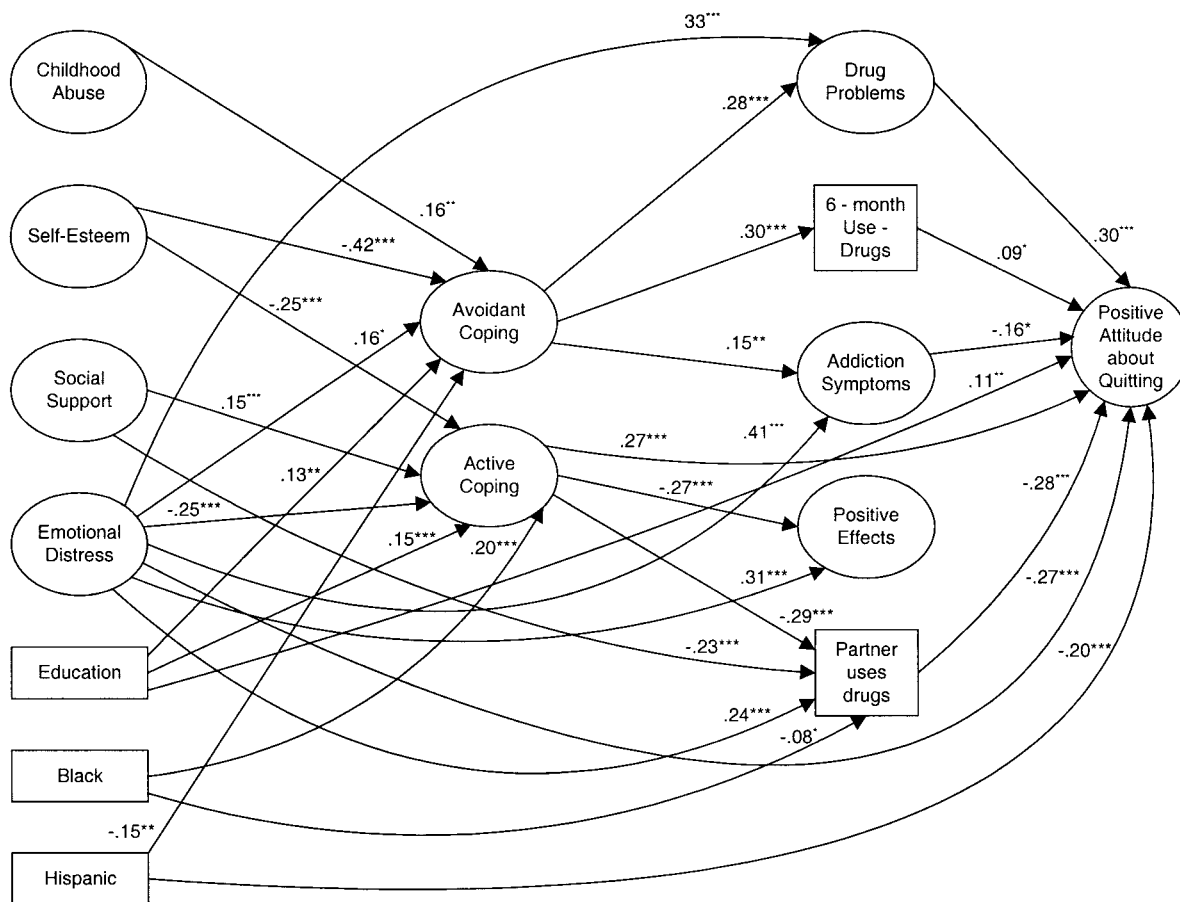


Figure 2. Significant regression paths in the structural equation model predicting Positive Attitude About Quitting Drugs ($N = 620$). Regression coefficients (represented as one-way arrows) are standardized. Circles represent latent variables, and rectangles represent measured variables. * $p < .05$. ** $p < .01$. *** $p < .001$.

Coping strategies were predictive of a positive attitude about quitting drug use. Active coping was strongly and positively related to a positive attitude about quitting drug use, and it was negatively associated with perceptions of the positive effects of drug use. Avoidant coping, on the other hand, was related to drug problems, drug use, and addiction symptoms. For the drug users, interventions aimed at promoting more active coping may stimulate increased motivation and intention to stop drug use.

Emotional distress and avoidant coping also predicted more drug problems. Emotional distress and avoidant coping have long been associated with seriousness of drug addiction (Brewer et al., 1998). Thus, dealing with mental illness and enhancing the use of active coping strategies go hand in hand when considering successful drug treatment among homeless women.

Ethnic Differences

Latina drug and alcohol users were less likely to express a positive attitude about quitting both alcohol and drugs compared with women of other ethnicities. These results support findings in other studies in which Latinos who were using drugs daily were less likely than Caucasian daily users to agree that they needed treatment (Longshore et al., 1993) or to report ever having been in

treatment (Longshore, Hsieh, Anglin, & Annon, 1992). It is possible that Latinos may be less likely to see their drug or alcohol use as a problem and are thus less likely to quit. However, it is also possible that Latinos may view available drug and alcohol treatment programs as not culturally sensitive to their needs, which may in turn prevent them from seeking substance abuse treatment. Furthermore, Latinos may also be less likely to quit drugs or alcohol when, because of powerful gender imbalances and inequities, their substance-using partner is unwilling, unable, or both, to support their effort to quit substance use (Amaro & Raj, 2000). Moreover, a number of other possible factors, such as educational level, neighborhood, social support networks, or geographic variation in the availability of the substances, may be influential. Continued research is warranted to help health professionals appreciate differences in cultural and gender-related perspectives in order to enhance potential effectiveness and outcome of treatment programs.

Limitations

First, and foremost, this study relied on self-report survey data of attitudes about behaviors, which may poorly correlate with measures of observed behavior and can be prone to social response

biases as well as lapses of memory. In this research, the social desirability of expressing a desire to quit drug use behavior is a relevant concern. However, in evaluating the reliability of self-report data from homeless people overall, studies have found the data to be generally accurate; furthermore, homeless people do not tend to report incorrect information any more than other populations do (Stein, Lu, & Gelberg, 2000). Second, we used a Likert scale to capture desire to quit. Some researchers question the use of Likert scales with ethnic minorities because of the possibility of cultural bias (Flaskerud, 1988). We attempted to overcome this potential source of bias by conducting pilot testing with homeless women prior to survey administration. Last, because the sample was drawn from an urban center in California, the findings of this study may not be generalizable to other populations of homeless women.

Conclusions and Directions for Future Research

The findings of this study highlight the potential value of motivational intervention in community outreach, substance use treatment intake procedures, and ongoing treatment counseling. They also point to possible refinements in the content of motivational intervention protocols for homeless women. These refinements fall into two general domains. First, reasons for change (factors positively related to attitude toward quitting) and barriers to change (factors negatively related to this attitude) represent pros and cons of substance use that are particularly relevant to this population. Positive effects of using are an example of a con that may make it especially difficult to quit for homeless women. Second, in the transtheoretical stages-of-change framework, particular cognitive and emotional processes underlie a person's progress across stages. Two of these processes are *reinforcement management* (being rewarded for making changes) and *helping relationships* (finding ways to enhance availability of and access to a favorable social support network.) The relevance of effective coping and positive social support as correlates of attitude toward quitting suggests that motivational intervention in this population might be more effective if these particular processes are facilitated. Focusing on population-specific pros and cons of use may have similar value. We elaborate on these implications below.

Some of the factors that predict a positive attitude about quitting were similar in both the drug and alcohol abuse groups. For example, among drug and alcohol abusers, not having a partner who uses drugs and not being Latina significantly predicted a desire to quit. In identifying predictors of readiness to quit, pragmatic attention should be focused on the variables most amenable to change. In this context, therefore, interventions incorporating strategies to promote cultural sensitivity toward Latinas, enhancing safely the assertiveness of women who wish to quit, and identifying and using social support systems would be warranted.

Given the limited availability of drug treatment programs for people without personal resources, such as homeless women, the identification of individuals ready to stop using drugs and alcohol may facilitate the triage of the best candidates for treatment. More important, however, these findings allow the identification of individuals who require specific counseling sessions. Such people may do well in treatment if counseling that provides stage-matched motivational intervention is provided (Prochaska & Norcross, 1994). Although empirical studies have confirmed the effective-

ness of interventions in raising motivation to change and promoting treatment entry and retention (Longshore & Grills, 2000), the ongoing investigation of predictors of a positive attitude about quitting specific drugs and of treatment outcomes is critical.

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