Relative contributions of parent substance use and childhood maltreatment to chronic homelessness, depression, and substance abuse problems among homeless women: mediating roles of self-esteem and abuse in adulthood[☆]

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Abstract

Objective: This study, using latent variable methodology, explores simultaneously the relative effects of childhood abuse and early parental substance abuse on later chronic homelessness, depression, and substance abuse problems in a sample of homeless women. We also examine whether self-esteem and recent violence can serve as mediators between the childhood predictors and the dysfunctional outcomes.
Method: The sample consists of 581 homeless women residing in shelters or sober living centers in Los Angeles (54% African-American, 23% Latina, 22% White, mean age = 33.5 years). Multiple-indicator latent variables served as predictors and outcomes in structural models. Childhood abuse was indicated by sexual, physical, and verbal abuse.
Results: Childhood abuse directly predicted later physical abuse, chronic homelessness, depression, and less self-esteem. Parent substance use directly predicted later substance use problems among the women. Recent physical abuse predicted chronic homelessness, depression, and substance use problems. Greater self-esteem predicted less depression and fewer substance use problems. Childhood abuse also had significant indirect effects on depression, chronic homelessness, and drug and alcohol problems mediated through later physical abuse and self-esteem.
Conclusions: Although there was a strong relationship between childhood abuse and parent drug use, childhood abuse was the more pervasive and devastating predictor of dysfunctional outcomes. Childhood

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abuse predicted a wider range of problems including lower self-esteem, more victimization, more depression, and chronic homelessness, and indirectly predicted drug and alcohol problems. The mediating roles of recent physical abuse and self-esteem suggest salient leverage points for change through empowerment training and self-esteem enhancement in homeless women.

Introduction

Using a latent variable methodology, we test simultaneously the relative contributions of childhood abuse and parent substance abuse to later chronic homelessness, depression, and substance abuse problems in a sample of currently homeless women. Associations have been demonstrated numerous times between childhood maltreatment and adverse outcomes such as personality disorders, depression, low self-esteem, and substance abuse problems in women (Banyard, 1997; Bensley, Van Eenwyk, & Simmons, 2000; Brayden, Deitrich-MacLean, Deitrich, Sherrod, & Altemeier, 1995; Marcenko, Kemp, & Larson, 2000). Furthermore, childhood maltreatment has been linked to a cycle of later traumatic victimization and maltreatment among women by spouses or other domestic partners which in turn often leads to homelessness or intermittent periods of housing instability in the women's attempts to escape their abusive environments (Browne, 1993; Browne & Bassuk, 1997; El-Bassel, Witte, Wada, Gilbert, & Wallace, 2001; Muehlenhard, Highby, Lee, Bryan, & Dodrill, 1998; Tyler, Hoyt, Whitbeck, & Cauce, 2001; Wenzel, Leake, & Gelberg, 2001). In addition, women who report childhood abuse and neglect often report concomitant high levels of parent substance abuse problems during their childhood (Fox & Gilbert, 1994; Melchert, 2000; Shah, Dail, & Heinrichs, 1995). This study explores whether early abuse, as manifested in sexual, physical, or verbal abuse, or parent substance abuse have the more pervasive effect on later adverse behavioral and psychological outcomes and whether recent physical abuse and lower self-esteem can mediate between childhood influences and current maladaptive outcomes.

It is important to examine the relative contributions of antecedents of chronic and severe homelessness, depression, and substance abuse problems. Research and interventions among homeless, impoverished women tend to concentrate on current lifestyle behaviors; less attention has been given to the role of their early childhood experiences. Exploring the contribution of early life experiences to a current lifestyle of maladaptive behaviors, chronic homelessness, and psychological distress would highlight the importance and value of early interventions among dysfunctional families. Homeless women report disproportionately high rates of childhood physical and sexual abuse histories (Browne, 1993; Browne & Bassuk, 1997; Goodman, 1991) along with childhood histories of economic and social disadvantage, and turmoil (Sullivan, Burnam, Koegel, & Hollenberg, 2000).

Furthermore, women with substance abuse problems combined with episodes of homelessness, mental illness, and interpersonal violence are often in poor health (Gelberg, 1996) and are at high risk for contracting sexually transmitted diseases (STDs), hepatitis B and C, HIV, and AIDS (Noell, Rohde, Seeley, & Ochs, 2001; Nyamathi, Stein, & Swanson, 2000;

Rosenberg et al., 2001; Wortley & Fleming, 1997). Chronic and more severe homelessness among women has been significantly associated with recent trauma, mental distress, substance use, adverse birth outcomes, and more STDs (Stein, Lu, & Gelberg, 2000; Wenzel, Koegel, & Gelberg, 2000).

Homeless women tend to come from backgrounds characterized by substance abusing parents, and for this additional reason may be vulnerable to later high-risk lifestyle behaviors, especially a perpetuation of substance-abusing behaviors which has been noted in homeless and also more normative populations (Chassin, Pitts, DeLucia, & Todd, 1999; Hops, Duncan, Duncan, & Stoolmiller, 1996; Stein, Newcomb, & Bentler, 1993). Furthermore, parental substance abuse has been described as a dominant characteristic among households implicated in child abuse cases (Felitti et al., 1998; Fleming, 1998; Kelleher, Chaffrin, Hollenberg, & Fischer, 1994; Sheridan, 1995). Similar results have been reported in national probability-based household samples (Kilpatrick et al., 2000).

In addition to assessing the relative contributions of parent drug use and childhood abuse to maladaptive outcomes among homeless women, another focus of this study is to test whether recent violence preceding the woman's latest episode of homelessness as well as low self-esteem mediate between childhood abuse and parental substance abuse problems and later adult problems of greater depression, more substance abuse problems, and more chronic homelessness. Relationships have been reported previously between violent assault and substance use in women (Kilpatrick, Acierno, Resnick, Saunders, & Best, 1997) and family violence and depression (Pianta & Egeland, 1994). Childhood maltreatment and family violence have been associated with less self-esteem in adulthood (Goodman & Dutton, 1996; Liem & Boudewyn, 1999; Mullen, Martin, Anderson, Romans, & Herbison, 1996; Solomon & Serres, 1999). Lower self-esteem has also predicted greater distress among homeless women (Nyamathi, Stein, & Bayley, 2000) and has been associated with more substance abuse in homeless populations (Unger, Kipke, Simon, Montgomery, & Johnson, 1997).

Finding mediators that are amenable to change is important in advancing knowledge and effecting positive transformations among vulnerable women. Interventions cannot change prior dysfunctional childhoods but can help change current attitudes and behaviors. If self-esteem and recent violence mediate relations between childhood predictors and adult outcomes, outreach efforts that include empowerment, job training, and esteem enhancement may be worthwhile for women at risk (e.g., Amaro & Raj, 2000; Nyamathi & Stein, 1997; Stein, Nyamathi, & Kington, 1997).

Figure 1 presents the hypothetical mediated model that is tested in this study. Mediation specifies the mechanism through which a predictor variable influences the dependent variable of interest (Baron & Kenny, 1986). In a mediated relationship, the predictor influences the mediator, which, in turn, influences the dependent variable (Holmbeck, 1997). In order to demonstrate mediation, it is necessary that the predictor variable is significantly associated with the hypothesized mediator and the dependent variable as well (Holmbeck, 1997). Associations among these constructs have already been reported in numerous studies and, thus, we do not rule out the possibility that in addition to mediated effects we will also find direct effects of the predictors on the outcome variables. However, demonstrating mediation will provide a possible mechanism for explaining how maladaptive outcomes arise and also indicate a leverage point for intervening effectively with women at risk for multiple adverse outcomes.
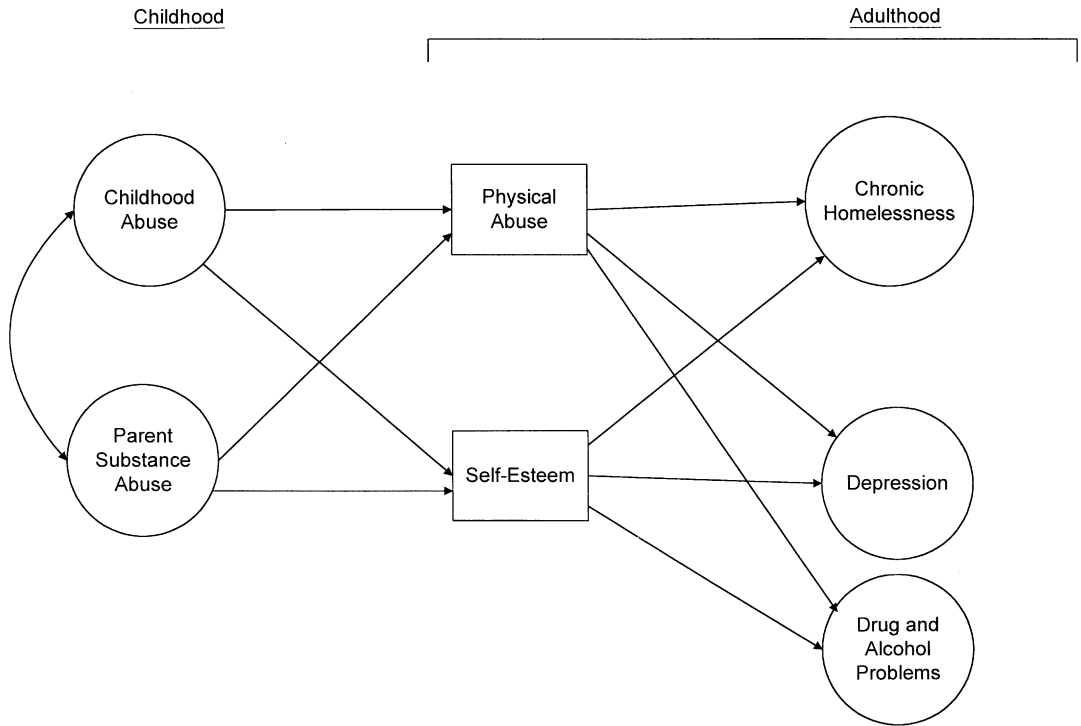
Figure 1. Hypothetical model testing mediation. Large circles designate latent variables; rectangles represent single-indicator constructs.

Method

Participants

The current sample consisted of 581 Los Angeles area homeless women residing in 35 shelters and sober living recovery programs in the Los Angeles in 1995 through 1998 (54% African-American, 23% Latina, 22% White; mean age = 33.5 years; mean years of education = 11.1 years, median years of education = 12 years). The women ranged in age from 16 to 50 years. The original sample had 583 women 50 years of age or less; two of these women had multiple missing data points and were excluded from the study. Twenty-seven women over 50 years of age were excluded from this current study to maximize recall of childhood events.

Procedures and materials

The women were recruited through directors of the 35 homeless shelters and recovery programs and invited to participate in a larger longitudinal health promotion study. Homeless women residing within the participating shelters were recruited through presentations provided by research staff to groups of women or on a one-on-one basis. Ninety percent of those

approached to participate agreed to be in the study (Nyamathi, Stein, & Swanson, 2000). Only baseline data are used in this current study. Eligibility for the larger study was satisfied if the participants met the following criteria: (1) they were 15–65 years of age; and (2) homeless and living in a shelter or a sober living recovery program for at least 1 week. A homeless woman was defined as one who was uncertain as to her residence in the next 60 days or stated that she did not have a home or house of her own in which to reside. All participants were individually assessed, assured of the confidentiality of their responses, and modestly compensated for their time. Procedures were approved by the human subjects protection committee of the University of California, Los Angeles. More details on sample acquisition are provided in Nyamathi, Flaskerud, Leake, Dixon, and Lu (2001).

Once informed consent was obtained, data were collected via questionnaires administered face-to-face in English and Spanish by a team of research nurses and outreach workers who had intensive training in the assessment of homeless and drug-addicted women. Nurses or outreach workers were matched to the participant's ethnicity. Interviews took approximately 60 minutes to complete. The structured clinical interviews assessed a range of psychosocial and behavioral factors including childhood abuse, parental drug use, substance use, self-esteem, depressive affect, and other relevant attitudes and behaviors. Scales were pilot tested using focus groups to determine their clarity and 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 medical research, ethnic/racial diversity, psychosocial constructs, and measurement.

Measures

Multiple-indicator latent variables were created from the items described below. In some cases, scales had numerous items that were combined into composites or parcels to reduce the number of measured indicators (Little, Cunningham, Shahar, & Widaman, 2002). Self-esteem and a history of recent abuse, however, are single-indicator variables. Before the measurement model (Confirmatory Factor Analyses—(CFA)) and path models were tested with structural modeling, preliminary exploratory factor analyses were performed to determine the best configuration for each latent construct.

Predictors

Childhood abuse. A latent variable of childhood abuse was indicated by the participants responses (no/yes [1–2]) on three separate items assessing whether they were "ever sexually abused as a child (i.e., were you molested, raped)," "ever physically abused as a child (i.e., kicked, slapped or hit with an object)," or "ever verbally or emotionally abused as a child (i.e., ignored, yelled at, put down, etc.)."

Parent substance abuse. A latent variable of parental drug use was created using responses (no/yes [1–2]) on two items assessing whether either of their parents had a "drinking problem (e.g., getting drunk at least once a week)" or used "illegal drugs when they were a child."

Mediators

Self-esteem was measured using a revised version of the 23-item Coopersmith (1967) Self-Esteem Inventory (CSEI). Subjects indicated whether self-esteem items were "true" = 2; or "false" = 1. The internal consistency for this scale in the current study was .81, and one large eigenvalue indicated that a single factor was feasible. Thus we used a sum of the items as a measured indicator. A higher score was interpreted as greater self-esteem.

Recent physical abuse was assessed with one item that indicated whether abuse occurred immediately before their latest homelessness episode (no/yes [1–2]).

Outcomes

Chronic homelessness was assessed by (1) the number of times they had ever been homeless; and (2) the amount of time they had been homeless (in months and years).

Depression was indicated by three measured variables created as parcels as described above from nine depression items from the NIMH Diagnostic Interview Schedule (DIS; Robins, Helzer, Croughan, & Ratcliff, 1994), a structured, lay-administered interview that yields diagnoses based upon DSM-III-R criteria. The nine items were summed at random (three per parcel) and are labeled as dep1, dep2, and dep3.

Drug and alcohol problems were assessed with indicators representing: (1) alcohol addiction: the 4-item CAGE Questionnaire, which has been successfully employed in a variety of clinical and experimental settings (Ewing, 1984). The CAGE items were summed. (2) Alcohol problems: An 8-item questionnaire assessed the impact of recent alcohol use (last 6 months) on various aspects of one's life (i.e., "medical health," "relations with family or friends," "general attitude or emotional health," "attention and concentration," "going to work or finding a job," "money and finances," "fights or arguments," and "police or legal trouble"). A 5-point response scale was employed in the scale (0 = never, 4 = almost always), and responses were summed. (3) Drug problems: an identical questionnaire as described above for alcohol assessed the impact of recent drug use (last 6 months).

Analyses

The analytic method selected for this study was structural equation modeling (SEM), using latent variables (Bentler, 2002). SEM is a preferred method to test mediational hypotheses due to the capability in SEM to contrast the fit of various models that include and exclude direct and mediated relationships (Bentler & Stein, 1992; Peyrot, 1996). Latent variables are error-free constructs that represent a superior order of abstraction than measured variables and represent the shared variance among multiple measured variables. Latent variable analysis allows one to evaluate causal hypotheses with correlational nonexperimental data. Although the causal hypothesis can be rejected statistically, it cannot be absolutely confirmed. For example, with cross-sectional data some alternative models might be equally plausible (MacCallum, Wegener, Uchino, & Fabrigar, 1993). However, more powerful conclusions can be drawn with this research method than in most nonexperimental research when the proposed model fits the empirical data and can be appropriately defended or justified theoretically (Bentler & Stein, 1992).

The goodness-of-fit of the model was appraised with the Satorra-Bentler χ^2 (S-B χ^2), the Robust Comparative Fit Index (RCFI), and the root mean squared error of approximation (RMSEA; Hu & Bentler, 1999). The S-B χ^2 was used because the data were multivariately kurtose (Bentler & Dudgeon, 1996). The RCFI ranges from 0 to 1 and reflects the improvement in fit of a hypothesized model over a model of complete independence or uncorrelatedness among the measured variables, and also adjusts for sample size (Bentler & Dudgeon, 1996). Values at around .95 or greater are desirable for the RCFI, and a cutoff value close to or less than .06 for the RMSEA is also desirable (Hu & Bentler, 1999). A parsimony index for the models is also provided: The Akaike Information Criterion (AIC; Akaike, 1987). Small values indicate good fitting, parsimonious models and are evaluated by comparisons with baseline independence models that impose no relationships among the variables.

Confirmatory factor analyses (CFA). Initial confirmatory factor analyses (CFA) were performed with each latent construct predicting its hypothesized manifest indicators. All latent constructs and the single-item mediating constructs were correlated without any assumption of causality among them. This analysis tested the sufficiency of the measurement model and measured associations among the latent or manifest variables. The CFA provided important information about the significance of the relationships among the hypothesized predictors, mediators, and outcomes because if the relationships were not significant, then it would not be possible to demonstrate mediation (Holmbeck, 1997).

Latent variable path analysis. A predictive mediated structural equation path model positioned latent factors of childhood abuse and parental drug use as predictors of single measures of self-esteem and recent physical abuse. In turn, self-esteem and recent physical abuse predicted chronic homelessness, depression, and drug use problems (see Figure 1). Chi-square difference testing determined whether this model provided a fit that was equally good as the fully saturated CFA or a path model in which all possible paths were included (Holmbeck, 1997). If the saturated model did not provide a significantly better fit than the mediated model (in which there are no direct paths from the predictors to the outcomes) then we would have demonstrated mediation. On the other hand, if the fully mediated model were significantly worse, then additional direct paths would be necessary in addition to the paths through the mediators. If the additional paths did not eliminate the significance of the mediated pathways, at least partial mediation would have been demonstrated. The Lagrange Multiplier (LM) test, which suggests additional relationships to add to models for fit improvement, was used to determine which additional direct paths were needed in the mediated model (Chou & Bentler, 1990).

Results

Confirmatory factor analyses (CFA)

Table 1 reports the means (*M*), standard deviations (*SD*), ranges, and factor loadings in the CFA. Prevalence of variables can be noted by examining their means. For instance, 36% of the women reported sexual abuse, 31% reported physical abuse, and 49% reported verbal abuse.

Table 1
Means, standard deviations, ranges, and factor loadings in confirmatory factor analysis ($N = 581$)

	M	*SD*	Factor loading
Childhood abuse (range = 1–2)			
Sex abuse	1.36	.48	.49[a]
Physical abuse	1.31	.46	.78
Verbal abuse	1.49	.50	.78
Parent substance abuse (range = 1–2)			
Alcohol	1.51	.49	.60
Drugs	1.24	.41	.56
Physical abuse (range = 1–2)	1.32	.47	–
Self-esteem (range = 0–23)	12.40	4.90	–
Chronic homelessness			
Number of times (0–75)	2.96	4.50	.57
Time homeless (0–24)	1.93	3.31	.54
Depression (range = 1–2)			
Dep1	1.39	.45	.93
Dep2	1.38	.44	.94
Dep3	1.41	.45	.94
Drug and alcohol problems			
Alcohol addiction (CAGE) (4–8)	5.54	1.65	.62
Alcohol impact (0–32)	8.36	10.77	.93
Drug impact (0–32)	12.67	12.57	.67

[a] All factor loadings significant, $p \leq .001$.

Parent alcohol abuse was reported by 51% of the women and parental drug abuse was reported by 24% of the women. All factor loadings were high and significant.

Table 2 reports the correlations among the latent and single-indicator variables in the CFA. Fit indexes for the CFA model were excellent: S-B χ^2 (70, $N = 581$) = 118.98; RCFI = .99,

Table 2
Correlations among latent or manifest variables ($N = 581$)

Latent or manifest variable	1	2	3	4	5	6	7
Childhood abuse	–	–	–	–	–	–	–
Parental substance abuse	.51***	–	–	–	–	–	–
Physical abuse	.43***	.25***	–	–	–	–	–
Self-esteem	−.18***	−.11*	−.13**	–	–	–	–
Chronic homelessness	.36***	.22**	.36***	−.06	–	–	–
Depression	.33***	.22***	.26***	−.30***	.27***	–	–
Drug and alcohol problems	.31***	.34***	.36***	−.24***	.39***	.34***	–

* $p \leq .05$.
** $p \leq .01$.
*** $p \leq .001$.

RMSEA = .035. For improvement in fit, the LM test had suggested one reasonable supplementary covariance to be added between the two error residuals of the measured indicators of alcohol problems, "alcohol addiction (CAGE score)" and "alcohol problems." The model also has an excellent parsimony index: the independence AIC = 3221.67 whereas the model AIC = −21.02.

As Table 2 indicates, all variables in the model were significantly correlated among themselves except for the relationship between chronic homelessness and self-esteem, which was small and nonsignificant (.06). Therefore, based on these preliminary results, we did not expect self-esteem to be a significant mediator between either predictor and the outcome of chronic homelessness. In all other cases, mediation was possible because there were significant effects that could be mediated. However, the relationship between self-esteem and parental substance abuse was only modestly related ($r = .11$, $p < .05$) whereas parent substance abuse was highly related to the three outcomes. Thus, again, we did not necessarily expect that self-esteem would function as a powerful mediator of relationships between parent substance abuse and the outcomes but rather that such relationships were more likely to be direct. Figure 2 presents the factor loadings of the manifest variables on the latent variables (measurement model) as well as significant predictive regression coefficients in the final path model. All factor loadings were significant ($p < .001$).

Path models. The fully mediated model (see Figure 1 for the hypothesized model) in which there were no direct paths allowed between the predictors and outcomes but only indirect paths through the mediators provided a significantly poorer fit than that of the saturated CFA model ($\chi^2 - \text{difference} = 41.06/6$ *df*, $p < .001$). Nonsignificant paths were deleted from this model, and direct paths from predictors to outcomes were added that were suggested by the LM test. The fit of the final path model depicted in Figure 2 is excellent, χ^2 (77, $N = 581$) = 122.84; RCFI = .99, RMSEA = .03; independence model AIC = 3221.67, model AIC = −31.16.

Childhood abuse predicted the mediators of recent physical abuse, and less self-esteem but also significantly predicted chronic homelessness, and depression directly. If the direct path between childhood abuse and chronic homelessness is eliminated, the fit worsens ($\chi^2 - \text{difference} = 10.85/1$ *df*, $p < .001$) although the size of the regression coefficient between physical abuse and chronic homelessness rises to .36 from .25. If the direct path between childhood abuse and depression is deleted, there is a significant and considerable decrement in fit once again ($\chi^2 - \text{difference} = 19.93/1$ *df*, $p < .001$) even though the regression coefficient between physical abuse and depression increases to .23 from .13 and the regression coefficient between self-esteem and depression increases to −.27 from −.24. Therefore, partial mediation was demonstrated in these competing analyses. In addition, if the mediated pathways are deleted leaving only the direct effects, significant decrements in fit were noted as well, indicating that the mediated relationships provided added explanatory power to the model.

We observed no mediation of the relationship between parent substance abuse and later substance abuse problems among the women by either self-esteem or recent physical abuse. Parent substance use directly predicted drug and alcohol problems. Parent substance use did not predict either mediator of physical abuse or self-esteem in the path models although they were significantly associated in the bivariate CFA. In addition, recent physical abuse predicted all three outcomes of chronic homelessness, depression and drug and alcohol problems.
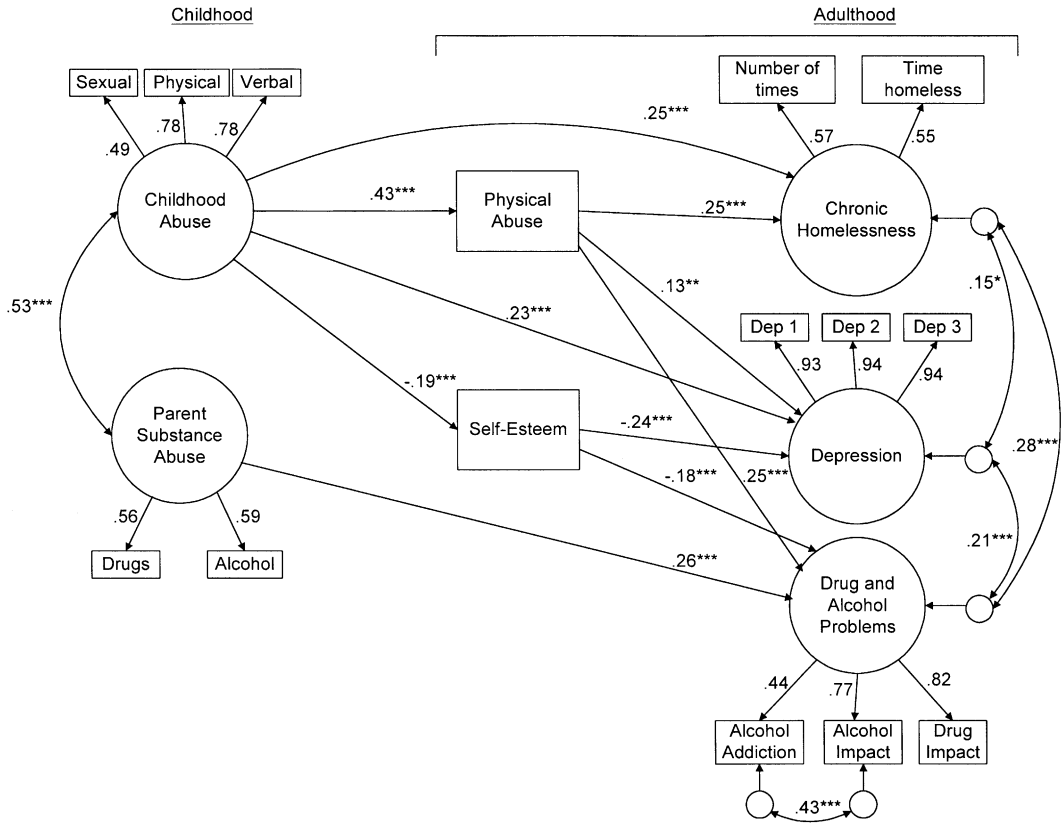
Figure 2. Final structural path model and standardized estimates of factor loadings and regression coefficients. Large circles designate latent variables; rectangles represent measured variables or single-indicator constructs; small circles represent residual variances. Double-headed arrows represent correlations; single-headed arrows represent regressions. (∗) *p* < .05; (∗∗) *p* < .01; (∗∗∗) *p* < .001.

Greater self-esteem predicted less depression and fewer drug and alcohol problems. There were also significant indirect effects of childhood abuse on all outcomes, depression, chronic homelessness and drug and alcohol problems, through physical abuse and self-esteem (*p* < .001). In addition, the predictors of childhood abuse and parent substance abuse were highly correlated (.54).

Discussion

It is not surprising that the entire model demonstrates that a more dysfunctional early home environment characterized by abuse and substance use problems leads to maladaptive outcomes. However, these findings arise within a sample of disadvantaged, homeless women wherein range restrictions, and ceiling and floor effects might have made it more difficult to find such relationships. We had hypothesized that childhood abuse and parent substance use,

the two separate indicators representing childhood family dysfunction, would be positively related to each other as the literature has suggested (e.g., Felitti et al., 1998; Fleming, 1998; Kelleher et al., 1994; Sheridan, 1995); that prediction was supported in our results. We found a powerful relationship between childhood abuse and parent drug abuse, and further influences of these variables on the outcomes and mediators of this study.

Influence of childhood abuse

Childhood abuse directly predicted a wider range of problems in adulthood including lower self-esteem, further victimization, depression, and chronic homelessness than did parental substance use. This result in a homeless, disadvantaged sample supports comparable findings in a college sample that early emotional abuse and neglect rather than parental substance use explained the most amount of variance in later psychological distress (Melchert, 2000). Childhood abuse also was a significant indirect predictor of drug and alcohol problems through lower self-esteem and more recent abuse, and its effect on the other outcomes was further mediated by recent abuse and lower self-esteem. Thus, childhood abuse, comprised of physical, verbal, and sexual abuse, was the more pervasive and devastating predictor of a range of dysfunctional outcomes among these homeless women.

Influence of parental substance abuse

On the other hand, parent substance abuse was a direct predictor of drug and alcohol problems among these women whereas childhood abuse was not. Thus, we found direct modeling or imitation of parent substance use behaviors rather than mediated effects of parent substance abuse on other predictors or correlates of substance abuse problems. This supports the viewpoint that substance abuse can result from an imitative process wherein substance-abusing parents intergenerationally influence substance abuse in their offspring (e.g., Chassin et al., 1999; Hops et al., 1996; Stein et al., 1993). It is noteworthy that the correlations in the bivariate analysis between parent substance abuse and all of the outcomes were significant, and yet, parent substance abuse only significantly predicted later substance use problems. The associations with childhood abuse were so powerful that they accounted for most of the variance in the outcomes.

Mediated effects and direct influence of the mediators

We predicted that self-esteem and recent physical abuse would impact the outcome variables of chronic homelessness, depression, and substance abuse problems. Supporting the findings of others (e.g., Wenzel et al., 2000, 2001), we found that recent violence significantly predicted all three negative outcomes. A climate of fear and danger exacerbates the pre-existing vulnerability of homeless or potentially homeless women and makes them at risk for a range of adverse outcomes. Greater self-esteem predicted less depression and fewer drug and alcohol problems. These results are remarkable considering the population from which they are derived in which one might not expect the variability required to discern these relationships.

We also hypothesized that recent physical abuse and low self-esteem would mediate the relationship between early childhood maltreatment and family dysfunction and later behavioral

and psychological problems as well as a more chronic homelessness history. It is critical to find such mediators when designing effective interventions among homeless women. We did find evidence of at least partial mediation. Women who reported childhood abuse tended to also report low self-esteem and recent physical abuse which in turn, in the case of physical abuse, impacted all three outcomes, and in the case of self-esteem impacted both depression and substance abuse problems among the women. Childhood abuse leads to vulnerability for more abuse later on, which in turn predicts a wide range of serious problems in adulthood.

Implications for intervention

The relationships that we uncovered at least partially support our hypotheses regarding mechanisms by which early childhood experiences can influence later adverse consequences. It is obvious that early interventions among dysfunctional families could assist in decreasing the debilitating burden of maladaptive lives on both individuals and on society. Substance abuse treatment and training in parenting skills among highly stressed families would greatly improve the lives of the parents and of their children. In addition, recognizing the more proximal influence of recent abuse and poor self-esteem, empowerment strategies that address issues especially pertinent to women who are in a cycle of abuse and disenfranchisement may greatly assist in decreasing their substance abuse problems, adverse emotional problems, and help them break free from their status as homeless (e.g., Nyamathi & Stein, 1997; Stein et al., 1997). Self-esteem enhancement, job training, and decent housing could enhance their self-perceptions, provide independence for them, and also free them from perceptions of powerlessness and from those that abuse them.

The present findings suggest that abuse in childhood leaves one susceptible to a lifestyle or outlook that leads to further victimization by others. By developing unhealthy self-perceptions in which they devalue themselves, homeless women consequently may enter into a lifestyle of risky behaviors that will have deleterious effects on their health (Stein et al., 2000). As an example, abused women who subsequently report low self-esteem, may also display less assertiveness with their partners regarding birth control or unwanted sex, or may attempt to increase their self-worth by having multiple sexual partners (Amaro & Raj, 2000; Noell et al., 2001). Nyamathi, Stein, and Brecht (1995) found that lower self-esteem predicted more barriers to condom use in a sample of homeless African-American women. However, greater self-esteem directly predicted active coping styles that in turn were associated with less drug use (Nyamathi et al., 1995).

Limitations

The current study had several limitations. The sample consisted of mainly African-American and Latina homeless women, which may limit generalizability. However, these minority women represent a subgroup of women that largely has been understudied and needs more attention; additionally, this sample is quite typical of female homeless populations. Second, the research findings were based on retrospective, self-report questionnaires. Many women

may have blocked out or repressed certain childhood events, such as childhood abuse, due to their emotional discomfort in recalling this information.

Some of the measured items, especially those assessing childhood abuse and parent substance abuse, were simplistic; more detailed information perhaps supported by secondary sources such as court records or other family members would have been more reassuring. However, use of multi-indicator latent variables rather than single-item questionnaire items helped strengthen these constructs. Another limitation is that the data are cross-sectional which limits inferences about directionality of influences especially among the mediators of self-esteem and recent violence, and the outcome variables (MacCallum et al., 1993). For instance, Kilpatrick et al. (1997) found reciprocal relationships between substance abuse and assaults in a longitudinal sample of women. Replicating these results in other populations would further strengthen our findings.

Conclusion

The present study contributes to studies among at-risk vulnerable women by relating malleable intervening variables to adverse outcomes that represent health risk behaviors and psychological distress. Furthermore, by examining a path model that incorporated simultaneous influences on later outcomes we were also able to investigate more thoroughly the role and impact of early childhood experiences among homeless women. The results demonstrated once again that women who have been reared in households of abuse and parental drug use are at great risk for health risk behaviors later in life. Although this relationship has been demonstrated previously, we also present a mechanism that may help explain what is occurring in terms of self-regard and proximal violence.

The findings in this study are important because knowledge of current factors that mediate the relationship between childhood abuse and maladaptive outcomes can be used to design interventions aimed at reducing these adverse outcomes. *We cannot go back and improve or erase the childhood they already had* although this study also adds substantial support to the claim made by Meledandri, Cattaruzza, Zantedeschi, Signorelli, and Osborn (1997) that prevention efforts designed to eliminate child abuse may also serve to eliminate other risks. Further attention should be given to investigating the ways in which childhood maltreatment may affect subsequent valuation of the self.

In conclusion, homeless, disenfranchised women are disproportionately represented among those abused in childhood and those engaged in unhealthy behaviors in adulthood. These facts underscore the need for research focused on mediators of the development of maladaptive mental and physical health outcomes. Without a more thorough investigation, we will not be able to understand fully the issues that need to be addressed in interventions designed to reduce health risks in vulnerable populations.

Acknowledgments

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Résumé

Objectif: Cette étude, ayant recours à la méthode de la variable latente, explore comment deux facteurs (les effets relatifs des mauvais traitements en enfance et la consommation abusive d'alcool et de drogues chez les jeunes parents) influenceront plus tard chez des femmes sans abri, la dépression, la consommation abusive et la vie de sans abri. Les auteurs examinent aussi l'estime de soi et la violence récente à savoir si ces facteurs peuvent agir sur la dysfonction et servir de variables explicatives infantiles.

Méthode: L'échantillon comprenait 581 femmes sans abri, vivant dans des refuges ou des maisons pour toxicomanes sobres, dans la ville de Los Angeles (54% de race noire, 23% latino–américaines, 22% blanches; âge moyen de 33.5 ans.) Des variables latentes à indicateurs multiples ont servi de variables explicatives dans le cadre de modèles structurels. Par "mauvais traitements des enfants," on entend les mauvais traitements sexuels, physiques et verbaux.

Résultats: Les mauvais traitements en enfance prédisent directement les mauvais traitements en âge adulte, une vie sans abri qui sera chronique, la dépression et une estime de soi faible. La consommation abusive chez les parents prédit directement le même phénomène chez leurs filles, une fois devenue adultes. Les mauvais traitements récents prédisent une vie sans abri chronique, la dépression et la

toxicomanie. Une meilleure estime de soi prédit un taux de dépression inférieur et moins de difficultés au niveau de la toxicomanie. Les mauvais traitements en enfance ont aussi des effets indirects sur la dépression et la chronicité de la vie sans abri, tandis que les problèmes d'alcool et de drogues ont des effets sur l'incidence des mauvais traitements et sur l'estime de soi.

Conclusions: Bien qu'il existe une forte relation entre les mauvais traitements en enfance et l'usage de matières toxiques chez les parents, les mauvais traitements en enfance se sont avérés plus considérables et plus dévastateurs en tant que variables explicatives pour ce qui est des problèmes de dysfonction. Les mauvais traitements en enfance prédisent une gamme plus étendue de difficultés y compris une faible estime de soi, des agressions plus fréquentes, plus de dépression et une vie chronique sans abri; ils prédisent indirectement les difficultés d'alcool et de drogues. Les mauvais traitements récents et l'estime de soi sont des variables explicatives qui pourraient servir de porte d'entrée pour introduire un changement dans la vie des femmes sans abris par le biais d'une formation axée sur l'autonomisation et l'amélioration de l'estime de soi.

Resumen

Objetivo: Este estudio, utilizando la metodología de variables latentes, explora simultáneamente los efectos relativos del maltrato infantil y del abuso de sustancias en edades tempranas en la aparición posterior de vagabundez, depresión y problemas de abuso de sustancias en una muestra de mujeres vagabundas. También se analiza si la autoestima y la violencia reciente pueden servir como mediadores entre los predictores infantiles y las consecuencias disfuncionales.

Método: La muestra consiste en 581 mujeres vagabundas que residen en albergues o en centros residenciales "libres de bebida" en Los Angeles (54% afroamericanos, 23% latinos y 22% blancos y con una media de edad de 33.5 años). En los modelos estructurales, se utilizaron variables latente múltiples como predictores y como efectos. El maltrato infantil fue operacionalizado como abuso sexual, maltrato físico y maltrato verbal.

Resultados: El maltrato infantil predijo directamente el posterior maltrato físico, la vagabundez crónica, depresión y baja autoestima. El abuso se sustancias de los padres predijo directamente la posterior aparición de problemas con las drogas entre las mujeres. El maltrato físico reciente predijo vagabundez crónica, depresión y problemas con las drogas. Una elevada autoestima predijo menor depresión y menos problemas con el uso de sustancias. El maltrato infantil también tuvo efectos significativos indirectos en la depresión, vagabundez crónica y problemas con las drogas y el alcohol y se observaban efectos mediadores del maltrato físico posterior y de la autoestima.

Conclusión: A pesar de que se observó una fuerte relación entre el maltrato infantil y el abuso de drogas por los padres, el maltrato infantil fue el predictor más dominante y devastador con respecto a posteriores consecuencias disfuncionales. El maltrato infantil predijo un amplio rango de problemas incluyendo baja autoestima, más victimización, más depresión y más vagabundeo crónico. Además, predijo de manera indirecta la presencia de problemas con el alcohol y las drogas. El efecto mediador del maltrato físico reciente y de la autoestima sugieren la presencia de puntos fuertes en los que apoyarse a través del entrenamiento en competencias y en la mejora de la autoestima en las mujeres vagabundas.