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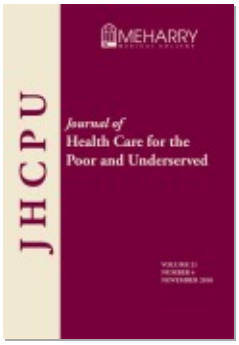

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Correlates of Adult Assault among Homeless Women

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Abstract: The purpose of this study was to assess predictors of sexual and physical assault among homeless women. A multivariate, correlation design was utilized to identify independent correlates of adult physical and sexual assault. The sample consisted of 202 homeless women residing in shelters or living on the street in the Skid Row area of Los Angeles. Respondents reporting a history of child sexual abuse were almost four times more likely to report being sexually assaulted as adults and were almost two and one third times more likely to report being physically assaulted as adults. A range of factors increase homeless women's risk of adult physical and sexual victimization, including child sexual abuse, substance use, lifetime sex trade activity, and previous incarceration. It is important for homeless service providers to develop an individual risk profile for homeless women and to intervene in order to decrease their risk of re-victimization.

Key words: Homeless women, sexual assault, physical assault.

Homeless women are highly susceptible to victimization.[1,2] In a study published in 2003, one-third of homeless women and those with unstable housing women (n=558) reported experiencing sexual assault, and 31% reported being physically assaulted within the last year.[3] Wenzel, Koegel, and Gelberg[2] reported that almost one-fourth of their sample of 394 homeless women had been either physically or sexually victimized in the 30 days before their interview. Approximately 18% of incarcerated women with children in prison reported they were homeless within the year prior to their incarceration.[4] In addition, homeless women who have experienced incarceration in their lifetimes report extensive histories of interpersonal violence.[5] The high rates of recidivism among women prisoners has been explained, in part, by high levels of physical

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and sexual abuse;[6] therefore, incarceration and its correlates to physical and/or sexual abuse are additional influences that greatly affect homeless women populations.

Additionally, women who experience victimization and are fleeing intimate partner violence are at increased risk for becoming homeless.[7] In a 2007 study of homeless women with children, domestic violence and living in fear of a male partner or spouse was the most commonly-cited reason for being homeless.[8] Other forms of victimization occur when homeless women engage in survival strategies to garner income, such as panhandling, gathering recyclables, selling items on the street, or engaging in sexual activity with strangers.[2]

Sexual and physical violence among homeless people are associated with poor general health[9] and psychiatric co-morbidities, including post-traumatic stress disorder, depression, and suicidal ideation.[8–12] Many homeless women escaping intimate partner violence have exhausted their family and social support networks prior to homelessness and report feeling isolated, depressed, and disappointed by lack of emotional support from shelter staff.[8] Moreover, sexual and physical abuse of homeless people are associated with increased urgent health care utilization; particularly, homeless women were seen for complaints for sexual assault, physical assault, and robbery.[13,14] Although there is some agreement that many homeless people have extensive histories of physical and sexual abuse,[14,15] little research has simultaneously focused on a full array of potential correlates of sexual and physical abuse among homeless women and associations among the timing of the abuse (childhood vs. adult) with psychological functioning of homeless adults.

Among homeless women, approximately one-third of respondents reported a history of childhood physical or sexual abuse.[16] Studies have linked childhood abuse to subsequent homelessness. In a study of women and female adolescents who were victimized as children, the victimized were two to four times more likely to report running away from home before the age of 16 than those who were not victimized as children.[17] People with a history of childhood sexual abuse participate in fewer sexual self-care behaviors than those without childhood sexual abuse history;[18] they also report less social support, low self-esteem, depression, and further victimization.[18–21]

Studies examining correlates of victimization in homeless women have hypothesized that coping responses may be contributing factors to higher rates of victimization. Individual-level characteristics, such as personal vulnerability factors including psychiatric comorbidities,[2,3,16] drug and alcohol dependence,[2,3,20] economic-survival strategies,[2] and risky sexual behaviors,[16] were all found to be more prevalent in homeless women with higher rates of victimization.

Comprehensive Health-seeking and Coping Paradigm. The Comprehensive Health-seeking and Coping Paradigm (CHSCP) is the theoretical framework used for this investigation.[22] It serves as a client-oriented way to describe, predict, and understand phenomena regarding health-seeking and coping behaviors.[23–25] Originally adapted from Lazarus and Folkman's[26] stress and coping paradigm and Schlotfeldt's[27] health-seeking paradigm, CHSCP outlines factors among vulnerable populations associated with susceptibility to health disparities. These include sociodemographic, situational, and personal characteristics associated with health disparities, as well as physical health, social resources, social support, and coping responses.[22] Maladaptive responses to

traumatic events in the past may well affect an individual's physical health, his or her social resources, and subsequent health-related events, such as victimization.

In this study, we describe the prevalence of the reported types of abuse among homeless women in Los Angeles. Pertinent sociodemographic factors that stem from the CHSCP model and are related to health disparity among homeless women are age, gender, race/ethnicity, and level of education. Situational factors are any intervening variables that can impede coping and health-seeking behaviors, such as homelessness, rape, sexual harassment, physical abuse, drug use, and incarceration. Personal factors include self-esteem, level of depression, and emotional well-being. Coping responses include participation in substance abuse treatment.

Relationships between types of abuse and sociodemographic, psychological, and behavioral factors are examined. Such information may have important implications for providing tailored interventions for homeless adults, such as post-abuse counseling, especially for those with impaired coping or psychological functioning.

Methods

This study is a secondary analysis of data collected in a randomized, longitudinal, quasi-experimental three-group design study. The purpose of the parent study was to evaluate effectiveness of a theoretically-based Nurse Case Managed program that included incentives and tracking (NCMIT), a standard program with incentives and tracking (SIT) and a standard program with incentives only (SI) on completion of the hepatitis A and B vaccination series among homeless adults not infected with hepatitis B. For this study, multivariate analysis was used to identify independent correlates of adult physical and sexual assault, controlling for important sociodemographic characteristics. Data were collected between September 2003 and June 2006. The study and associated materials were approved by the University's Human Subject Protection Committee.

Participants. The sample of 202 women constitutes a subsample of the larger study sample of 865 homeless adults, who were eligible for the study if they met the following criteria: a) adult age 18–65 and residing in one of 16 participating shelters or living on the street; b) willing to undergo hepatitis A virus (HAV), hepatitis B virus (HBV), hepatitis C virus (HCV) and human immunodeficiency virus (HIV) testing at baseline and found to be HBV negative; c) willing to participate in the intervention; and d) no history of HBV vaccination. See Nyamathi et al. for the hepatitis immunization study [28].

Procedure. Homeless adults, who were stratified by type of site (homeless shelter, drug rehabilitation program, or street-based), were informed of the study by flyers that were posted in residential sites or where participants received care. Homeless people interested in the study called or visited the research nurses working at a nearby neighborhood clinic a few blocks from their shelters. Detailed information was provided by the research nurses during the scheduled times they were present in the clinic. People who remained interested were then presented with the informed consent form, which was read and discussed, with opportunity for questions. After the informed consent form was signed, the research nurses or staff administered a brief screening questionnaire, which assessed hepatitis-related health history and sociodemographic information.

Those who were eligible went through another informed consent process to undergo testing for HAV, HBV, HCV, and HIV. Pretest and posttest counseling was conducted by the research nurse. All those found to be HBV sero-negative after a two-week period and interested in enrolling in the study were administered the final informed consent and the baseline questionnaire by the research staff. They were subsequently randomly enrolled by site into one of three groups. Over the subsequent six months, participants in the intervention group received a nurse-case management and education program about hepatitis A, hepatitis B, or hepatitis C, along with an empowerment program on self-esteem, communication, coping, and social behavioral skills. Participants in one of two control programs received a 20-minute educational session on hepatitis A and hepatitis B, along with brochures. A follow-up interview with all groups was conducted at six months. The outcome was acceptance of hepatitis immunizations. Research nurses and outreach workers who delivered the intervention were not involved in the baseline or follow-up assessments.

Measures. Instruments utilized have been previously tested and validated using the CHSCP in impoverished and/or homeless African American, Latino, and White adults.[25,28–30] All instruments were adapted to the sixth-grade level and were administered orally by the research staff to all participants in a private location.

Sociodemographic variables collected at baseline included age, ethnicity, education (dichotomized into 12 years or younger versus older than 12 years), having children, homeless history, and history of spending time in jail or prison. Situational variables were measured by childhood and adult physical and sexual abuse and assault. Childhood abuse history was measured by two items that each had a yes/no format. Physical abuse was measured by an item that asked, "As a child (less than 18 years of age), were you ever physically abused, for example, hit, choked, burned or beaten?" A separate question assessed whether a mugging event occurred as a child. Information about sexual abuse was elicited by asking, "As a child, did you ever have sex (oral, anal, and/or genital) because you felt forced in some way or threatened by harm to yourself or someone else?" Examples are a) raped as a child and b) sexually harassed (touched or made to touch someone else in a sexual way as a result of threat).

Adult physical abuse was measured by two items that each had a yes/no response. Physical abuse was measured by the following item, "As an adult, have you ever been physically abused, for example choked, hit, or beaten, robbed, or physically attacked by a stranger or someone you knew well?" A separate question assessed whether a mugging event occurred as an adult. These items were taken from the Physical Assault Scale, a dimension of the Revised Conflict Tactics Scale (CTS2).[31] Physical assault revealed .84 reliability coefficient among low-income women,[32] and a reliability coefficient of .79 was obtained among English-speaking mothers in a pediatric clinic.[33] Work is ongoing regarding validity of Conflict Tactics Scale 2, the subsequent version. Using confirmatory analysis, Connelly and colleagues reported a moderate fit on dimensions of physical assault, psychological aggression, and negotiation.[32]

Information about adult sexual abuse was elicited by the question, "As an adult, were you ever raped or sexually harassed (touched or made to touch someone else in a sexual way as a result of threat)?" Sexual assault items were taken from the National Violence Against Women Survey.[34] Having ever been in jail or prison, daily drug use

in the last six months, history of injection drug use, and history of involvement in sex trade were each assessed by asking participants as yes/no questions if they had ever had these experiences.

Personal resources. Self-esteem was measured by responses to the 23-item Coopersmith[35] Self Esteem Inventory. Coefficient α was high (.79) and a sum score was used. Responses were in a true (1)/false (2) format and items were reversed when necessary, so that higher responses indicated more self-esteem. Sample items include: "You often wish you were someone else," and "You give in very easily."

Depression was assessed with the Center for Epidemiological Studies Depression (CES-D) scale.[36] The 20-item self-report instrument is designed to measure depressive symptomatology in the general population and has been validated for use in homeless populations.[37] Each item measures the frequency of a symptom on a four-point response scale from 0 ("Rarely or none of the time [Less than one day]") to 3 ("Most of the time [five to seven days]"). Item scores were summed, giving an overall scale that could range from 0 to 60. A score of 16 or more indicates symptoms of depression and possible need for follow up. The internal reliability of the scale in this sample was .90.

The five-item mental health index, which has well-established reliability and validity, was used to measure emotional well-being.[38] Perceived health status was measured on a five-point scale (from excellent to poor), and a dichotomous item inquired about recent hospitalization. Coping responses included heath seeking behaviors; currently enrolled in a substance abuse program was assessed by a yes/no question.

Statistical analyses. The prevalence of types of abuse was documented in the sample as a whole as well as correlations based upon variables of interest. Chi-squared tests and analysis of variance were used to assess group differences in types of and perpetrators of abuse. Logistic regression analysis was used to identify correlates of adult physical and sexual assault, controlling for important sociodemographic characteristics. Stepwise multiple logistic regression modeling was used to identify correlates of adult physical and sexual assault, controlling for important sociodemographic characteristics. Predictors in the initial model included variables that were associated with adult physical and sexual assault at the .15 level in preliminary analyses; other covariates were retained if they were significant at the .10 level. Variables that were not included in the stepwise modeling were then tested one at a time for inclusion in the model; these additional covariates were retained if they were significant at the .10 level or if they had a strong impact on the coefficients of other variables in the model. Multicollinearity was assessed and model fit was examined with the Hosmer-Lemeshow test. Output for this paper was generated using [SAS/STAT] software, Version [9.1] of the SAS System (Copyright © [2000–2004]).[39]

Results

The sample comprised 202 women; the majority was African American (Table 1). Average age of respondents was 42.3 years (SD=9.0). Approximately 33% of the women were raped as adults, and over one-third were sexually harassed or physically abused as adults. Child sexual abuse was reported by 20% of the women, while almost 33% of the women had been physically abused as children; over one-third under the age

Table 1.

SAMPLE CHARACTERISTICS (N=202)

Characteristics	Mean	SD
Background		
Age	42.3	9.0
Education	12.1	1.8
Self-Esteem	13.6	4.8
Depression	18.7	12.5
Emotional Well-Being	62.8	23.7
	N	**Percent**
Ethnicity:		
Black	136	67.3
White	31	15.4
Hispanic	29	14.4
Other	6	2.9
Raped as an Adult	59	29.4
Raped in the last 6 months	10	5.0
Raped <18 years old	45	22.4
Sexually Harassed as Adult	62	30.9
Sexually Harassed as Adult in last 6 months	8	3.98
Sexually Harassed <18 years old	70	34.8
Mugged as an Adult	64	31.8
Mugged as an Adult in last 6 months	6	3.0
Mugged <18 years old	21	10.4
Physically Abused as Adult	87	43.3
Physically Abused in last 6 months	16	8.0
Physically Abused <18 years old	58	28.9
Jail/Prison History	82	40.6
Sex Trade History	73	36.5
Injection Drug Use History	20	9.9
Daily Drug Use past 6 months	55	27.2

of 18 had been sexually harassed. Ten respondents reported being raped within the previous six months. Participants' mean score on depression symptoms was higher than the cutoff score, suggesting possible need for follow-up. Moreover, participants scored no higher than in the moderate range of self-esteem and no higher than in the moderate range in emotional well-being.

Associations among study outcome variables and sample characteristics are depicted in Table 2 with correlations. Being physically abused as a child was significantly associated with assault, mugging, rape, and harassment as an adult. Having more depressive symptoms was associated with assault, while self-esteem had a significant inverse

Table 2.

ASSOCIATIONS BETWEEN STUDY VARIABLES AND DEMOGRAPHIC VARIABLES

	Study Variables			
Socio-Demographic Variables	**Physical Assault**	**Mugged**	**Rape**	**Harrass-ment**
Age	0.03	0.09	0.04	0.08
Latina	−0.19**	−0.22**	−0.20 **	−0.18 **
Education	0.14 *	0.04	0.11	0.11
Partnered	0.02	−0.03	0.06	−0.01
Children	0.14*	−0.09	0.12	0.06
Chronic Homeless	0.04	0.03	0.17 **	0.10
Health Status	0.14	0.05	0.10	0.12
Jail	0.24 ***	0.19**	0.27 ***	0.26 ***
Prison	0.13	0.14*	0.08	0.06
Physically Abused as Child	0.21**	0.24***	0.21**	0.26 ***
4 Drinks/week past six months	0.04	0.23***	0.12	0.14*
Ever IDU	0.28***	0.13	0.15*	0.17**
Daily drugs past six months	0.18**	0.13	−0.03	0.03
Self-help substance program last six months	0.14*	0.17*	0.17**	0.19**
Depressive S&S	0.19**	0.12	0.03	0.06
Self Esteem	−0.22**	−0.13	0.11	−0.15*
Lifetime Sex Trade	0.24***	0.29***	0.34***	0.33***

*p<.05, t-test for testing that the correlation is significantly different from zero.
**p<.01, t-test for testing that the correlation is significantly different from zero.
***p<.001, t-test for testing that the correlation is significantly different from zero.
IDU = Injection Drug Use

relationship with assault. Having ever used injection drugs was moderately to weakly correlated with assault, rape, and harassment. Similarly, continuous, current drug use (daily use for the last six months) was weakly associated with being assaulted. Participation in a self-help substance abuse program within the last six months was associated with being raped, assaulted, mugged, and harassed as an adult. Finally, lifetime sex trade activity and having been in jail were moderately correlated with all of the adult victimization variables. Latinas were less likely than others to report adult assault, rape, and sexual harassment.

Table 3 shows a logistical regression of sample characteristics and likelihood of adult sexual assault. Respondents reporting having been raped during childhood were nearly four times more likely than others to report sexual assault as adults (p=.001), and those reporting lifetime activity in a sex trade were over three times as likely as others

Table 3.

MULTIPLE LOGISTIC REGRESSION ANALYSIS FOR ADULT SEXUAL ASSAULT

Characteristics	OR	95% CI	p value
Latina	0.22	(0.05,1.06)	.059
Education	1.21	(0.99, 1.49)	.067
Jail/Prison	2.27	(1.08, 4.76)	.031
Sex Trade, Lifetime	3.19	(1.52, 6.67)	.002
Childhood Rape	3.88	(1.80, 8.37)	.001

OR = Odds Ratio
CI = Confidence Interval

to report sexual assault (p=.002). Respondents who had spent time in jail or prison were over two times more likely than others to have experienced adult sexual assault as well. Table 4 displays a logistical regression for adult physical assault; respondents reporting having ever used injection drugs were over eight times more likely to have experienced physical assault (p=.005) than those who did not report using injection drugs. Those who experienced childhood rape and those who had been in jail were also more likely to report being physically assaulted compared with those who had not experienced these conditions. Latinas were less likely to experience adult physical assault (p=.01) than others.

Table 4.

MULTIPLE LOGISTIC REGRESSION ANALYSIS FOR ADULT PHYSICAL ASSAULT

Characteristics	OR	95% CI	p value
Latina	0.21	(0.06, 0.72)	.013
Education	1.23	(1.01, 1.50)	.044
Jail/Prison	1.99	(1.02, 3.89)	.044
Child Rape	2.27	(1.10, 4.70)	.033
IDU, Lifetime	8.22	(1.90, 35.6)	.005
Daily Drug Use	2.22	(1.06, 4.64)	.034
Self-Esteem	0.91	(0.85, 0.98)	.012

OR = Odds Ratio
CI = Confidence Interval
IDU = Injection Drug Use

Discussion

The purpose of this study was to describe prevalence of reported types of abuse among homeless women in Los Angeles. Relationships among types of abuse and psychological and behavioral variables were examined, as well as multivariate associations exploring the likelihood of experiencing adult physical or sexual assault. Utilizing CHSCP as a foundation to frame the discussion, this research reveals a number of relationships among child abuse and psychological functioning, such as depression and self-esteem. In addition, this research revealed a number of relationships between situational factors and coping responses, such as substance use/abuse and lifetime sex trade involvement, and adult victimization among homeless women. Regarding health-seeking behavior, the study demonstrated an association between attending a substance abuse self-help program and adult victimization.

Findings showed that self esteem was negatively associated with adult physical assault while depressive symptoms were positively associated with physical assault. Women who have a physical abuse history often report fear, low self-esteem, loneliness, and social withdrawal.[40,41] Thus, poor mental health and low self-esteem serve as important risk factors for future physical and sexual victimization among adult homeless women.[8] These personal, psychological factors (low self-esteem and high depressive symptoms) might be prevalent among homeless women, making them susceptible to further abuse. Substance abuse programs that emphasize these personal factors might be protective for homeless women against further victimization.

We also found an association between previous childhood physical abuse and mugging among adult homeless woman. Special consideration for homeless women is needed, especially those who have experienced physical child abuse. Homeless service providers can develop a brief risk profile for each homeless woman, inquiring about her history of physical abuse as child, current level of self-esteem, and depressive symptoms and provide interventions that counter the personal factors associated with adult victimization.

Another finding was an association between current and previous substance use and adult physical assault. Assault is significantly associated with homeless women who currently drink alcohol and with those who currently use drugs on a daily basis. There is also an association with adult physical assault, rape, and sexual harassment among women who ever used injection drugs. These results are congruent with previous research that showed alcohol and illicit drug use may increase one's exposure to a criminal environment and increase one's vulnerability to victimization, and these findings highlight the need for an early assessment of alcohol and substance abuse behavior as part of a risk profile.[2,8,42,43] As depicted in the CHSCP, drug use serves as a situational factor that can be a barrier to effective coping and health-seeking. A homeless woman who drinks alcohol or abuses substances is vulnerably situated to experience verbal/physical threats, harassment, or harm. Those who are deeply dispirited and have a child abuse history might not have the wherewithal to develop healthy coping responses. They need professional assistance in order to learn positive coping responses.[23]

There were significant associations among physical assault, mugging, rape, and lifetime involvement in sex trade. This is not surprising since few legitimate economic

opportunities exist for homeless women, who often engage in economic survival behavior, including trading sex for money.[44] Involvement in illegal activities such as the sex trade may place women at risk for victimization directly or as an indirect effect of incarceration. With guidance and support, homeless women can be encouraged to learn a vocational skill, consider furthering their education, and mentoring other homeless women.

Findings also reveal that homeless women who experienced childhood rape were almost four times more likely than those who did not to experience adult sexual assault and are consistent with other research: that child sexual abuse is associated with recurring victimization of the person as an adult.[45] Child sexual abuse can have profound effects on the developing child's sense of safety, feelings about self and others, relationships with others, cognitions (beliefs), and general sense of well-being. Women who were sexually abused as children are at risk for future physical assault and sexual assault; therefore, early interventions targeting children with a child sex abuse history must strengthen personal factors and coping responses so these children can have some semblance of a life without revictimization as adults.

It is also not surprising, given the illicit nature of drug use, that women who were engaged in lifetime involvement in injection drug use were eight times more likely than others to experience adult physical assault. Likewise, those who reported childhood sexual abuse (rape) were two times more likely to experience adult physical assault. Latinas were less likely to report adult physical assault than White and other women in our study. However, this does not mean Latinas were not victimized. A recent study by Pole and colleagues[46] suggests cultural factors can influence how traumatic stressors are defined and reported. It is also unclear if homeless Latinas cluster in areas where Spanish is spoken and these areas are considered safe havens; or whether or not homeless Latinas have traditional beliefs and value systems that are protective against violence. More research is needed on ethno-cultural factors that are protective against victimization among sub-groups of homeless women.

Limitations. One limitation of the study is that the sample only included homeless women from participating shelters in defined area of Los Angeles or who lived on the street. The majority of the study population was African American. While this might affect the generalizability of study findings, characteristics of the sample represent common characteristics seen in homeless women studied in California. In addition, our indicators of physical and sexual abuse are retrospective and subject to recall bias. However, the interviewers were from the community and were trained to develop a good rapport with the participants. Further, a sample eligibility factor required that all participants be HBV seronegative, thus limiting generalizability to participants who were HBV seropositive and excluded from the study. More research is needed with sample populations from other racial/ethnic groups, in order to ascertain if the results of this study are similar among these varying racial/ethnic groups.

In summary, factors that affect homeless women's lives as survivors of physical and sexual assault might require new forms of training and collaboration. It is incumbent upon homeless service providers to address and support homeless women who have experienced different types of abuse. There might be ethnic differences in responding to abuse or victimization. It would be helpful if staff is given authority to respond

flexibly and appropriately to sexual assault survivors who come to them. This can be further explored with culturally-appropriate practice implications and research. More research is needed on the effect of developing risk profiles for ethnic women who have a history of childhood abuse. Obtaining history of child welfare placement and risk for future abuse might be helpful in program evaluation research. Such research would be consistent with findings from this study.

Multiple issues converge in this study: child abuse, homelessness, and further victimization. Society benefits when children with a history of sexual or physical abuse are given long-term emotional and coping resources, in order to prevent homelessness, further victimization, substance abuse or incarceration. Policy initiatives, counseling programs, systems and communities that respond collaboratively, respectfully, and holistically to homeless women with physical and sexual assault histories in their distant or recent past require an understanding of the constellation of issues raised above.

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Notes

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