Violence and the Homeless: An Epidemiologic Study of Victimization and Aggression

Carol S. North,¹ Elizabeth M. Smith,¹ and Edward L. Spitznagel²

The present study is a random, systematic study of 900 homeless subjects in St. Louis that describes violence in their lives, both in terms of victimization, by specific violent traumatic events, and victimizing with recognized aggressive behaviors. Many subjects had experienced a traumatic event, and post-traumatic stress disorder was very common. Substance abuse and other Axis I disorders were associated with a history of a traumatic event. The majority of men and a substantial proportion of women also had a history of physically aggressive behaviors, often beginning in childhood. Aggressive adult behavior was associated with substance abuse and major depression. The aggressive behaviors usually predated homelessness, and about half continued after the individual had become homeless. Therefore, it is seen that violence is very much a part of the lives of the homeless, and it seems to be part of a broader picture of problems associated with risk for and experience of homelessness.

KEY WORDS: homeless; post-traumatic stress disorder; trauma; victimization; violence.

INTRODUCTION

Among the many discomforts and hardships endured by the homeless is the problem of violence in their day-to-day existence. Frequently from backgrounds of broken and abusive families (Bassuk *et al.*, 1986; Bassuk and Rosenberg, 1988; Wood *et al.*, 1990) homeless individuals have

¹Department of Psychiatry, Washington University School of Medicine, St. Louis, Missouri 63110

²Department of Mathematics and Biostatistics, Washington University, St. Louis, Missouri 63110.

emerged into a life of risk for victimization on the streets and in shelters, and by spouses, partners, and acquaintances.

The childhood histories of homeless people have often been difficult, with abuse and violence introduced into their lives at an early age. Growing up in economically deprived neighborhoods exposed many of them as voungsters to dangerous and violent experiences. Often reared in dysfunctional families, many of the homeless were physically or sexually abused as children (Bassuk et al., 1986; Bassuk and Rosenberg, 1988). The pattern of violence established in their youth has often continued into their adult life (Bassuk and Rosenberg, 1988). Assortative mating leads women raised in abusive environments to pair off with partners who may have substance abuse problems and antisocial behaviors and who may be physically abusive to them (Guze et al., 1970). Many women who become homeless are battered women escaping bad relationships with men upon whom they had been dependent (Bassuk et al., 1986; Bassuk and Rosenberg, 1988; Hagen, 1987; Wood et al., 1990). While Milburn and D'Ercole (1991) suggested that victimization may be one path to homelessness for women, Goodman (1991) found no higher rates of abusive experiences among homeless women than among low-income controls, although both groups had rates of greater than 90%.

It is intuitive that public locations to which homeless individuals gravitate—downtown areas of large urban cities—are dangerous places, particularly at night, posing risk for those who sleep on the street. Homeless individuals are frequently disaffiliated from human ties and thus they typically must navigate the streets alone (Fischer and Breakey, 1986). Because of safety risks in sleeping in the open at night, street people may be forced to stay alert at night and sleep in the open in the daytime. Sleep obtained on busy daytime sidewalks such as those on the crowded, noisy, and dirty streets of central New York City can hardly be restful, and thus fatigue may further contribute to risk of nighttime victimization among street people. Substance abuse may diminish alertness and judgment, thereby increasing risk for victimization (Fischer, 1991).

While public shelters might afford some reprieve from many dangerous elements of street life, they pose problems of their own. In shelters homeless individuals may be vulnerable to victimization and violence from other shelter guests. Some feel the streets are actually safer than shelters and therefore choose the street life over the shelters (Hagen, 1987). Because the experience of homeless can be physically dangerous, some carry weapons. Ending up in jail is known to be a frequent occurrence among the homeless (Breakey *et al.*, 1989) due to vagrancy, public intoxication, criminal behavior, assaultiveness, or public exposure. Jails may provide another unwelcome source of exposure to violence for homeless individuals.

Violence and the Homeless

While the homeless are afflicted by violence from outside, they may also participate in initiation of violence when they themselves become aggressive or abusive toward others. Outbursts might be anticipated in this population with elevated rates of longstanding problems of substance abuse, antisocial personality (Bassuk and Rosenberg, 1988; Breakey *et al.*, 1989), and impulsivity coupled with the overwhelming frustrations and stresses of homelessness.

Although violence is a serious and painful side of homeless life, it has not been addressed as a primary focus of investigation in published literature on this population. While this study was not originally designed with the expectation of examining violence in lives of the homeless, our earlier finding of high rates of trauma and post-traumatic stress disorder (PTSD) among the homeless (North and Smith, 1992) has now prompted us to more closely examine victimization and other traumas in their histories. Moreover, our previous findings of relatively high rates of antisocial personality (Smith *et al.*, 1992; Smith *et al.*, 1993) have suggested further attention to the reverse side of violence— aggressive acts originating from within this population.

METHODS

Sampling

The sample was drawn from all of the overnight and daytime shelters located in the city of St. Louis that serve the homeless, as well as locations on the street or other public areas where the homeless are known to congregate. For this study subjects were considered homeless if they had no stable residence and were living in a public shelter or in an unsheltered location without a personal mailing address, such as on the streets, in a car, in an abandoned building, or in a bus station. Subjects staying at flophouses or cheap motels were also included if they had been there for less than 30 days. Subjects living doubled up with friends or relatives or living in single room occupancy facilities were not included in the sample.

All fourteen of the night shelters for men and all but two of the thirteen night shelters for women, all day centers, and both rehabilitation programs agreed to cooperate with the project. Participating programs included temporary shelters open only during winter months, drop-in centers and daytime programs, several long-term programs designed to provide rehabilitation for homeless men with substance abuse or other emotional or physical problems, and general overnight shelter programs. Women's shelters specializing in serving particular subgroups of women such as pregnant women or abused women were not included, because overrepresentation of these special groups would be expected to skew the sample away from representativeness. Data to be presented later in the Results section of this paper will document that members of these special groups were well represented within the general shelters from which we sampled. We attempted to sample from street locations, and although we found plenty of homeless men on the streets we were unable to find homeless women to interview from these locations.

Because each night shelter and day center tended to attract a slightly different subpopulation of the homeless, sampling was conducted proportionally to the number of persons in the various programs. The list of shelters and day centers was randomized, and a set of random numbers was generated by computer to select subjects from the daily log of residents occupying beds in the night shelters or attending the day centers. This random sampling procedure provided this study with a sample that is believed to be truly representative of homeless men and women in St. Louis who utilize shelters and day centers. Interviewing was conducted at the various sites at different times during each month of interviews.

The majority (85%) of the 600 male subjects and all of the 300 women were sampled from shelters. From overnight shelters, 195 men and 251 women were interviewed; 150 men and 29 women were interviewed from day centers; 76 men were sampled from specialized rehabilitation programs; and 20 women were sampled from 24-hour emergency shelters.

The remaining male subjects (N=179) were drawn from the streets, parks, and other public areas. Sampling this "street" population required different techniques. As a first step, key informants, including shelter staff, casemanagers, and staff of outreach to the homeless programs provided information about which areas in the inner city are frequented by homeless persons. These areas were then surveyed at various times to determine the number of individuals who might be found at these locations. From this information, four street sampling routes (both walking and driving) were developed. Each route was a loop circuit with characteristic places along the route identified for inclusion, e.g. bus station, library, parks, alleys, parking lots, benches, etc. All routes were fully contained within the St. Louis city limits, and three of the four were close to the central downtown area and near a number of parks frequented by homeless persons and near a variety of shelters for the homeless.

Routes and starting points were randomized, using a computer program that randomized the order of routes and the block of a particular route where screening for subjects was to commence, and the routes were In the interest of safety, an escort accompanied interviewers when they were walking the street routes, and interviewing was conducted only during daylight hours. Interviewers identified homeless men on the street by approaching men who appeared as though they could be homeless and asking them a few questions about where they stayed last night and whether they had a regular address and place to live. Fifty-eight percent of those approached were determined to be homeless by our definition and were thus considered eligible for our study. Interviewers reported that as the study progressed they became more skilled at predicting which men on the street were homeless by their physical appearance.

Interviewing proceeded to completion in 12 months, which allowed sampling of study subjects throughout all four seasons. All interviewing was conducted by professional trained interviewers, and interviews lasted two hours on average. Subjects received \$10.00 for their participation. The completion rate for the men was 91% and for the women was 96%.

Instruments

The Diagnostic Interview Schedule/Homeless Supplement (DIS/HS) was used in this study. The DIS (Robins et al., 1981) permitted us to make DSM-III-R diagnoses including schizophrenia, bipolar affective disorder, major depression, panic disorder, generalized anxiety disorder, PTSD, alcohol abuse/dependence, drug abuse/dependence, and antisocial personality disorder. Current as well as lifetime symptoms and diagnoses were obtained for all disorders except PTSD, for which only lifetime data were available. The Homeless Supplement was designed for use in this study and included questions about the homeless experience. Information about history of traumatic events was taken from the PTSD section of the DIS. The revised version of the DIS used for this study makes DSM-III-R diagnoses. Unlike the original DIS, it inquires about traumatic events independent of PTSD symptoms. Therefore information on traumatic events is obtained even if subjects had no symptoms associated with it. Information about recent life events was elicited in a part of the interview derived from Holmes and Rahe's (1967) work on life events.

Because investigation of violence in this population was an afterthought to this study, data regarding violence were limited to only a few variables. Therefore, by definition, "violence" suffered by subjects as described in this paper is limited to findings pertaining to specific violent traumatic events including rape, physical assault, sudden injury or accident, witnessing a serious injury or death, and military combat. Violent acts perpetrated by subjects in this study are limited to acts of aggression elicited by the antisocial personality disorder section of the DIS, including spouse or partner abuse, child abuse, fighting, use of a weapon in a fight, physical assault, mugging, and vandalism, as well as history of aggressive childhood conduct symptoms.

History of family and childhood background information was obtained in a section of the interview asking specifically about these items. In particular, subjects were asked if they had been physically or sexually abused as children, if there had been a lot of physical fighting in their childhood home, and whether they had been raised by both parents.

Data Analysis

Rates are reported as percentages. Chi square tests were performed in analyses comparing dichotomous variables. If expected counts in cells were five or less, then Fisher's exact tests were performed instead. t tests were performed for prediction of continuous variables or more independent variables. Level of significance was set at $p \le .05$.

RESULTS

Table I shows selected demographic information. The majority of both men and women were nonwhite. Subjects were relatively young and most were not married. Around half had graduated from high school and a few more had obtained a GED. Few were employed. On average, the men had their first experience with homelessness about 5 years before, whereas women had their first homeless episode about 2.5 years before.

The personal psychiatric histories of the subjects revealed high rates of psychiatric disorders—half of the women and three-quarters of the men qualified for a lifetime diagnosis (Table II). Half of the men and more than one-fourth of the women had an active disorder in the preceding month. A history of substance abuse was present in two-thirds of the men and almost a third of the women.

The vast majority of subjects (92% of men, 98% of women) acknowledged one or more PTSD symptoms in their lifetime. A lifetime diagnosis of PTSD was made in one third of the women, and nearly one fifth of the men met criteria for a lifetime diagnosis of PTSD. Almost three-quarters (71% of men, 74% of women) of those with PTSD had developed the disorder prior to the onset of their first homeless episode.

	Men (N = 600)	Women $(N = 300)$
Current age (years)		
18-24	12%	33%
25-44	70%	63%
45-64	17%	4%
> 64	2%	1%
Mean ± SD	35.9 ± 10.8	29.0 ± 8.6
Age first homeless (years)		
Mean SD	30.7 ± 10.4	26.5± 8.8
Race		
White	28%	12%
Black	70%	84%
Other	3%	4%
Marital status		
Married	4%	7%
Widowed	3%	3%
Divorced	22%	10%
Separated	17%	20%
Single	55%	60%
Education		
< 12 years	32%	46%
High school grad	51%	42%
GED	17%	12%
Mean years ± SD	11.4 ± 2.4	11.4 ±1.8
(where GED = 12)		
Employment		
Working	22%	11%
Looking for work	57%	51%
Able to work but not looking for work	10%	26%
Disabled	7%	5%
Other	5%	6%

Table I. Selected Sociodemographic Characteristics

Families of Origin

Table III summarizes information provided by subjects about their childhood home environments. Disrupted and dysfunctional families were common, as evidenced by the prevalence of one-parent families, fighting in the home, and histories of physical and sexual abuse.

It appears that this population not only had frequently chaotic and dysfunctional childhood family environments but may also have considerable genetic loading for substance abuse and mental illness. One fourth (25% of men, 26% of women) had an alcoholic parent. One third of subjects described alcoholism in their families (36% of men, 34% of women). Drug abuse was also prevalent in these families (15% for men, 24% for

					L'SI	Psychiatric Diagnosis	osis			
		Bipolar	Major		Generalized	_		Antisocial		
-	Schizophrenia	affective disorder	(unipolar) depression	Panic disorder	anxiety Al disorder o	ty Alcohol use der disorder	Drug use disorder	personality disorder	DSTA	Any diagnosis ^a
	(%)	(%)	(%)		(\mathcal{Q}_{0})	(%)		(%)	(\mathcal{Q})	(%)
Men										
Lifetime	6.2	4.2	18.4	5.3	6.8	62.9	39.7	25.4	18.1	76.7
l month	4.3	1.8	10.0	2.8	4.2	35.5	8.2	23.5	I	53.8
Women										
Lifetime	3.7	3.3	24.7	3.3	5.7	16.8	23.1	10.3	33.8	47.7
1 month	3.3	1.3	15.4	2.0	5.0	6.2	2.5	9.3	I	28.7

North et al.

Table II. Lifetime and 1-Month Prevalence Rates of Psychiatric Diagnosis in Homeless Men and Women

102

	Men (%)	Women (%)
Not raised by both parents	61	65
Family fighting	23	28
Physically abused	15	19
Sexually abused	4	23
Physically or sexually abused	16	30

Table III. Childhood Home Environment

women). A history of other mental illness was present in about a fifth of the fathers (22% for men, 18% for women) and a fifth (17% for men, 18% for women) of the mothers.

Lifetime Victimization

Table IV shows lifetime rates of violent traumatic events. More than 40% of both men and women had experienced at least one violent trauma. The most frequent violent trauma for men was the experience of assault, and for women it was rape. Mean age at the time the women were first raped was 14.9. Most of those with a violent traumatic event had experienced it prior to the year they first became homeless (63% for man and 70% for women). Nearly half (44%) of the women said they had suffered physical abuse by a spouse or partner, and 39% of these reported more than one abusive partner.

Alcohol use disorder was associated with a history of violent trauma in both men (46% vs. 33%) and women (61% vs. 41%) (for men, $\chi^2 =$

Table IV. Traumatic Events		
	Percentag	ge with event
	Men (%)	Women (%)
Combat	4	0
Rape	1	21
Assault	21	13
Witnessing death or accident	17	18
Accident or severe injury	14	8
Any of the above	41	44

9.09, df = 1, p = .003; for women, χ^2 = 5.76, df = 1, p = .016), and drug use disorder was associated with a history of violent trauma in women only (63% vs. 38%; χ^2 = 11.17, df = 1, p < .001). A history of any non-substance axis I disorder was associated with a history of violent trauma (for men, 57% of subjects with and 35% without a diagnosis, χ^2 = 20.94, df = 1, p< .001; for women, 56% compared to 39%, χ^2 = 5.67, df = 1, p = .017).

Recent experiences of victimization were not uncommon. One in ten (12% of all men and 10% of women) said they had been mugged, assaulted, or raped in the last 6 months. In response to questioning about how they tried to stay safe, 14% of the men and 16% of the women said they carry weapons. The majority of the men (66%) and many of the women (30%) had been in jail, another setting where homeless individuals might encounter violence directed toward them or might express aggression toward others.

Aggression

Table V gives rates of specific aggressive behaviors, both adult antisocial behaviors and conduct disorder behaviors as children. Around half of the sample reported at least one adult aggressive behavior, and nearly half of the men and one fifth of the women had engaged in aggressive behaviors as children.

Initiation of fights was the most frequent adult aggressive behavior reported. It can be seen from Table V that in subjects with adult aggressive behaviors, the majority first initiated these behaviors prior to the year they first became homeless. In addition, around half of subjects with adult aggressive behaviors had continued to engage in them since the year they had become homeless (with the exception of child abuse, which may not have been an option for many subjects once homeless).

The only diagnoses (aside from antisocial personality disorder, of course) associated with adult aggressive behavior were substance abuse and major depression. The majority of male (67%) and female (64%) alcoholics reported aggressive acts (compared to 42% and 37% of other men and women, respectively) (for men, $\chi^2 = 32.30$, df = 1, p < .001; for women, $\chi^2 = 10.79$, df = 1, p = .001). Similarly the majority of male (73%) and female (64%) subjects with a diagnosis of drug use disorder reported aggressive acts (compared to 47% and 37% of other men and women respectively) (for men, $\chi^2 = 35.45$, df = 1, p < .001; for women, $\chi^2 = 18.58$, df = 1, p < .001). Among men, 67% with depression and 56% without reported one or more aggressive behaviors ($\chi^2 = 4.12$, df = 1, p = .042),

Portion with Behavior During or Women After Year First Homeless 63% 65% 86% 58% 75% 51% Subjects Reporting Aggressive Behavior 66% 62% 52% 33% 69% 51% Men Portion with Behavior Prior to Year First Homeless Women 81% 68% 67% 74% 64% 32% L Table V. Aggressive Behaviors Men 87% 15% 63% 80% 81% Women 23% 10% 2% 4% 41% 10% 11% 13% 13% 4% 21% 21% 1% 13% 50% 8% 12% 9% 58% Men 20% 15% 15% 16% 10% Hitting or throwing things at partner Aggressive Behavior Using weapons in fights Using weapons in fights Cruelty to animals Any of the above Any of the above Mugging Initiating fights Property damage Property damage Abusing a child Initiating fights Mugging Assault Assault Juvenile Arson Adult

Violence and the Homeless

and among women, 58% with depression and 35% without reported a history of aggression ($\chi^2 = 11.18$, df = 1, p = .001).

Another form of physical aggression, in the form of assault on oneself, is suicidality. About one in five (17% of men and 22% of women) said they had attempted suicide. Over half of those with a suicide attempt (51% of women attempters and 57% of men attempters) had no history of a major depressive episode.

Homeless Families

Although we did not sample subjects from shelters specifically geared for homeless families, we found a large number of homeless families in our sample. More than two thirds (67%) of the women had children under age 16 in their physical custody, although less than 1% of the men were heads of families with children under age 16 in their custody. It turned out that members of families did not differ from solitary men and women in proportions reporting a history of violent trauma or of aggressive acts (p > .05 in all comparisons, men and women separately).

DISCUSSION

Our analyses have replicated the high rates of childhood problem behaviors in the histories of the homeless reported by others (Susser *et al.*, 1987; Susser *et al.*, 1991; Shinn *et al.*, 1991), as well as early disruptive experiences (Shinn *et al.*, 1991; Wood *et al.*, 1990; Goodman, 1991) and traumatic or victimization experiences (Susser *et al.*, 1991; D'Ercole and Struening, 1990; Milburn and D'Ercole, 1991; Wood *et al.*, 1990).

The reported rates of children sexual abuse by subjects in our study may be artifactually low, representing probably only the tip of the iceberg. This is because of the mode of questioning used to collect these data. We asked subjects only if they had been "sexually abused" as children, and did not inquire specifically about different ways they had been abused, which would be certain to generate additional positive responses. Therefore, it is difficult to compare our rates of childhood sexual abuse of 4% in men and 23% in women with general population rates of 16% of men and 27% of women reported in a recent national survey utilizing detailed questions (Finkelhor *et al.*, 1990). Bassuk and colleagues (1986) reported that 9 homeless mothers (from a sample of 80) "acknowledged they had been sexually abused," a rate even lower than ours, probably due partly to the same semantic limitation in elicitation of the data as well as to possible Unfortunately the Epidemiologic Catchment Area (ECA) data do not provide comparable general population data to ours on rates of traumatic events, because in the earlier version of the DIS that was used in that study, traumatic events were counted only if they were associated with symptoms of PTSD. A study of an urban population of 1007 young (62% female) adults, using the same version of the DIS as in our study, revealed far lower rates of violent trauma: rape in 1.6%, assault in 8.3%, witnessing death or accident in 7.1%, and experience of serious accident or injury in 9.4% (Breslau *et al.*, 1991). In that study only 6.0% of men and 11.3% of women met criteria for PTSD. Lifetime rates of PTSD among the homeless in our study (18% in men, 34% in women) are substantially higher than rates among their low-income domiciled counterparts in ECA data (less than 1% of men, 3% of women) (North and Smith, 1992). Therefore it appears that the homeless are at high risk for both violent trauma and PTSD.

Violence in the lives of the homeless may vary from site to site. It is likely that the experience of traumatic events for homeless persons in nonurban areas is less frequent, if the nearly 3 times higher rates of rape among urban subjects compared to rural subjects in North Carolina (Winfield *et al.*, 1990) also apply to homeless populations. If this is the case, rural homeless people would be expected to report lower rates of violent traumas than our St. Louis sample, but homeless persons in "more urban" settings such as New York City might be expected to suffer even more victimization.

Alcohol use disorders in men and women and drug use disorders in women in our study were associated with a history of violent trauma, as was a history of a nonsubstance Axis I diagnosis. In the ECA study, substance use was also found to be highly associated with the experience of traumatic events (Cottler *et al.*, 1992). Only a minority of homeless subjects reported having had their first traumatic event during or after the year they first became homeless. It appears, therefore, that the onset of the traumatic experiences may be related to other factors associated with homelessness that began years before, rather than being a direct result of homelessness itself.

Rates of psychiatric disorders in general were relatively high among the homeless, significantly higher than in their low-income domiciled counterparts in the ECA study (Smith *et al.*, 1993). The especially high baseline rates of mental illness and substance abuse in this population, particularly among those with traumatic events, bode poorly for their ability to absorb experiences of traumatic events with minimal impact. Repeated exposure to traumatic events may erode whatever coping abilities they have and contribute to further psychopathology and vulnerability to substance abuse.

Aggression was relatively common. It appears that the aggressive behaviors predated homelessness for most subjects with such a history. However, more than half of subjects with a history of aggression continued these behaviors during or after their first year of homelessness. These data would suggest that aggression may be part of the package of predisposing variables for homelessness, and that homelessness may also prolong such tendencies.

It might be tempting to speculate on the relationship between received and perpetrated aggression on the streets, especially given the relatively higher rates of each in this population, which has had more than its share of experiences in roles of both victim and perpetrator. To jump to a conclusion of causality from mere association between traumatic experiences and aggression in this population would constitute a standard logical fallacy. These data are not detailed enough to warrant a causal conclusion. It is more likely that the relationship between received and perpetrated aggression is very complex, involving interplay with many other intervening variables.

A history of aggression was associated primarily with antisocial personality disorder (by definition) and with alcohol and drug abuse. Recognition of the lack of association of aggression with serious Axis I disorders such as schizophrenia and bipolar affective disorder may help reduce stigma against the mentally ill homeless. This finding should allow people who work with the most seriously mentally ill homeless to be more comfortable with individuals whose psychiatric history is not complicated by substance abuse or antisocial personality.

Mental health interventions will be more effective if they are designed to be sensitive and attentive to the immediate traumatic nature of the homeless experience that likely contributes to acute mental health problems in this population. Effective psychiatric treatment for psychiatric illness might not only help individuals cope with traumatic events but might also attenuate their occurrence. Certainly attention to PTSD-related factors is likely to benefit a substantial proportion of the homeless, especially women, due to the prevalence of the disorder. Effective treatment for concomitant substance abuse may help the individual deal more effectively with traumatic events and improve the outlook for other psychiatric problems. In addition, it may reduce the vulnerability to violence both by rendering the person more alert for self protection and also indirectly through helping the person move away from dangerous social connections to safer substance-free networks of acquaintances and supports. Effective treatment for substance abuse problems might also reduce acute factors precipitating violent acts by homeless individuals. Hopefully, correction of the homeless condition will ultimately reduce ongoing aggressive acts among the homeless as well as protect against continuing victimization.

ACKNOWLEDGMENT

This research was supported by National Institute on Alcohol Abuse and Alcoholism Grant AA07549.

REFERENCES

- Bassuk, E. L., Rubin, L., and Lauriat, A. S. (1986). Characteristics of sheltered homeless families. Am. J. Pub. Health 76(9): 1097-1101.
- Bassuk, E. L., and Rosenberg, L. (1988). Why does family homelessness occur? A case-control study. Am. J. Pub. Health 78(7): 783-788.
- Breakey, W. R., Fischer, P. J., Kramer, M., Nestadt, G., Romanoski, A. J., Ross, A., Royall, R. M., and Stine, O. C. (1989). Health and mental health problems of homeless men and women in Baltimore. JAMA 262(10): 1352-1357.
- Breslau, N., Davis, G. C., Andreski, P., and Peterson, E. (1991). Traumatic events and post-traumatic stress disorder in an urban population of young adults. Arch. Gen. Psychiatry 48: 216-222.
- Cottler, L. B., Compton, W. M., Mager, D., Spitznagel, E. L., and Janca, A. (1992). Post-traumatic stress disorder among substance users from the general population. Am. J. Psychiatry 149(5): 664-670.
- D'Ercole, A., and Struening, E. (1990). Victimization among homeless women: Implications for service delivery. J. Comm. Psychology 18: 141-152.
- Finkelhor, D., Hotaling, G., Lewis, I. A., and Smith, C. (1990). Sexual abuse in a national survey of adult men and women: Prevalence, characteristics, and risk factors. *Child. Abuse.* Negl. 14: 19-28.
- Fischer, P. J. (1991). Alcohol Drug Abuse and Mental Health Problems Among Homeless Persons: A Review of the Literature, 1980-1990, Executive Summary submitted to the NIAAA, Rockville, Maryland.
- Fischer, P. J., and Breakey, W. R. (1986). Homelessness and mental health: An overview. Int. J. Ment. Health 14(4): 6-41.
- Goodman, L. A. (1991). The prevalence of abuse among homeless and housed poor mothers: A comparison study. Am. J. Orthopsychiat. 61(4): 489-500.
- Guze, S. B., Goodwin, D. W., and Crane, J. B. (1970). A psychiatric study of the wives of convicted felons: An example of assortative mating. Am. J. Psychiatry 126: 12: 1773-1776.
- Hagen, J. L. (1987). Gender and homelessness. Soc. Work July-August: 312-316.
- Holmes, T. H., and Rahe, R. H. (1967). The Social Readjustment Rating Scale. J. Psychosom. Res. 11: 213-218.
- Milburn, N., and D'Ercole, A. (1991). Homeless women: Moving toward a comprehensive model. Am. Psychol. 46(11): 1161-1169.
- North, C. S. and Smith, E. M. (1992). Post-traumatic stress disorder among homeless men and women. Hosp. Commun. Psychiatry 43(10): 1010-1016.
- Robins, L. N., Helzer, J. E., Croughan, J., Williams, J. B. W. and Spitzer, R. L. (1981). NIMH Diagnostic Interview Schedule: Version III (May 1981). Nat. Inst. Ment. Health.
- Shinn, M., Knickman, J. R., and Weitzman, B. C. (1991). Social relationships and vulnerability to becoming homeless among poor families. *Am. Psychol.* 46(11): 1180-1187.

- Smith, E. M., North, C. S., and Spitznagel, E. L. (1991). Are hard-to-interview street dwellers needed in assessing psychiatric disorders in homeless men? Int. J. Methods Psychiat. Res. 1: 69-78.
- Smith, E. M., North, C. S., and Spitznagel, E. L. (1992). A systematic study of mental illness, substance abuse, and treatment in 600 homeless men. Am. Clin. Psychiat. 4(2): 111-120.
- Smith, E. M., North, C. S., and Spitznagel, E. L. (1993). Alcohol, drugs, and psychiatric comorbidity among homeless women: An epidemiologic study. J. Clin. Psychiatry.
- Susser, E. S., Struening, E. L., and Conover, S. A. (1987). Childhood experiences of homeless men. Am. J. Psychiatry 144(12): 1599-1601.
- Susser, E. S., Lin, S. P., Conover, S. A., and Struening, E. L. (1991). Childhood antecedents of homelessness in psychiatric patients. Am. J. Psychiatry 148(8): 1026-1030.
- Winfield, I., George, L. K., Swartz, M., and Blazer, D. G. (1990). Sexual assault and psychiatric disorders among a community sample of women. Am. J. Psychiatry 147(3): 335-341.
- Wood, D., Valdez, R. B., Hayashi, T., and Shen, A. (1990). Homeless and housed families in Los Angeles: A study comparing demographic, economic, and family function characteristics. Am. J. Pub. Health 80; 1049-1052.