Childhood Out-of-Home Care and Current Depressive Symptoms among Homeless Adults

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ABSTRACT

Previous research indicates that adverse childhood experiences are associated with depression during adulthood under conditions of social stress. This relationship was examined in a large sample of homeless adults (n = 1849). Subjects with evidence of severe mental disorders such as schizophrenia were excluded. Those with out-of-home care (e.g., foster, group, or institutional care) during childhood were significantly more likely than those without such care to report current severe depressive symptoms (CES-D score greater than or equal to 30). The finding, which held up in multivariate analysis when potential confounders were statistically controlled, supports the theory that certain developmental experiences are risk factors for subsequent depressive symptoms. (*Am J Public Health.* 1994;84:1849–1851)

Introduction

In this brief report we examine whether out-of-home care experiences (e.g., foster, group, or institutional care) during childhood are associated with self-reported depressive symptoms among homeless adults. We compare the rates of severe depressive symptoms in homeless men and women with and without histories of childhood out-of-home care.

Epidemiological research in general populations indicates that certain early social experiences are risk factors for the development of adult psychological disorder.[1–3] With respect to depression, a well-known body of work suggests that disruptive experiences during childhood, particularly those involving separation from parents in conjunction with inadequate substitute care, impart a heightened vulnerability that interacts with subsequent life stress to produce disorder.[4–6] Yet it has rarely been possible to examine this relationship in a large sample drawn from a severely stressed population such as the homeless, a group that has been shown to be characterized by both high rates of out-of-home care and high levels of depressive symptoms.[7–9] The present research makes use of an unusually large sample of homeless men and women collected in two successive epidemiological surveys of New York City's public shelter system. Although these data are cross-sectional and therefore cannot demonstrate causality, they are meaningful, we believe, because they permit us to test whether findings in a severely stressed population are compatible with a significant theoretical model.

Methods

Subjects

In two separate studies, conducted in 1985 and 1987, we surveyed residents of the New York City municipal shelter system concerning their life experiences, housing histories, psychiatric status, service needs, and other domains.[7,10,11] The sampling procedure provided a reasonably representative sample of homeless people residing in all public shelters for single adults. We obtained 2352 completed interviews (1092 in 1985 and 1260 in 1987). Since the methods and results were essentially similar in both studies, we combined the data from both for the following analyses.

Previous research with clinical samples has demonstrated that screening scales measuring depressive symptoms tend to perform unreliably in persons with severe mental disorders such as schizophrenia; in fact, what these symptoms mean in such individuals is not well understood.[12–15] Since our interest concerned mainly those without severe mental disorders, we excluded those persons who met one or both of our screening criteria for psychotic disorders. These criteria, which we have previously shown to agree reasonably well with diagnoses generated by structured diagnostic interviews,[16] consist of threshold scores on a self-report 10-item scale from the Psychiatric Epidemiology Research Instrument[17] (score of 10 or above) and a 6-item scale of interviewer-generated observational ratings (score of 12 or above). On the basis of these criteria, 503 individuals were excluded, leaving a total of 1849 respondents for the subsequent analyses. The two groups were quite similar demographically, with the prevalence of out-of-home care somewhat higher in the excluded group (23.1% vs 15.9%).

Instrument

Depressive symptoms during the previous week were measured with a modified 20-item version of the self-report Center for Epidemiologic Studies Depres-

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This paper was accepted May 17, 1994.

TABLE 1—Demographic Characteristics (%) of the Sample

	Men (n = 1356)	Women (n = 463)	Total (n = 1849)
Age, y			
18–29	36.0	40.6	37.1
30–39	35.6	29.8	34.2
≥40	28.4	29.6	28.7
Ethnicity			
African American	74.9	69.8	73.6
Latino	15.7	9.5	14.1
White	4.3	8.0	5.2
Other/not reported	5.1	12.6	7.1
Education			
<high school graduate	41.9	42.8	42.1
High school graduate	35.9	31.5	34.8
Some college or more	20.9	23.1	21.4
Not reported	1.4	2.6	1.7
Experienced out-of-home care	14.2	19.3	15.3
Severe depressive symptoms present	10.8	12.7	11.2

sion (CES-D) scale,[18] which has demonstrated high internal consistency reliability in several studies of homeless populahptions in shelters.[7] In accord with our previous reports on depression within this sample, persons with CES-D scores of 30 and above were defined as having severe depressive symptoms.[7,19]

The interview included items about foster care, group home, and institutional experience during childhood. Subjects were classified as having experienced out-of-home care if they reported having been in a foster home, a group home, or a special residence or institution before the age of 17 years.

Data Analysis

We compared the risk of current severe depressive symptoms among persons reporting any childhood out-of-home care with the risk among those without such experiences. In a univariate analysis, we computed a risk ratio (prevalence ratio) with 95% confidence intervals. In a logistic regression analysis, we examined the association between out-of-home care and severe depressive symptoms after controlling for the following potential confounding variables: age; sex; ethnicity (African American vs other); education (high school graduate or more vs less than high school graduate); homelessness history (homeless half or more of the previous 5-year period vs homeless less than half of the previous 5-year period); physical health status (self-rated physical health poor or fair vs good or excellent); drug abuse (ever hospitalized or received other overnight treatment for drug problems or ever used illicit drugs other than cannabis 50 or more times); alcohol abuse (ever hospitalized or received other overnight treatment for drinking problems or a score of 3 or more on a modified version of the Short Michigan Alcohol Screening Test[20]).

Results

The sample's demographic and descriptive characteristics (Table 1) were quite similar to those obtained in other samples of urban homeless populations.[21–23] In the univariate analysis, 17% (50/294) of those reporting out-of-home care and 10.2% (158/1555) without such care were positive for severe depressive symptoms (relative risk [RR] = 1.6, 95% confidence interval [CI] = 1.2, 2.1). Table 2 presents the logistic regression analysis with all potential confounding variables included in the model. The adjusted odds ratio for childhood out-of-home placement was 1.9 ($P = .0007$), second in magnitude only to health status and larger than the ratios for both drug abuse and alcohol abuse (both of which are known to be associated with depressive symptoms).[24,25]

In separate analyses, we added to the model interaction terms for out-of-home placement by sex and out-of-home placement by age group (<30 years vs ≥30 years). The interaction term for placement by sex was not significant ($P = .41$); however, a significant interaction was found for placement by age group ($P = .05$), suggesting that the risk factor had a stronger effect in the older group. Table 3, which presents the univariate relationship between out-of-home care and severe depressive symptoms stratified by age group, demonstrates that the effect is considerably stronger in the 30 years and older group (RR = 2.1, 95% CI = 1.5, 2.9).

TABLE 2—Results of Logistic Regression Predicting the Presence of Severe Depressive Symptoms[a] among Homeless Adults (n = 1849)

Variable	Adjusted Odds Ratio	*P*
Age (1 = younger than 30 y)	0.9	NS
Sex (1 = male)	1.2	NS
Ethnicity (1 = African American)	0.6	.003
Education (1 = at least high school graduate)	1.0	NS
Homelessness history (1 = homeless half or more of previous 5 years)	1.1	NS
Drug abuse (1 = ever received overnight treatment or used drugs 50 or more times)	1.6	.002
Alcohol abuse (1 = ever received overnight treatment or SMAST score of 3 or more)	1.4	.032
Health status (1 = poor or fair self-rated health status)	2.4	<.001
Out-of-home care (1 = any out-of-home care)	1.9	<.001

Note. SMAST = Short Michigan Alcohol Screening Test.[20]
[a]Severe depressive symptoms were measured by a score of 30 or above on the CES-D scale.[18]

Discussion

The findings are compatible with previous theory and with empirical research that links out-of-home care experiences during childhood with increased vulnerability to depression in adulthood.

TABLE 3—Percentage of Homeless Adults Reporting Severe Depressive Symptoms (n = 1849), by Any Childhood Out-of-Home Care, Stratified by Age Group

Care	No Care	RR (95% CI)
Age 18–29 y (n = 686)		
11.5% (17/148)	8.9% (48/538)	1.2 (0.8, 1.9)
Age ≥ 30 y (n = 1163)		
22.6% (33/146)	10.8% (110/1017)	2.1 (1.5, 2.9)

Note. RR = relative risk; CI = confidence interval.

To our knowledge, this is the first study that has reported on this association in a profoundly environmentally stressed population.

We have no ready explanation for our finding that the effect of out-of-home care on depressive symptoms was mainly in the older (≥30 years) age group. Although this effect may reflect improved living conditions and services available to those individuals who experienced out-of-home care more recently, it may also be due to the older cohort's having experienced a greater degree of environmental stress.

A limitation of the study is that, in some cases, the childhood experiences we studied may have been caused by a previous condition such as a childhood conduct disorder, which may be associated with adult depression. Additionally, the specific mechanism through which the proposed vulnerability to depression operates remains unclear; indeed, our data are consistent with either the view that the risk factor imparts vulnerability or the view that it operates as a cause in itself. Nonetheless, a major strength of the study is that the hypothesized risk factor is known to be antecedent to the observed depressive symptomatology. It should also be noted that stress is not measured directly but is inferred from the homeless condition.

These results agree with an increasing body of evidence implicating social factors such as stressful life events and chronic stress in the etiology of depression. They add to the evidence that certain developmental experiences are risk factors for subsequent mental disorders. Further studies may be able to address unanswered questions about the particular ways in which such risks operate. □

Acknowledgments

This study was supported in part by a contract from the New York City Department of Mental Health, Mental Retardation and Alcoholism Services (NYC 92-206) and by a grant from the National Institute of Mental Health (R01 MH46130).

The authors gratefully acknowledge Dr Sharon Schwartz of Columbia University, who commented on an earlier draft of this paper.

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