Adverse Childhood Experiences: Are They Risk Factors for Adult Homelessness?

ABSTRACT

Objectives. We tested the hypothesis that adverse childhood experiences are risk factors for adult homelessness.

Methods. We interviewed a nationally representative sample of 92 US household members who had previously been homeless and a comparison group of 395 individuals with no prior homelessness. We assessed childhood adversity with a structured protocol that included a previously validated scale indicating lack of care from parents and single-item measures of physical and sexual abuse.

Results. Lack of care from a parent during childhood sharply increased the likelihood of subsequent homelessness (odds ratio [OR] = 13), as did physical abuse (OR = 16). Sexual abuse during childhood was associated with a nonsignificant trend toward homelessness (OR = 1.7). The risk of subsequent homelessness among individuals who experienced both lack of care and either type of abuse was dramatically increased compared with subjects reporting neither of these adversities (OR = 26).

Conclusions. Adverse childhood experiences are powerful risk factors for adult homelessness. Effectively reducing child abuse and neglect may ultimately help prevent critical social problems including homelessness. (*Am J Public Health.* 1997;87:249–255)

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Introduction

Recent research indicates that 5 to 15 million Americans have experienced an episode of homelessness during their lifetimes.[1,2] Structural factors such as labor market changes, an inadequate supply of low-cost housing, and cuts in income assistance programs have created the social conditions in which homelessness has grown during the past 15 years.[3,4] Individual-level risk factors—those personal characteristics and circumstances that make certain persons more vulnerable to becoming homeless under these conditions—have also been identified. These include poverty, gender (more males than females are homeless), ethnicity (homelessness affects more African Americans than members of other groups), age group (most homeless persons are between 30 and 39 years old), and psychiatric and substance abuse disorders.[5]

The purpose of this study was to determine whether adverse childhood experiences are risk factors for adult homelessness. A substantial body of epidemiological research provides strong evidence that such experiences, especially physical or sexual abuse and inadequate parental care, are risk factors for negative psychiatric outcomes in adulthood.[6–13] Meanwhile, studies of homeless persons have found remarkably high prevalences of adverse experiences during childhood, primarily histories of out-of-home care (foster, group, or institutional care) and running away from home.[14–20] The high prevalence of childhood adversity in samples of homeless people, taken together with the epidemiological literature that links such adverse experiences to adult psychiatric status, have led some researchers to speculate that early experiences may also be risk factors for adult homelessness.[5,21]

Nonetheless, the research to date, while suggestive, has been unable to clearly demonstrate a causal association between adverse childhood experiences and adult homelessness. First, with some notable exceptions,[21,22] data on the prevalence of such experiences in a suitable nonhomeless comparison group have generally not been available. In addition, measures of adverse childhood experiences have generally been restricted to foster care and running away,[5] variables which, at best, are limited proxy measures of childhood adversity. Finally, most studies to date have employed sampling methods that overrepresent persons who use shelters and whose homelessness is particularly long term.

The present study was designed to build on prior research by examining the connection between childhood adversity and adult homelessness with more definitive methods. It employed a national probability sample of formerly homeless persons and a comparison group of never-homeless persons. In addition, the study used measures of early adversity that more directly assessed a conceptually meaningful set of childhood risks, namely physical and sexual abuse and inadequate parental care.

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TABLE 1—Demographic Characteristics of Respondents (Weighted Percentages[a]): 1994 Follow-Up to the Comprehensive Nationwide Study of Knowledge, Attitudes and Beliefs about Homelessness (n = 487)

Characteristic	%
Sex	
Female	56.8
Male	43.2
Race/ethnicity	
White	85.4
African American	8.5
Hispanic	3.3
Other	2.8
Age, y	
18–24	4.3
25–54	67.6
55–64	11.6
65+	16.5
Marital status	
Married	64.6
Not married	35.4
Education	
< high school graduate	13.5
High school graduate	32.7
Some college or more	53.8
Adult homelessness	
Ever	4.3
Never	95.7

[a]Weighted as described in text to reflect all households with telephones in the United States in 1994.

Methods

Sample

The data are from the follow-up phase of the Comprehensive Nationwide Study of Knowledge, Attitudes and Beliefs about Homelessness. The first phase of this study, the methods and results of which are described in detail elsewhere,[1] was a nationwide random-digit-dial telephone survey of 1507 adult residents of US households conducted between August and November of 1990. Although the primary purpose of this study was to describe public attitudes toward homelessness and homeless persons, the survey also found that a surprisingly large proportion of respondents reported that they themselves had been homeless at some time in their lives. The study estimated the lifetime prevalence of literal homelessness at over 7%, considerably higher than had been suggested by previous studies of currently homeless samples.

To confirm this unexpected finding and to further document the nature of the homeless experiences that were reported in the initial survey, a follow-up telephone study was conducted in 1994. As described elsewhere,[23] in the follow-up study efforts were made to reinterview all 169 respondents from the initial sample who reported having been homeless at some time in their adult lives, as well as a sample of never-homeless control subjects. The control subjects we sought to reinterview were purposely selected to overrepresent those considered to be at especially high risk for homelessness on the basis of risk profiles developed with data from the initial survey. To accomplish this goal, we used logistic regression to identify the following predictors of adult homelessness: homelessness as a child; renting as opposed to owning one's living quarters; family income below $20 000; having friends or family who were poor; having been on public assistance; and hospitalization for mental illness. On the basis of the logistic regression results, we determined each respondent's predicted probability of homelessness. We then sampled as control subjects all respondents with a predicted probability greater than .20, 85% of those with a probability between .10 and .20, and 37% of those with a probability of less than .10.

Although the aims of the initial study of attitudes toward homeless people did not involve recontacting respondents, 58% of the sampled respondents who were still living were relocated and reinterviewed. Of the ever-homeless respondents, 92 (54%) were successfully reinterviewed, and 395 (57%) of the never-homeless control subjects were successfully reinterviewed, yielding a total of 487 respondents for the follow-up phase of the study. The similar follow-up rates for the homeless and nonhomeless groups is reassuring with regard to possible selection bias. A bias of large magnitude would depend on different follow-up rates in the homeless and nonhomeless groups and, in addition, on some interaction between these follow-up rates and the risk factors. Therefore, the strong relationships we report below are highly unlikely to be accounted for by selection bias.

As described fully in a previous paper,[23] results were weighted to ensure that certain types of people were not over- or underrepresented in our analyses. Thus, we took into account not only the sampling scheme of the original random-digit-dial survey but also the scheme employed in the follow-up interview phase. In this way, we preserved the representativeness of the original sample, which was designed to reflect all households with telephones in the United States. Table 1 shows the demographic characteristics of the sample after appropriate weights were applied. We somewhat overrepresented those with more than a high school education, women, people aged 25 through 54 years, and married people in comparison with 1990 census data (not shown). Because we conducted our interview in English, our sample underrepresented Hispanics.

We classified subjects as positive for lifetime adult homelessness if they met our definition of adult homelessness in the follow-up phase of the study, since more in-depth information about homelessness was elicited during the follow-up. We defined homelessness as having had to sleep overnight in a shelter, an abandoned building, a vehicle, or out in the open because the respondent did not have a place to live (see our previously published report[23] for a complete description of our criteria).

Measures

Drawing on previous epidemiological work on childhood adversities and their association with subsequent adult social and psychiatric problems, we focused on childhood physical and sexual abuse and inadequate parental care as primary risk factors. To assess the quality of parental care during childhood, we employed a scale adapted from the Childhood Experience of Care and Abuse Interview developed by Bifulco and colleagues. This measure, which focuses on perceptions of parental antipathy and indifference toward the child, has been used successfully in several published studies of the relationship between childhood adversity and adult psychopathology,[8,24–27] and evidence establishing its validity and reliability has been reported elsewhere.[28] In collaboration with the original measure's authors, we developed a seven-item condensed version of the measure suitable for use in a telephone survey. In our version, subjects were asked to respond ("always," "usually," "sometimes," or "never") to the following questions in relation to their mother or their primary female caretaker during most of their childhood: Was she concerned about your worries? Was she very hard to please? Was she interested in how

you did at school? Did she make you feel unwanted? Was she interested in who your friends were? Was she very critical of you? Was she there if you needed her? The subjects were then asked the same questions in relation to their father or their primary male caretaker during most of their childhood. Following Bifulco and colleagues, we refer to this scale as measuring the overall construct of "lack of care" in childhood.

A total score for each parent or parent figure was computed by summing the responses to each item (always = 3, usually = 2, sometimes = 1, never = 0), using reverse scoring for positively worded questions. This procedure yielded scores for lack of care from each parent ranging from 0 to 21, with higher scores indicating higher levels of lack of care. The mean score for lack of care from mother was 3.8 (SD = 3.9; $\alpha = .82$) and the mean for lack of care from father was 5.4 (SD = 4.9; alpha = .86). In the analyses that follow, we define subjects as having experienced lack of care if they scored in the highest 10th percentile of the distributions of lack of care scores for *either* parent (corresponding to a score of greater than 10 for mother's lack of care or greater than 12 for father's lack of care). Analyses (not reported here) using different cutpoints (15th, 20th, and 25th percentiles) and continuous-scale scores yielded similar results. Analyses using lack of care from mother only and lack of care from father only also produced comparable results.

Childhood physical abuse was rated as present if the respondent answered yes to the following single question: Before you were 18, were you ever severely beaten by an adult and badly bruised or injured? Childhood sexual abuse was deemed present if the subject answered yes to the question, Have you ever been sexually molested, abused, or raped? *and* the respondent reported that she or he was under age 18 when the abuse first occurred.

Data Analysis

We compared the risk of adult homelessness among persons reporting adverse childhood experiences with the risk among those without such experiences. In univariate analyses, we computed odds ratios with 95% confidence intervals by standard methods.[29] We used odds ratios to maintain consistency between univariate and multivariate analyses. Readers can, in addition, easily compute relative risks from the data provided in the tables. We also compared the risk of homelessness associated with various combinations of adverse childhood experiences with the risk among a group of subjects with no reported childhood adversities.

In logistic regression analyses, we then examined the association between adverse childhood experiences and homelessness, adjusting for the following potential confounding variables: sex; age (in years); ethnicity (African American vs other); urban vs rural current residence; socioeconomic status of family of origin (father's Nam-Powers-Terrie Occupational Status Score,[30] a continuous score between 0 and 100; if no father was present, mother's occupational prestige was substituted); receipt of welfare during childhood (whether, before the subject was 17, the family ever received welfare or public assistance); and current depressive symptoms (a continuous score between 0 and 24 on an eight-item scale using items from the Center for Epidemiologic Studies Depression scale[31] [$\alpha = .84$]). We included current depressive symptoms as a covariate to control for the possible effect of depressed current mood on recall of childhood experiences.[32]

Standard statistical packages (SPSS, SAS), which assume simple random sampling, produce incorrect standard errors for a complex survey design such as ours. Therefore, the software program SUDAAN,[33] which provides accurate estimates of standard errors for complex survey designs, was used to calculate all confidence intervals and significance tests.

TABLE 2—Prevalence of Adverse Childhood Experiences (Weighted Percentages[a]) by Adult Homelessness: 1994 Follow-Up to the Comprehensive Nationwide Study of Knowledge, Attitudes and Beliefs about Homelessness (n = 487)

Type of Adversity	Ever Homeless, %	Never Homeless, %	Total Sample, %
Lack of care	66.0	13.3	15.6
Physical abuse	47.8	5.5	7.3
Sexual abuse	14.7	9.3	9.6
Lack of care plus either type of abuse	53.9	4.8	6.9
Any childhood adversity	68.5	21.9	24.0

[a]Weighted as described in text to reflect all households with telephones in the United States in 1994.

Results

Four percent of the weighted sample reported at least one episode of adult lifetime homelessness (Table 1). Sixteen percent of the weighted sample met our criteria for having experienced lack of care from a parent or parental figure during childhood (Table 2). Lack of care was significantly more common among women than among men (19% vs 11%, $P < .05$). Twenty-four percent of the weighted sample (29% of women and 17% of men, $P < .005$) were classified as having experienced either lack of care or abuse (Table 2). These figures compare well with data reported in the British studies from which our measure was derived; Bifulco and colleagues found that roughly 20% of a representative sample of working-class London mothers experienced lack of care and slightly under one third experienced lack of care or abuse in childhood[28] (the authors have yet to report such data on men).

Physical abuse during childhood was reported by 7% of the weighted sample and childhood sexual abuse was reported by just under 10%, with sexual abuse significantly more common among women (14% in women vs 4% in men, $p < .005$). Although the accuracy of national prevalence data on child abuse is disputed, these estimates are similar to much published data in this area.[13,34] For instance, the estimated prevalence of retrospectively reported childhood sexual abuse (through age 15 only) found in the Los Angeles Epidemiologic Catchment Area study was 5.3% overall, with women significantly more likely to have been abused.[35] The most comprehensive recent study of physical violence toward children in the United States estimated the annual incidence rate of "abusive violence" (using a somewhat broader definition than our own) to be 110 per 1000 children.[36]

These risk factors tended to overlap. The odds of having been physically

TABLE 3—Relationship between Adverse Childhood Experiences and Adult Homelessness (Weighted Percentages[a]): 1994 Follow-Up to the Comprehensive Nationwide Study of Knowledge, Attitudes and Beliefs about Homelessness (n = 487)

Type of Adversity	% Who Have Been Homeless[a]	Unadjusted OR (95% CI)	Adjusted OR[b] (95% CI)
Lack of care			
Yes	18.4	12.7 (5.0, 31.9)	6.6 (2.5, 17.6)
No	1.7		
Physical abuse			
Yes	27.8	15.8 (5.9, 42.1)	6.0 (2.1 17.4)
No	2.4		
Sexual abuse			
Yes	6.4	1.7 (0.6, 4.6)	0.8 (0.7, 7.4)
No	4.1		
Lack of care plus either type of abuse[c]			
Yes	33.3	26.0 (9.2, 73.6)	. . .
No	1.9		
Any childhood adversity			
Yes	12.5	7.8 (3.0, 19.9)	. . .
No	1.8		

Note. CI = confidence interval; OR = odds ratio.
[a]Weighted as described in text to reflect all households with telephones in the United States in 1994.
[b]Adjusted for the effect of each risk factor.
[c]Persons with both factors (Yes) are compared with persons with neither factor (No). Persons with one factor present (n = 83) are excluded.

abused were 16 times greater among those who experienced lack of care than among those who did not experience lack of care, while the odds of having been sexually abused were 3 times greater among those with lack of care than among those without. Similarly the odds of sexual abuse were 3 times greater among those who were physically abused than among those who were not physically abused.

Table 3 presents the results of analyses that assess the degree to which lack of care and abuse increase individuals' risk of lifetime homelessness. The unadjusted odds ratio (OR) for lack of care was 12.7 (95% confidence interval [CI] = 5.0, 31.9) and the unadjusted odds ratio for physical abuse was 15.8 (95% CI = 5.9, 42.1). There was a nonsignificant trend in the expected direction for sexual abuse (unadjusted OR = 1.7, 95% CI = 0.6, 4.6). The pattern of results remained when we assessed the strength of the association between each childhood risk factor and lifetime homelessness while adjusting for the other respective childhood risk factors. The risk of homelessness associated with lack of care from *both* mother and father (unadjusted OR = 16.7) was not appreciably higher than the risk conferred by lack of care from mother alone (unadjusted OR = 16).

The combination of lack of care and either type of abuse increased subjects' risk of homelessness by a factor of 26 (unadjusted OR = 26.0, 95% CI = 9.2, 73.6) compared with the risk among subjects with no reported childhood adversity (no lack of care, physical abuse, or sexual abuse). The experience of any childhood adversity increased subjects' risk of homelessness by a factor of 8 (unadjusted OR = 7.8; 95% CI = 3.0, 19.9).

We performed logistic regression analyses to control for the possibility of confounding by respondent's sex, age, ethnicity, urban vs rural current residence, parental socioeconomic status, receipt of welfare during childhood, and current depressive symptoms. In these analyses, lack of care (adjusted OR = 13.1, 95% CI = 4.7, 36.2) and physical abuse (adjusted OR = 18.0, 95% CI = 5.4, 59.5) continued to be strongly associated with homelessness, while sexual abuse again showed a nonsignificant trend in the expected direction (adjusted OR = 1.6, 95% CI = 0.5, 5.2). The combination of lack of care and either type of abuse was associated with an adjusted odds ratio of 38.9 (95% CI = 11.3, 133.6), while the adjusted odds ratio for any childhood adversity was 7.4 (95% CI = 2.6, 20.1). We also tested for interactions between each risk factor and the potential confounders, but found none to be significant.

We investigated the possibility of gender differences in two ways. First, odds ratios indicating the strength of association between respective risk factors and the outcome were computed separately for men and women. For lack of care (men = 15.7, women = 15.1), sexual abuse (men = 1.8, women = 2.1), and the combined variable indicating any childhood risk (men = 10.5, women = 8.1), the odds ratios were very similar. For physical abuse, the odds ratio was greater for women than for men (25.2 vs 10.7). Using separate logistic regression models, we then tested for the presence of significant interactions between sex and each separate risk factor, as well as between sex and the combined risk factor. No significant interaction was found. Since no conclusive pattern of differences by sex was apparent, we reported the findings unstratified by sex.

Discussion

We found the combination of lack of care and either physical or sexual abuse during childhood to be associated with a dramatically elevated risk of adult homelessness (unadjusted OR = 26.0). In addition, both lack of care and physical abuse, when considered alone, were associated with highly significant increases in the risk of homelessness in both univariate and multivariate tests. Sexual abuse showed a nonsignificant trend in the expected direction in both univariate and multivariate analyses.

Although our findings are consistent with previous studies that found other indicators of childhood adversity (i.e., out-of-home care and running away from home) to be prevalent in homeless samples, we believe this to be the first epidemiologic study to firmly establish that specific adverse childhood experiences are indeed risk factors for adult homelessness. In addition to using an appropriate comparison group, our study employed measures of childhood adversity that were drawn from a highly regarded previous body of work that links such childhood experiences with elevated risk for psychiatric disorder. We have extended this research by demonstrating that adverse childhood experiences are also risk factors for an important social outcome.

We emphasize that these adversities "cause" homelessness only within a

broad social context that allows for the existence of widespread homelessness.[37] Absent these structural conditions (e.g., the inadequate supply of affordable housing), it is unlikely that childhood adversity would frequently lead to adult homelessness.

Causal Pathways

There are likely to be multiple causal pathways through which these risks might operate. In earlier work, Susser[15] emphasized the possibility that childhood adversity may predispose individuals to homelessness because effective kin support is presumably less often present in families in which such adversity occurs. Since the family of origin is seen as an important potential source of assistance to individuals in trouble, it follows that if this resource is less available, the risk of homelessness would be increased.[38] Furthermore, the work of Brown and colleagues suggests that other sources of social support during adulthood may also be strongly compromised, albeit less directly, by adverse childhood experiences. In Brown and Moran's research on working-class women, childhood adversity has been found to predict a range of subsequent interpersonal problems including social isolation or development of relationships with people who are undependable support figures.[26] Consistent with these findings, evidence for the role of social isolation as a mediating factor in the link between abuse during childhood and adult homelessness among Vietnam-era war veterans has been reported by Rosenheck and Fontana.[22]

In the present study, measures of social support were restricted to current indicators only, limiting our ability to formally test the role of social support as a mediating variable. Nonetheless, the associations we observed between childhood adversity and several measures of current social support were consistent with this hypothesized causal pathway. For instance, being currently divorced or separated from a spouse was significantly associated with lack of care (OR = 4.8, 95% CI = 2.5, 9.4) and physical abuse (OR = 4.6, 95% CI = 2.0, 10.4) and associated at the trend level with sexual abuse (OR = 2.1, 95% CI = 0.8, 5.8). Speaking to relatives less often than once a month was also significantly associated with lack of care (OR = 2.9, 95% CI = 1.1, 8.2) and physical abuse (OR = 5.2, 95% CI = 1.7, 15.4), as was having two or fewer close friends living nearby (OR = 3.1, 95% CI = 1.8, 5.40 for lack of care; OR = 4.6, 95% CI = 2.2, 9.7 for physical abuse). Neither of these variables was significantly associated with sexual abuse.

Another potential causal pathway linking childhood adversity to adult homelessness involves the likelihood that such adversity elevates individuals' risk for psychiatric disorders such as depression and substance abuse, both of which appear to be likely risk factors for homelessness.[5] In this model, the development of one or more such disorder would follow childhood adversity and subsequently cause adult homelessness, perhaps by reducing individuals' ability to earn adequate income and thus to maintain stable housing. To explore this possibility in our data, we assessed whether the strength of the association between the childhood risk factors and homelessness would be significantly reduced by adding as covariates into the logistic models described above self-reported indicators of serious mental disorder (lifetime history of psychiatric hospitalization) and substance abuse problems (lifetime history of treatment in a drug or alcohol detoxification program). Although the results did not support the hypothesized relationship, our cross-sectional method does not permit us to definitively rule out the possibility that mental disorder may indeed mediate the relationship between childhood risk factors and adult homelessness.

Limitations

Recall bias is a potential threat to the validity of our findings, since the measures of risk factors and homelessness were collected retrospectively. Specifically, if respondents who reported that they had been homeless were more likely to recall adverse childhood experiences (or conversely, if those reporting adverse childhood experiences were more likely to recall having been homeless), the odds ratios we observed would have been artificially inflated. While this is possible, we find it improbable that such bias could account for differences in risk as strong as the ones we observed. Furthermore, our findings are consistent with those of other studies that did not rely on subjective ratings of childhood experience or self-reported measures of homelessness.[14,16–18,21] Finally, the fact that we controlled for current depressive symptoms in our multivariate analyses also served to protect against the potential effects of current mood on recall of childhood experiences.

Although we employed reliable, multiple-item measures of childhood lack of care, our measures of abuse were more limited. As noted above, the difficulties inherent in assessing abuse histories are well documented[39,40] and may in part account for the inconclusive results we obtained regarding sexual abuse.

A strength of our sampling method—interviewing currently housed individuals about prior lifetime homelessness—is also a potential weakness in that the sample may underrepresent persons with particularly long homeless experiences who do not reacquire stable housing. Since we sampled households only (and not shelters and other locations where long-term homeless persons may reside), such persons would not have had the opportunity to be selected into our sample. Thus, the risk factors we studied may increase the risk of entry into homelessness only among those persons whose ultimate duration of homelessness is less likely to be chronic. However, other studies with the opposite sampling bias (i.e., overrepresenting persons with long-term homelessness) have generated results consistent with those reported here.[14,17–20] Furthermore, since our sample was a nationally representative probability sample of all US households with telephones, the potential sampling bias is probably smaller than that in research relying on convenience samples of limited shelter or street locations.

Definitive claims about cause are difficult to make in observational studies. Even so, we believe that our design is a strong one. We have limited ourselves to examining risks that occurred during childhood and an outcome that occurred during adulthood. The temporal order between risk and outcome is clear, and we have statistically controlled for potential confounders. In the case of childhood-related risk for adult homelessness, we would also argue that prospective strategies would be very costly and, given the high rate of attrition likely to occur in a sample containing subjects at elevated risk for homelessness, would not necessarily provide a more solid basis for causal inference.

Our data are difficult to compare with those from previous studies that focused on the role of out-of-home care as a risk factor for homelessness.[14,15,17–20] We did investigate out-of-home care in our sample and found it to be roughly twice as prevalent among the homeless as among the nonhomeless (4.8% vs 2.6%). The 4.8% prevalence rate among the

homeless group is substantially lower than has typically been reported in studies of currently homeless populations. A plausible explanation consistent with this discrepancy is that out-of-home care may be more strongly associated with duration of homelessness than with its initial onset. Our data do not permit us to directly assess this hypothesis.

As a final caveat, we emphasize that by focusing on childhood risk factors, we are not attempting to explain all cases of homelessness. Despite the strong relationship we found between adverse childhood experiences and homelessness, roughly one third of the persons in our sample who became homeless as adults reported no lack of care, while roughly one half of those who became homeless reported no childhood physical abuse.

Conclusions

Our results lend strong support to the hypothesized link between adverse childhood experiences and adult homelessness, confirming what a number of previous studies have suggested. These results are consistent with a rapidly growing body of research indicating that abuse and neglect during childhood are also potent risk factors for a number of psychiatric disorders, including depression, anxiety, and substance abuse.[9,12,41–43] A definitive understanding of the mechanisms through which these risk factors operate awaits future research that is explicitly designed to test hypotheses about such mechanisms. Nonetheless, these findings suggest that interventions that can effectively reduce the incidence of child abuse and neglect may ultimately yield a large dividend by preventing critical social problems including homelessness and the enormous social costs that these problems engender. □

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