Is Suicide Contagious? A Study of the Relation between Exposure to the Suicidal Behavior of Others and Nearly Lethal Suicide Attempts

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This study sought to determine the association between nearly lethal suicide attempts and exposure to the suicidal behavior of parents, relatives, friends, or acquaintances and to accounts of suicide in the media. The authors conducted a population-based case-control study in Houston, Texas, from November 1992 through July 1995. They interviewed 153 victims of attempted suicide aged 13–34 years who had been treated at emergency departments in Houston and a random sample of 513 control subjects. After controlling for potentially confounding variables, the authors found that exposure to the suicidal behavior of a parent (adjusted OR = 1.5; 95% CI: 0.6, 3.6; p = 0.42) or a nonparent relative (adjusted OR = 1.2; 95% CI: 0.7, 2.0; p = 0.55) was not significantly associated with nearly lethal suicide attempts. Both exposure to the suicidal behavior of a friend or acquaintance (adjusted OR = 0.6; 95% CI: 0.4, 1.0; p = 0.05) and exposure to accounts of suicidal behavior in the media (adjusted OR = 0.2; 95% CI: 0.1, 0.3; p = 0.00) were associated with a lower risk of nearly lethal suicide attempts. Exposure to accounts of suicidal behavior in the media and, to a lesser extent, exposure to the suicidal behavior of friends or acquaintances may be protective for nearly lethal suicide attempts, but further research is needed to better understand the mechanisms underlying these findings. *Am J Epidemiol* 2001;154: 120–7.

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The idea that the suicidal behavior of one person may be imitated by others has received considerable attention during the past two decades. Indeed, suicide prevention recommendations and policies are influenced by the assumption that imitation plays a causal role in suicidal behavior, particularly among young people (1, 2). The importance of understanding the influence that one person's suicidal behavior may have on another's is underscored by results from population-based surveys which indicate that one half to three quarters of respondents report exposure to others' suicidal behavior (3–7).

There are several sources of evidence for an imitative effect of exposure to suicidal behavior. The first involves the potential influence of personal exposure to the suicidal behavior of relatives or peers. Anecdotal observations of suicide clusters (i.e., an excessive number of suicides occurring in close temporal and geographic proximity) suggest that suicide victims in these clusters often know one another or that the victims would have had knowledge of other suicides in the cluster through their social networks (8). Statistical evidence indicates that suicide clusters occur primarily among teenagers and young adults and that they account for 1–5 percent of all teenage suicides (9, 10).

Further evidence of possible imitative effects of personal exposure comes from descriptive research, which indicates that high proportions of suicide attempters and completers have a family history of suicidal behavior (11–13). However, these findings may be attributable to a family history of key risk factors for suicidal behavior, such as depression or alcoholism. Controlled studies in which suicidal and general populations are compared with respect to exposure to suicidal behavior find contradictory evidence of an imitative effect (14–17). However, the generalizability of research from these controlled studies is limited by methodological weaknesses, including inadequate control groups and small sample sizes (18).

The second form of evidence for imitative effects comes from studies that have examined the short-term impact of media exposure on suicide. Ecologic research has shown evidence of an imitative effect resulting from the publiciz-

ing of real or fictional accounts of suicide in the mass media (19–28), although several studies have found evidence that contradicts these findings (29–32). These ecologic studies suffer from a common limitation, however: They are unable to directly measure whether the actual suicide victims were exposed to stories about real or fictional suicides.

In this study, we examined whether exposure to suicidal behavior increases someone's risk of a nearly lethal suicide attempt outside of the context of suicide clusters. The study population was limited to adolescents and young adults, the age range in which imitative suicides are most likely to occur (10). We investigated the influence of both personal exposure to the suicidal behavior of parents, relatives, friends, or acquaintances and exposure to accounts of suicide in the media. We examined whether exposure to the suicidal behavior of others was related to elevated risk of nearly lethal suicide attempts in subpopulations that may be particularly vulnerable to imitative behavior, such as adolescents, males, people suffering from depression, and alcoholics. Finally, we tested whether any association between suicide exposure and nearly lethal suicide attempts was modified by frequency and recency of exposure or the emotional closeness between the respondent and the suicide model.

MATERIALS AND METHODS

We conducted a population-based case-control study of nearly lethal suicide attempts among 13- to 34-year-olds in a defined geographic region within Harris County, Texas. The sample consisted of 153 suicide attempters and 513 control subjects.

Case definition and identification

A case subject had to be a resident of Harris County aged 13–34 years living within Beltway 8 (the outer-perimeter highway around Houston) who had been treated for a nearly lethal suicide attempt in one of three participating emergency departments (Ben Taub Hospital, Hermann Hospital, or Lyndon Baines Johnson Hospital) between November 9, 1992, and September 30, 1995 (33). Nearly lethal suicide attempts were defined as those in which the attempter probably would have died had he or she not received emergency medical or surgical intervention or in which the attempter unequivocally used a method with a high case fatality ratio (i.e., a gun or a noose) and sustained an injury, regardless of severity.

The participating hospitals are the only level I (Ben Taub) and level II (Hermann and LBJ) trauma centers in the Greater Houston metropolitan area. Suicide attempters treated at these hospitals are routinely referred to the hospital's psychiatric service for evaluation. In our study, the physicians, most of whom were psychiatric residents, were trained to complete a form indicating the method and severity of injury for all suicide attempters. They were paid $10 for each completed form. The form was formally tested and found to be a reliable and valid instrument for assessing the medical severity of suicide attempts (33). The study's project manager reviewed reports in each emergency depart-

ment to ensure that no cases went unrecognized. The project manager also reviewed all suicide attempts that met the case inclusion criteria and included them in the study after consulting with each attempter's physician and obtaining written informed consent from the patient (and guardian, if the patient was a minor). Trained project staff interviewed case subjects using a structured interview protocol. Upon interview completion, case subjects were paid $15 for their time.

Of the 1,648 suicide attempters meeting the residency, age, and time period restrictions, 244 (15 percent) met the case inclusion criteria. Of those 244, 153 (63 percent) completed the interview, 54 (22 percent) refused, 22 (9 percent) denied attempting suicide, 4 (2 percent) were too ill to be interviewed, and 11 (5 percent) were lost to follow-up. More than 75 percent of case subjects were interviewed within 7 days of their suicide attempt, and all case subjects were interviewed within 33 days of their attempt. The demographic characteristics of the case subjects who completed an interview did not differ with respect to age, sex, and race from those of eligible case subjects who were not interviewed. However, interviewed case subjects were significantly less likely to be Hispanic.

Selection and recruitment of control subjects

We recruited control subjects from households in the same geographic area as the case subjects and enrolled both groups during the same time period. Control subjects were identified by means of random digit dialing techniques. Bilingual speakers telephoned households to screen for potential control subjects of appropriate age and residency using the same criteria as those established for cases (age 13–34 years and residence within Beltway 8). Households that could not be successfully contacted after six attempts were dropped. When a household had more than one potential control subject, the person with the most recent birthday was selected. After obtaining informed consent, trained staff interviewed control subjects in a location chosen by the subject. Interviewers used a structured interview protocol similar in format and content to the case subject interview protocol. Upon interview completion, control subjects were paid $15 for their time.

In the recruitment of control subjects, 11,288 telephone numbers were called, and for 4,875 of these numbers a person was successfully contacted. Among the 4,875 screened telephone numbers, 857 (18 percent) eligible control subjects were identified. For 2,890 screened phone numbers (59 percent), there was no resident within the study age range; for 1,033 numbers (21 percent), the respondent refused to be screened; and for 95 numbers (2 percent), the respondent resided outside of Beltway 8. Of the 857 known eligible control subjects, 513 (60 percent) completed the in-person interview, 230 (27 percent) refused to participate when first contacted by telephone, 53 (6 percent) refused an interview in the field, and 61 (7 percent) failed to complete the field interview for some other reason. The demographic characteristics of control subjects were similar with respect to sex, race, and age to those of the Harris County population as reflected in census estimates for 1993.

Measures

Exposure to suicidal behavior. Four measures of exposure to the suicidal behavior of others were used in this study. Three of these measures assessed whether the case or control subject reported that a parent (including stepparents, adoptive parents, and legal guardians), nonparent relative, or friend or acquaintance had ever committed suicide or attempted suicide. For each attempted/completed suicide the respondent had been exposed to, the respondent was asked, "How was each of these people who attempted/committed suicide related to you?" From this we created three variables, each indicating exposure to suicide in a different type of relationship: parent, nonparent relative, and friend/acquaintance. If at least one of the relationships listed was that of a parent or guardian, the parental exposure variable was coded "yes" regardless of any other types of relationship exposures. The same procedure was followed for nonparent relative and friend/acquaintance exposures. This enabled us to assess exposure to one type of relationship while adjusting for the fact that exposure to suicide in other types of relationships may also have existed. A fourth dichotomous measure assessed whether case or control respondents recalled having been exposed to accounts of suicidal behavior in the media (i.e., having seen any movies, watched any television shows or videos, read any news articles, or read any books or stories) during the 30 days prior to the suicide attempt (case subjects) or interview (control subjects).

We also measured three characteristics of the exposures to suicidal behavior reported by respondents: frequency and recency of exposure and the closeness of the respondent to the suicidal person (hereafter called the suicide model). We created three frequency-of-exposure variables as refinements of the three relationship variables by asking respondents who reported exposure how many times parents, nonparent relatives, and friends/acquaintances they knew had committed or attempted suicide.

Three closeness variables were created as refinements of the three relationship variables described above. For each exposure (to attempted/completed suicide), the respondent was asked, "How close were you with … (the person who attempted or committed suicide)? Would you say very close, close, not particularly close, or distant?" All exposures within a relationship category were reviewed, and a single closeness variable was created for each relationship type, indicating the closest relationship to anyone the respondent had been exposed to in that category, regardless of when the exposure occurred. Responses were then collapsed into categories of close (very close or close) and not close (not particularly close or distant).

The same approach was used to classify recency of exposure within each relationship type. Respondents were asked, "When did your (relative/acquaintance) attempt/complete suicide? Would you say within the past month, 1–6 months ago, 7–12 months ago, >1–5 years ago, or >5 years ago?" As was the case with closeness, all exposures within a single type of relationship were reviewed, and a single recency variable was created for each relationship type, indicating the most recent exposure to anyone the respondent had been exposed to in that category. The variable was later collapsed into two categories: exposure within the past year and exposure more than 1 year previously.

Depression. The Center for Epidemiologic Studies Depression (CES-D) Scale was used to assess depressive symptoms during the week prior to the suicide attempt (case subjects) or the week prior to interview (control subjects). The 20-item CES-D Scale has adequate test-retest reliability and a high degree of internal consistency (34). Since the distribution of data on the CES-D Scale is highly skewed in general populations, we created a dichotomous variable in which study participants were categorized as either depressed (scoring ≥16) or not depressed (scoring 0–15). This cutoff point is consistent with that used in the literature (34).

Alcoholism. The Veterans Alcoholism Screening Test (VAST) was used to detect alcoholism within the past year. VAST is a scale that measures current alcoholism, and it compares well with the criteria of the *Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised* (35). Since the distribution of data on the VAST scale is highly skewed in general populations, we constructed a dichotomous variable from the 24-item VAST in which respondents were categorized as being either alcoholic (scoring ≥5) or nonalcoholic (scoring ≤4). This cutoff point is consistent with that recommended in the literature (35).

Geographic mobility. A dichotomous variable describing respondents' geographic mobility in the previous 12 months was created. Persons who answered yes to either "Have you moved from one place to another in the past 12 months?" or "Have you moved from your parent's home to (college/technical school) or back to your parent's house from (college/technical school)?" were coded as persons who had experienced recent geographic mobility.

Upsetting end to a relationship. Respondents were categorized dichotomously on the basis of whether they had been involved in a romantic relationship that came to an upsetting end during the previous year.

Exposure to a nonsuicide death. Respondents were categorized dichotomously on the basis of whether any persons known to them had died, from any cause except suicide, within the previous year.

Demographic data. Demographic variables included sex (male/female); age group (13–17, 18–24, or 25–34 years); race/ethnicity (non-Hispanic Black, non-Hispanic White, Hispanic, or other); total annual household income (≤\$20,000, \$20,001–\$30,000, ≥\$30,001, or unknown); and living alone (yes/no).

Statistical analysis

Interview data were used for all statistical analyses. Based on our sample sizes for case subjects and controls, an observed exposure of 6 percent in the control group, and an alpha level of 0.05, the study's power to detect odds ratios of the magnitudes 2.5, 2.0, and 1.5 was >90 percent, 65 percent, and <30 percent, respectively. Using logistic regression, we conducted bivariable and multivariable analyses to estimate the effects of our measures of suicide exposure on the risk of nearly lethal suicide attempts. The significance of each variable was assessed using the Wald χ^2 test. In the

multivariable analysis, potentially confounding variables were identified on theoretical grounds, and we controlled for them by including all of them in the full main effects model simultaneously. We constructed an additional model to test all two-way interactions between each of the four main exposure measures and sex, age, depression, and alcoholism. We compared a model containing all main effects (suicide exposure variables and potential confounders) with a model containing these main effects and the two-way interactions. A likelihood ratio test showed that this set of interaction terms was not important to the model ($p = 0.86$), indicating that these groups were not more susceptible to a nearly lethal suicide attempt given the exposures of interest.

To assess whether frequency and recency of exposure and closeness between the suicide model and the respondent were associated with the risk of nearly lethal suicide, we constructed three logistic regression models in which persons who had been exposed were further classified by each of these refined measures of exposure (these variables were not measured with respect to media exposure). The significance of each variable was assessed using a likelihood ratio test.

We also conducted a logistic regression analysis to determine whether the results were sensitive to the presence or absence of telephones in cases' households, since controls had been screened through random digit dialing. Exclusion of cases without telephones did not alter our results.

RESULTS

Characteristics of the study population

The distributions of the study variables by case/control status are summarized in table 1. Case subjects were more likely than control subjects to be depressed, to be alcoholic, to have moved during the previous year, and to have experienced an upsetting end to a relationship during the previous year, and cases were about equally likely to have been exposed to the nonsuicidal death of someone they knew. Case subjects were more likely than control subjects to be male, to be non-Hispanic Black or Hispanic, and to have a low household income. However, the two groups had nearly the same age distribution. Case subjects were less likely than control subjects to live alone.

Bivariable analysis

The crude odds ratios in table 2 show that exposure to the suicidal behavior of a parent increased the risk of a nearly lethal suicide attempt (crude odds ratio (OR) = 2.4; 95 percent confidence interval (CI): 1.3, 4.3; $p = 0.01$) and that exposure to a nonparent relative's suicidal behavior was not significantly associated with suicide risk (crude OR = 1.2; 95 percent CI: 0.8, 1.7; $p = 0.64$). In the crude analysis, both exposure to the suicidal behavior of a friend or acquaintance (crude OR = 0.5; 95 percent CI: 0.3, 0.7; $p = 0.00$) and exposure to suicidal behavior through the media (crude OR = 0.2; 95 percent CI: 0.1, 0.3; $p = 0.00$) were associated with a lower risk of nearly lethal suicide attempts.

Multivariable analysis

Full main effects model.   After introducing each of the suicide exposure variables and the potential confounders simultaneously into a logistic regression model, we found that exposure to the suicidal behavior of a parent was no longer significantly associated with the risk of a nearly lethal suicide attempt (adjusted OR = 1.5; 95 percent CI: 0.6, 3.6; $p = 0.42$) (table 2). An examination of potentially confounding factors revealed that only depression, alcoholism, and having moved during the previous year substantially reduced the effect of exposure to parental suicidal behavior. Exposure to the suicidal behavior of a nonparent relative remained unassociated with a nearly lethal suicide attempt (adjusted OR = 1.2; 95 percent CI: 0.7, 2.0; $p = 0.55$), while the association with exposure to the suicidal behavior of a friend or acquaintance was lessened (adjusted OR = 0.6; 95 percent CI: 0.4, 1.0; $p = 0.05$). Exposure to accounts of suicidal behavior in the media remained strongly associated with a lower risk of nearly lethal suicide attempts (adjusted OR = 0.2; 95 percent CI: 0.1, 0.3; $p = 0.00$).

Refinement of suicide exposure measures.   We examined whether frequency of exposure, recency of exposure, or the emotional closeness between the suicide model and the respondent was associated with the risk of nearly lethal suicide. Frequency of exposure was not significantly associated with the risk of a nearly lethal suicide attempt (table 3). While the overall effects of recency of exposure ($p = 0.06$) and closeness of exposure ($p = 0.07$) were nonsignificant, exposure to the suicidal behavior of friends or acquaintances that occurred more than 1 year prior to the interview was associated with a reduced risk of a nearly lethal suicide attempt (adjusted OR = 0.5; 95 percent CI: 0.3, 0.9), as was exposure to the suicidal behavior of friends or acquaintances to whom the respondent did not feel close (adjusted OR = 0.5; 95 percent CI: 0.3, 0.9).

DISCUSSION

In this study, we found no evidence that exposure to the suicidal behavior of others is a risk factor for nearly lethal suicide attempts. Even among groups at relatively higher risk for suicidal behavior (i.e., males, alcoholics, depressed persons, adolescents), we found no indication of an effect. On the contrary, we found that exposure to accounts of suicidal behavior in the media and, to a lesser extent, exposure to the suicidal behavior of friends or acquaintances were associated with a lower risk of nearly lethal suicide attempts; however, this appeared to be evident only when the emotional and temporal distance between the exposed individual and the suicide model was greatest.

We found that exposure to the suicidal behavior of a parent, while crudely associated with the risk of a nearly lethal suicide attempt, was not significantly associated in the adjusted model. However, we had limited power (<30 percent) to detect the relatively small adjusted odds ratio for the effect of parental exposure (adjusted OR = 1.5; 95 percent CI: 0.6, 3.6; $p = 0.42$). Nevertheless, this finding is remark-

TABLE 1. Data on potentially confounding factors, by case/control status, in a study of attempted suicide, Houston, Texas, 1992–1995

Variable	Cases (n = 153)		Controls (n = 513)	
	No.	%	No.	%
Depression*				
Yes	131	85.6	163	31.9
No	22	14.4	348	68.1
Unknown	0		2	
Alcoholism*				
Yes	52	34.7	69	13.5
No	98	65.3	441	86.5
Unknown	3		3	
Moved in the past year*				
Yes	90	58.8	161	31.4
No	63	41.2	352	68.6
Upsetting end to a relationship*				
Yes	54	35.3	69	13.5
No	99	64.7	444	86.5
Exposure to a nonsuicide death				
Yes	46	30.1	172	33.5
No	107	69.9	341	66.5
Sex*				
Male	83	54.2	221	43.1
Female	70	45.8	292	56.9
Age group (years)				
13–17	37	24.2	126	24.6
18–24	45	29.4	147	28.7
25–34	71	46.4	240	46.8
Race/ethnicity*				
Black, non-Hispanic	55	35.9	118	23.1
White, Hispanic	44	28.8	101	19.8
White, non-Hispanic	50	32.7	277	54.2
Other	4	2.6	15	2.9
Unknown	0		2	
Annual household income*				
≤$20,000	67	43.8	105	20.5
$20,000–$30,000	24	15.7	103	20.1
≥$30,000	22	14.4	211	41.1
Unknown	40	26.1	94	18.3
Living alone*				
Yes	11	7.5	71	13.8
No	136	92.5	442	86.2
Unknown	6		0	

* $p < 0.05$ (Pearson's χ^2 test).

ably similar to that of one prior study (14) which found that parental suicidal behavior was not significantly associated with suicide attempts in a larger sample (adjusted OR = 1.8, $p > 0.05$). There are at least two possible mechanisms that could explain why the effect of parental exposure would be reduced when controlling for depression, alcoholism, and migration. First, mental disorders such as depression or alcoholism, which are common among persons who attempt or commit suicide (36), may be genetically or socially transmitted from parents to their offspring (14, 37). These mental disorders may also be associated with an increased likeli-

hood of moving from place to place. Alternatively, a parent's suicide could induce pathologic bereavement in the offspring, which could lead to depression and thus predispose the offspring to suicidal behavior (38).

Our finding of a marginally significant protective association of exposure to the suicidal behavior of a friend or acquaintance is consistent with other research (17, 18, 39–42). These findings support the idea that contact with suicidal behavior may be associated with a greater likelihood that suicidal behavior will be seen as incomprehensible or inappropriate and thereby inhibit any propensity

TABLE 2. Data on suicide exposure variables, by case/control status, and crude and adjusted odds ratios for attempted suicide, Houston, Texas, 1992–1995

Exposure variable	Cases (n = 153)		Controls (n = 513)		Crude odds ratio	95% confidence interval	Adjusted‡ odds ratio	95% confidence interval
	No.§	%	No.§	%				
Parental suicidal behavior								
Yes	19	12.5	29	5.7	2.4*	1.3, 4.3	1.5	0.6, 3.6
No	133	87.5	476	94.3	1.0		1.0	
Suicidal behavior in a nonparent relative								
Yes	50	32.9	149	29.5	1.2	0.8, 1.7	1.2	0.7, 2.0
No	102	67.1	356	70.5	1.0		1.0	
Suicidal behavior in a friend or acquaintance								
Yes	61	40.1	293	58.0	0.5*	0.3, 0.7	0.6†	0.4, 1.0
No	91	59.9	212	42.0	1.0		1.0	
Media account of suicide								
Yes	50	32.7	363	71.3	0.2*	0.1, 0.3	0.2*	0.1, 0.3
No	103	67.3	146	28.7	1.0		1.0	

* $p < 0.05$ (Wald χ^2 test).
† $0.05 \leq p < 0.10$ (Wald χ^2 test).
‡ Adjusted for all variables in the full main effects model; i.e., each suicide exposure variable was adjusted for the remaining suicide exposure variables and for depression, alcoholism, moving in the previous year, an upsetting end to a relationship, exposure to a nonsuicide death, sex, age, race/ethnicity, household income, and living alone.
§ Numbers may not add up to 153 (cases) or 513 (controls) because of missing values.

towards suicidal behavior. However, the protective association of exposure to the suicidal behavior of a friend or acquaintance was only evident when the emotional and temporal distance between the suicide model and the exposed individual was greatest. Greater temporal and emotional distance between an individual and a suicide model may enable a person to more fully appreciate the negative consequences of suicide (18).

TABLE 3. Adjusted† odds ratios for attempted suicide according to the frequency, recency, and closeness of exposure to the suicidal behavior of parents, nonparent relatives, and friends/acquaintances, Houston, Texas, 1992–1995

Exposure variable	Parent‡		Nonparent relative		Friend or acquaintance	
	Odds ratio	95% confidence interval	Odds ratio	95% confidence interval	Odds ratio	95% confidence interval
Frequency						
≥2 exposures			1.0	0.4, 2.5	0.6	0.3, 1.1
1 exposure			1.3	0.7, 2.3	0.6	0.3, 1.2
No exposure			1.0		1.0	
Recency						
Previous year	6.7	0.4, 119.6	1.8	0.6, 5.4	0.7	0.4, 1.4
>1 year previously	1.3	0.5, 3.2	1.1	0.6, 2.0	0.5*	0.3, 0.9
No exposure	1.0		1.0		1.0	
Closeness						
Close	1.3	0.4, 4.1	1.5	0.6, 3.5	0.8	0.4, 1.6
Not close	1.6	0.4, 6.7	1.1	0.6, 1.9	0.5*	0.3, 0.9
No exposure	1.0		1.0		1.0	

* $p < 0.05$ (Wald χ^2 test).
† Adjusted for all variables in the full main effects model; i.e., each suicide exposure variable was adjusted for the remaining suicide exposure variables and for depression, alcoholism, moving in the past year, an upsetting end to a relationship, exposure to a nonsuicide death, sex, age, race/ethnicity, household income, and living alone.
‡ There were insufficient numbers of multiple parental exposures to permit analysis of the frequency of exposure to parental suicidal behavior.

The protective association of exposure to accounts of suicide in the media contradicts some past research and prevailing assumptions that such exposure is a risk factor for suicidal behavior. One possible explanation is that our study was conducted at a time when the nature of media stories or popular perceptions about suicide had changed from that of the previous period, when studies found imitative effects (31). Media stories may now portray suicide in more realistic and less glamorous terms. Another possible explanation for this contradictory evidence is that we examined the effects of media exposure over a 30-day interval, in contrast to most prior studies, where media effects were examined immediately after exposure. It is possible that media exposure has its greatest impact on suicidal behavior immediately after the event and that its effects are diluted or even reversed as time passes. Alternatively, it is possible that suicide attempters may be more socially isolated than other groups and are therefore less likely to be exposed to suicide models in their social networks or in the media (17, 18).

The finding of a protective association of exposure to suicide may seem counterintuitive to people familiar with media accounts of suicide clusters, in which evidence for a "contagious" effect of suicide exposure has been compelling in several instances. However, the context, nature, and personal impact of exposure to suicide is clearly very different in the context of a suicide cluster, in which whole communities can become highly alarmed about an apparent suicide "epidemic" and fearful about the possibility of further suicides. The causal mechanisms by which exposure to suicide in the context of suicide clusters appears to increase risk of suicidal behavior among community peers, while exposure to suicide in other contexts may have a protective effect, remain unclear.

Our findings must be interpreted in view of several limitations. First, these data were based on self-reports and thus were subject to potential biases. For example, suicide attempters may recall exposure to the suicidal behavior of others more accurately than do control subjects, or they may be more reluctant to discuss such exposure (17, 18). Second, the interview completion rates among our case and control subjects were 63 percent and 60 percent, respectively. With the exception of the Hispanic ethnicity of case subjects, case and control subjects were similar to eligible case subjects who were not interviewed and to the Harris County population, respectively, with regard to sex, race, and age. Hispanic ethnicity was not associated with exposure to suicidal behavior; therefore, this difference is unlikely to have affected the study findings. Third, we collected limited information on the extent to which case and control subjects were socially isolated. As we noted above, the differential involvement of case and control subjects with social networks may explain these findings. Fourth, detailed information on the frequency and character of exposure to suicide accounts in the media was not collected in this study. For example, we were unable to examine the effects of exposure to specific sensationalized suicides that occurred during the study period (i.e., those of musician Kurt Cobain and a prominent Houston Oilers football player). In future studies, researchers should collect such data to gain a better understanding of the relation between exposure to media accounts of suicide and the suicidal behavior of individuals. Finally, the demographic characteristics of persons involved in nearly lethal suicide attempts are sufficiently different from those of persons who complete suicide that care should be taken in generalizing our findings to completed suicides.

These findings suggest that under certain conditions, exposure to suicidal behavior may have beneficial consequences. In light of the body of research that has highlighted the negative consequences of such exposure, we should be careful not to radically alter prevention and postvention programs and policies before these findings can be replicated and more fully explored. If these findings are substantiated, they may provide important clues for tailoring educational and media messages on suicide to minimize risk and maximize the protective value of such communications. Given the high prevalence of exposure to suicidal behavior (3–7), further understanding of the influence of such exposure should remain an important priority for future research.

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