Depression and Thoughts of Suicide Among Middle-Aged and Older Persons Living With HIV-AIDS

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Objective: **This study examined the prevalence and characteristics of suicidal ideation among middle-aged and older persons who have HIV infection or AIDS.** ***Methods:*** **A total of 113 subjects older than age 45 who had HIV-AIDS were recruited from AIDS service organizations in Milwaukee, Wisconsin, and New York City. Participants completed confidential questionnaires covering suicidal ideation, emotional distress, quality of life, coping, and social support.** ***Results:*** **Twenty-seven percent of respondents reported having thought about taking their own life in the previous week. Those who had thought about suicide reported greater levels of emotional distress and poorer health-related quality of life than those who had not considered suicide. They were also significantly more likely to use escape and avoidance strategies for coping with HIV infection and less likely to use positive-reappraisal coping. Those who had thought about suicide also were more likely to have disclosed their HIV status to the people close to them, and yet they perceived receiving significantly less social support from friends and family. With the exceptions of physical functioning and coping strategies, differences between those who had contemplated suicide and those who had not remained unchanged after controlling for symptoms of depression.** ***Conclusions:*** **Persons who are in midlife and older and are living with HIV-AIDS experience significant emotional distress and thoughts of suicide, suggesting a need for targeted interventions to improve mental health and prevent suicide. (*Psychiatric Services* 51: 903–907, 2000)**

Once an epidemic concentrated among the young, AIDS is increasingly affecting older adults. Of all persons in the United States who have been diagnosed as having AIDS, the proportion who were men age 45 and older cumulatively increased from 9 percent in 1995 to 21 percent in mid-1999. A similar escalation in AIDS cases was observed in women age 45 and older, who constituted 6 percent of all cases in 1995 and 16 percent in mid-1999.

New HIV infection rates also suggest that the trend toward greater percentages of older adults with an AIDS diagnosis will continue; 29 percent of men and 24 percent of women newly infected with HIV in 1997 were between 35 and 44 years old (1,2). Thus more adults are becoming infected in their thirties and forties, and advances in treatments for both HIV infection and AIDS-associated conditions are increasing the longevity of those living with HIV infection. Although older adults clearly constitute a growing population of people with HIV-AIDS, little is known about their mental health needs and their ability to cope with HIV infection.

Research with younger populations suggests that people who are HIV positive may be at greater risk for suicide than their uninfected counterparts (3–6). In a study of more than 2,300 psychiatric consultations in a New York City hospital, approximately 20 percent of patients with HIV infection exhibited suicidal behavior compared with 14 percent of patients with unknown HIV serostatus (7). Persons with HIV infection who attempt suicide are likely to abuse drugs, experience social isolation, and lack social support (8,9). In addition, HIV-positive men are at greater risk for suicide than women, and persons with HIV-AIDS who more frequently use avoidance and denial strategies for coping with HIV-related stress are at greater risk for suicide (8,10).

Studies also suggest that patients' risk for suicide may be greater soon after testing positive for HIV than later on, after some time has passed

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and they begin to adjust to living with the infection (11). For example, using the suicide intention item in the Beck Depression Inventory, Perry and associates (12) found that 29 percent of persons with HIV infection had thoughts of suicide the week before testing for HIV antibodies. In the same cohort, 27 percent had thoughts of suicide one week after notification of their HIV-positive test result, and 16 percent had thoughts of suicide two months later. Although thoughts of suicide may recede as people adjust to their HIV diagnosis, there may be a resurgence in suicide risk as HIV-related disease advances, particularly with the development of AIDS-related symptoms and illnesses (13).

In the general population, suicide rates are highest among adults who are in midlife and older, and suicide is among the ten leading causes of death for individuals 45 to 65 years of age (14–17). The AIDS mental health literature to date has largely overlooked suicidal ideation in older adults with HIV-AIDS.

We investigated the rates of suicidal ideation and suicide intention among men and women age 45 and older with HIV infection or AIDS. Using methods for defining suicidal ideation similar to those used in previous studies (12), we examined the relationship between suicidal ideation and self-reported emotional distress, functional well-being, psychological coping with HIV-AIDS, and social support among our respondents.

On the basis of cognitive theories of suicide that view thoughts of suicide on a continuum, with thoughts of self-inflicted harm defined as a low-threshold indicator of suicide risk (18), we hypothesized that persons who were thinking of suicide would be experiencing greater emotional distress and poorer health-related quality of life than persons not currently thinking of suicide. We also predicted that those who thought about suicide in the previous week would be more likely to use avoidance and denial-related coping strategies in dealing with their HIV infection. Finally, we hypothesized that middle-aged and older adults with HIV infection who had thoughts of suicide would be less likely to disclose their HIV status to others, thereby increasing their social isolation, and would perceive less social support than those not thinking of suicide.

Methods

Participants

Participants were 85 men and 28 women living with HIV-AIDS who were recruited from community-based organizations in Milwaukee, Wisconsin (N=22), and New York City (N=91). Their mean±SD age was 53.4±.5 years (range, 47 to 69 years), with 66 percent between the ages of 45 and 54 years. The sample was ethnically diverse; of the 113 participants, 48 were white (43 percent), 48 were African American (43 percent), nine were Hispanic (8 percent), and eight were of other ethnicities (6 percent). The mean±SD years of education was 14±2.4, with 32 percent having completed 12 years or more of schooling. Twenty-six were currently married or had a partner (23 percent), and 55 had children (49 percent).

Participants were also diverse in their HIV risk histories. Sixty-five persons believed that they had become infected through sexual contact (58 percent), 12 through injection drug use (11 percent), and three through blood transfusions (3 percent); 33 did not know the source of their HIV infection (29 percent). The median time since testing positive for HIV was eight years (range, two to 16 years). Forty-one respondents were not currently experiencing symptoms of HIV infection (36 percent), and 49 had not been diagnosed as having AIDS (43 percent).

Procedures

The study was conducted in 1998 and 1999 in collaboration with AIDS service organizations in Milwaukee and New York City. Case managers were asked to contact their clients who were in midlife or older to inform them of the opportunity to participate in a mental health and life care needs assessment for people living with HIV-AIDS. Individuals interested in the study called a toll-free telephone number and were provided with detailed information about the study.

Those who wished to enroll in the study were scheduled for an appointment at the AIDS agency in their city. Participants provided informed consent at the data collection session and completed a confidential, self-administered questionnaire. Those who had reading problems were helped to complete the survey. Participants were given $20 for completing the survey.

Measures

Demographic and health status. Participants reported their age, ethnicity, sexual orientation, years of education, the year when they first tested positive for HIV antibodies, their current symptoms, if any, of HIV infection, and whether they had been diagnosed as having an AIDS-defining condition.

Suicidal ideation. We used the suicide intention item from the Beck Depression Inventory (BDI) to assess suicidal ideation. The BDI consists of 21 items that reflect cognitive, affective, behavioral, and somatic symptoms of depression, each scored 0 to 3 according to severity (19–20). We have found that the BDI provides a valid assessment of depressive symptoms in people with HIV-AIDS and that depressive and HIV-related symptoms are easily distinguished because the scale has a somatic symptoms subscale (21).

The suicidal ideation item presents four statements representing a continuum of suicide risk: "I don't have any thoughts of killing myself"; "I have thoughts of killing myself, but I would not carry them out"; "I would like to kill myself"; and "I would kill myself if I had the chance." Participants were instructed to indicate which statement best applied to them over the past week. We used this item to form two comparison groups: subjects who had no thoughts of suicide, or those who selected the first statement, compared with subjects who had thoughts of suicide, those who selected any of the other three statements. We also obtained an adjusted depression score on the BDI after removing the suicide intention item.

Emotional distress. The Symptom Checklist-90 (SCL-90) (22) served as an independent index of

distress with five subscales: anxiety, somatization, interpersonal sensitivity, hostility, and depression (alphas ranging from .71 to .88).

Health-related quality of life. We used the 55-item Functional Assessment of HIV Infection (23) to assess health-related quality of life of people with HIV infection. This instrument has subscales for physical well-being, emotional well-being, functional well-being, and provider relationship (alphas ranging from .79 to .91).

Coping behaviors. Participants completed the 66-item Ways of Coping Questionnaire (24) to assess cognitive and behavioral coping strategies. The survey has subscales for acceptance of responsibility, confrontive coping, planful problem solving, escape and avoidance, distancing, seeking social support, self-control, and positive reappraisal (alphas ranging from .61 to .78). The higher the subscale score, the greater use the subject made of that coping strategy.

Social support. Respondents also completed the 15-item Provision of Social Relations Scale (25), which uses six items to assess perceived social support from family members and nine items to assess support from friends (alphas over .85). The higher the scores, the greater the perception subjects had of social support from those sources.

Disclosure of HIV infection. Participants were asked whether they had disclosed their HIV-positive status to immediate family, to extended family, to a partner or spouse, to close friends, or to casual friends.

Data analyses

Data analyses compared respondents who had thoughts of suicide in the past week with those who had not thought about suicide. Independent t tests were used to compare groups on continuous demographic and health history variables, and contingency table chi square tests were used for categorical variables.

To test differences between those with suicidal ideation and those without on the mental health and coping variables, we conducted multivariate analyses of covariance (MANCOVAs), controlling for HIV symptom severity ratings. MANCOVAs were conducted on four sets of dependent variables: emotional distress measured by the SCL-90, health-related quality of life, coping behaviors assessed by the Ways of Coping Questionnaire, and perceived social support. We controlled for HIV symptoms in these analyses, using the current HIV symptom assessment, because persons with suicidal thoughts differed in HIV symptoms experienced, and because HIV symptoms overlap with somatic symptoms of emotional distress (21). Numbers of participants in each group varied because of missing values.

We performed a second series of analyses to compare suicidal ideation groups while controlling for nonoverlapping depression symptoms. Using a six-item composite from the SCL-90 depression subscale– items included feeling blue, sleep that is restless or disturbed, crying easily, poor appetite, feeling no interest in things, and loss of sexual interest or pleasure– we repeated the MANCOVAs comparing suicidal ideation groups on the measures for emotional distress, quality of life, coping, and social support after controlling for HIV symptoms and symptoms of depression. The depression composite was reliable (alpha=.81), and was highly correlated with scores on the BDI (r=.80, p<.001). These conservative secondary analyses served to test the effects of suicidal ideation on mental health outcomes independently of symptoms of depression other than those related to thoughts of suicide.

Results

Preliminary analyses did not indicate significant differences between the Milwaukee and the New York City samples. Inspection of responses to the BDI suicidal ideation item showed that 29 of the 113 participants (26 percent) had thought about taking their own lives in the previous week. However, the immediate risk for suicide in this group was low. Twenty-seven of them selected the statement indicating that they had thoughts of killing themselves but would not carry them out, and the other two selected the statement indicating that they would like to kill themselves. None selected the statement indicating that they would commit suicide if they had the chance.

Differences were observed in the demographic and health characteristics of respondents with suicidal ideation. Men were more likely than women to have had suicidal thoughts; 26 men, or 31 percent, reported having had thoughts of suicide, compared with three women, or 11 percent (χ^2=4.6, df=1, p<.05). Whites were more likely than nonwhites to have had such thoughts, with 18 white respondents, or 38 percent, having considered suicide, compared with 11 members of minority groups, or 17 percent (χ^2=5.8, df=1, p<.01). Participants who identified themselves as gay (N=53) were more likely than heterosexual and bisexual respondents to have had suicidal ideation; 18 gay respondents, or 36 percent, compared with 11 heterosexual and bisexual respondents, or 17 percent, had thought of killing themselves (χ^2=6.4, df=2, p<.05).

However, among respondents who had suicidal ideation, gender, race, sexual orientation, and health status were not independent of one another. Suicidal ideation was most common among white men who identified themselves as gay. In addition, respondents who had suicidal ideation who were currently experiencing HIV-related symptoms (N=18, or 36 percent) were more likely than those who were currently asymptomatic (N=11, or 17 percent) to have considered suicide in the past week (χ^2=3.9, df=1, p<.05). None of the remaining demographic and health characteristics differentiated persons who had thought of suicide in the past week from those who had not.

Emotional distress, quality of life, and suicidal ideation

For descriptive purposes, we adjusted the BDI scores by removing the suicidal intention item and compared those who had thoughts of suicide and those who did not. Not surprisingly, respondents who had thoughts of suicide reported significantly higher levels of depression than those who did not (mean±SD BDI score, 20.8± 8.2 versus 9.6±6.4; t=7.31, df=103,

$p<.01$). With the suicide intention item removed from the scale, 68 percent of the respondents who had thoughts of suicide still exceeded the clinical cutoff for depression on the BDI (15 and above), compared with 16 percent of those who did not have thoughts of suicide ($\chi^2=26.9$, df=1, $p<.01$).

Results of the MANCOVA comparing suicidal ideation groups on the five SCL-90 subscales, treating HIV-related symptoms as a covariant, indicated a host of significant differences between those who had suicidal thoughts and those who did not ($F=13.14$, df=6, 88, $p<.01$). Differences appeared between the two groups on all five subscales of emotional distress. Those who had suicidal thoughts reported greater symptoms of anxiety, somatization, hostility, interpersonal sensitivity, and depression (for all comparisons, $p<.01$).

A separate MANCOVA comparing groups on the functional health scales, again controlling for HIV symptoms, showed differences between suicidal ideation groups ($F=9.93$, df=4, 91, $p<.01$). Those who had contemplated suicide reported poorer physical and emotional well-being as well as a more diminished functional well-being than those who did not have thoughts of suicide (for all comparisons, $p<.01$). The difference between the two groups on the variable for satisfaction with health care providers was not significant.

Coping behaviors and suicidal ideation

Results of the MANCOVA comparing the two groups after controlling for HIV symptoms revealed significant differences between those who had suicidal thoughts in the past week and those who did not ($F=3.5$, df=8, 82, $p<.01$). Subsequent analyses showed that persons who had not considered suicide reported greater use of positive-reappraisal coping strategies than those who had thoughts of suicide ($p<.03$). In contrast, those who had contemplated suicide were significantly more likely to use escape and avoidance strategies for coping with HIV-AIDS than those who had not ($p<.01$). On the remaining coping scales the two groups did not differ.

Social support and suicidal ideation

Comparisons between the groups showed that respondents who had thoughts of suicide in the past week were significantly more likely to have disclosed their HIV status to their close friends than those who had not considered suicide ($\chi^2=4.9$, df=1, $p<.05$). This finding was unexpected. Although the differences for disclosure to persons other than close friends were not statistically significant, a pattern in the data indicated that those who had thought about suicide were more likely to have disclosed their HIV status to family, friends, and partners.

However, results of a MANCOVA comparing those who had and those had not considered suicide on measures of social support received from friends and family, controlling for HIV symptoms, showed significant differences between groups ($F=9.1$, df=2, 96, $p<.01$). Those who had thought about suicide reported receiving less social support from both friends and family ($p<.01$ in both cases). These differences in social support occurred despite the fact that those who had considered suicide were more likely to have disclosed their HIV status to others.

Testing for independent effects

We repeated the analyses for differences between the two groups on measures of emotional distress, health-related quality of life, coping behaviors, and social support, this time controlling for both HIV symptoms and nonoverlapping symptoms of depression. Significant differences between groups were retained on all of the emotional distress and health-related quality-of-life scales (for all comparisons, $p<.01$) except somatization and physical functioning. After depression was controlled for, differences in use of coping strategies between the two groups were not significant, whereas the results for social support from family and friends remained unchanged.

These findings show that most differences between persons who have thoughts of suicide and those who do not are independent of other symptoms of depression, whereas differences in somatization, coping strategies, and physical functioning can be accounted for by depression.

Discussion

One in four middle-aged and older persons with HIV infection or AIDS in our sample reported having had thoughts about suicide in the previous week. This rate is similar to that observed among persons who have just learned that they are HIV positive, but higher than that observed among persons who have had a period of weeks or months to adjust to their HIV status (11,12). Reflecting other findings in the literature on HIV and suicide, our study found that men reported greater rates of suicidal ideation than women and that suicidal ideation was associated with HIV-related physical symptoms (8,13). Also consistent with previous research, our data showed that those who had suicidal thoughts were more likely to use escape and avoidance strategies to cope with HIV infection and were less inclined to use positive-reappraisal coping (8–10), although these differences were accounted for in nonoverlapping symptoms of depression. Our findings therefore highlight the more general context of depression associated with HIV-AIDS in older adults, of which suicidal ideation is but one important facet.

Contrary to our study hypothesis, we found that respondents who had thought about suicide were more likely than those who had not to have disclosed their HIV status to their close friends. Nevertheless, even after controlling for other symptoms of depression, we found that those who had thought about suicide perceived receiving less social support from family and friends than those who had not.

These findings suggest that persons who think about suicide may be more likely to reach out to friends and perhaps others for support. Despite such efforts, however, this group perceived receiving less support from their families and friends. One possible reason for the discrepancy between disclosure and perceived social support is the negatively biased perceptions that depressed individuals ascribe to their

social relationships (19). Moreover, indiscriminately disclosing one's positive HIV status may be maladaptive and therefore consistent with other markers of emotional distress.

On the other hand, suicidal risk may be promoted when disclosures are met with rejection and the stigma of AIDS rather than support. Another possibility is that some persons with HIV-AIDS may consider suicide a last-resort option for escaping terminal illness, in which case thoughts of suicide serve as a coping mechanism (26). Unfortunately, our cross-sectional study design precludes any such causal interpretations. Our study design also does not provide information about premorbid depression and suicidal ideation. Prospective studies are therefore needed to determine the sequence of events that lead to suicidal ideation among persons in midlife and older who are living with HIV-AIDS.

Our study is further limited by its reliance on self-reported states of emotional and physical health. Moreover, our convenience sample included only subjects who were connected with AIDS service agencies. The rates of emotional distress and suicidal ideation observed in our sample may differ from those of persons who are not receiving services.

Use of a single questionnaire item to assess suicidal ideation is another limitation of our study. Future research should use more comprehensive measures to assess the frequency, duration, and extent of suicidal thoughts in middle-aged and older people with HIV-AIDS. Finally, our overall sample was relatively small, and the number of people within it considering suicide was even smaller. Thus our findings must be viewed as preliminary and in need of replication and extension.

Conclusions

HIV-AIDS is no longer considered an epidemic of the young. Issues connected with death and dying likely are different in persons who are middle-aged and older than in younger persons. Interventions designed for people who have HIV-AIDS should be tailored to reflect their relevant developmental contexts. Persons who are middle-aged and older who are living with HIV-AIDS and are at risk for suicide require comprehensive mental health services, given the breadth and depth of their emotional distress and functional limitations. Such services may be integrated with available HIV care systems such as case management and multiservice agencies. Counseling, enhancing perceived support, and increasing coping resources for persons who have thoughts of suicide but are not yet in need of crisis intervention should be considered a priority in HIV-AIDS care services. ♦

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