ABSTRACT

The level of emotional distress and the impact of stress and personal resources on distress were examined among 149 youths aged 14-23 who tested seropositive for the human immunodeficiency virus (HIV+). These HIV+ females and males (the males were predominantly gay and bisexual) were relatively healthy (M T cells = 516; 17% T cells < 200; 3.8 physical symptoms in the previous three months) and reported levels of emotional distress and self-esteem similar to uninfected adolescents. Youth experienced about three stressful life events in the previous three months, primarily death/illness of friends and violent crimes. Youts were less likely to utilize self-destructive, avoidant, and depressed coping styles in contrast to taking positive actions. Social support from parents, friends, and romantic partners was high, but these support persons often engaged in sexual and substance use risk acts. Controlling for youths' physical health status, increased emotional distress was associated with significantly lower self-esteem, higher stress, and negative coping styles. Social support did not mediate emotional distress among HIV+ youths.


INTRODUCTION

The World Health Organization estimates that half of the 14 million people worldwide who are infected with the human immunodeficiency virus (HIV) were infected between the ages of 15 and 24 years (1). In New York City alone, it is estimated that 20,000 youths are HIV positive (HIV+) (2). However, relatively few youths living with HIV know their serostatus. Many service providers are opposed to HIV testing among adolescents (3), and most HIV-infected persons remain asymptomatic for some time (4). Therefore, even though the estimated number of HIV+ adolescents is high, few are identified or linked to medical care (5). Consequently, we know little about these adolescents, and most published reports have focused on their transmission behaviors (6-8). In addition to protecting others from infection by youths living with HIV, long-term survival of the youths themselves will depend on maintaining their mental and physical health. Designing effective interventions to help these youths maintain their health will depend on identifying predictors of emotional distress. A substantial body of theoretical and empirical research has documented that emotional distress, as well as physical health, are mediated by low levels of stress and high levels of personal resources (9-12). Therefore, the goals of this study were: (a) to examine the level of emotional distress and physical health status among HIV+ adolescents, and (b) to examine how stress and personal resources (stress, self-esteem, coping, and social support) mediate emotional distress.

Emotional distress is common among HIV+ adults (13,14). For example, Chuang et al. (13) found that both asymptomatic and symptomatic HIV+ persons have significantly higher levels of depressive symptoms, mood disturbance, and anxiety than uninfected persons. Similarly, high emotional distress is found among the adolescents at highest risk for HIV: gay/bisexual males, young women, and injecting drug users (15,16). For example, between 30% and 39% of gay and bisexual male youths reported suicide attempts (17,18) and emotional distress (19,20); 72% have mental health problems requiring professional consultation (17). Adolescent females are at enhanced risk; 21% of adolescent females report attempting suicide (21), and females are twice as likely as males to be depressed (22). Many adolescent substance abusers have a diagnosis of major depression (23). Rates of depression are higher among African-American (24) and Latino youth (25) compared to Anglo youth, and because youths living with HIV are more likely to be African-American and Latino (4,26), it is likely that youths living with HIV are also at increased risk for emotional distress (27,28).

As important as documenting the level of distress among HIV+ adolescents is identifying the predictors of distress. Ostrów et al. (29) found that the number of reported physical symptoms of HIV+ adults was directly related to their mental health symptoms. Similarly, health status has a strong association with emotional distress among adolescents, even more than gender or ethnicity (25). In this study we were interested in three factors associated with emotional distress (viz. stressful life events, coping styles, and social support), given a particular level of health status or symptomatology. Therefore, we examined T-cell counts and physical symptoms in the previous three months and used these health indices as covariates to examine predictors of emotional distress.

Stressful Life Events

Stressful life events are consistently associated with more emotional distress (30-32). Stress related to illness has been
found to be a key predictor of emotional distress among HIV+ adults (33–35); sexual, family, and school stressors have been related to increased depression and suicide among high-risk adolescents (21,24), as well as increased emotional distress among gay/bisexual youths (19). Given these data, stressful life events were assessed among youths living with HIV as one factor predicting emotional distress.

Although stressors are likely to exacerbate emotional stress, personal resources such as self-esteem, positive coping styles, and social support may mediate emotional distress (36). HIV+ adults with higher self-esteem have fewer symptoms of psychopathology (14,37) similar to adolescents (38,39). Thus, HIV+ adolescents with high self-esteem are likely to have fewer symptoms of emotional distress.

Coping Styles

Coping styles refers to those cognitive and behavioral efforts used to manage challenging life events (40). Coping styles have been consistently related to adjustment (41). Active behavioral coping has been associated with fewer mental health symptoms (42); avoidance coping has been associated with psychiatric symptomatology among HIV+ adults (34,37,42). We hypothesized that HIV+ adolescents who demonstrate positive, active coping styles (problem-focused, seeking social support, spiritual hope) in contrast to avoidant or maladaptive styles (self-destructive, passive, depressive, problem avoidance) would demonstrate patterns similar to adults; that is, positive, active coping was hypothesized to be associated with less emotional distress.

Social Support

Social support is often associated with fewer mental health symptoms among HIV+ adults (14,42). Adolescents with smaller social networks are less knowledgeable about HIV, have more negative attitudes about safe sex, have lower self-efficacy about their ability to implement safe actions (43), and use condoms less often (44). With fewer social supports, adolescents are more likely to have casual sexual encounters and to have sexual partners who themselves have multiple partners (43). However, HIV+ adolescents probably became infected because the members of their social support networks engaged in high-frequency sexual and substance use risk acts (45). In particular, adolescent females who are HIV+ typically have had only one or two sexual partners (8,46), but they have been older partners who are at high risk for HIV. Therefore, the social support networks of youths living with HIV may not provide the buffering that has been found for HIV+ adults and non-infected adolescents. Therefore, this study examined the level and type of social support among HIV+ adolescents and the associated impact on emotional distress.

In summary, the level of emotional distress, health status, stress, and personal resources (self-esteem, coping, and social support) were documented among a cohort of youths living with HIV. Secondarily, the relationships among these factors were examined, controlling for the adolescents’ current health status. We predicted that stress would be associated with greater emotional distress and that self-esteem and active coping would be associated with less emotional distress. We had no clear hypothesis regarding the impact of adolescents’ social support networks, given the likelihood that these networks are saturated with peers who frequently engage in high-risk sexual and substance use acts.

METHOD

Participants

Over a 14-month period (1994–1995), 149 youths who were seropositive for HIV and linked to adolescent clinical care sites in New York City, Los Angeles, and San Francisco were recruited. Parental consent was obtained if youths were under age 18 years and the parents were available to give consent (i.e. the youth was not homeless) and acting in the youth’s interests (e.g. parents were aware of the youth’s serostatus and sexual orientation and would not reject the youth at disclosure). There were seven recruitment sites across the three cities. Youths were recruited to participate in an intervention protocol; 27 youths refused to participate when approached by clinical staff, and 11 youths were evaluated by the clinical staff as too unstable, too young, or too ill to participate in the intervention. Each youth was paid a minimum of $20 ($25 in San Francisco, $20 and a meal in New York City) to participate in a 2.5-hour interview at the time of recruitment into the study.

Assessments

After obtaining informed consent, data were collected by interviewers trained in psychosexual and substance abuse assessments, sexual abuse reporting procedures, research ethics, and emergency protocols for clinical care (such as suicide or medical referrals) (47,48). Interviewers collected the information using a computerized assessment instrument (i.e. the questionnaire was programmed on small laptop computers and interviewers were trained to enter responses directly into the laptop during face-to-face interviews with participants).

Emotional Distress: The Brief Symptom Inventory (BSI) (49) was administered to assess overall emotional distress. This 53-item scale covers nine primary symptom domains: somatization, obsessive-compulsiveness, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. Participants reported the degree of distress for each symptom during the previous week on a scale from 0 (not at all) to 4 (extremely). Reliabilities in the current sample ranged from .66 for psychoticism to .87 for obsessive-compulsiveness. This is consistent with reliability coefficients established by Derogatis (49) of .71 for psychoticism to .85 on the depression dimension for a sample of 719 psychiatric outpatients. The mean of 53 items was calculated to measure overall emotional distress (Cronbach’s alpha = .97), as well as each subscale.

Physical Health Status: Participants were asked to report their current T-cell count and rated each of 23 physical symptoms (8) on a 1 (not at all) to 6 (extremely) Likert scale for the previous three-month period (Cronbach’s alpha = .89). A medical chart review was conducted after the three-month assessment; the youths’ self-reports of T-cells correlated r = .70 with medical chart reports for a sample of 31 youths.

Stress: The correlation between life events with a negative impact and mental health was established with adolescent samples in the development of the Life Events Checklist (50). After conducting focus groups and pilot interviews with youths living with HIV, this scale was modified to record the impact of 34 life events ranging from gaining a new friend to the death of a close friend. The impact of the event was rated on a 1 (very bad effect) to 4 (very good effect) scale. Because previous research has established the link between negative events and emotional