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Differences in Adjustment in HIV+ African American Heterosexual and Homosexual Women

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Abstract

This preliminary study explores differences in adjustment in lesbians and heterosexual women by examining three dimensions: psychological distress, major depression, and social support. Surveys were administered to 48 participants. HIV-positive African American lesbians experienced higher levels of psychological distress, anxiety, and current major depression than did their heterosexual counterparts. Lesbians reported less social support from their immediate family, but not from other sources such as friends, compared to the heterosexual women. Lesbians also reported less satisfaction with their social support network. The results presented here highlight the merit of future research to examine factors associated with the lack of family-based social support in HIV-infected lesbians and the potential of developing interventions that assess relationships with members of the immediate family, explore the possibility of repairing these relationships, and capitalize on social support from friends.

Keywords

lesbians; depression; distress; social support; HIV/AIDS; African American

INTRODUCTION

Many factors may affect an individual's psychosocial adjustment in the face of HIV infection. African American women infected with HIV, in addition to the double jeopardy of double minority status (1-3), must face high levels of stigma associated with HIV infection within the African American community (2, 4). African American lesbians have yet another source of strain, intolerance of their sexual preference by their community with which to contend. The present study examines the extent to which HIV-positive African American lesbians report higher levels of psychological distress and major depression compared to their heterosexual counterparts. Social support is a potential mediating factor.

It is generally assumed that lesbians are at low risk of contracting HIV because of their sexual orientation (5). However, recent studies have documented that lesbians report very low safe sex engagement rates (6). In addition to the same risk factors that heterosexual women have to contend with, lesbians also have unprotected oral–vaginal sex, unprotected oral–anal sex, potential contamination of sex toys, and unprotected anonymous club sex and group sex as sexual risk behaviors (6). Although there is ample research on HIV-positive gay males, research on HIV-infected lesbians is limited. Even though statistics and current literature about lesbians

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living with HIV are virtually nonexistent (5), lesbian mothers endure as many life stresses as their heterosexual counterparts. In addition to their seropositive status and their responsibilities of being the primary caregiver (7), HIV-positive lesbians are burdened with the stigma of their sexual orientation (8, 9).

Psychological Distress

Lesbians are at high risk of psychological distress and depression (9-11). The National Lesbian Health Care Survey (11) found that over 75% of 1925 lesbians surveyed had had some type of counseling in their lives for sadness and depression. Studies have cited disclosure of sexual orientation as a strong predictor of depression in lesbians (12). For lesbians who are HIV+, the susceptibility for greater levels of distress and depression may be elevated because they have to deal with the stress of disclosing their sexual orientation and their seropositive status.

Previous research on males shows that African American gay and bisexual men have higher levels of depressive mood than heterosexual African American men (13, 14). Although studies suggest that African American gay men may be at greater risk of depression than heterosexual African American men, little is known about the extent to which HIV infection and other factors contribute to this depression (15). However, studies show that for white gay men, social support is negatively correlated with psychological distress (16). Similarly, studies on HIV-positive heterosexual women (17) and on HIV-negative homosexual women (12, 18) have found that stress resistance resources such as social support are inversely related to psychological distress and depression.

Social Support

Social support has been shown to improve mental health by facilitating adjustment to stressful life events (19, 20). Studies show that social support is related to both physical and psychological health (12, 20, 21). Social support increases a person's motivation to actively cope with problems, promotes changes in the cognitive view of stressors, reduces distress, and/or maintains positive mood states (19, 20, 22). The amount of perceived social support and the satisfaction with these relationships may determine to what extent social support is related to physical and psychological health (21, 22).

Social support has been shown to strengthen an individual's defense against a disease in the presence of other life-stressors, especially in HIV-positive individuals (19, 22). For example, Hayashi and Fukunishi (23) found that social support was a critical factor in maintaining the positive mood state of HIV-positive individuals. Even though HIV-positive persons are more vulnerable to depressive symptoms, there is evidence that the amount of social contacts decreases after an HIV-positive diagnosis (22). Many HIV-infected individuals are rejected by friends and family (22). For HIV-infected lesbians this may be an even bigger issue, as homosexuals may lose additional social support from family members after revealing their sexuality (21).

This article explores the question: "Are there significant differences in adjustment between HIV-infected African American lesbians and HIV-infected African American heterosexual women?" Adjustment is defined in terms of three dimensions: psychological distress, major depression, and social support. Social support is further categorized as family social support, social support other than from family, and social support satisfaction.

METHODS

Sample

The sample of 48 women consisted of 10 self-reported lesbians and 38 heterosexual women. The women in the sample did not differ by sexual orientation on demographic variables (Table I). The sample consisted mostly of early-middle-aged women (mean age = 36.8 years, $SD = 7.2$), having low income (median personal income = \$6006), and with most having more than one child (median number of children = 3). The modal level of education was less than a high school education. Only 4.2% of the women were employed and 97.9% were receiving some form of public assistance.

Subjects were selected from a larger group of 209 HIV-positive African American mothers in a longitudinal study of family therapy. Participants in the study were recruited from the fall of 1996 to the spring of 1999. The women were recruited from community-based agencies that provide health and/or social services in South Florida to HIV+ individuals.

To be included in the larger study, the women had to be HIV-positive, to be at least 18 years old, to be second-generation African American, have reported some family problem, and have a family member willing to participate. These criteria were necessary to facilitate family therapy and assessment. Women who were homeless or in a phase of institutionalization in which outside contact was prohibited were excluded from the study. In addition, at the beginning of the study, women had to have a minimum of 200 CD4 cells at admission. However, as the efficacy of protease inhibitors became known, this was revised such that participants had to have a minimum of 50 CD4 cells (and be on protease inhibitors) at admission. The exclusion criteria were selected to maximize the likelihood of retaining the participants in the study (e.g., able to complete the study assessment interview sessions as well as therapy sessions). After determining eligibility for the study, the women were read and signed informed consent. Data reported here are from the baseline assessment. The Institutional Review Board at the University of Miami School of Medicine approved all measures and study procedures.

Procedures

Ten women of the 209 in the larger study were self-reported lesbians. The 10 lesbians also had a female significant other at the time of the interview. The heterosexual group was chosen to match the following demographic variables: age, personal income, level of education, receipt of public assistance, work status, number of children, and having a male significant other.

The matching criteria was as follows: The women with a male significant other had to have the same age, the same number of children, and the same level of education (i.e., less than a high school education, completed high school, or completed college). In addition, the lesbians and the heterosexual women had to have the same work status (i.e., either employed or unemployed) and have a personal income within \$6000 of each other. The women also had to match on the status of their public assistance (i.e., both receiving public assistance or neither receiving public assistance). None of the women matched on all six criteria. Therefore, all 38 women that matched on five of the six criteria were included in the analysis.

Measures

Psychiatric and Psychological Symptomatology—Psychiatric and psychological symptomatology was measured using the Brief Symptom Inventory (BSI), the Structural Interview Guide for the Hamilton Depression and Anxiety Scales (SIGH-AD), and the

Structured Clinical Interview (SCID) for DSM-III-R, Non-Patient Version for HIV-infected persons.

The BSI (24) is a 53-item questionnaire that assesses the respondent's psychological symptom patterns in the past 7 days. Each item on the BSI is rated on a 5-point scale of distress ranging from 0 = not at all to 4 = extremely. BSI assesses psychological distress with the Global Severity Index and specific types of symptoms of distress using nine dimensions: depression, anxiety, somatization, interpersonal sensitivity, hostility, phobic anxiety, paranoid ideation, psychoticism, and obsessive-compulsive. In this study, Cronbach's α for the Global Severity Index is .95. Cronbach's α for the nine dimensions range, from .67 to .88.

The SIGH-AD (25) uses a semistructured interview to obtain anxiety and depression scales based on the Hamilton Rating System (HRS). The HRS combines the 14-item Hamilton Anxiety Rating Scale (HARS) (26) and the 17-item Hamilton Rating Scale for Depression (HRSD) (27) to examine four dimensions: emotional, somatic, physical, and behavioral symptoms. For the current study, Cronbach's α for the anxiety and the depression scales was .84 and .75, respectively. Due to a high correlation ($r = .78$), the anxiety and depression scales were combined into a composite index.

The SCID, used for nonclinical HIV populations, is a modified version of the Structured Clinical Interview for DSM-III-R Diagnosis (28). It is used to assess current and lifetime psychiatric disorders. Measures used in this study are current major depression and history of psychoactive substance use. The SCID was performed by raters trained by the psychiatrist (L.S.) on the project. Interrater reliability for the major depression module was assessed ($\kappa = .78$). In addition, the psychiatrist on the project reviewed all SCIDs that were used in the study.

Available Social Support and Support Satisfaction—Available social support and support satisfaction were measured using the Social Support Questionnaire—Short Form (SSQ6) and the Social Provisions Scale. The SSQ6 (29) asks the respondent to list the number of people that they can count on for six different aspects of support and rate the satisfaction with the aspect of social support on a 6-point Likert scale. The relationship of each person listed to the respondent is also identified. Three items from the Social Provisions Scale (30) were used to examine the perceived supportive social relationship the respondents have with family, friends, and community members. The respondents rate on a 4-point Likert scale (1 = strongly disagree to 4 = strongly agree) the extent to which they can depend on someone for support in different aspects of their lives.

Factor analysis (principal components with varimax rotation) was used on the items from the SSQ and the SPS. Factor analysis showed that the six satisfaction items from the SSQ6 and the three SPS items loaded on one factor. The nine-item scale was labeled satisfaction with social support. Cronbach's α for this factor was .87. The six items indicating the amount of social support from the SSQ6 loaded on another factor. This factor was further divided into two measures: social support from immediate family and social support from other sources such as friends, with Cronbach's α of .79 and .85, respectively.

Analytic Plan

To determine that the lesbian and the heterosexual groups were equivalent, analyses were conducted on the matching variables. Analysis of variance was used for continuous variables and chi-squared tests for categorical variables. To explore the research question, six analyses were conducted: analysis of variance on (1) the Global Severity Index of the BSI, (2) distress composite scale of the SIGH-AD, (3) the amount of family social support, (4) the amount of

social support other than from family, (5) social support satisfaction, and (6) a chi-squared test for a DSM-III current major depression diagnosis as assessed by the SCID-NP-HIV. Significant findings on composite measures were decomposed in post hoc analyses of distress (BSI and SIGH-AD). Further post hoc tests checked for differences in the two groups to determine if any difference on the hypothesized variables was related to drug abuse/dependence or CD4 cell count.

RESULTS

Analysis of variance and chi-squared tests showed that the homosexual and the heterosexual groups were not statistically significantly different in sociodemographic characteristics.

In our primary analysis for psychological distress, the analysis of variance on the BSI and the SIGH-AD showed significant differences in mean scores on both of the composite measures, the Global Severity Index and the Distress Index, respectively (Table II). Lesbians showed higher scores on the Global Severity Index and on the Distress Index than the heterosexual group, which indicates lesbians experienced more psychological distress. Because statistically significant differences were observed in both the composite measures of the BSI and the SIGH-AD, post hoc tests were conducted to determine which constituent scales contributed to the effect.

This post hoc decomposition revealed significant differences in all nine dimensions of the BSI (Table III): somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychotism; and in both scales of the SIGH-AD: anxiety and depression (Table III). Lesbians reported higher mean scores on all constituent scales of both measures. That is, lesbians showed more symptoms of psychological distress along all dimensions than their heterosexual counterparts.

Eight of the women in the sample met the definition of DSM-III-R current major depression. Five women who met the criteria were in the lesbian group, or 50% of that group, whereas only 7.9% of the heterosexual group had a current diagnosis of major depression. Fisher's exact test showed this to be a significant difference ($p < .01$).

Social support is a potential mediating factor for these differences. Table II shows that lesbians showed less social support from their immediate family ($p < .04$) and less satisfaction with their social support network ($p < .04$). No significant differences were observed in the amount of social support from other sources (e.g., friends, co-workers, etc).

To ensure that results were not due to any distributional anomalies, nonparametric tests were used to confirm the observed differences on the hypothesized variables from Table II and Table III. Mann-Whitney tests yielded similar results. Also, in post hoc comparisons,³ drug abuse/dependence and CD4 cell count were not significantly different between the two groups. Hence, the observed differences on the hypothesized variables were not mediated by current or lifetime psychoactive substance use nor by CD4 cell count.

³Post hoc analysis indicated that when compared to heterosexuals, lesbians did not report a greater number of daily hassles on the *Hassles Scale* (44) nor more major life stressors or major chronic family problems on the *Life Experiences Survey* (45) or on the *Difficult Life Circumstances* (46). Drug abuse/dependence and CD4 cell count were also examined and no significant differences were observed between the lesbians and the heterosexual women.

DISCUSSION

Psychological Distress

This preliminary study explored the potential for greater vulnerability to psychological distress among HIV-positive African American lesbians. HIV-positive African American lesbians exhibited greater levels of psychological distress as measured by the BSI, depression and anxiety as measured by the SIGH-AD, and current major depression as measured by the SCID than their heterosexual counterparts. These results are consistent with studies on HIV-positive gay men (31) and HIV-negative lesbians (2).

HIV-positive homosexual men show greater levels of both psychological distress and greater vulnerability to psychiatric disorders because of their sexual orientation (31). The overall rate of current major depression for this sample is 16.6%. This is above the range of 4–11% reported in cohorts of HIV-positive gay men (32-34) and below the 21% of HIV-positive African American women to have reported major depression in the prior 12 months by Myers and Durvasula (35). Looking at these rates by sexual orientation shows that only 7.9% of the heterosexual women in the study were diagnosed with current major depression, whereas 50% of the homosexual women were diagnosed with this psychiatric disorder. Clearly the 50% rate of current major depression in the HIV-positive lesbian group is extraordinarily high, being more than double the rates found elsewhere in HIV-positive African American women (35).

A mean score of 15.35 on the HRSD of the SIGH-AD indicates that the lesbians not only had significantly higher scores than the heterosexual women, but also had scores higher than some clinical populations. In studies of HIV-positive gay men, levels of Hamilton depression and anxiety scores were in the range of 3.9–4.6, respectively (33, 34). Here, HIV-positive African American women as a whole report extremely high scores on the SIGH-AD with means of 17.1 and 14.0 on the anxiety and depression scales, respectively. These scores are far greater in magnitude than those reported for HIV-positive gay men. Lesbian status appears to worsen these women's depressive and anxiety symptoms even more.

Though not explored here, the group in this study may also be at high risk of suicide because of their HIV-seropositive status and their sexual orientation. Studies have suggested that HIV status (36) and sexual orientation (37) are linked with greater risk of suicide ideation, suicide attempts, and completed suicides. HIV status has been reported to increase suicide attempts by as much as 36 times in men (38, 39). In addition, homosexuality in both men and women has been associated with suicidal thoughts and behavior (11, 37, 40). In fact, the National Lesbian Health Care (Epidemiological) Survey (11) reported that over 50% of lesbians had suicidal thoughts and over 18% had attempted suicide. In the population being studied here, the suicide risk may be even more elevated because of the dual combination of HIV-seropositive status and the women's sexual orientation. The high number of diagnoses of major depression in this sample and the high ratings of depression and anxiety on the Hamilton scales is suggestive of an elevated risk for suicide. Future research is warranted in this regard.

Social Support

The proposed mediating factor for the observed differences was social support. In studies of HIV-negative lesbians, greater levels of social support and support satisfaction were predictive of less psychological distress and fewer depressive symptoms (9, 12, 18). In our sample, the lesbians showed significantly less social support from their immediate family than did the heterosexual women. However, there was no difference between lesbians and heterosexual African American mothers on social support from outside of the immediate family. Kurdex (21) found that HIV-negative gay men and women tend to lose family social support as a result of their sexual orientation.

Lesbians showed approximately equal social support from immediate family and from other sources (e.g., friends, co-workers, organized groups, etc.). Social support from sources other than family was 55.5% of total social support for lesbians as opposed to 28.6% for heterosexual women. This is consistent with previous literature showing that gays and lesbians who are not severely mentally ill are more likely to rely on friends than on family for social support when compared to heterosexual men and women (21, 41). It is suggested that the lack of family-based social support is related to women's sexual orientation.

It is not uncommon for African American families and friends to have mixed and often conflicted responses concerning same-sex relationships. The social stigma that many consider “part of the territory” for nontraditional relationships can be formidable. In this regard the women in our sample are no different. A majority of these women reported some form of rejection or ejection from former family settings. However, there are numerous factors that determine the quality of family relationships and the extent of social support for those in same-sex relationships. For example, one woman in our study reported having been divorced from her heterosexual mate and that experience had alienated her from her family of origin long before her same-sex relationship began; one said it was a history of abusive (sexual and physical) family relationships that made close family-of-origin ties virtually nonexistent; one stated that this was her choice from an early age and that her family never really “liked her or accepted her” for that went against “God and the Bible”; and another stated after she had been incarcerated she selected a same-sex partner and reported her family of origin as supportive. The diversity of family relationships was evident throughout this small sample of women.

Friendship networks were reported as very important in both managing a same-sex relationship and HIV infection for women in our study. The strength and quality of these relationships are referred to as significant to the infected person's ability to survive or “make it.” Several of the women described their friends as “family” and as the only people who “understood” them and who were their primary source of emotional, physical, and economic relief. One woman stated, “My friendgirl is always there for me, like my family never was. If I need anything or have to depend on anyone it will be her. When I get sick I'm going to do a living will so that she can get my kids.” As indicated, this woman clearly felt the need to make it legally clear that her partner was to be considered as such even after her death.

Consistent with past research showing that satisfaction with social support buffers the effects of HIV-related symptoms on depressive symptomatology (20), the heterosexual women in our sample showed more satisfaction with their social support and less distress and depressive symptoms. As with previous studies of gay men (15), this implies that the amount of and the satisfaction with the social support network are both important factors in determining psychological distress and major depression in HIV-positive African American lesbians.

LIMITATIONS

Women in this study were selected from a larger study of family therapy. Because this study was not designed to look at homosexual women, the sample of lesbians is small. Hence, all results presented here should be considered preliminary. In addition, no measures of stigma or stress associated with lesbianism were used. Moreover, the larger study uses a sample of convenience and not a population-based sample. Despite the limitations in this potentially non-representative sample, the large effect sizes of the differences observed in this understudied population should be addressed in prospective studies with larger sample sizes.

According to the Center for Disease Prevention and Control (CDC), as of September 1989, lesbians represented only 0.8% of the total U.S. female population living with AIDS (2, 42). However, the CDC uses a very narrow and stringent definition of lesbian (8). A strength of

this study is its use of a broader, less restrictive definition of lesbian. Another strength of the study is that it examines both psychological distress and psychiatric disorders, thus covering a broad spectrum of potential impairment. The study focuses on symptoms of psychological distress (as measured by the BSI) and on psychiatric disorders such as anxiety (as measured by the SIGH-AD) and current major depression (as measured by the SCID). Moreover, to the best of our knowledge, this is the only empirically based study to explore adjustment in HIV-positive lesbians.

CONCLUSIONS

This study makes a valuable contribution to the literature by presenting results on a culturally diverse, understudied population. Though much research has shown that HIV-positive gay men are at higher risk of suffering from psychological distress, depression (13, 14), and lower levels of social support (22), research on their female counterparts is virtually nonexistent. Results from this preliminary study show that social support from sources other than family may be more crucial to a homosexual woman living with HIV/AIDS than for a heterosexual woman (43). The results presented here highlight the merit of future research to examine factors associated with the lack of family-based social support in HIV-infected lesbians and the potential of developing interventions that consider strategies for improving family support while capitalizing on other support.

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Table I

Demographics

	Total	Characteristic according to gender of significant other	
		Female	Male
Number of subjects	48	10	38
Mean age of subject in years(SD)	36.8 (7.2)	34.5 (6.9)	37.3 (6.7)
Modal level of education	<High school	<High school	<High school
Median personal income	\$6006	\$6366	\$6006
Median number of children	3	4	2.5
percent of subjects employed	4.2	20	0
Percent of subjects receiving public assistance	97.9	90	100

Table II
Distress and Social Support Measures

	Score				ANOVA ^a		Effect size
	Female significant other (N = 10)		Male significant other (N = 38)		F	P	
	Mean	SD	Mean	SD			
Brief Symptom Inventory ^c	1.96	0.99	0.98	0.31	14.50	.0001	1.19
SIGH-AD ^c	33.85	20.85	20.77	11.00	7.42	.009	0.91
Social support							
Number from immediate family	5.20	2.62	9.24	5.65	4.78	.034	0.75
Number from other sources	6.50	6.47	3.71	4.59	2.45	.124	0.55
Satisfaction	39.30	11.04	44.45	5.18	4.62	.037	0.74

^aTwo-tailed *p* values; *df* = 1,46.

^bThe Global Severity Index of the BSI was used.

^cA Distress Index composed of the anxiety and depression scales of the SIGH-AD were used.

Table III
Constituent Scales of the BSI and SIGH-AD

	Score				ANOVA ^a		Effect size
	Female significant other (<i>N</i> = 10)		Male significant other (<i>N</i> = 38)		F	P	
	Mean	SD	Mean	SD			
BSI components							
Somatization	1.87	1.11	0.94	0.73	10.25	.002	1.04
Interpersonal sensitivity	2.55	1.19	1.18	0.92	15.33	.0001	1.22
Hostility	2.06	1.12	1.01	0.72	13.31	.001	1.15
Phobic anxiety	1.48	1.05	0.62	0.67	10.28	.002	1.04
Paranoid ideation	2.40	1.02	1.22	0.80	15.29	.0001	1.22
Psychoticism	1.74	1.19	0.73	0.79	10.50	.002	1.05
Obsessive-compulsive	2.18	1.31	1.24	1.02	6.01	.018	0.83
SIGH-AD components							
Depression	15.35	8.78	9.09	5.20	8.40	.006	0.96
Anxiety	18.50	12.47	11.68	6.95	5.32	.026	0.78

^aTwo-tailed *p* values; *df* = 1,46.