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# An Empirical Analysis of Stressors for Gay Men and Lesbians

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Portions of this research were presented at the 1995 Southeastern Psychological Association meeting in Savannah, Georgia and at the American Psychological Association meeting in Chicago, 1997.

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ABSTRACT. This research describes the empirical classification of stressors for gay men and lesbians. Volunteer respondents were recruited through a free local gay and lesbian newspaper, through gay and lesbian student organizations nationwide, through gay and lesbian bookstores nationwide, and at a gay festival in St. Louis. Nine hundred seventy-nine (979) participants completed a 70-item measure with stressors that had been identified in previous qualitative research. Participants were asked to indicate the degree to which they had experienced stress associated with a variety of experiences. Participants also completed a measure of dysphoria (CES-D), responded about their degree of openness regarding sexual orientation, and provided information about their relationship status and involvement with gay groups and activities. Using confirmatory factor analysis, a six-factor model was predicted to account for the data. One-factor, six-factor, and ten-factor models were tested. The ten-factor model yielded the best fit with the data and accounted for 63.5% of the variance. The factor structure remained stable when gay men were compared to lesbians, when those endorsing a predominantly gay versus exclusively gay orientation were compared, and when those in a relationship were compared to those who were not in a relationship. Increased gay stress was associated with more dysphoria. Implications of these findings are discussed and directions for future research are considered. [Article copies available for a fee from The Haworth Document Delivery Ser-1-800-342-9678. E-mail address: <getinfo@haworthpressinc. com> Website: <a href="mailto:http://www.HaworthPress.com">http://www.HaworthPress.com</a> © 2001 by The Haworth Press, Inc. All rights reserved.]

#### KEYWORDS. Gay stress, sexual orientation, stress, gays

Minority stress has been defined as a state resulting from "... culturally sanctioned, categorically ascribed inferior status, social prejudice and discrimination, the impact of these environmental forces on psychological well-being, and consequent readjustment or adaptation" (Brooks, 1981, p. 107). For the purposes of this article, gay stress will be defined as minority stress as gay individuals experience it. Lindquist and Hirabayashi (1979) conceptualized gay stress in terms of a "marginal" minority status in which the person's minority status is seen to conflict with other roles that he or she might play (e.g., as a parent, employee, etc.). They noted that the position of the gay individual as a minority member is unique along two dimensions: First, gay men and lesbians may not have a cultural identity outside the mainstream. Second, gays, unlike

members of other minorities, may easily hide their minority status. The result of these two factors is that gay men and lesbians live within and accept the dominant culture to some degree, but may experience rejection and barriers to success in that culture. It seems reasonable to assume that as members of a stigmatized minority, gay men and women may face stressors specific to those with a homosexual orientation. Of course, many men and women who have relationships with someone of the same sex may feel a sense of connection with other gay men and lesbians because of their common sexual orientation. Nevertheless, they may still feel outside the mainstream from the larger heterosexual community.

The vast literature on stress and coping has long documented an association between stress and both physical and psychiatric illness (see Cohen, Kessler, & Gordon, 1995 for a brief review). The importance of assessing relevant stressors to the population of investigation is critical to understanding the connection between stress and illness for a specific target group. As Turner and Wheaton (1995) point out, research suggests that "event lists [of stressors] should be tailored to the cultural group and, indeed, to whatever other specific subgroup may be the focus of the investigation" (p. 34). Turner and Wheaton suggest further that items be generated by members of the target group to ensure relevance.

Certainly, gay individuals experience a wide range of stressors both related and unrelated to their sexual orientation. We believed, however, that there were additional stressors that are not typically considered in stress research that are important considerations for the gay population. This article reports an empirical analysis of the stressors for gay men and lesbians.

We expected the types of stressors experienced by gay men and lesbians could be divided into a number of categories. There is anecdotal evidence that gays face a wide range of discriminatory practices in their military and government careers (Herek, 1990; Pagelow, 1980). Gay men and lesbians may face social and legal discrimination as well. Pagelow (1980) found that lesbian single mothers reported being more subject to housing and employment discrimination, losing custody of their children more frequently, and having greater restrictions placed upon them when custody was awarded than heterosexual single mothers did. Gay individuals may experience other, less salient stressors, as well. For example, Slater and Mencher (1991) noted that many rituals that punctuate "normal" family life are absent from lesbian families. Engagements, weddings, and the many milestones involved in bearing and rearing children may be absent or replaced with alternate rituals, possibly contributing to feelings of alienation. George and Behrendt (1987) suggested that relationship problems may arise in gay male couples due to others' expectations of them, and noted that possible causes for stress include society's stereotyped expectations for males' behavior, homophobia (both within the individual and from others), difficulties negotiating sexual roles in relationships, and sexual dysfunctions. These anecdotal reports suggest that stressors for gay men and lesbians would be related to employment, legal, and social discrimination; romantic relationship issues; and friendship and family factors.

Specific sources of gay stress have been studied in several cases in a qualitative way. Gillow and Davis (1987) examined sources of stress in a sample of 142 lesbians. Respondents were asked to name the primary stressors in their lives. Some, though not all, of the respondents cited stressors related to their lesbian orientation or lifestyle. The researchers divided the answers they received into six general categories: problems with work, relationship problems, stress due to conflict with family of origin, financial problems, difficulties with child care and custody issues, and miscellaneous stressors. Fear that disclosure of sexual orientation would lead to job loss, harassment, or discrimination was the most common source of stress listed by the respondents. Following that were alienation from family of origin and stressors related to society's expectations for heterosexual behavior (e.g., they were reticent to display affection in public).

In a similar study, Woodman (1989) investigated sources of gay stress in a sample of 100 student leaders of campus gay and lesbian organizations. Respondents listed five stressors that they felt were unique to lesbians and gay men or named stressors similar to those experienced by heterosexuals that included an extra dimension due to minority sexual orientation. She categorized the main themes in their responses as loss, anticipated loss, personal and group identity issues, and relationship issues.

Other studies of gay stress have used objective items gleaned from general stress measures. Rosser and Ross (1989) modified an existing life events scale by altering items to remove any heterosexual bias and adding some questions that addressed stressors specific to gay men and lesbians, creating the Gay Affect and Life Events Scale (GALES). They then administered the GALES to a sample of 81 gay or bisexual Australian men and a sample of 159 gay or bisexual New Zealand men. The scale is divided into two parts, one labeled life change (LC), concerning the amount of change in one's life that would be caused by a certain stressor, and the other labeled emotional distress (ED), concerning the distress a particular stressor would cause. Correlations between the Australian and New Zealand samples, between the LC and ED parts of the scale, and between the GALES and its parent scale were all high. Unfortunately, this study provides little information about the specific nature of stressors experienced by gay men.

Lindquist and Hirabayashi (1979) constructed a measure for stress among homosexuals using existing measures for psychological distress, self-esteem,

alienation, life satisfaction, happiness, stability, guilt, and acceptance of gay identity. They administered the resulting 100-item questionnaire to a sample of 142 Canadian gay men. They found that those who were most committed to conventional society, and who also felt most rejected by it, experienced the highest degree of psychological distress. Commitment to the gay community tended to mitigate this effect. Involvement with conventional society rather than involvement with the gay subculture was closely related to low psychological distress and alienation, and to higher levels of self-esteem, stability, and happiness. In this research, the use of existing measures primarily developed for heterosexuals may have overlooked some important stressors experienced due to sexual orientation. This study is also dated, which may limit its usefulness, given the much wider range of social activities now available for groups of gay men and lesbians.

The review of the literature on gay stress clearly supports the idea that there are stressors experienced by gay men and lesbians that are unique to them as members of a minority group. In order to understand better the experiences of gay men and lesbians, we attempted to categorize their stressors into meaningful groups. Consideration of stressors unique to gay men and lesbians has implications for increased understanding of this underserved population both in terms of prevention as well as improved coping with stress.

Using a modification of the critical incidents technique (Flanagan, 1954), we created an initial measure of gay stress (Morris, Lewis, & Derlega, 1993). Thirty-three participants (15 men and 18 women) were recruited through informal networks to respond to open-ended questions about stressors they believed were unique to them because of their sexual orientation. These participants were recruited by contacting the leader of a church that ministers to the local gay community, members of an AIDS support group, and by contacting a leader within the gay community and asking for her assistance in distributing the questions to individuals who were not "out" and would not typically come across the measure in other ways. While we recognize that a sample of 33 individuals recruited in this fashion is not necessarily representative, we thought it was critical to ask gay men and lesbians directly about their stressors rather than infer them from either previous stress measures or our own hypotheses. Participants responded to a number of open-ended questions. Major life events and daily hassles were defined for them, and they were told that we were interested in understanding the types of events that created stress for them. Specifically, respondents answered the following question among others: "Please describe, in your own words, any stressors and/or hassles that you feel are, or have been, directly related to your sexual orientation or life style." One of the authors (LMM) then content analyzed these responses. Stressors were grouped as follows: rejection by loved ones (including family and friends); discrimination (including workplace as well as larger societal discrimination); harassment and assault; conflict about one's sexual orientation; hiding sexual orientation; and concerns about HIV/AIDS. Based on these responses, a measure was created using the events that respondents named as sources of stress associated with their sexual orientation. These items were administered to two large samples of gay individuals and analyzed using a confirmatory factor analysis. We hoped to establish the prevalence and relative importance of stressors specific to gay men and lesbians, and to examine correlates of that stress. We expected that stressors would be grouped into the categories we previously identified in the Morris et al. (1993) work. However, given the exploratory nature of this work, we recognized that some broad categories of stressors might really include two distinct subcategories of stressors.

#### **METHOD**

#### Overview of Process for Item Inclusion

Items were designed and developed based upon a previous study in which a small sample of gay men (N = 15) and lesbians (N = 18) used open-ended questions to indicate the types of stressors they experience related to their sexual orientation (Morris et al., 1993). The resulting pool of 70 items was administered to a total sample of 979.

Items were factor analyzed using principal-components (PC) extraction procedures, using both varimax and oblique rotations. This analysis included 824 participants. Intercorrelations among the items were relatively low (i.e., below .30), which suggested the varimax rotation was appropriate for analysis. Further evidence supporting the use of the varimax rotation was noted when both the varimax and oblique rotations produced the same factor patterns.

Results suggested either a six-factor or ten-factor solution. Items with factor loadings less than .40 and items that cross-loaded (had loadings of .40 or greater on two or more factors) were eliminated from the subscales. This resulted in the exclusion of ten items.<sup>2</sup> Four items were excluded from further analysis due to inadequate variability in responses with at least 75% of the participants endorsing no stress or not applicable: 14. "Possible loss of my children in a custody case due to my sexual orientation" (90%); 33. "Fear that I may have exposed others to HIV" (75%); 35. "Rejection by my children due to my sexual orientation" (92%); 52. "Fact that I have AIDS or HIV" (87%). Thus, a total of 14 items were dropped from subsequent analyses.

The six-factor solution had factor loadings ranging from .43 to .83, accounting for 32% of the variance, with all eigenvalues greater than 1. The six factors

that emerged were labeled: (1) Visibility; (2) Family; (3) Violence/Harassment; (4) Work Discrimination; (5) HIV/AIDS; and (6) Sexual Orientation Conflict. Reliability coefficients (i.e., Cronbach's alpha) for the six subscales indicated good internal consistency, ranging from .83 to .88.

In the ten-factor model, four factors from the six-factor model (i.e., Visibility, Family, Violence/Harassment, and Work Discrimination) split into two factors. For example, Visibility emerged as two separate factors: Visibility from Friends and Family and Visibility from the General Public. Thus, the ten factors that emerged were labeled: (1) Family; (2) Family Reactions to My Lover; (3) Violence; (4) Misunderstanding; (5) Work Discrimination; (6) General Discrimination; (7) Visibility from Friends and Family; (8) Visibility from General Public; (9) HIV/AIDS; and (10) Sexual Orientation Conflict.

The ten-factor solution had factor loadings ranging from .51 to .84, accounting for 63.5% of the variance, with all eigenvalues greater than 1. Reliability coefficients for the ten subscales (i.e., Cronbach's alpha) again indicated good internal consistency and ranged from .72 to .90. Table 1 provides factor loadings for the ten-factor model.

# Sample and Procedure

A questionnaire packet was administered to the total sample of 979. Sample 1 included 515 (308 men and 207 women) respondents who were recruited in several ways. First, our survey was included as a separate enclosure in a free gay and lesbian newspaper in Virginia. Second, one researcher (LMM) contacted gay and lesbian bookstores nationwide and asked permission to send copies of the measure to them for distribution. Most bookstores agreed and typically placed the survey out on a counter for people to see and pick up if they so desired. Finally, college campus gay student organizations were contacted and asked if they would be willing to distribute our survey to their members. Most agreed and surveys were mailed to them. These individuals returned their questionnaires anonymously to us at their expense. Sample 2 included 464 (249 men, 214 women, 1 sex unspecified) individuals who participated in a gay and lesbian festival in St. Louis. These respondents completed their questionnaires and returned them anonymously to a contact person at the festival.<sup>3</sup> Demographic data for the samples are presented in Table 2. Prior to combining the two samples, a series of chi-square analyses were conducted to examine whether the samples were equivalent on the variables of sex, relationship status, and sexual orientation (see Table 2). Results indicated sample equivalence for sex ( $X^2$  (1) = 3.61, p = .06) and relationship status ( $X^2$  (1) = .08, p = .77). However, there was a significant difference in sexual orientation across the samples. Specifically, Sample 2 had significantly more respondents

TABLE 1. Items and Factor Loadings for the Ten-Factor Structure

Factor and Items	Item Loadin
Family Reaction	
43. Rejection by family members due to my sexual orientation	.77
46. My family's lack of understanding about my orientation	.77
14. Distance between me and family due to my orientation	.75
16. Lack of support from family members due to my orientation	.71
31. My family's overzealous interest in my sexual orientation	.69
37. Rejection by my brothers and sisters	.67
34. Feeling that my family tolerates rather than accepts my sexual orientation	.63
18. Fact that my family ignores my sexual orientation	.60
22. Talking with some of my relatives about my sexual orientation	.58
Family Reactions to My Partner	
1. Introducing a new partner to my family	.83
19. Having my lover and family in the same place at the same time	.81
67. Unwillingness of my family to accept my partner	.70
Visibility with Family and Friends	
13. Keeping my orientation secret from family and friends	.84
12. Expectation from friends and family who do not know that I am homosexual for me to date	
marry someone of the opposite sex	.76
9. Hiding my sexual orientation from others	.71
10. Possible rejection when I tell about my sexual orientation	.68
20. Telling straight friends about my sexual orientation	.63
41. Loss of friends due to my sexual orientation	.63
Having straight friends know about my sexual orientation	.51
/isibility with Work and Public	
Dating someone openly gay	.72
Having people at work find out I'm homosexual	.68 .66
21. Rumors about me at work due to my sexual orientation	.62
<ol> <li>Being in public with groups of homosexuals (i.e., in a bar, church, rally)</li> <li>"Being exposed" as a homosexual</li> </ol>	.58
55. Image of homosexuals created by some visible, vocal gays and lesbians	.49
/iolence and Harassment	
48. Threat of violence due to my sexual orientation	.87
47. Physical assault due to my sexual orientation	.83
49. Constant need to be careful to avoid having anti-homosexual violence directed at me	.77
28 Fear that I will be attacked due to my sexual orientation	.74
51. Possibility there will be violence when I am out with a group of homosexuals	.73
56. Harassment due to my sexual orientation	.73
57. Being called names due to my sexual orientation	.67

Factor and Items	Item Loading
Mr. alaska fra	
Misunderstanding	
60. Some people's ignorance about homosexuals	.84
58. Lack of acceptance of gays in society	.84
30. Lack of constitutional guarantee of rights due to sexual orientation	.62
Discrimination at Work	
39. Potential job loss due to sexual orientation	.84
23. Loss of job due to sexual orientation	.81
17. Working in a homophobic environment	.75
38. Harassment at work due to my sexual orientation	.72
8. Lack of security at work because I am homosexual	.70
25. Inability to get some jobs due to my sexual orientation	.68
26. A feeling that I must always prove myself at work because of my sexual orientation	.62
General Discrimination	
6. Mental health discrimination due to my sexual orientation	.81
7. Housing discrimination due to my sexual orientation	.81
24. Discrimination in social services due to my orientation	.62
HIV/AIDS	
32. Need to exercise caution when dating due to AIDS	.82
55. Constantly having to think about 'safe sex'	.82
29. Limits I have placed on sexual activity due to AIDS	.80
40. Fear that I might get HIV or AIDS	.78
61. Difficulty meeting people due to concern over HIV	.74
64. Difficulty finding someone to love	.55
53. Fear that my friends might be at risk for HIV	.55
Sexual Orientation Conflict	
62. Shame and guilt because I am homosexual	.88
66. Difficulty accepting my sexual orientation	.85
50. Mixed feelings about my sexual orientation	.83
63. Conflict between my self-image and the image people have about homosexuals	.70

reporting a bisexual orientation than Sample 1 ( $X^2(2) = 13.49$ , p < .01). The total sample included 557 men and 421 women.<sup>4</sup> The mean age was 32 years old (SD = 9.5) with a range of 15 to 66. The sample was mostly white (89%). Participants completed the 70-item stressor questionnaire, the 20-item CES-D (Radloff, 1977) and four questions pertaining to openness about one's sexual orientation and social involvement with other gay and lesbian individuals (Franke & Leary, 1991). For the stressor questions, participants were asked to

TABLE 2. Demographic Variables by Sample

Relationship Status           In Relationship         No Relationship           Sample 1         274         229           Sample 2         235         204           Total         509         433           Sex           Male         Female           Sample 1         308         207           Sample 2         249         214           Total         557         421           Race           White         Black         Other           Sample 1         472         19         22           Sample 2         393         31         31           Total         865         50         53           Homosexual Orientation           Exclusive         Predominantly         Bisexual           Sample 1         400         79         26           Sample 2         327         65         52           Total         727         144         78           Membership in Gay/Lesbian Organizations         Belong to Group         No Group Membership				
Sample 1       274       229         Sample 2       235       204         Total       509       433         Sex         Male       Female         Sample 1       308       207         Sample 2       249       214         Total       557       421         Race         White       Black       Other         Sample 1       472       19       22         Sample 2       393       31       31       31         Total       865       50       53       53         Homosexual Orientation         Exclusive       Predominantly       Bisexual         Sample 1       400       79       26         Sample 2       327       65       52         Total       727       144       78         Membership in Gay/Lesbian Organizations		Relations	ship Status	
Sample 2       235       204         Total       509       433         Sex         Male       Female         Sample 1       308       207         Sample 2       249       214         Total       557       421         Race         White       Black       Other         Sample 1       472       19       22         Sample 2       393       31       31         Total       865       50       53         Homosexual Orientation         Exclusive       Predominantly       Bisexual         Sample 1       400       79       26         Sample 2       327       65       52         Total       727       144       78         Membership in Gay/Lesbian Organizations		In Relationship	No Relationship	
Total     509     433       Sample 1     308     207       Sample 2     249     214       Total     557     421       Total     Black     Other       Sample 1     472     19     22       Sample 2     393     31     31       Total     865     50     53       Homosexual Orientation       Exclusive     Predominantly     Bisexual       Sample 1     400     79     26       Sample 2     327     65     52       Total     727     144     78       Membership in Gay/Lesbian Organizations	Sample 1	274	229	
Sex Sex           Male         Female           Sample 1         308         207           Sample 2         249         214           Total         557         421           Race           White         Black         Other           Sample 1         472         19         22           Sample 2         393         31         31           Total         865         50         53           Homosexual Orientation           Exclusive         Predominantly         Bisexual           Sample 1         400         79         26           Sample 2         327         65         52           Total         727         144         78           Membership in Gay/Lesbian Organizations	Sample 2	235	204	
Male         Female           Sample 1         308         207           Sample 2         249         214           Total         557         421           Race           White         Black         Other           Sample 1         472         19         22           Sample 2         393         31         31           Total         865         50         53           Homosexual Orientation           Exclusive         Predominantly         Bisexual           Sample 1         400         79         26           Sample 2         327         65         52           Total         727         144         78           Membership in Gay/Lesbian Organizations	Total	509	433	
Sample 1       308       207         Sample 2       249       214         Total       557       421         Race         White       Black       Other         Sample 1       472       19       22         Sample 2       393       31       31         Total       865       50       53         Homosexual Orientation         Exclusive       Predominantly       Bisexual         Sample 1       400       79       26         Sample 2       327       65       52         Total       727       144       78         Membership in Gay/Lesbian Organizations		\$	Sex	
Sample 2       249       214         Total       557       421         Race         White       Black       Other         Sample 1       472       19       22         Sample 2       393       31       31         Total       865       50       53         Homosexual Orientation         Exclusive       Predominantly       Bisexual         Sample 1       400       79       26         Sample 2       327       65       52         Total       727       144       78         Membership in Gay/Lesbian Organizations		Male	Female	
Total         557         421           Race           White         Black         Other           Sample 1         472         19         22           Sample 2         393         31         31           Total         865         50         53           Homosexual Orientation           Exclusive         Predominantly         Bisexual           Sample 1         400         79         26           Sample 2         327         65         52           Total         727         144         78           Membership in Gay/Lesbian Organizations	Sample 1	308	207	
Race           White         Black         Other           Sample 1         472         19         22           Sample 2         393         31         31           Total         865         50         53           Homosexual Orientation           Exclusive         Predominantly         Bisexual           Sample 1         400         79         26           Sample 2         327         65         52           Total         727         144         78           Membership in Gay/Lesbian Organizations	Sample 2	249	214	
White         Black         Other           Sample 1         472         19         22           Sample 2         393         31         31           Total         865         50         53           Homosexual Orientation           Exclusive         Predominantly         Bisexual           Sample 1         400         79         26           Sample 2         327         65         52           Total         727         144         78           Membership in Gay/Lesbian Organizations	Total	557	421	
Sample 1         472         19         22           Sample 2         393         31         31           Total         865         50         53           Homosexual Orientation           Exclusive Predominantly Bisexual           Sample 1         400         79         26           Sample 2         327         65         52           Total         727         144         78           Membership in Gay/Lesbian Organizations		R	ace	
Sample 2         393         31         31           Total         865         50         53           Homosexual Orientation           Exclusive         Predominantly         Bisexual           Sample 1         400         79         26           Sample 2         327         65         52           Total         727         144         78           Membership in Gay/Lesbian Organizations		White	Black	Other
Total         865         50         53           Homosexual Orientation           Exclusive         Predominantly         Bisexual           Sample 1         400         79         26           Sample 2         327         65         52           Total         727         144         78           Membership in Gay/Lesbian Organizations	Sample 1	472	19	22
Homosexual Orientation           Exclusive         Predominantly         Bisexual           Sample 1         400         79         26           Sample 2         327         65         52           Total         727         144         78           Membership in Gay/Lesbian Organizations	Sample 2	393	31	31
Exclusive         Predominantly         Bisexual           Sample 1         400         79         26           Sample 2         327         65         52           Total         727         144         78           Membership in Gay/Lesbian Organizations	Total	865	50	53
Sample 1         400         79         26           Sample 2         327         65         52           Total         727         144         78           Membership in Gay/Lesbian Organizations		Homosexua	al Orientation	
Sample 2         327         65         52           Total         727         144         78           Membership in Gay/Lesbian Organizations		Exclusive	Predominantly	Bisexual
Total 727 144 78  Membership in Gay/Lesbian Organizations	Sample 1	400	79	26
Membership in Gay/Lesbian Organizations	Sample 2	327	65	52
	Total	727	144	78
Belong to Group No Group Membership		Membership in Gay/	Lesbian Organization	ons
		Belong to Group		No Group Membership
Sample 1 312 193	Sample 1	312		193
Sample 2 190 246	Sample 2	190		246
Total 502 439	Total	502		439

Note. Only those respondents who provided demographic responses were included in the chi-square analyses and frequencies. Thus, the total sample size varies depending on the demographic variable reported.

rate on a 4-point scale the degree of stress caused by life events that may have affected them, ranging from no stress/has not occurred (0) to severe stress (3).

#### Measures

The CES-D (Radloff, 1977) is a 20-item questionnaire designed to assess depressive symptoms in nonclinical populations. The participant is asked to report how frequently he or she felt or behaved a certain way during the past week on a 4-point scale ranging from rarely or none of the time (0) to most or all of the time (3). Higher scores indicate greater depressive symptoms. The CES-D has acceptable internal consistency, test-retest reliability, and validity (Radloff, 1977).

Respondents' openness about their sexual orientation and degree of social involvement with other gay individuals were assessed using Franke and Leary's (1991) measure of openness. Participants were asked to circle the answer that best corresponds to the way they handle the issue of their sexual orientation out of five statements ranging from I work very hard to hide it (1) to I never hesitate to tell people (5).

# Overview of Analyses

Several phases of analyses were conducted. In the first phase, the six-factor and ten-factor structures of gay stress were examined using confirmatory factor-analytic techniques. In the second phase, the resulting best-fit model was examined for invariance across male (n = 557) and female (n = 421) respondents, across respondents currently in a relationship (n = 509) and those not currently in a relationship (n = 433), and across those who reported an exclusively homosexual orientation (n = 727) and those who reported a predominantly homosexual orientation (n = 144). Respondents who reported a bisexual orientation (n = 78) were excluded from analyses involving cross-orientation comparisons, due to insufficient sample size.

Next, a series of MANOVAs was conducted to compare mean differences in the ten stress-scale scores for men versus women, those in relationships versus those not in relationships, those reporting a predominantly versus an exclusively homosexual orientation, and those who belonged to gay and lesbian organizations compared to those who did not. Univariate analyses of variance were conducted to probe for significant effects.

Finally, multiple regression analyses were conducted separately for gay men and lesbians to examine the relationship between stressors and self-reported dysphoria measured by the CES-D and openness about one's sexual orientation. In addition, differences in stress scores were examined as a function of reported openness about one's sexual orientation.

#### **RESULTS**

#### Confirmation of Factor Structure

In an effort to avoid non-normality problems and restrictions to the magnitude of Pearson product moment correlations that can occur when data are generated with polychotomous rating scales (Drasgow & Kanfer, 1982), items for each scale were categorized into two or three subscales, each with two to four items. Three scales, Family Reactions to My Partner, General Discrimination,

and Misunderstanding, were created with three items, in which the item with the strongest loading was set to 1.00 and the remaining two items were combined to create a subscale.

Three alternative models were compared: (a) a one-factor model, (b) the six-factor model, and (c) the ten-factor model. The one-factor model tests whether a common factor model can account for the underlying structure of the data. The six-factor model was tested to assess the adequacy of the more parsimonious model to account for the data. Finally, the ten-factor model tests the adequacy of the proposed model and specifically examines whether the addition of the four factors provides a significantly better fit to the data than the more parsimonious six-factor model.

All confirmatory factor-analytic procedures were conducted using LISREL8 (Jöreskog & Sörbom, 1993). Scaling metrics for the latent variables were fixed by setting factor variances to 1.0. Multiple fit indexes were examined to evaluate the models' goodness-of-fit. Five fit indexes are reported for all analyses: The Comparative Fit Index (CFI; Bentler, 1990), the Goodness-of-Fit Index (GFI; Jöreskog & Sörbom, 1989) and Adjusted Goodness-of-Fit Index (AGFI; (Jöreskog & Sörbom, 1989), the Nonnormed Fit Index (NNFI; Tucker & Lewis, 1973), and the Root Mean Square Error of Approximation (RMSEA; Steiger, 1990).

Mulaik, James, Van Alstine, Bennett, Lind, and Stilwell (1989) have suggested that consistency across indexes should be regarded as the most reliable indicator of goodness-of-fit. The CFI, GFI, AGFI, and NNFI range in value from 0.00 to 1.00, with values of .90 or greater indicating a good fit (Bentler & Bonnett, 1980; Jöreskog & Sörbom, 1989). The RMSEA reflects the amount of error of fit per degree of freedom. A value of .05 or less suggests a close fit, with values up to .08 representing reasonable errors in the population.

Goodness-of-fit indexes for the three models are summarized in Table 3. As indicated by the chi-square difference test, the ten-factor model fits the data significantly better than do either the null model (Model 1-Model 3,  $\Delta$  X<sup>2</sup> (84) = 10062.25) or the six-factor model (Model 2-Model 3,  $\Delta$  X<sup>2</sup> (51) = 515.08). Additionally, the ten-factor model provides an acceptable fit to the data as indicated by values in excess of .90 for the CFI, GFI, AGFI, and NNFI and a relatively small RMSEA. All subscales loaded significantly on their hypothesized factors (t values = 16 to 33, p values < .05). Correlations among the factors and the CES-D are reported in Table 4.

Invariance Across Sex, Sexual Orientation, and Current Relationship Status

To determine the extent to which the ten-factor model was invariant across sex, sexual orientation, and current relationship status, a series of between-group

TABLE 3. Goodness-of-Fit Information for the Alternative Factor Models

Model	X <sup>2</sup>	df	CFI	AGFI	GFI	NNFI	RMSEA
1-factor model	10374.22	153	.24	.22	.34	.24	.26
6-factor model	827.05	120	.93	.87	.91	.91	.08
10-factor model	311.97	69	.97	.93	.96	.96	.06

Note. AGFI = adjusted goodness-of-fit index; CFI = comparative fit index; GFI = goodness-of-fit index; NNFI = nonnormed fit index; RMSEA = root mean square error of approximation. For all models specified, the chi-square likelihood ratio test was significant (p < .001).

TABLE 4. Correlations Among the Factors and CESD

	Famil	HIV	Violn	VisbFF	VisbPB	Wkdis	Sexcn	Misnd	FamPt	Disc	CESD
Famil	1.00										_
HIV	.19*	1.00									
Violn	.40*	.38*	1.00								
VisbFF	.53*	.26*	.35*	1.00							
VisbPB	.40*	.27*	.34*	.67*	1.00						
Wkdis	.36*	.19*	.50*	.39*	.51*	1.00					
Sexcn	.33*	.30*	.33*	.52*	.50*	.24*	1.00				
Misnd	.34*	.25*	.53*	.35*	.30*	.41*	.26*	1.00			
FamPt	.57*	01	.22*	.33*	.29*	.26*	.20*	.20*	1.00		
Disc	.27*	.19*	.44*	.18*	.24*	.52*	.17*	.32*	.20*	1.00	
CESD	.28*	.36*	.29*	.27*	.28*	.21*	.38*	.22*	.15*	.19*	1.00
Openness	09*	10*	06	45*	49*	19*	34*	01	08	01	18*
Cronbach's Alpha	.88	.85	.90	.86	.77	.85	.83	.72	.76	.73	.92

Note. The following abbreviations have been used: Famil = Family Reactions, HIV = HIV/AIDS, Violn = Violence, VisbFF = Visibility with Friends and Family, VisbPB = Visibility with the Public, Wkdis = Work Discrimination, Sexcn = Sexual Orientation Conflict, Misnd = Misunderstanding, FamPt = Family Reactions to My Partner, Disc = General Discrimination. N's range from 899 to 970. \*p < .01

models were specified and independently tested across men and women, across those reporting an exclusively homosexual orientation and those reporting a predominantly homosexual orientation, and across those currently in a relationship and those not in a relationship. Information on the goodness-of-fit for the between-group models is provided in Table 5. Analysis of the fit indexes suggests that the ten-factor model fits well for both the men and women, those currently in a relationship and those who are not, and for those with a totally homosexual orientation and those with a mostly homosexual orientation.

TABLE 5. Goodness-of-Fit Information for Between Groups: Ten-Factor Model
of Homosexual Stress

	Model Specified	X <sup>2</sup>	CFI	AGFI	GFI	NNFI	RMSEA
1.	Men (n = 497)	212.54	.97	.91	.95	.96	.061
2.	Women (n = 359)	143.07	.98	.92	.96	.97	.051
3.	Exclusively Homosexual (n = 650)	240.30	.98	.93	.96	.96	.058
4.	Predominantly Homosexual (n = 124)	158.24	.95	.82	.90	.92	.086
5.	Currently in Relationship (n = 447)	156.21	.98	.94	.96	.97	.048
6.	No Current Relationship (n = 376)	174.82	.98	.92	.95	.96	.96

Note. AGFI = adjusted goodness-of-fit index; CFI = comparative fit index; GFI = goodness-of-fit index; NNFI = nonnormed fit index; RMSEA = root mean square error of approximation. For all models specified, the degrees of freedom was 69, and the chi-square likelihood ratio test was significant (p < .001). For three models, men, women, and no current relationship, the sample size utilized was less than the possible total due to missing data.

Values for the CFI, GFI, AGFI, and NNFI ranged from .90 to .98 for most of the between-group models and the RMSEAs were consistently small (.048 to .086).<sup>5</sup>

Mean Differences in Gay Stress Across Sex, Sexual Orientation, Current Relationship Status, and Membership Status in Gay Organizations

Given that the ten-factor model best fit the data across all group comparisons, mean differences in gay stress were compared. A series of one way MANOVAs was conducted with the independent variables of sex, predominantly versus exclusively homosexual, current relationship status, and membership in gay organizations. Follow up univariate analyses of variance were used to probe for significant effects. Significant multivariate effects were found for Sex, F (11, 780) = 27.06, p < .05, Orientation, F (11, 711) = 2.94, p < .05, Relationship Status, F (11, 761) = 22.50, p < .05, and Organizational Status, F (11, 754) = 7.82, p < .05. Means for these analyses are presented in Tables 6, 7, 8, and 9.

Univariate analyses indicated lesbians reported more stress concerning family reactions to one's partner, F (1, 790) = 25.68, p < .05, compared to gay men. There was also a trend towards lesbians reporting more stress regarding general family issues to one's partner, F (1, 790) = 3.21, p = .07. Gay men reported more stress concerning violence, F (1, 790) = 6.31, p < .05, and HIV/AIDS, F (1, 790) = 217.04, p < .05.

TABLE 6. Means for the Ten-Factor Structure as a Function of Sex

	Se	×
Measure	Men n = 459	Women n = 333
Family Reactions (9 items)	9.28	10.15
Family & Partner (3 items)*	2.27	3.19
General Discrimination (3 items)	1.63	1.60
HIV/AIDS (7 items)*	9.98	4.91
Misunderstanding (3 items)	5.88	6.09
Sexual Orientation Conflict (4 items)	3.38	3.11
Violence (7 items)*	8.14	7.16
Visibility Friends & Family (7 items)	9.47	9.91
Visibility Public (6 items)	6.35	6.35
Work Discrimination (7 items)	5.96	6.42
CES-D	19.19	18.21

Note. \* indicates means are significantly different at p < .05.

TABLE 7. Means for the Ten-Factor Structure as a Function of Relationship Status

	Relationship Status			
Measure	Has Relationship No Relationship n = 419 n = 344			
Family Reactions (9 items)	9.64 9.55			
Family & Partner (3 items)*	3.17 2.00			
General Discrimination (3 items)	1.63 1.58			
HIV/AIDS (7 items)*	5.86 10.40			
Misunderstanding (3 items)*	6.14 5.72			
Sexual Orientation Conflict (4 items)*	2.86 3.85			
Violence (7 items)	7.54 7.90			
Visibility Friends & Family (7 items)	9.44 10.03			
Visibility Public (6 items)	6.22 6.50			
Work Discrimination (7 items)	6.12 6.15			
CES-D*	16.31 22.06			

Note. \* indicates means are significantly different at p < .05.

TABLE 8. Means for the Ten-Factor Structure as a Function of Sexual Orientation

	Sexual Orientation			
Measure	Exclusively Homosexual n = 604	Predominantly Homosexual n = 119		
Family Reactions (9 items)	9.62	10.30		
Family & Partner (3 items)	2.62	3.02		
General Discrimination (3 items)	1.67	1.61		
HIV/AIDS (7 items)	7.86	7.87		
Misunderstanding (3 items)	6.01	5.90		
Sexual Orientation Conflict (4 items)*	2.92	4.43		
Violence (7 items)	7.91	7.61		
Visibility Friends & Family (7 items)*	9.41	10.55		
Visibility Public (6 items)	6.24	6.86		
Work Discrimination (7 items)	6.32	6.23		
CES-D	18.35	20.21		

Note. \* indicates means are significantly different at p < .05.

TABLE 9. Means for the Ten-Factor Structure as a Function of Organizational Status

	Organizational Status				
Measure	In n = 413	Not In n = 353			
Family Reactions (9 items)	9.68	9.52			
Family & Partner (3 items)	2.48	2.84			
General Discrimination (3 items)	1.62	1.60			
HIV/AIDS (7 items)	7.85	7.96			
/lisunderstanding (3 items)*	6.22	5.64			
Sexual Orientation Conflict (4 items)*	3.05	3.58			
/iolence (7 items)	7.85	7.52			
/isibility Friends & Family (7 items)*	9.29	10.20			
/isibility Public (6 items)*	5.56	7.25			
Vork Discrimination (7 items)	6.23	6.06			
CES-D*	17.96	20.00			

Note. \* indicates means are significantly different at p < .05.

Univariate analyses also revealed that those respondents in relationships reported more stress associated with family reactions to one's partner, F (1, 761) = 42.61, p < .05. Those not in relationships reported more stress associated with sexual orientation conflict, F (1, 761) = 18.23, p < .05, more stress concerning HIV/AIDS, F (1, 761) = 160.77, p < .05, more stress regarding societal misunderstanding, F (1, 761) = 6.35, p < .05, and more dysphoria, F (1, 761) = 50.41, p < .05.

Univariate analyses revealed that individuals defining themselves as predominantly homosexual reported more stress associated with visibility with family/friends, F (1, 721) = 5.17, p < .05. Those who reported being predominantly gay also indicated experiencing more sexual orientation conflict, F (1, 721) = 23.59, p < .05.

Univariate analyses also revealed that those individuals who were in gay and lesbian organizations reported more stress associated with societal misunderstanding, F (1, 764) = 11.91, p < .05. Those in organizations also reported less stress associated with sexual orientation conflict, F (1, 764) = 5.10, p < .05, and less stress with visibility with both family/friends, F (1, 764) = 6.14, p < .05, and the public F (1, 764) = 33.84, p < .05. There was also a trend such that those in organizations reported less stress associated with family reactions to partner, F (1, 764) = 3.77, p = .053. Individuals in organizations also reported lower levels of dysphoria, F (1, 764) = 6.10, p < .05.

# Gay Stressors and Dysphoria

As shown in Table 4, all categories of stressors were significantly related to depression. The magnitude of these correlations ranged from .38 (Sexual Orientation Conflict) to .15 (Family Reactions to Partner) with the mean magnitude of correlation at .26. In order to examine further the relationship between gay stress and dysphoria, separate simultaneous multiple regression analyses were conducted for gay men and lesbians. The 10 stress factors were predictors with the CES-D score as the criterion variable. For gay men, the 10 stressors accounted for a significant proportion of variance in dysphoria, multiple R = .52, F(10, 402) = 15.1, p < .001. For gay men, concern about HIV, sexual orientation conflict, and family factors accounted for unique proportions of variance in dysphoria (Betas of .22, .26, .14 respectively). In other words, when all other stressors were controlled, these factors explained additional variance in dysphoria.

For lesbians, the ten stress factors also accounted for a significant amount of variance in dysphoria, multiple R = .54, F(10, 265) = .10.78, p < .001. For lesbians, concern about HIV/AIDS and sexual orientation conflict accounted for unique proportion of variance in dysphoria (Betas of .27 and .24, respectively).

### Gay Stress and Openness

The relationship between gay stress and openness was examined in two ways. First, participants' self reported openness was correlated with the 10 subscales and the CES-D (see Table 4). Participants who were more open about their sexual orientation reported less sexual orientation conflict, less family stress, less stress about HIV/AIDS, less stress related to visibility issues with friends/family and the public, and stress related to work discrimination. Although many of these correlations are significant, the magnitude of the relationships is sometimes quite small. Using a criterion based on magnitude of the relationship, it appears that the most meaningful relationships are that openness is related to less sexual orientation conflict (12% shared variance), and less visibility concerns with friends and family (20% shared variance) and the public (23% shared variance).

In order to examine these relationships further, simultaneous multiple regressions were conducted separately for gay men and lesbians. The 10 stress subscales were predictors with openness as the criterion. For gay men, the 10 stress subscales accounted for a significant amount of variance in openness, R = .57, F(10, 396) = 18.89, p < .001. Stress related to misunderstanding, family issues, and visibility with both friends and family and the public accounted for significant unique variance in openness, Betas of .13, .23, -.23, and -.39 respectively. Thus, when other stressors are controlled, those who are more open report more concern about others' misunderstanding their sexual orientation, more family stressors, and less stress related to visibility issues.

For lesbians, the 10 stress predictors accounted for significant variance in openness, R = .67, F(10, 258) = 21.01, p < .001. For lesbians, stress related to concerns about HIV/AIDS, sexual orientation conflict, misunderstanding, visibility with friends/family and the public, and family concerns all accounted for significant proportion of unique variance in openness, Betas of .11, -.16, .16, -.42, -.30, and .16 respectively. Thus, when other stressors are controlled, lesbians who are more open about their sexual orientation, report more stress related to HIV/AIDS, less sexual orientation conflict, more stress about others' misunderstanding them, more family stress, and less stress related to visibility issues.

A second strategy was used to examine the relationship between openness and stressors. The sample was divided into five groups based on their response to the openness question. A one way MANOVA was conducted with the independent variable of how open the participant was, ranging from "I work very hard to hide it" to "I never hesitate to tell people," and the dependent variables of the stressor categories and the CES-D. A significant multivariate effect was found, F (44, 2955) = 10.84, p < .01. Univariate ANOVAs were conducted to

probe for significant effects and were followed with post-hoc analyses. These results are presented in Table 10. Inspection of these results reveals that participants who are more closeted report more dysphoria, more sexual orientation conflict, more stress about being out (visibility issues), and more stress related to work discrimination.

#### DISCUSSION

This research used a confirmatory factor analysis to categorize stressors experienced by gay men and lesbians. Next, differences in these groups of stressors were examined for men and women, those who were in relationships compared to those who were not, those who belonged to gay organizations compared to those who did not, and those who reported an exclusively homosexual orientation compared to those who reported a predominantly homosexual orientation. Finally, these groups of stressors were correlated with measures of dysphoria and openness about one's sexual orientation.

As predicted, our results suggest that gay men and lesbians report stressors associated with visibility issues (difficulty being "out" both with one's family as well as in a more public arena), family conflict (difficulties encountered with one's family due to one's sexual orientation, including family reactions to

TABLE 10. Means for the Ten-Factor Structure as a Function of Openness

Measure	1 N = 16	2 N = 28	3 N = 268	4 N = 368	5 N = 107	F
Family Reactions (9 items)	8.31 <sub>a</sub>	10.39 <sub>b</sub>	11.09 <sub>b</sub>	9.30 <sub>ab</sub>	8.71 <sub>ab</sub>	5.13**
Family & Partner (3 items)	2.56 <sub>ab</sub>	3.14 <sub>a</sub>	3.12 <sub>a</sub>	2.31 <sub>a</sub>	2.65 <sub>ab</sub>	4.21**
General Discrimination (3 items)	2.19	1.61	1.66	1.54	1.75	.53
HIV/AIDS (7 items)	10.75 <sub>a</sub>	8.86 <sub>ab</sub>	8.14 <sub>ab</sub>	7.64 <sub>b</sub>	7.50 <sub>b</sub>	2.84*
Misunderstanding (3 items)	6.50 <sub>a</sub>	5.39 <sub>b</sub>	6.17 <sub>ab</sub>	5.75 <sub>b</sub>	6.39 <sub>ab</sub>	2.99*
Sexual Orientation Conflict (4 items)	8.06 <sub>a</sub>	5.75 <sub>b</sub>	4.27 <sub>c</sub>	2.45 <sub>d</sub>	2.12 <sub>d</sub>	33.89***
Violence (7 items)	8.81 <sub>ab</sub>	10.21 <sub>a</sub>	8.24 <sub>ab</sub>	$7.93_{ab}$	7.06 <sub>b</sub>	3.71**
Visibility Friends & Family (7items)	15.50 <sub>a</sub>	12.92 <sub>b</sub>	12.52 <sub>b</sub>	8.10 <sub>c</sub>	6.10 <sub>d</sub>	71.58***
Visibility Public (6 items)	11.06 <sub>a</sub>	10.32 <sub>a</sub>	8.57 <sub>b</sub>	4.98 <sub>c</sub>	4.00 <sub>c</sub>	69.18***
Work Discrimination (7 items)	9.87 <sub>a</sub>	9.25 <sub>a</sub>	$7.26_{ab}$	5.05 <sub>c</sub>	5.86 <sub>c</sub>	11.54***
CES-D	25.81 <sub>a</sub>	23.96 <sub>a</sub>	20.77 <sub>ab</sub>	17.25 <sub>b</sub>	16.87 <sub>b</sub>	7.55***

Note. Group 1 = "I work very hard to hide it"; Group 2 = "I don't want people to know"; Group 3 = "I selectively tell people I trust"; Group 4 = "I am not too worried about people knowing"; Group 5 = "I never hesitate to tell people." Means with different subscripts are different and are p = .05. All F's had df (4, 782). \* p < .05 \*\* p < .01 \*\*\*p < .001.

a partner), discrimination at work (concerning possible and actual job loss and other economic stressors as well as discriminatory practices), general discrimination (involving social services and housing), violence and harassment (concerning verbal and physical attacks or threats due to one's sexual orientation), HIV/AIDS (concerning emotional and behavioral changes related to the AIDS epidemic), conflict over one's sexual orientation (shame/guilt and problems accepting one's sexual orientation), and misunderstanding (society's ignorance about and lack of acceptance of gays). The confirmatory factor analysis suggested that a 10-factor model fit the data better than either a one-factor model or a six-factor model. The 10-factor model fit well for both men and women, those who were and were not in relationships at the time of responding, those who reported a predominantly homosexual orientation versus those who reported an exclusively homosexual orientation, and those who did and did not belong to gay/lesbian organizations.

It is also worth noting that gay men and lesbians differed in stressors related to HIV/AIDS, family issues, and violence/harassment. As one would expect, men reported more stress associated with HIV/AIDS than women. Men also reported more stressors concerned with violence and harassment. Perhaps this is because societal tolerance for two women together is greater than for two men together. For example, women who live together, somewhat closeted, may not evoke as negative a reaction as men who live together. Further, sometimes heterosexuals report that seeing women together sexually is arousing and thus may be associated with a less negative (and therefore less violent/harassing) attitude. Another consideration is that society places great pressures on men to fit a traditional (heterosexual) male role (cf. Gilmore, 1990). Perhaps gay men experience more harassment because they deviate from this strong expectation. Women also reported more family based stressors. The reasons for this difference would be a worthwhile focus for future researchers. Perhaps it reflects the stereotypic notion of women being more connected to others and valuing relationships including family relationships.

# Gay Stressors and Relationships

Participants' relationship status was often related to their self-reported stress. While we cannot infer a causal relationship between these variables, it is interesting to note the differences that emerged as a function of relationship status. Gay men and lesbians reported more dysphoria when they were not in relationships. Those in relationships also reported less sexual orientation conflict. Thus, those in relationships seemed to be reporting a greater sense of well-being. Although it was hypothesized that being in a relationship might insulate one from gay stress, it appears that it may insulate one from certain as-

pects of gay stress, and may exacerbate other aspects. Those participants who were currently in relationships reported more stressors related to family reactions to their partners, more concerns about societal misunderstanding, less stress concerning HIV/AIDS, and less sexual orientation conflict. Those in relationships also reported less dysphoria. The idea that being in a romantic relationship may buffer one from stress is probably not uniquely applied to gay men and lesbians. However, it is worth noting that those in relationships report more stress concerning their families' reactions to their partner which may well be different for gays compared to straight individuals. Those in relationships may also feel less concern about HIV/AIDS because they may have information about a partner's HIV status and do not worry as much about limits placed on sexual activity and problems meeting people. Finally, when one is in a relationship, it probably makes societal intolerance of a gay/lesbian union more salient. Thus, those in relationships report more stress associated with societal misunderstanding and lack of acceptance.

### Exclusively versus Predominantly Gay Individuals

Few differences emerged when those who were predominantly gay were compared to those who were exclusively gay. Not surprisingly, those who reported being exclusively gay experienced less stress related to being "out" with friends and family and less conflict about their sexual orientation. We cannot infer the causal direction of this relationship. Perhaps the distress about one's orientation and concerns about being "out" do impact on one's perception of oneself as predominantly versus exclusively gay. On the other hand, perhaps one's perception of oneself in this regard may influence the degree to which one experiences stress in these arenas.

# Involvement with Other Gay Individuals and Gay Stress

As anticipated by Lindquist and Hirabayashi (1979), the relationship between involvement with other gay individuals and gay stress seems to have changed somewhat in the years since they conducted their study. Rather than being associated with negative affect, participation in gay and/or lesbian groups now appears to be associated with less dysphoria, less visibility stress among friends, family, and the larger public, and less concern/conflict about one's sexual orientation. These findings raise a number of possibilities. Participation in activities with other gay men and lesbians may serve as a buffer against gay stress. On the other hand, it may be that those who experience less stress are more likely to seek out social interaction with similar individuals. Interestingly, those individuals in organizations report more stressors related to

societal misunderstanding. Perhaps their identification with gay groups makes societal rejection more salient.

These findings can be interpreted as somewhat consistent with previous research using a large sample of gay men. Lackner et al. (1993) found that participants who reported low levels of perceived connection to others (subjective integration) reported more global distress and depression. Interestingly, objective indicators of involvement with others (which is similar to our measure of involvement) was not associated with distress. It would be interesting in future research to examine more thoroughly the connection between gay stress and involvement with others. One avenue for this examination would be to examine the relationship among traditional indices of social support, gay stress, and well-being.

# Dysphoria and Gay Stress

As predicted, dysphoria (measured by the CES-D) was significantly related to all of the categories of stressors. Those gay men and lesbians who endorse higher levels of stress also report more dysphoria. The zero order correlations, while significant, tend to be moderate in magnitude. This is consistent with the notion that distress would be related to stressors but that assessment of stressors is not redundant with mood assessment. Regression analyses suggested that gay stressors as a group accounted for approximately 26 or 27 percent of the variance in dysphoria for gay men and lesbians. Sexual orientation conflict and concern about HIV/AIDS seem to be most importantly associated with dysphoria. It remains for future research to explore further the relationship between dysphoria and gay stress, using other measures of dysphoria and other measures of mood. Because dysphoria is only one possible correlate of stress, the relationships between gay stress and other aspects of psychological adjustment and functioning should also be investigated. One must also remember the correlational nature of our findings. While stressors may cause dysphoria, certainly the other causal direction (i.e., those who are dysphoric report more stressors) or a third related variable are also possibilities.

# Openness About One's Sexual Orientation and Gay Stress

As expected, openness about one's sexual orientation was associated with less dysphoria. Also, those gay men and lesbians who were more open about their sexual orientation reported less stress based on visibility and less sexual orientation conflict. Further, those who are more open report more stress about others' misunderstanding them (concern about others' ignorance, lack of acceptance, and lack of rights). Gay men and lesbians who are "out" also report more stress associated with family issues.

It seems logical that the more open one is about his or her sexual orientation, the less anticipatory stress he or she is likely to experience with regard to being "exposed" or "found out," and all the negative social and financial consequences that may ensue. However, our data suggest that even those who are open about their sexual orientation are concerned about the lack of acceptance of gays in society. Also, those who are more open report more family stressors, perhaps because they are "out," family conflict about their sexual orientation increases.

It also seems possible that those who are less distressed about their sexual orientation may be more likely to be open about it, and that greater openness and lesser stress may share a common cause. We must acknowledge that the participants in this study tended to be rather open about their sexual orientation. Only 5.6% of the sample reported that they "work very hard to hide" or "don't want people to know" about their sexual orientation. An additional 34% responded to the openness item, "I selectively tell people I trust." The remaining 60% of the sample reported that they were "not too worried about people knowing" or that they "never hesitate to tell people." Given the nature of this study and the methods of questionnaire distribution, a fair amount of openness about one's sexual orientation would have been needed for participation in the study. However, those with lesser degrees of openness were not categorically excluded. Although this is clearly a source of possible bias in the study, it would be extremely difficult to eliminate such a bias. All results should, therefore, be interpreted with the characteristics of the sample in mind.

# Methodological Considerations in the Assessment of Gay Stress

Future researchers in this area are urged to consider some general methodological limitations of the measurement of stressors employed in this study. First, when this measure was originally designed, it seemed acceptable to use a single response, (0), for no stress and for has not occurred. This was consistent with the type of scale employed in the hassles literature. In hindsight, however, it seems that the absence of a stressor is different from successfully coping with a stressor that is experienced. The current research was successful in identifying sources of stress. Perhaps future researchers can differentiate better between stressors that have not occurred versus those with which respondents have successfully coped. Second, the 4-point scale used in our measure may not have been optimal. Indeed, several participants in the current study expressed a desire for intermediate response options, so a 5-point or greater scale might be used, along with some indication of whether the stressor has occurred or not. Third, a time frame should be specified, so that lifetime or current stress can be examined, rather than a mixture of both, at the participants' discretion. As Lepore (1995) points out, it is often helpful to distinguish chronic stressors from those that are episodic. Fourth, it may be necessary, since various sexual orientations are used, to expand some of the phrasing of certain items, in order to clarify that they may also be applicable to those with a bisexual orientation. Finally, the format for assessing stressors may need to be changed and the number of items reduced to decrease the number of participants who fill out the form incompletely and, hopefully, to reduce the amount of missing data.

We must acknowledge that the original generation of items for this research involved a small group of gay men and lesbians. We cannot claim that we have exhaustively covered the domain of stressors for gay men and lesbians. If this research had been conducted 30 years ago, the stressors associated with HIV/AIDS would not have emerged and others may have. What may be 30 years from now in terms of stressors for gay men and lesbians cannot possibly be known. We can say, however, that at the present time there appear to be stable, empirically derived categories of stressors that are consistent with theoretical predictions. This provides an important base from which future investigation can go forward.

Finally, we must also acknowledge that our sample does not adequately represent portions of the gay population, including those who are closeted, who are parents, the elderly, and those with HIV/AIDS. In future research, the inclusion of these individuals would certainly be desirable.

#### Directions for Future Research

This research represents an important first step in identifying and categorizing stressors that may be unique to gay men and lesbians. It remains for future investigators to demonstrate empirically that these stressors are different from the life events and daily hassles that are typically considered. In addition, it would be interesting to continue to examine the relationship of these stressors to participants' well-being, perhaps in a longitudinal format to assess the change in these stressors over time. Any identification of stressors also raises questions about the manner in which various individuals cope with this type of stress. Examination of coping strategies among gay men and lesbians would provide very interesting information.

#### **NOTES**

1. Unfortunately, there was a large amount of missing data. Because factor analysis strategies are compromised by even one missing response to the 70 item stressor measure, any participant with missing data on this measure was eliminated. Thus, the number of participants in the data analysis varies considerably. Certainly, less missing data

would be desirable in the future. However, given the exploratory nature of this research, we were satisfied with the remaining number of participants in data analysis.

- 2. The items that were excluded include:
  - 5. Being affectionate in public with my partner
  - 15. Legal discrimination due to my sexual orientation
  - 27. Loss of close friends to AIDS
  - 36. My lover's family's inability to accept our relationship
  - 42. The extra care I must take to assure that my partner gets benefits (insurance, etc.) that a legal spouse would get automatically
  - 54. Inability to get close to people because I am homosexual
  - 59. Being left out of things due to my sexual orientation
  - 68. Talking to others about AIDS
  - 69. Rejection by my church or religion due to sexual orientation
  - Feeling that I am left out of certain rites of passage (proms, weddings, etc.) because of my sexual orientation
- 3. Although it may have been desirable to be able to classify participants as to how they obtained our survey, this was not possible. Beyond differentiating Sample 1 from Sample 2, we do not have additional information.
- 4. Prior to combining the samples together, we had also conducted an exploratory factor analysis on sample 1 and a confirmatory factor analysis on Sample 2. The results were very similar. Therefore, in light of the theoretical predictions based on previous literature and the original open-ended questionnaire results, we report the combined confirmatory factor analysis. Information about the separate analyses is available from the first author.
- 5. The only index that is below .90 is the AGFI for the predominantly homosexual group. The AGFI is a parsimony index, and there are not any absolute cutoff values for an acceptable fit. Generally, anything above .60 is considered acceptable.

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