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Prejudice, Social Stress, and Mental Health in Lesbian, Gay, and Bisexual Populations: Conceptual Issues and Research Evidence

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Abstract

In this article the author reviews research evidence on the prevalence of mental disorders in lesbians, gay men, and bisexuals (LGBs) and shows, using meta-analyses, that LGBs have a higher prevalence of mental disorders than heterosexuals. The author offers a conceptual framework for understanding this excess in prevalence of disorder in terms of *minority stress*—explaining that stigma, prejudice, and discrimination create a hostile and stressful social environment that causes mental health problems. The model describes stress processes, including the experience of prejudice events, expectations of rejection, hiding and concealing, internalized homophobia, and ameliorative coping processes. This conceptual framework is the basis for the review of research evidence, suggestions for future research directions, and exploration of public policy implications.

The study of mental health of lesbian, gay, and bisexual (LGB) populations has been complicated by the debate on the classification of homosexuality as a mental disorder during the 1960s and early 1970s. That debate posited a gay-affirmative perspective, which sought to declassify homosexuality, against a conservative perspective, which sought to retain the classification of homosexuality as a mental disorder (Bayer, 1981). Although the debate on classification ended in 1973 with the removal of homosexuality from the second edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*;American Psychiatric Association, 1973), its heritage has lasted. This heritage has tainted discussion on mental health of lesbians and gay men by associating—even equating—claims that LGB people have higher prevalences of mental disorders than heterosexual people with the historical antigay stance and the stigmatization of LGB persons (Bailey, 1999).

However, a fresh look at the issues should make it clear that whether LGB populations have higher prevalences of mental disorders is unrelated to the classification of homosexuality as a mental disorder. A retrospective analysis would suggest that the attempt to find a scientific answer in that debate rested on flawed logic. The debated scientific question was, Is homosexuality a mental disorder? The operationalized research question that pervaded the debate was, Do homosexuals have high prevalences of mental disorders? But the research did not accurately operationalize the scientific question. The question of whether homosexuality should be considered a mental disorder is a question about classification. It can be answered by debating which behaviors, cognitions, or emotions should be considered indicators of a mental disorder (American Psychiatric Association, 1994). To use postmodernist understanding of scientific knowledge, such a debate on classification concerns the social construction of mental disorder—what we as a society and as scientists agree are abnormal behaviors, cognitions, and emotions. The answer, therefore, depends on scientific and social consensus that evolves and is subject to the vicissitudes of social change (Gergen, 1985, 2001).

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This distinction between prevalences of mental disorders and classification in the *DSM* was apparent to Marmor (1980), who in an early discussion of the debate said,

> The basic issue … is not whether some or many homosexuals can be found to be neurotically disturbed. In a society like ours where homosexuals are uniformly treated with disparagement or contempt—to say nothing about outright hostility—it would be surprising indeed if substantial numbers of them did *not* suffer from an impaired self-image and some degree of unhappiness with their stigmatized status. … It is manifestly unwarranted and inaccurate, however, to attribute such neuroticism, when it exists, to intrinsic aspects of homosexuality itself. (p. 400)

If LGB people are indeed at risk for excess mental distress and disorders due to social stress, it is important to understand this risk, as well as factors that ameliorate stress and contribute to mental health. Only with such understanding can psychologists, public health professionals, and public policymakers work toward designing effective prevention and intervention programs. The relative silence of psychiatric epidemiological literature regarding the mental health of LGB populations may have aimed to remove stigma, but it has been misguided, leading to the neglect of this important issue.

Recently, researchers have returned to the study of mental health of LGB populations. Evidence from this research suggests that compared with their heterosexual counterparts, gay men and lesbians suffer from more mental health problems including substance use disorders, affective disorders, and suicide (Cochran, 2001;Gilman et al., 2001;Herrell et al., 1999;Sandfort, de Graaf, Bijl, & Schnabel, 2001). Researchers' preferred explanation for the cause of the higher prevalence of disorders among LGB people is that stigma, prejudice, and discrimination create a stressful social environment that can lead to mental health problems in people who belong to stigmatized minority groups (Friedman, 1999). This hypothesis can be described in terms of *minority stress* (Brooks, 1981;Meyer, 1995). In this article I review research evidence on prevalences of mental disorders and show, using meta-analyses, that LGB people have higher prevalences of mental disorders than heterosexual people. I offer a conceptual framework for understanding this excess in prevalence of disorder in terms of minority stress. The model describes stress processes, including the experience of prejudice events, expectations of rejection, hiding and concealing, internalized homophobia, and ameliorative coping processes. This conceptual framework is the basis for a review of research evidence, suggestions for future research directions, and exploration of public policy implications.

The Stress Concept

In its most general form, recent stress discourse has been concerned with external events or conditions that are taxing to individuals and exceed their capacity to endure, therefore having potential to induce mental or somatic illness (Dohrenwend, 2000). Stress can be described as "gree,k in1 Td(T Td(aving)Tj 0 Tw 0 -1s12 Td(7-8n bIativemaycheneye of thg)Tj 0 -12 Td[.snationd(ss P 0 T8vv2

The concept of social stress extends stress theory by suggesting that conditions in the social environment, not only personal events, are sources of stress that may lead to mental and physical ill effects. Social stress might therefore be expected to have a strong impact in the lives of people belonging to stigmatized social categories, including categories related to socioeconomic status, race/ethnicity, gender, or sexuality. According to these formulations, prejudice and discrimination related to low socioeconomic status, racism, sexism, or homophobia—much like the changes precipitated by personal life events that are common to all people—can induce changes that require adaptation and can therefore be conceptualized as stressful (Allison, 1998;Barnett, Biener, & Baruch, 1987;Clark, Anderson, Clark, & Williams, 1999;Meyer, 1995;Mirowsky & Ross, 1989;Pearlin, 1999b).

The notion that stress is related to social structures and conditions is at once intuitively appealing and conceptually difficult. It is appealing because it recalls the commonplace experience that environmental and social conditions can be stressful. Also, it rests on rich foundations of psychological and sociological theory that suggest the person must be seen in his or her interactions with the social environment (Allport, 1954). It is conceptually difficult because the notion of stress, in particular as conceived of by Lazarus and Folkman (1984), has focused on personal rather than social elements (Hobfoll, 1998). I return to the discussion of this tension between the social and the personal, or objective and subjective, conceptualizations of stress.

Minority Stress

One elaboration of social stress theory may be referred to as *minority stress* to distinguish the excess stress to which individuals from stigmatized social categories are exposed as a result of their social, often a minority, position. The foundation for a model of minority stress is not found in one theory, nor is the term *minority stress* commonly used. Rather, a minority stress model is inferred from several sociological and social psychological theories. Relevant theories discuss the adverse effect of social conditions, such as prejudice and stigma, on the lives of affected individuals and groups (e.g., Allport, 1954;Crocker, Major, & Steele, 1998;Goffman, 1963;Jones et al., 1984;Link & Phelan, 2001).

Social theorists have been concerned with the alienation from social structures, norms, and institutions. For example, the importance of social environment was central to Durkheim's (1951) study of normlessness as a cause of suicide. According to Durkheim, people need moral regulation from society to manage their own needs and aspirations. Anomie, a sense of normlessness, lack of social control, and alienation can lead to suicide because basic social needs are not met. Pearlin (1982) has emphasized the relevance of Merton's (1957/1968) work to stress theory, explaining that "according to Merton, society stands as a stressor … by stimulating values that conflict with the structures in which they are to be acted upon" (p. 371). The minority person is likely to be subject to such conflicts because dominant culture, social structures, and norms do not typically reflect those of the minority group. An example of such a conflict between dominant and minority groups is the lack of social institutions akin to heterosexual marriage offering sanction for family life and intimacy of LGB persons. More generally, Moss (1973) explained that interactions with society provide the individual with information on the construction of the world; health is compromised when such information is incongruent with the minority person's experience in the world.

Social psychological theories provide a rich ground for understanding intergroup relations and the impact of minority position on health. Social identity and self-categorization theories extend psychological understanding of intergroup relations and their impact on the self. These theories posit that the process of categorization (e.g., distinction among social groups) triggers important intergroup processes (e.g., competition and discrimination) and provides an anchor for group and self-definition (Tajfel & Turner, 1986;Turner, 1999). From a different

perspective, social comparison and symbolic interaction theorists view the social environment as providing people with meaning to their world and organization to their experiences (Stryker & Statham, 1985). Interactions with others are therefore crucial for the development of a sense of self and well-being. Cooley (1902/1922) referred to the other as the “looking glass” (p. 184) of the self. Symbolic interaction theories thus suggest that negative regard from others leads to negative self-regard. Similarly, the basic tenet of social evaluation theory is that human

prejudice (Herek, 2000) is stressful and may lead to adverse mental health outcomes (Brooks, 1981;Cochran, 2001;DiPlacido, 1998;Krieger & Sidney, 1997;Mays & Cochran, 2001;Meyer, 1995).

Minority Stress Processes in LGB Populations

There is no consensus about specific stress processes that affect LGB people, but psychological theory, stress literature, and research on the health of LGB populations provide some ideas for articulating a minority stress model. I suggest a distal–proximal distinction because it relies on stress conceptualizations that seem most relevant to minority stress and because of its concern with the impact of external social conditions and structures on individuals. Lazarus and Folkman (1984) described social structures as "distal concepts whose effects on an individual depend on how they are manifested in the immediate context of thought, feeling, and action—the proximal social experiences of a person's life" (p. 321). Distal social attitudes gain psychological importance through cognitive appraisal and become proximal concepts with psychological importance to the individual. Crocker et al. (1998) made a similar distinction between objective reality, which includes prejudice and discrimination, and "states of mind that the experience of stigma may create in the stigmatized" (p. 516). They noted that "states of mind have their grounding in the realities of stereotypes, prejudice, and discrimination" (Crocker et al., 1998, p. 516), again echoing Lazarus and Folkman's conceptualization of the proximal, subjective appraisal as a manifestation of distal, objective environmental conditions. I describe minority stress processes along a continuum from distal stressors, which are typically defined as objective events and conditions, to proximal personal processes, which are by definition subjective because they rely on individual perceptions and appraisals.

I have previously suggested three processes of minority stress relevant to LGB individuals (Meyer, 1995;Meyer & Dean, 1998). From the distal to the proximal they are (a) external, objective stressful events and conditions (chronic and acute), (b) expectations of such events and the vigilance this expectation requires, and (c) the internalization of negative societal attitudes. Other work, in particular psychological research in the area of disclosure, has suggested that at least one more stress process is important: concealment of one's sexual orientation. Hiding of sexual orientation can be seen as a proximal stressor because its stress effect is thought to come about through internal psychological (including psychoneuroimmunological) processes (Cole, Kemeny, Taylor, & Visscher, 1996a, 1996b;DiPlacido, 1998;Jourard, 1971;Pennebaker, 1995).

Distal minority stressors can be defined as objective stressors in that they do not depend on an individual's perceptions or appraisals—although certainly their report depends on perception and attribution (Kobrynowicz & Branscombe, 1997;Operario & Fiske, 2001). As objective stressors, distal stressors can be seen as independent of personal identification with the assigned minority status (Diamond, 2000). For example, a woman may have a romantic relationship with another woman but not identify as a lesbian (Laumann, Gagnon, Michael, & Michaels, 1994). Nevertheless, if she is perceived as a lesbian by others, she may suffer from stressors associated with prejudice toward LGB people (e.g., antigay violence). In contrast, the more proximal stress processes are more subjective and are therefore related to self-identity as lesbian, gay, or bisexual. Such identities vary in the social and personal meanings that are attached to them and in the subjective stress they entail. Minority identity is linked to a variety of stress processes; some LGB people, for example, may be vigilant in interactions with others (expectations of rejection), hide their identity for fear of harm (concealment), or internalize stigma (internalized homophobia).

The distinction between personal and group-level coping may be somewhat complicated because even group-level resources (e.g., services of a gay-affirmative church) need to be accessed and used by individuals. Whether individuals can access and use group-level resources depends on many factors, including personality variables. Nevertheless, it is important to distinguish between group-level and personal resources because when group-level resources are absent, even otherwise-resourceful individuals have deficient coping. Group-level resources may therefore define the boundaries of individual coping efforts. Thus, *minority coping* may be conceptualized as a group-level resource, related to the group's ability to mount self-enhancing structures to counteract stigma. This formulation highlights the degree to which minority members may be able to adopt some of the group's self-enhancing attitudes, values, and structures rather than the degree to which individuals vary in their personal coping abilities. Using this distinction, it is conceivable that an individual may have efficient personal coping resources but lack minority-coping resources. For example, a lesbian or gay member of the U.S. Armed Forces, where a "don't ask, don't tell" policy discourages affiliation and attachments with other LGB persons, may be unable to access and use group-level resources and therefore be vulnerable to adverse health outcomes, regardless of his or her personal coping abilities. Finally, it is important to note that coping can also have a stressful impact (Miller & Major, 2000). For example, concealing one's stigma is a common way of coping with stigma and avoiding negative regard, yet it takes a heavy toll on the person using this coping strategy (Smart & Wegner, 2000).

Stress and Identity

Characteristics of minority identity—for example, the prominence of minority identity in the person's sense of self—may also be related to minority stress and its impact on health outcomes. Group identities are essential for individual emotional functioning, as they address conflicting needs for individuation and affiliation (Brewer, 1991). Characteristics of identity may be related to mental health both directly and in interaction with stressors. A direct effect suggests that identity characteristics can cause distress. For example, Burke (1991) said that feedback from others that is incompatible with one's self-identity—a process he called *identity interruptions*—can cause distress. An interactive effect with stress suggests that characteristics of identity would modify the effect of stress on health outcomes. For example, Linville (1987) found that participants with more complex self-identities were less prone to depression in the face of stress. Thoits (1999) explained, "Since people's self conceptions are closely linked to their psychological states, stressors that damage or threaten self concepts are likely to predict emotional problems" (p. 346). On the other hand, as described above, minority identity may also lead to stronger affiliations with one's community, which may in turn aid in buffering the impact of stress (Branscombe, Schmitt, & Harvey, 1999;Brown, Sellers, Brown, & Jackson, 1999;Crocker & Major, 1989).

Prominence (or salience), valence, and level of integration with the individual's other identities may be relevant to stress (Deaux, 1993;Rosenberg & Gara, 1985;Thoits, 1991,1999). Prominence of identity may exacerbate stress because "the more an individual identifies with, is committed to, or has highly developed self-schemas in a particular life domain, the greater will be the emotional impact of stressors that occur in that domain" (Thoits, 1999, p. 352). In coming out models, and in some models of racial identity, there has been a tendency to see minority identity as prominent and ignore other personal and social identities (Cross, 1995;de Monteflores & Schultz, 1978;Eliason, 1996). However minority identities, which may seem prominent to observers, are often not endorsed as prominent by minority group members themselves, leading to variability in identity hierarchies of minority persons (Massey & Ouellette, 1996). For example, Brooks (1981) noted that the stress process for lesbians is complex because it involves both sexual and gender identities. LGB members of racial/ethnic minorities also need to manage diverse identities. Research on Black and Latino LGB

individuals has shown that they often confront homophobia in their racial/ethnic communities and alienation from their racial/ethnic identity in the LGB community (Diaz, Ayala, Bein, Jenne, & Marin, 2001;Espin, 1993;Loiacano, 1993). Rather than view identity as stable, researchers now view identity structures as fluid, with prominence of identity often shifting with social context (Brewer, 1991;Crocker & Quinn, 2000;Deaux & Ethier, 1998).

Valence refers to the evaluative features of identity and is tied to self-validation. Negative valence has been described as a good predictor of mental health problems, with an inverse relationship to depression (Allen, Woolfolk, Gara, & Apter, 1999;Woolfolk, Novalany, Gara, Allen, & Polino, 1995). Identity valence is a central feature of coming out models, which commonly describe progress as improvement in self-acceptance and diminishment of internalized homophobia. Thus, overcoming negative self-evaluation is the primary aim of the LGB person's development in coming out and is a central theme of gay-affirmative therapies (Coleman, 1981–1982;Diaz et al., 2001;Loiacano, 1993;Malyon, 1981–1982;Meyer & Dean, 1998;Rotheram-Borus & Fernandez, 1995;Troiden, 1989).

Finally, more complex identity structures may be related to improved health outcomes. Distinct identities are interrelated through a hierarchal organization (Linville, 1987;Rosenberg & Gara, 1985). In coming out models, integration of the minority identity with the person's other identities is seen as the optimal stage related to self-acceptance. For example, Cass (1979) saw the last stage of coming out as an *identity synthesis*, wherein the gay identity becomes merely one part of this integrated total identity. In a optimal identity development, various aspects of the person's self, including but not limited to other minority identities such as those based on gender or race/ethnicity, are integrated (Eliason, 1996).

Summary: A Minority Stress Model

Using the distal–proximal distinction, I propose a minority stress model that incorporates the elements discussed above. In developing the model I have emulated Dohrenwend's (1998b, 2000) stress model to highlight minority stress processes. Dohrenwend (1998b,2000) described the stress process within the context of strengths and vulnerabilities in the larger environment and within the individual. For the purpose of succinctness, I include in my discussion only those elements of the stress process unique to or necessary for the description of minority stress. It is important to note, however, that these omitted elements—including advantages and disadvantages in the wider environment, personal predispositions, biological background, ongoing situations, and appraisal and coping—are integral parts of the stress model and are essential for a comprehensive understanding of the stress process (Dohrenwend, 1998b, 2000).

The model (Figure 1) depicts stress and coping and their impact on mental health outcomes (box i). Minority stress is situated within general environmental circumstances (box a), which may include advantages and disadvantages related to factors such as socioeconomic status. An important aspect of these circumstances in the environment is the person's minority status, for example being gay or lesbian (box b). These are depicted as overlapping boxes in the figure to indicate close relationship to other circumstances in the person's environment. For example, minority stressors for a gay man who is poor would undoubtedly be related to his poverty; together these characteristics would determine his exposure to stress and coping resources (Diaz et al., 2001). Circumstances in the environment lead to exposure to stressors, including general stressors, such as a job loss or death of an intimate (box c), and minority stressors unique to minority group members, such as discrimination in employment (box d). Similar to their source circumstances, the stressors are depicted as overlapping as well, representing their interdependency (Pearlin, 1999b). For example, an experience of antigay violence (box d) is likely to increase vigilance and expectations of rejection (box f). Often, minority status leads to personal identification with one's minority status (box e). In turn, such minority identity

relate to the stress processes introduced in the conceptual framework above. As has already been noted, this synthesis is not meant to suggest that the studies reviewed below stemmed from or referred to this conceptual model; most did not.

Prejudice events—Similar to research with African Americans and other ethnic minority groups (Kessler, Mickelson, & Williams, 1999), researchers have described antigay violence and discrimination as core stressors affecting gay and lesbian populations (Garnets et al., 1990;Herek & Berrill, 1992

Hispanic American students at an Ivy League university were conflicted, divided between identification with White friends and culture and the desire to maintain an ethnic cultural identity.

Research evidence on the impact of stigma on health, psychological, and social functioning comes from a variety of sources. Link (1987;Link, Struening, Rahav, Phelan, & Nuttbrock, 1997) showed that in mentally ill individuals, perceived stigma was related to adverse effects in mental health and social functioning. In a cross-cultural study of gay men, Ross (1985) found that anticipated social rejection was more predictive of psychological distress outcomes than actual negative experiences. However, research on the impact of stigma on self-esteem, a main focus of social psychological research, has not consistently supported this theoretical perspective; such research often fails to show that members of stigmatized groups have lower self-esteem than others (Crocker & Major, 1989;Crocker et al., 1998;Crocker & Quinn, 2000). One explanation for this finding is that along with its negative impact, stigma has self-protective properties related to group affiliation and support that ameliorate the effect of stigma (Crocker & Major, 1989). This finding is not consistent across various ethnic groups: Although Blacks have scored higher than Whites on measures of self-esteem, other ethnic minorities have scored lower than Whites (Twenge & Crocker, 2002).

Experimental social psychological research has highlighted other processes that can lead to adverse outcomes. This research may be classified as somewhat different from that related to the vigilance concept discussed above. Vigilance is related to feared possible (even if imagined) negative events and may therefore be classified as more distal along the continuum ranging from the environment to the self. Stigma threat, as described below, relates to internal processes that are more proximal to the self. This research has shown that expectations of stigma can impair social and academic functioning of stigmatized persons by affecting their performance (Crocker et al., 1998;Farina, Allen, & Saul, 1968;Pinel, 2002;Steele, 1997;Steele & Aronson, 1995). For example, Steele (1997) described stereotype threat as the "social–psychological threat that arises when one is in a situation or doing something for which a negative stereotype about one's group applies" (p. 614) and showed that the emotional reaction to this threat can interfere with intellectual performance. When situations of stereotype threat are prolonged they can lead to "disidentification," whereby a member of a stigmatized group removes a domain that is negatively stereotyped (e.g., academic success) from his or her self-definition. Such disidentification with a goal undermines the person's motivation—and therefore, effort—to achieve in this domain. Unlike the concept of life events, which holds that stress stems from some concrete offense (e.g., antigay violence), here it is not necessary that any prejudice event has actually occurred. As Crocker (1999) noted, because of the chronic exposure to a stigmatizing social environment, "the consequences of stigma do not require that a stigmatizer in the situation holds negative stereotypes or discriminates" (p. 103); as Steele (1997) described it, for the stigmatized person there is "a threat in the air" (p. 613).

Concealment versus disclosure—Another area of research on stigma, moving more proximally to the self, concerns the effect of concealing one's stigmatizing attribute. Paradoxically, concealing one's stigma is often used as a coping strategy, aimed at avoiding negative consequences of stigma, but it is a coping strategy that can backfire and become stressful (Miller & Major, 2000). In a study of women who felt stigmatized by abortion, Major and Gramzow (1999) demonstrated that concealment was related to suppressing thoughts about the abortion, which led to intrusive thoughts about it, and resulted in psychological distress. Smart and Wegner (2000) described the cost of hiding one's stigma in terms of the resultant cognitive burden involved in the constant preoccupation with hiding. They described complex cognitive processes, both conscious and unconscious, that are necessary to maintain secrecy regarding one's stigma, and called the inner experience of the person who is hiding a concealable stigma a "private hell" (p. 229).

LGB people may conceal their sexual orientation in an effort to either protect themselves from real harm (e.g., being attacked, getting fired from a job) or out of shame and guilt (D'Augelli & Grossman, 2001). Concealment of one's homosexuality is an important source of stress for gay men and lesbians (DiPlacido, 1998). Hetrick and Martin (1987) described learning to hide as the most common coping strategy of gay and lesbian adolescents, and noted that

> individuals in such a position must constantly monitor their behavior in all circumstances: how one dresses, speaks, walks, and talks become constant sources of possible discovery. One must limit one's friends, one's interests, and one's expression, for fear that one might be found guilty by association. … The individual who must hide of necessity learns to interact on the basis of deceit governed by fear of discovery. … Each successive act of deception, each moment of monitoring which is unconscious and automatic for others, serves to reinforce the belief in one's difference and inferiority. (pp. 35–36)

Hiding and fear of being identified do not end with adolescence. For example, studies of the workplace experience of LGB people found that fear of discrimination and concealment of sexual orientation are prevalent (Croteau, 1996) and that they have adverse psychological, health, and job-related outcomes (Waldo, 1999). These studies showed that LGB people engage in identity disclosure and concealment strategies that address fear of discrimination on one hand and a need for self-integrity on the other. These strategies range from passing, which involves lying to be seen as heterosexual; covering, which involves censoring clues about one's self so that LGB identity is concealed; being implicitly out, which involves telling the truth without using explicit language that discloses one's sexual identity; and being explicitly out (Griffin, 1992, as cited in Croteau, 1996).

Another source of evidence comes from psychological research that has shown that expressing emotions and sharing important aspects of one's self with others—through confessions and disclosures involved in interpersonal or therapeutic relationships, for example—are important factors in maintaining physical and mental health (Pennebaker, 1995). Studies have shown that suppression, such as hiding secrets, is related to adverse health outcomes and that expressing and disclosing traumatic events or characteristics of the self improve health by reducing anxiety and promoting assimilation of the revealed characteristics (Bucci, 1995;Stiles, 1995). In one class of studies, investigators have shown that repression and inhibition affect immune functions and health outcomes, whereas expression of emotions, such as writing about traumatic experiences, produces improvement in immune functions, decreases in physician visits, and reduced symptoms for diseases such as asthma and arthritis (Petrie, Booth, & Davison, 1995;Smyth, Stone, Hurewitz, & Kaell, 1999). Research evidence in gay men supports these formulations. Cole and colleagues found that HIV infection advanced more rapidly among gay men who concealed their sexual orientation than those who were open about their sexual orientation (Cole et al., 1996a). In another study among HIV-negative gay men, those who concealed their sexual orientation were more likely to have health problems than those who were open about their sexual orientation (Cole et al., 1996b)

In addition to suppressed emotions, concealment prevents LGB people from identifying and affiliating with others who are gay. Psychological literature has demonstrated the positive impact of affiliation with other similarly stigmatized persons on self-esteem (Crocker & Major, 1989;Jones et al., 1984;Postmes & Branscombe, 2002). This effect has been demonstrated by Frable, Platt, and Hoey (1998) in day-to-day interactions. The researchers assessed self-perceptions and well-being in the context of the immediate social environment. College students with concealable stigmas, such as homosexuality, felt better about themselves when they were in an environment with others who were like them than when they were with others who are not similarly stigmatized. In addition, if LGB people conceal their sexual orientation, they are not likely to access formal and informal support resources in the LGB community.

Thus, in concealing their sexual orientation LGB people suffer from the health-impairing properties of concealment and lose the ameliorative self-protective effects of being "out."

Internalized homophobia—In the most proximal position along the continuum from the environment to the self, internalized homophobia represents a form of stress that is internal and insidious. In the absence of overt negative events, and even if one's minority status is successfully concealed, lesbians and gay men may be harmed by directing negative social values toward the self. Thoits (1985, p. 222) described such a process of self-stigmatization, explaining that "role-taking abilities enable individuals to view themselves from the imagined perspective of others. One can anticipate and respond in advance to others' reactions regarding a contemplated course of action."

Clinicians use the term *internalized homophobia* to refer to the internalization of societal antigay attitudes in lesbians and gay men (e.g., Malyon, 1981–1982). Meyer and Dean (1998) defined internalized homophobia as "the gay person's direction of negative social attitudes toward the self, leading to a devaluation of the self and resultant internal conflicts and poor self-regard" (p. 161). After they accept their stigmatized sexual orientation, LGB people begin a process of coming out. Optimally, through this process they come to terms with their homosexuality and develop a healthy identity that incorporates their sexuality (Cass, 1979, 1984;Coleman, 1981–1982;Troiden, 1989). Internalized homophobia signifies the failure of the coming out process to ward off stigma and thoroughly overcome negative self-perceptions and attitudes (Morris et al., 2001). Although it is most acute early in the coming out process, it is unlikely that internalized homophobia completely abates even when the person has accepted his or her homosexuality. Because of the strength of early socialization experiences, and because of continued exposure to antigay attitudes, internalized homophobia remains an important factor in the gay person's psychological adjustment throughout life. Gay people maintain varying degrees of residual antigay attitudes that are integrated into their self-perception that can lead to mental health problems (Cabaj, 1988;Hetrick & Martin, 1984;Malyon, 1981–1982;Nungesser, 1983). Gonsiorek (1988) called such residual internalized homophobia "covert," and said, "Covert forms of internalized homophobia are the most common. Affected individuals appear to accept themselves, yet sabotage their own efforts in a variety of ways" (p. 117).

Williamson (2000) reviewed the literature on internalized homophobia and described the wide use of the term in gay and lesbian studies and gay-affirmative psychotherapeutic models. He noted the intuitive appeal of internalized homophobia to "almost all gay men and lesbians" (Williamson, 2000, p. 98). Much of the literature on internalized homophobia has come from theoretical writings and clinical observations, but some research has been published. Despite significant challenges to measuring internalized homophobia and lack of consistency in its conceptualization and measurement (Mayfield, 2001;Ross & Rosser, 1996;Shidlo, 1994;Szymanski & Chung, 2001), research has shown that internalized homophobia is a Ad,ess3dic Td(smen and)Tj 0 -12 Tw 0hasasj 0 0pxg7 BysAd

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Research Evidence: Between-Groups Studies of Prevalence of Mental Disorder

Despite a long history of interest in the prevalence of mental disorders among gay men and lesbians, methodologically sound epidemiological studies are rare. The interest in mental health of lesbians and gay men has been clouded by shifts in the social environment within which it was embedded. Before the 1973 declassification of homosexuality as a mental disorder, gay-affirmative psychologists and psychiatrists sought to refute arguments that homosexuality should remain a classified disorder by showing that homosexuals were not more likely to be mentally ill than heterosexuals (Bayer, 1981). At the time, some writers insisted that homosexuals were more likely than heterosexuals to be ill and that this demonstrated that homosexuality should be classified as a mental disorder, but many of these studies were based on biased samples, for example of prison populations or clinical (primarily psychoanalytic) observations (Marmor, 1980). An exception to authors of earlier studies is Evelyn Hooker, who in several studies that became influential during the debate on the status of homosexuality, found that homosexual and heterosexual subjects were indistinguishable in psychological projective testing (e.g., Hooker, 1957).

The studies (Atkinson et al., 1988;Cochran & Mays, 2000a,2000b;Fergusson et al., 1999;Gilman et al., 2001;Mays & Cochran, 2001;Pillard, 1988;Saghir et al., 1970a, 1970b;Sandfort et al., 2001) and their results are reported in Table 1. In drawing a conclusion about whether LGB groups have higher prevalences of mental disorders one should proceed with caution. The studies are few, methodologies and measurements are inconsistent, and trends in the findings are not always easy to interpret. Although several studies show significant elevation in prevalences of disorders in LGB people, some do not. Yet, an overall trend appears clear. This pattern must lead us to conclude similarly to Saghir et al. (1970a,1970b) that whenever significant differences in prevalences of disorders between LGB and heterosexual groups were reported, LGB groups had a higher prevalence than heterosexual groups.

To evaluate this general impression I conducted a meta-analysis using the Mantel–Haenszel (M-H) procedure for synthesis of categorical data (Fleiss, 1981;Shadish, Cook, & Campbell, 2002;Shadish & Haddock, 1994) using the statistical software Epi Info (Version 1.12, Statcalc

et al., 1970a,1970b;Schneider, Farberow, & Kruks, 1989;Schneider, Taylor, Hammen, Kemeny, & Dudley, 1991). However, such studies have been criticized for severe methodological limitations including selection bias and measurement issues (Muehrer, 1995;Savin-Williams, 2001). For example, many studies used samples of youth recruited from social service organizations, who may be more vulnerable than the general population of LGB youth to mental health problems (Muehrer, 1995).

More recently, studies that used improved methodologies, such as random probability sampling, clearer definitions, and improved measurements of suicidality, also found strong evidence for elevation in suicide-related problems among LGB persons. A higher risk for suicide ideation and attempts among LGB groups seems to start at least as early as high school.

homosexuality because homosexuality is easily concealable and often is concealed. Considering the scarcity of studies, the methodological challenges, and the greater potential for bias in studies of completed suicide, it is difficult to draw firm conclusions from their apparent refutation of minority stress theory.

Discussion

Do LGB People Have Higher Prevalences of Mental Disorders?

As described above, the preponderance of the evidence suggests that the answer to the question, "Do LGB people have higher prevalences of mental disorders?" is yes. The evidence is compelling. However, the answer is complicated because of methodological limitations in the available studies. The studies whose evidence I have relied on (discussed as between-groups studies) fall into two categories: studies that targeted LGB groups using non-probability samples and studies that used probability samples of the general populations that allowed identification of LGB versus heterosexual groups. In the first type, the potential for error is great because researchers relied on volunteers who may be very different than the general LGB population to which one wants to generalize (Committee on Lesbian Health Research Priorities, 1999;Harry, 1986;Meyer & Colten, 1999;Meyer, Rossano, Ellis, & Bradford, 2002). It is plausible that interest in the study topic attracts volunteers who are more likely to have had—or at least, to disclose—more mental health problems than nonvolunteers. This may be particularly problematic in studies of LGB youth (e.g., Fergusson et al., 1999). As a group, LGB youth respondents in studies may represent only a portion of the total underlying population of LGB youth—those who are "the out, visible, and early identifiers" (Savin-Williams, 2001, p. 983)—therefore biasing estimates of characteristics of the elusive target population. Also, the studies I reviewed compared the LGB group with a nonrandom sample of heterosexuals, introducing further bias, because the methods they used to sample heterosexuals often differed from those used to sample than the LGB groups. The potential for bias is particularly glaring in studies that compared a healthy heterosexual group with a group of gay men with HIV infection and AIDS (e.g., Atkinson et al., 1988).

The second group of studies used population-based surveys. Such studies greatly improve on the methodology of the first type of studies because they used random sampling techniques, but they too suffer from methodological deficiencies. This is because none of these studies was a priori designed to assess mental health of LGB groups; as a result, they were not sophisticated in the measurement of sexual orientation. The studies classified respondents as homosexual or heterosexual only on the basis of past sexual behavior—in 1 year (Sandfort et al., 2001), in 5 years (Gilman et al., 2001), or over the lifetime (Cochran & Mays, 2000a)—rather than using a more complex matrix that assessed identity and attraction in addition to sexual behavior
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studies also resulted in low power to detect (or statistically control for) patterns related to race/ethnicity, education, age, socioeconomic status, and, sometimes, gender. My use of a meta-analytic technique to estimate combined ORs somewhat corrects this deficiency, but it is important to remember that a meta-analysis cannot overcome problems in the studies on which it is based. It is important, therefore, to interpret results of meta-analyses with caution and a critical perspective (Shapiro, 1994).

One problem, which can provide a plausible alternative explanation for the findings about prevalences of mental disorders in LGB individuals, is that bias related to cultural differences between LGB and heterosexual persons inflates reports about history of mental health symptoms (cf. Dohrenwend, 1966;Rogler, Mroczek, Fellows, & Loftus, 2001). It is plausible that cultural differences between LGB and heterosexual individuals cause a response bias that led to overestimation of mental disorders among LGB individuals. This would happen if, for example, LGB individuals were more likely to report mental health problems than heterosexual individuals. There are several reasons why this may be the case: In recognizing their own homosexuality and coming out, most LGB people have gone through an important self-defining period when increased introspection is likely. This could lead to greater ease in disclosing mental health problems. In addition, a coming out period provides a focal point for recall that could lead to recall bias that exaggerates past difficulties. Related to this, studies have suggested that LGB people are more likely than heterosexual people to have received professional mental health services (Cochran & Mays, 2000b). This too could have led LGB people to be less defensive and more ready than heterosexual people to disclose mental health problems in research. Of course, increased use of mental health services could also reflect a true elevation in prevalences of mental disorders in LGB people, though the association between mental health treatment and presence of diagnosed mental disorders is not strong (Link & Dohrenwend, 1980). To the extent that such response biases existed, they would have led researchers to overestimate the prevalence of mental disorders in LGB groups. Research is needed to test these propositions.

Over the past 2 decades, significant advances in psychiatric epidemiology have made earlier research on prevalence of mental disorders almost obsolete. Among these advances are the recognition of the importance of population-based surveys (rather than clinical studies) of mental disorders, the introduction of an improved psychiatric classification system, and the development of more accurate measurement tools and techniques for epidemiological research. Two large-scale psychiatric epidemiological surveys have already been conducted in the United States: the Epidemiological Catchment Area Study (Robins & Regier, 1991) and the National Comorbidity Survey (Kessler et al., 1994). Similar studies need to address questions about patterns of stress and disorder in LGB populations (Committee on Lesbian Health Research Priorities, 1999;Dean et al., 2000).

Using random sampling methodologies for large-scale studies of LGB populations is challenging and costly, but it is not impossible. Recent research has demonstrated the utility of innovative methodologies for population studies of LGB individuals (Binson et al., 1995;Binson, Moskowitz, Anderson, Paul, & Catania, 1996;Meyer & Colten, 1999;Meyer et al., 2002). New research must therefore continue to use random sampling to study LGB groups, combined with sophisticated measurements of sexual orientation, a larger number of respondents, and a direct test of hypotheses about patterns in prevalences of disorders and their causes. An ideal study design would combine evidence from the investigation of within- and between-groups differences. Such a study would assess both the differences in prevalences of disorders and the causal role of stress processes in explaining excess risk for disorder in the LGB group. If in a random population sample the prevalence of disorders would be found to be higher among LGB respondents than among their heterosexual peers and if stress

mechanisms explained the excess in this prevalence of disorder, then minority stress predictions would be strongly supported.

To understand causal relations, research also needs to explain the mechanisms through which stressors related to prejudice and discrimination affect mental health. Krieger (2001) called for an ecosocial perspective in social epidemiology, which would explain how social factors are embodied and lead to disease. Discussing racism, she explained,

> Biological expressions of racial discrimination … refer to how people literally embody and biologically express experiences of racial oppression and resistance, from conception to death, thereby producing racial/ethnic disparities in morbidity and mortality across a wide spectrum of outcomes. (Krieger, 2000, p. 63)

Limitations and Challenges

The conclusion I propose—that LGB individuals are exposed to excess stress due to their minority position and that this stress causes an excess in mental disorders—is inconsistent with research and theoretical writings that can be described as a *minority resilience hypothesis*, which claims that stigma does not negatively affect self-esteem (Crocker et al., 1998;Gray-Little & Hafdahl, 2000;Twenge & Crocker, 2002). As such, my conclusion is also inconsistent with studies that showed that Blacks do not have higher prevalences of mental disorders than Whites, as is expected by minority stress formulations (Kessler et al., 1994;Robins & Regier, 1991). Further research must address this apparent contradiction. One area for the study of differences between minority stress in LGB and Black individuals concerns the socialization of minority group members. LGB individuals are distinct from Blacks in that they are not born into their minority identity but acquire it later in life. Because of this, LGB individuals do not have the benefit of growing up in a self-enhancing social environment similar to that provided to Blacks in the process of socialization. Experiences with positive racial identity may be protective to Blacks both directly, by contributing to high self-esteem, and indirectly, by facilitating self-protective mechanisms associated with stigma (Crocker & Major, 1989;Gray-Little & Hafdahl, 2000;Twenge & Crocker, 2002). This distinction may lead to a greater impact of minority stress among LGB individuals as compared with race/ethnic minorities. Studying this distinction between LGB individuals and Blacks may reveal important aspects of the effect of stigma on mental health.

There are several important limitations to my review. First, throughout the article I discuss LGB individuals as if they were a homogenous group. That is clearly not the case. In ignoring the heterogeneity of the group I may have glossed over some important distinctions relevant to the discussion of minority stress. Perhaps one of the most important is a distinction between a single minority identity of White gay and bisexual men and multiple minority identities of gay and bisexual men who are also members of race/ethnic minorities and therefore subject to stigma related to their race/ethnicity (Eliason, 1996). Some studies found ethnicity/race differences in stress and social support among LGB populations, with members of ethnic minorities confronting racism in a White LGB community and homophobia in their ethnic communities of origin (Chan, 1995;Espin, 1993;Fullilove & Fullilove, 1999). Similarly, lesbians and bisexual women confront stigma and prejudice related to gender in addition to sexual orientation. Just as racial/ethnic identity and gender provide additional sources of stress, they provide additional resources for coping with stigma. For example, Brooks (1981) described affiliation with feminist organizations as a significant source of support and coping for lesbians. Finally, the review, and the studies I cite, fails to distinguish bisexual individuals from lesbian and gay individuals. Recent evidence suggests that this distinction is important and that bisexuals may be exposed to more stressors and may have greater mental health problems than lesbians or gay men (Jorm, Korten, Rodgers, Jacomb, & Christensen, 2002).

Another limitation is that the review ignores generational and cohort effects in minority stress and the prevalence of mental disorder. Cohler and Galatzer-Levy (2000) critiqued analyses that ignore important generational and cohort effects. They noted great variability among generations of lesbians and gay men. They described an older generation, which matured prior to the gay liberation movement, as the one that has been most affected by stigma and prejudice, a middle-aged generation, which brought about the gay liberation movement, as the one that benefited from advances in civil rights of and social attitudes toward LGB individuals, and a younger generation, including the present generation of young adults, as having an unparalleled "ease about sexuality" (p. 40). An analysis that accounts for these generational and cohort changes would greatly illuminate the discussion of minority stress. Clearly, the social environment of LGB people has undergone remarkable changes over the past few decades. Still, even Cohler and Galatzer-Levy (2000) limited their description of the new gay and lesbian generation to a primarily liberal urban and suburban environment. Evidence from current studies of youth has confirmed that the purported shifts in the social environment have so far failed to protect LGB youth from prejudice and discrimination and its harmful impact (Safe Schools Coalition of Washington, 1999).

1985;Schwartz & Carpenter, 1999). For all these reasons, structural discrimination may be best documented by differential group statistics including health and economic statistics rather than by studying individual perceptions alone (Adams, 1990).

The distinction between objective and subjective approaches to stress is important because each perspective has different philosophical and political implications (Hobfoll, 1998). The

This is especially likely when one considers the distinction described above between subjective and objective conceptualization of stress. When the concept of stress is conceptualized, following Lazarus and Folkman (1984), as dependent on—indeed, determined by—coping abilities, then by definition, stress for which there is effective coping would not be appraised as stressful. As researchers are urged to represent the minority person as a resilient actor rather than a victim of oppression, they are at risk of shifting their view of prejudice, seeing it as a subjective stressor—an adversity to cope with and overcome—rather than as an objective evil to be abolished. This peril should be heeded by psychologists who by profession study individuals rather than social structures and are therefore at risk of slipping from a focus on objective societal stressors to a focus on individual deficiencies in coping and resiliency (Masten, 2001).

Summary

I proposed a minority stress model that explains the higher prevalence of mental disorders as caused by excess in social stressors related to stigma and prejudice. Studies demonstrated that social stressors are associated with mental health outcomes in LGB people, supporting formulations of minority stress. Evidence from between-groups studies clearly demonstrates that LGB populations have higher prevalences of psychiatric disorders than heterosexuals. Nevertheless, methodological challenges persist. To date, no epidemiological study has been conducted that planned to a priori study the mental health of LGB populations. To advance the field, it is necessary that researchers and funding agencies develop research that uses improved epidemiological methodologies, including random sampling, to study mental health within the context of the minority stress model.

I discussed two conceptual views of stress; each implies different points for public health and public policy interventions. The subjective view, which highlights individual processes, suggests that interventions should aim to change the appraisal process, the person's way of evaluating their condition and coping with stress and adversity. The objective view, which highlights the objective properties of the stressors, points to remedies that would aim to alter the stress-inducing environment and reduce exposure to stress. If the stress model is correct, both types of remedies can lead to a reduction in mental health problems, but they have different ethical implications. The former places greater burden on the individual, the latter, on society. Kitzinger (1997) warned psychologists that a subjective, individualistic focus could lead to ignoring the need for important political and structural changes:

> If [psychologists'] aim is to decrease "stress" and to increase the "ego strength" of the victim, do they risk forgetting that it is the perpetrator, not the victim, who is the real problem? What political choices are they making in focusing on the problems of the oppressed rather than on the problem of the oppressor? (p. 213)

I endorsed this perspective in illuminating distinctions between viewing the minority person as victim or resilient actor.

However, denying individual agency and resilience would ignore an impressive body of social psychological research that demonstrates the importance and utility of coping with stigma (Branscombe & Ellemers, 1998;Crocker & Major, 1989;Miller & Major, 2000;Miller & Myers, 1998). My discussion of objective versus subjective stress processes is not meant to suggest that there must be a choice of only one of the two classes of intervention options. Researchers and policymakers should use the stress model to attend to the full spectrum of interventions it suggests (Ouellette, 1998). The stress model can point to both distal and proximal causes of distress and to directing relevant interventions at both the individual and structural levels.

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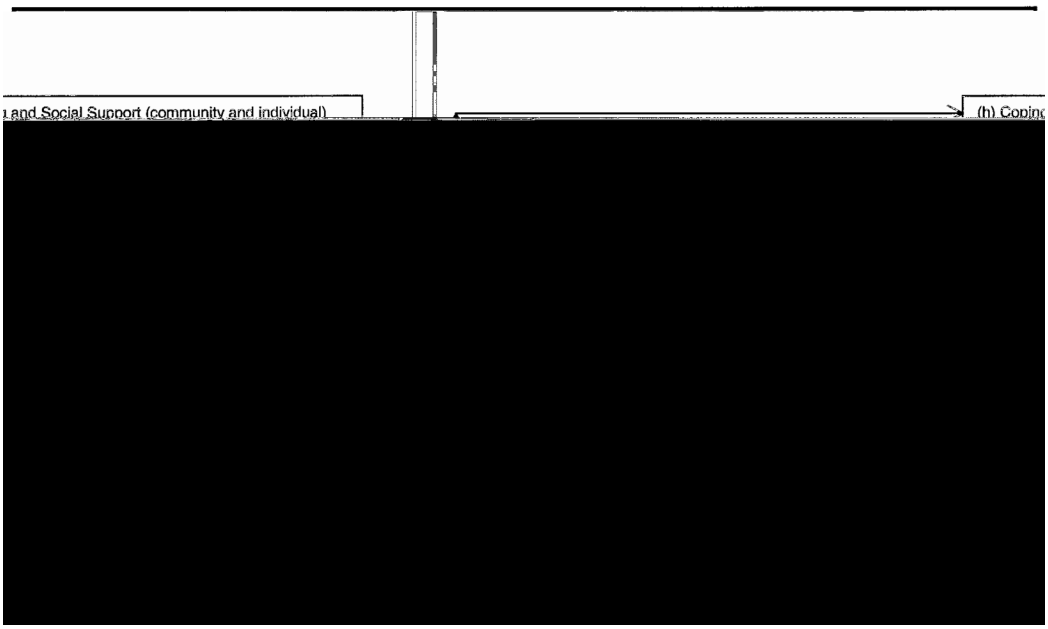

Figure 1.
Minority stress processes in lesbian, gay, and bisexual populations.

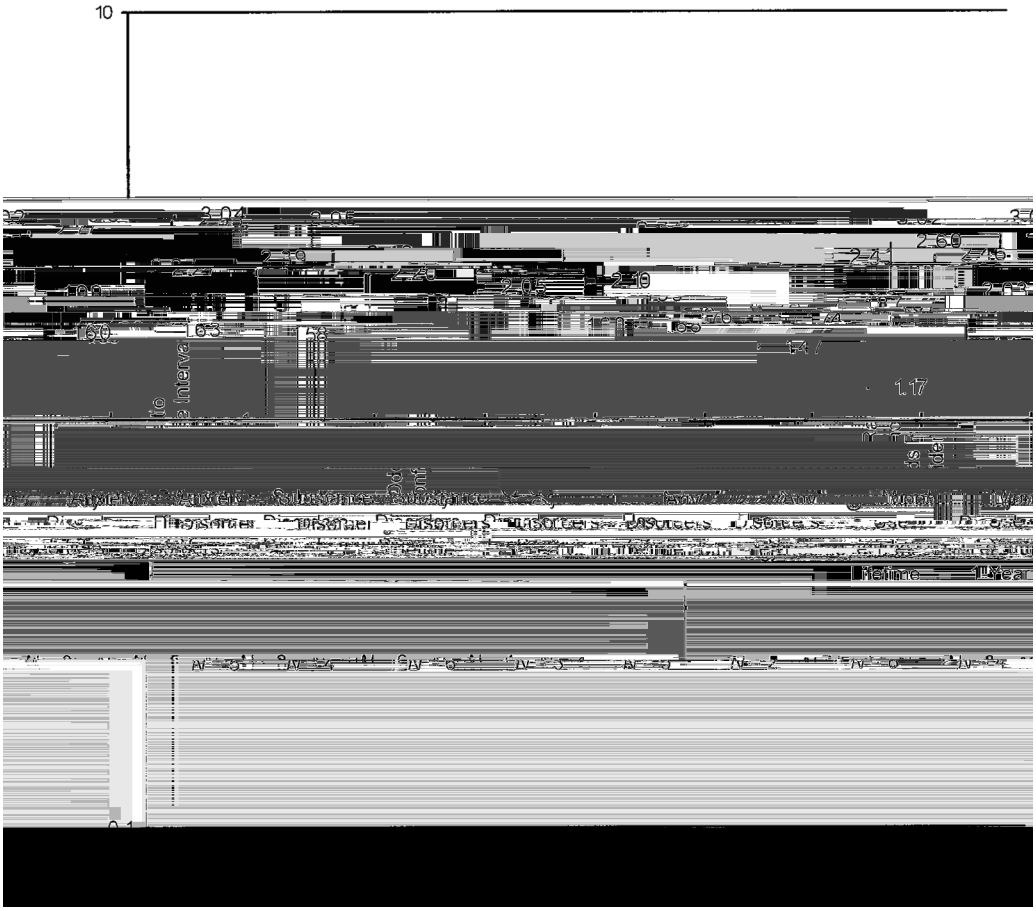

Figure 2.
Combined Mantel–Haenszel weighted odds ratios and 95% confidence intervals for lifetime and 1-year prevalence of mental disorders in lesbian, gay, and bisexual versus heterosexual populations. Each calculated combined Mantel–Haenszel weighted odds ratio is displayed between the upper and lower bounds of its respective 95% confidence interval. Odds ratios were recalculated from aggregated data using the Statcalc procedure of the statistical software Epi Info (Centers for Disease Control and Prevention, 2001). This procedure does not adjust for demographics characteristics or any other control variables (e.g., sampling weights) that may be necessary to arrive at unbiased population estimates. These statistics are provided to allow synthesis of the risk for lesbian, gay, and bisexual versus heterosexual respondents in the studies, but they cannot be used as accurate estimates of adjusted population odds ratios.

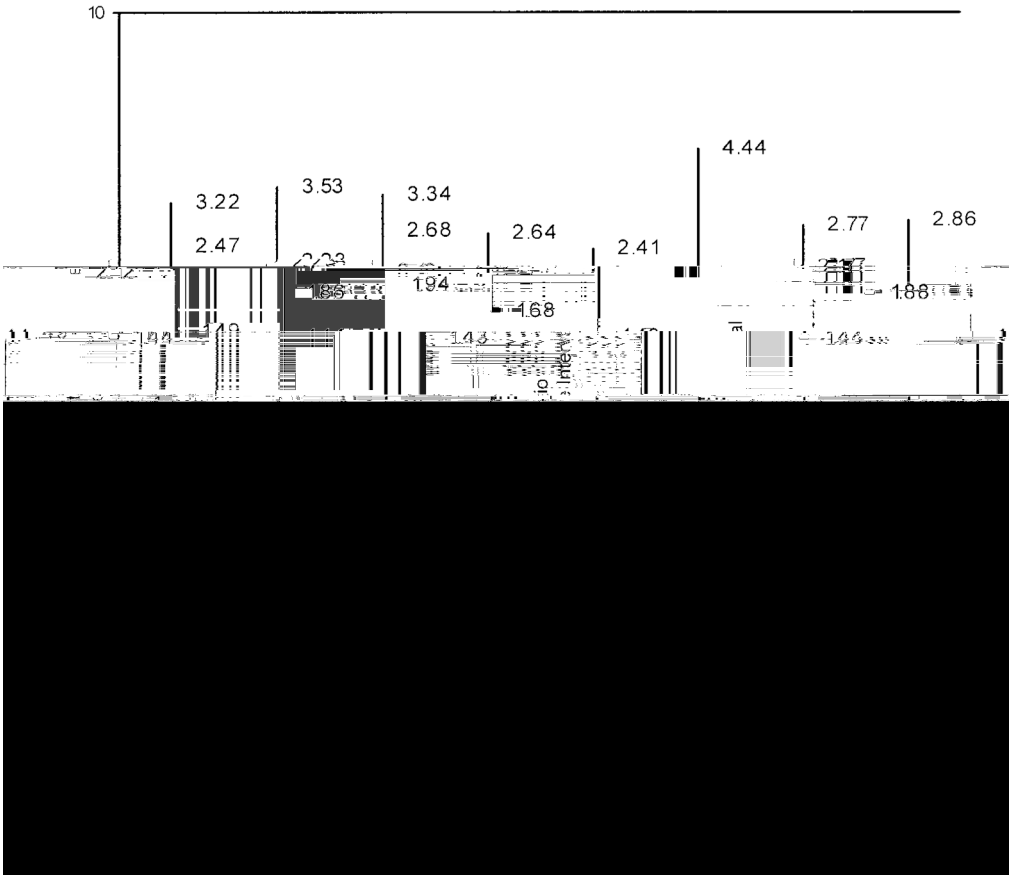

Figure 3.

Combined Mantel–Haenszel weighted odds ratios and 95% confidence intervals for lifetime prevalence of mental disorders in studies of lesbian, gay, and bisexual versus heterosexual populations that used random and nonrandom samples. Each calculated combined Mantel–Haenszel weighted odds ratio is displayed between the upper and lower bounds of its respective 95% confidence interval. Odds ratios were recalculated from aggregated data using the Statcalc procedure of the statistical software Epi Info (Centers for Disease Control and Prevention, 2001). This procedure does not adjust for demographics characteristics or any other control variables (e.g., sampling weights) that may be necessary to arrive at unbiased population estimates. These statistics are provided to allow synthesis of the risk for lesbian, gay, and bisexual versus heterosexual respondents in the studies, but they cannot be used as accurate estimates of adjusted population odds ratios.

Table 1

Prevalence of Mental Disorders: Summary of Findings From Studies That Compared Lesbian, Gay, and Bisexual Populations With Heterosexual Peers

Study	Sample	Subgroup	Prevalence	Disorder		
				Mood and anxiety	Substance use	Any
Saghir et al. (1970a)[a]	Homosexuals primarily from three Chicago and San Francisco "homophile" organizations (*N* = 89 men, 57 women) and never-married heterosexuals (*N* = 35 men, 43 women) primarily from an apartment complex in Chicago	Men	Lifetime			