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Suicide and Suicide Risk in Lesbian, Gay, Bisexual, and Transgender Populations: Review and Recommendations

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Suicide and Suicide Risk in Lesbian, Gay, Bisexual, and Transgender Populations: Review and Recommendations

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Despite strong indications of elevated risk of suicidal behavior in lesbian, gay, bisexual, and transgender people, limited attention has been given to research, interventions or suicide prevention programs targeting these populations. This article is a culmination of a three-year effort by an expert panel to address the need for better understanding of suicidal behavior and suicide risk in sexual minority populations, and stimulate the development of needed prevention strategies, interventions and policy changes. This article summarizes existing research findings, and makes recommendations for addressing knowledge gaps and applying current knowledge to relevant areas of suicide prevention practice.

KEYWORDS *LGBT, risk factors, suicide, suicide attempts, suicide prevention*

Relatively little attention has been given to the problem of suicidal behavior in lesbian, gay, bisexual, and transgender (LGBT) populations, despite reports of elevated risk for over four decades. The U.S. *National Strategy for Suicide Prevention* (U.S. Surgeon General, 2001) and the Institute of Medicine's *Reducing Suicide: A National Imperative* (Goldsmith, Pellmar, Kleinman, & Bunney, 2002) defined gay and bisexual youth as a risk population but provided little information about contributing factors and did not address whether targeted interventions, prevention strategies or public health policies are needed to reduce suicide risk in this population.

In November 2007, the American Foundation for Suicide Prevention in partnership with the Suicide Prevention Resource Center and the Gay and Lesbian Medical Association convened a conference to address the need for better understanding of suicidal behavior and suicide risk in LGBT populations. The two dozen invited participants, including suicide and mental health researchers, clinicians, educators, and policy advocates, discussed findings from relevant research and their implications for reducing suicidal behavior in the target populations, and made recommendations to address knowledge gaps. Additional studies have been reported since the conference, further expanding our knowledge base. Increased national as well as international attention has also been given to the need to use our extant knowledge to reduce risks and prevent suicidal behavior in LGBT populations.

This article was developed by the 2007 conference participants to review the findings from relevant research, identify knowledge gaps, and stimulate the development of strategies, interventions, and policy changes to reduce suicidal behavior and suicide risk among LGBT people. It seeks specifically to:

1. Summarize what is currently known about completed suicide, suicide attempts and suicide risk across the lifespan,
2. Identify knowledge gaps most in need of future research, and make recommendations for how these can be addressed, and
3. Offer recommendations for applying what is already known to reduce suicidal behavior and suicide risk in sexual minority populations.

DEFINITIONS

Sexual minorities are defined with reference to two distinct and complex characteristics: *sexual orientation* and *gender identity*. *Sexual orientation* is generally defined as having at least three dimensions: sexual self-identification, sexual behavior, and sexual attraction or fantasy (Saewyc et al., 2004; Sell, 1997). Researchers have tended to define sexual orientation by one or another of these dimensions, most often using as the defining criterion either self-identification as gay/lesbian, bisexual or heterosexual, or the gender of one's sexual partners (same sex, both same and opposite sex, or opposite sex).

Estimates of the prevalence of gay, lesbian, and bisexual people in the United States vary according to how they are defined (Pathelal et al., 2006). Studies using representative school-based samples have found that about 3% of students in grades 9–12 identify themselves as gay, lesbian, or bisexual (Garofalo, Wolf, Kessel, Palfrey, & DuRant, 1998; Garofalo, Wolf, Wissow, Woods, & Goodman, 1999). Data from the third wave of the National Longitudinal Survey of Adolescent Health (Add Health), collected in 2001–2002, similarly found that 3.2% of young adults aged 18–26 described themselves as mostly or exclusively homosexual or bisexual, with more females (3.6%) than males (2.6%) using these labels (Silenzio, Pena, Duberstein, Cerel, & Knox, 2007). One early representative survey of U.S. adults, the 1992 National Health and Social Life Survey (NHSLs), reported that 2.8% of men and 1.4% of women identified themselves as homosexual, slightly lower than the 3% of men and 1.6% of women who reported current sexual behavior exclusively with same-sex partners, and considerably lower than the 7.7% of men and 7.5% of women who indicated same-sex sexual attraction (Laumann, Gagnon, Michael, & Michaels, 1994). More recent studies of adults have generally confirmed these figures and have consistently shown that more respondents indicate same-sex sexual behavior, and especially same-sex attraction, than identify themselves as gay or lesbian (Black, Gates, Sanders, & Taylor, 2000; Pedersen & Kristiansen, 2008; Sell, 1997; Wells, McGee, & Beautrais, 2010). Increasingly sophisticated methods are being used to determine the prevalence of lesbian, gay, and bisexual people in the U.S. population through merging and cross-validating responses from

multiple national surveys. Based on pooled sexual behavior data from the NHLS and six waves (1989–1996) of the nationally representative General Social Survey, 4.7% of adult men and 3.6% of adult women are estimated to have had at least one same-sex sex partner since age 18, with 2.5% of men and 1.4% of women having exclusively same-sex sex partners during the past year (Black et al., 2000).

There is limited understanding of which dimensions of sexual orientation are most meaningfully related to suicidal behavior. One recent adolescent study that incorporated multiple measures of sexual orientation found suicidal behavior to be significantly higher in youth who identified as gay, lesbian or bisexual, compared to those who identified as heterosexual (Zhao, Montoro, Igartua, & Thombs, 2010). Those who indicated same-sex attraction or behavior but identified as heterosexual, however, did not report a higher rate of suicide attempt than heterosexual youth without same-sex behavior or attraction. Data from a large national survey of U.S. adults that included multiple questions related to sexual orientation (Bostwick, Boyd, Hughes, & McCabe, 2010) showed that rates of mood and anxiety disorders, key risk factors for suicidal behavior, were more strongly linked to gay, lesbian or bisexual identity than to sexual behavior or attraction, particularly in women.

In contrast to sexual orientation, *gender identity* refers to a person's internal sense of being masculine, feminine, or androgynous. Rather than a binary concept, gender identity includes gradations of masculinity to femininity and maleness to femaleness, as well as identification as neither essentially male nor female (Fausto-Sterling, 2000). *Transgender* is an umbrella term that is broadly used to describe people with gender identities, expressions or behaviors which differ from their biological sex at birth (Feinberg, 1992; Kirk & Kulkarni, 2006). Although the term *transgender* is sometimes used synonymously with *transsexual*, the latter more commonly describes a subset of transgender individuals who undergo gender reassignment surgery and/or hormone treatment to align physical sex and gender identity. For varying reasons that include cost and lack of access to appropriate health care services, an unknown proportion of transgender people do not elect to obtain surgery or hormonal therapies. Terms such as “genderqueer” are increasingly used by younger transgender people, as well as some who do not identify as transgender, to describe a wide range of gender identifications, behaviors and expressions other than exclusively male or female (Nestle, Howell & Wilchins, 2002). As with sexual orientation, gender identity is not an entirely fixed characteristic, and many transgender people move fluidly between identities over time, often without any specific labels (Whittle, Turner, & Al-Alami, 2007).

Inconsistent definitions contribute to the lack of clarity in our knowledge about the prevalence of transgender people, and particularly transgender youth, in the population. To date, no general population-based

survey of the adolescent or adult U.S. population has attempted to measure transgender identity. In the United States, 1 in 30,000 assigned males and 1 in 100,000 assigned females are estimated to seek gender reassignment surgery at some point in their lifetime (American Psychiatric Association, 2000). The Amsterdam Gender Dysphoria Clinic, which has collected data on the Dutch transsexual population for more than four decades, has estimated the prevalence to be substantially higher at 1 in 10,000 assigned males and 1:30,000 assigned females (van Kesteren, Asscheman, Megens, & Gooren, 1997). Either set of figures is certainly an underestimate of the broadly defined transgender population. One large internet survey found that 0.2% of respondents described themselves as transgender (Mathy, Schillace, Coleman, & Berquist, 2002).

Sexual orientation varies among transgender individuals, just as it does among people who perceive their gender identity to be aligned with their biological sex. Although precise numbers are lacking, one survey of 515 self-identified transgender persons found that 31% of male-to-female respondents and 65% of female-to-male respondents identified as gay, lesbian, or bisexual (Clements-Nolle, Marx, Guzman, & Katz, 2001).

In this article, we focus first on summarizing the accumulated research literature on suicidal behavior and suicide risk in lesbian, gay, and bisexual people. Next, we summarize the far more limited findings from comparable research among transgender people. Consistent with widespread usage in the research literature, we frequently use the acronyms LGB (lesbian, gay, bisexual) and LGBT (lesbian, gay, bisexual, and transgender) while recognizing that they do not adequately reflect the heterogeneity of self-identifications or behaviors within these populations.

SUICIDE AND SUICIDE ATTEMPTS IN LGB POPULATIONS

Suicide Deaths

Because death records do not routinely include the deceased person's sexual orientation, there is no official or generally reliable way to determine rates of completed suicide in LGB people. Some researchers have attempted to determine whether these groups are overrepresented among those who die by suicide, using "psychological autopsy" reports of family and friends to determine the decedents' sexual orientation. Several studies using this method have been published, focusing on young adult male suicides in San Diego (Rich, Fowler, Young, & Blenkush, 1986) and adolescent suicides in the New York metropolitan area (Shaffer, Fisher, Hicks, Parides, & Gould, 1995) and the province of Quebec (Renaud, Berlin, Begolli, McGirr, & Turecki, 2010). Each of these studies has concluded that same-sex sexual orientation is not disproportionately represented among suicide victims.

To date, psychological autopsy studies that have examined sexual orientation have used relatively small samples and have identified very few suicide decedents as having minority sexual orientation. In the New York study, 3 of 120 adolescent suicide decedents and none of a similar number of living community control subjects with whom the suicide victims were compared, were found to have a same-sex orientation (Shaffer et al., 1995). The Quebec study similarly identified same-sex orientation in 4 of 55 suicide adolescent suicide victims and none of the community control subjects (Renaud et al., 2010). Minority sexual orientation may have been underreported by key informants in these studies because they were not aware of, or chose to withhold this information (Renaud et al., 2010). In any case, conclusions based on the small numbers reported must be regarded as tentative.

The San Diego study lacked a living control group and has been criticized based on the researchers' assumption that the 11% of young male suicide decedents who were identified as gay approximated the expected prevalence rate for young gay men in the population under study (McDaniel, Purcell, & D'Augelli, 2001). Using a more likely prevalence rate of 3–4% would have suggested that young gay men were overrepresented among suicide decedents by a factor of at least three.

Recent studies have used Denmark's extensive registries of vital statistics and other sociodemographic data to examine whether people in same-sex registered domestic partnerships (a proxy indicator of sexual orientation) were overrepresented among suicide decedents. The Danish data can be matched fairly easily because individual information recorded in the various registries uses unique identification numbers assigned to citizens at birth. One study that linked Danish mortality and sociodemographic data (Qin, Agerbo, & Mortensen, 2003) noted that same-sex registered domestic partners were 3–4 times more likely than heterosexual married persons to die by suicide, although this was not a key focus of the study and corroborating data were not presented. A subsequent study that was designed explicitly to examine suicide risk in Denmark by sex and relationship status (Mathy, Cochran, Olsen, & Mays, 2009) found that elevated risk of suicide in same-sex partnered people was concentrated almost exclusively among men. Men who were currently or formerly in same-sex domestic partnerships were eight times more likely to die by suicide compared to men with histories of heterosexual marriage, and almost twice as likely as men who had never married. Although small numbers of cases limited the precision of the analyses, same-sex partnered men appeared to have an elevated risk of suicide across the lifespan. Women in current or former same-sex domestic partnerships did not show significantly higher risk of suicide mortality compared to heterosexually married or never-married women. A limitation of the approach used in the Danish studies is that it captures suicide deaths only among partnered and officially registered LGB people. Further, opportunities for

replication in other countries have been limited, but these may expand as more as more countries and U.S. states officially recognize and record same-sex marriages and partnerships (Strohm, Seltzer, Cochran & Mays, 2009).

An 18-year follow-up study of the mortality status of over 5,000 U.S. men aged 17–59 who were interviewed in the Third National Health and Nutrition Examination Survey (1988–1994) found no suicide deaths among the 85 men who reported having any lifetime same-sex sexual partner (Cochran & Mays, 2011). Findings from this study, in stark contradiction to the Danish registry studies, suggest that suicide mortality may not be elevated among U.S. men who have sex with men. The authors cautioned, however, that the number of men who reported same-sex sexual behavior in this survey was quite small, and that elevated risk of suicide mortality among U.S. men may yet be observed in studies with larger samples and a longer follow-up period.

Suicide Attempts

In contrast to the data on death by suicide, a relationship between sexual orientation and nonfatal suicidal behavior has been observed worldwide (Mathy, 2002a). Studies in the United States and abroad provide strong evidence of elevated rates of reported suicide attempts among LGB individuals. We draw primarily on “population-based studies,” in which sexual orientation has been assessed in randomly selected samples, allowing comparisons to be made among sexual orientation groups within a defined population. From a scientific perspective, these methods yield the best estimate of the prevalence of suicidal behavior (and associated risk factors) in groups, without the biases that can occur in convenience or other nonrepresentative samples.

Since the early 1990s, population-based surveys of U.S. adolescents that have included questions about sexual orientation have consistently found rates of reported suicide attempts to be two to seven times higher in high school students who identify as LGB, compared to those who describe themselves as heterosexual (DuRant, Krowchuk, & Sinal, 1998; Falkner & Cranston, 1998; Garofalo, Wolf, Kessel, et al., 1998; Garofalo, Wolf, Winssow, et al., 1999; Remafedi, 2002; Russell & Joyner, 2001). Gender-specific analyses have found sexual orientation to be a stronger independent predictor of suicide attempts in young males than in young females (Garofalo et al., 1999). These findings are consistent with reports of elevated rates of suicide attempts among LGB adolescents and young adults from other random and nonrandom studies (Kulkin, Chauvin, & Perle, 2000; Russell, 2003; Suicide Prevention Resource Center, 2008). Although it has been speculated that LGB youth may exaggerate the extent and seriousness of their suicidal behavior (Savin-Williams, 2001), methods used in over half of all suicide attempts

reported in one nonrandom sample of LGB adolescents and young adults were classified as moderate to lethal, with 21% resulting in a medical or psychiatric hospital admission (Remafedi, Farrow, & Deisher, 1991).

Using another population-based approach, a longitudinal study of a large New Zealand birth cohort found that at age 21, those who identified as LGB were six times more likely than those who identified as heterosexual to report one or more lifetime suicide attempts (Fergusson, Horwood, & Beautrais, 1999). When interviewed again at age 25, LGB individuals in this cohort reported a significantly higher rate of suicide attempts since age 21 than did heterosexual respondents (Fergusson, Horwood, Ridder, & Beautrais, 2005).

Health-related surveys of U.S. males aged 17–39 (Cochran & Mays, 2000a) and Dutch males and females aged 18–64 (de Graaf, Sandfort, & ten Have, 2006) found higher rates of lifetime suicide attempts among respondents who reported same or both-sex sexual behavior compared to those who reported only opposite-sex sexual behavior. A similar finding emerged from the population-based Vietnam Era Twin Registry, consisting of 4,774 male-male identical or fraternal twin pairs born between 1939 and 1957 (Herrell et al., 1999). This study found that middle-aged men who reported any male sex partners after age 18 were six times more likely to have made a lifetime suicide attempt than were their male twins who reported only opposite-sex sexual behavior. Among U.S. urban gay and bisexual men, about 12% reported making a lifetime suicide attempt, about three times the rate among American adult males overall (Paul et al., 2002).

A recent meta-analysis of 25 international population-based studies that measured suicidal behavior in LGB adolescents and/or adults (variously defined) concluded that the lifetime prevalence of suicide attempt in gay/bisexual males was about four times that of comparable heterosexual males (King et al., 2008). Based on the relatively small number of studies in this meta-analysis that included substantial numbers of women, lesbian/bisexual women were found to have lifetime suicide attempt rates almost twice those of heterosexual women. Overall, LGB adolescents and adults were also more than twice as likely as comparable heterosexual persons to report a suicide attempt in the past 12 months.

Many of the studies that have investigated suicide attempts in LGB groups have also measured suicidal ideation, with combined results showing LGB respondents to be twice as likely as comparable heterosexual respondents to report suicidal ideation (King et al., 2008). Several studies have reported that the gender pattern for suicidal ideation is opposite that for suicide attempts, with risk of suicidal ideation higher among lesbian/bisexual women and risk of suicide attempts higher among gay/bisexual men. One large-scale U.S. survey (Gilman et al., 2001) found a three times higher rate of reported suicidal ideation in lesbian/bisexual women compared to heterosexual women, but no higher rate in gay/bisexual compared to

heterosexual men. Thus, reported suicidal ideation does not appear to be a stable predictor of LGB suicidal behavior.

RISK FACTORS FOR LGB SUICIDAL BEHAVIOR

Demographic Factors

In most Western countries, suicide attempts occur more frequently among adolescents and young adults (Goldsmith et al., 2002), and some studies suggest this is also true for LGB people (de Graaf et al., 2006; Paul et al., 2002; Remafedi et al., 1991). One recent analysis of data from four waves of the National Longitudinal Study of Adolescent Health (Add Health), which tracked a large national cohort of youth from an average age of 15 to their late 20s, found that the risk for suicide attempts in young men who reported same-sex romantic attractions was largely confined to the adolescent years (Russell & Toomey, 2010).

Understanding of age-related patterns of suicide attempts in LGB adults has been limited by a lack of information from population-based surveys about respondents' age at the time of reported suicide attempts. Further, surveys have identified few LGB participants over the age of 60. One study of 416 LGB adults aged 60–91 who were attending social and recreational programs (D'Augelli, Grossman, Hershberger, & O'Connell, 2001) suggests that suicidal behavior in LGB populations may be more widely distributed across the lifespan than has been reported. In that study, 52 respondents (13% of the sample) reported a total of 97 lifetime suicide attempts; of these 27% occurred at or before age 21, 69% between the ages of 22 and 59, and 4% at or after age 60. There is some evidence that suicide attempts may be more closely linked to the ages at which lesbian women (Hughes, 2003) and gay men (Paul et al., 2002) recognize and disclose their sexual orientation to others than to chronological age.

Studies have generally found lifetime suicide attempt rates to be higher in gay/bisexual men than in lesbian/bisexual women (King et al., 2008). This represents a clear departure from the population overall, in which women are three times more likely than men to make a lifetime suicide attempt (Kessler, Borges, & Walters, 1999). The Danish registry data (Mathy, Cochran, et al., 2009), which showed an increased risk of completed suicide among same-sex-partnered men but not same-sex-partnered women, suggests that LGB suicide deaths may occur disproportionately among men, similar to the gender pattern found in the general population.

Little is known about the relationship of race/ethnicity and other demographic characteristics to LGB suicidal behavior, largely because the size of the LGB sample obtained in many population-based surveys has been too small to discern significant differences among these LGB subgroups. One study reported suicide attempt rates in LGB adolescents to be especially high

among African-American males (Remafedi, 2002). Among adults, suicide attempt rates have been reported to be highest among gay/bisexual men of lower socioeconomic status (Paul et al., 2002) and among LGB Latinos (Meyer, Dietrich, & Schwartz, 2007). In a national probability study of Latino and Asian-American adults (Cochran, Mays, Alegria, Ortega, & Takeuchi, 2007), gay and bisexual men were more likely than heterosexual men to report a recent suicide attempt.

Mental Disorders

In the population as a whole, mental disorders constitute the single largest risk factor for suicidal behavior, and studies have also reported a generally strong association between mental disorders and suicide attempts in LGB adolescents and adults. In the New Zealand birth cohort study (Fergusson et al., 1999), researchers used structured interview schedules to assess for several psychiatric diagnoses, including major depression, generalized anxiety disorder, conduct disorder, and alcohol/substance use disorders. They found that elevated rates of reported suicide attempts in youth who identified as LGB were associated with significantly higher rates of depression, generalized anxiety disorder and conduct disorder than were observed among heterosexual youth. LGB youth were also six times more likely to have multiple disorders. Follow-up of the cohort during their mid-20s (Fergusson et al., 2005) found that elevated suicidal behavior among LGB members was associated with depression, anxiety disorders and substance use disorders, and that the associations were more marked in males than females.

Elevated rates of mental disorders, including substance use disorders, have also been reported in one-quarter to one-third of LGB adult respondents in large-scale health surveys that have defined sexual orientation based on self-identity (Bostwick et al., 2010; Cochran, Mays, & Sullivan, 2003; Cochran, Mays, Alegria, et al., 2007; Conron, Mimiaga, & Landers, 2010; Hughes, Szalacha, & McNair, 2010; Jorm, Korten, Rodgers, Jacomb, & Christensen, 2002; McCabe, Hughes, Bostwick, West, & Boyd, 2009) or gender of sexual partners (Cochran, Ackerman, Mays & Ross, 2004; Gilman et al., 2001). Combining results from 25 international adolescent and adult studies, researchers found depression, anxiety disorders, and substance use disorders to be 1.5 times more common in LGB people than in comparable heterosexual individuals (King et al., 2008). Although findings for most disorders were similar for males and females, lesbian/bisexual women had especially high rates of substance dependence, more than three times the rate for heterosexual women. The findings of higher rates of depression and panic disorder in gay/bisexual men, and higher rates of substance use disorders in lesbian/ bisexual women point to different gender patterns among LGB people, compared to the population as a whole.

The National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), a population-based survey of U.S. adults aged 18 and older, provided a unique opportunity to look at the relationship of sexual orientation and mood and anxiety disorders. In the latest wave of this survey, occurring in 2004–2005, almost 35,000 nationally representative Americans completed an extensive in-person interview that included separate questions on sexual identity, behavior and attraction. The percentage of NESARC respondents who identified as LGB (1.4%) was lower than other population estimates, possibly because the data were collected using face-to-face interviews. However, the 577 LGB respondents identified constitute the largest nationally representative sample of LGB adults in any mental health survey to date (Hatzenbuehler, McLaughlin, Keyes, & Hasin, 2010).

A recent analysis of these data (Bostwick et al., 2010) confirmed a higher prevalence of lifetime mood and anxiety disorders among participants who identified as LGB, compared to those who identified as heterosexual. Men who reported same-sex sexual behavior or attraction reported a higher prevalence of most mood and anxiety disorders. Among women, however, those who reported only female sexual partners had a lower prevalence of every disorder examined compared to women who reported only male or both male and female sexual partners, or who were not sexually active. Similarly, women who reported sexual attraction to only females had the lowest rates of most mood and anxiety disorders compared with other attraction-defined groups (only male, mostly male, both male and female, and mostly female). Confirming findings of an earlier large-scale Australian survey (Jorm et al., 2002), this analysis found that bisexual behavior and identity were strongly associated with elevated risk of mood and anxiety disorders in both men and women. Similar to men who identified as gay or bisexual, men who reported being unsure about their sexual identity were significantly more likely to have mood or anxiety disorders than heterosexual men. In women with unsure sexual identity, however, rates of these disorders were generally not significantly higher than among heterosexual women. The findings of this study point to the complexity of defining sexual orientation, especially in women, and illuminate differences among female subgroups that past surveys have subsumed within a single female category.

Most studies have shown an association between mental disorders and suicide attempts in LGB respondents who report suicidal behavior. Mental disorders, however, do not appear to entirely explain elevated rates of suicide attempts in these individuals. An unpublished analysis of the NESARC data found that after adjusting for mental disorders, suicide attempt rates in LGB respondents overall remained two-to-three times higher than among heterosexual respondents (Belik & Sareen, 2010). Relative to comparable heterosexual respondents, suicide attempt rates ranged between just over twice as likely among lesbian women to more than three times more likely among bisexual men. This finding is consistent with reports from studies of

U.S. adolescents and young adults who identified as LGB (Silenzio et al., 2007), as well as U.S. (Herrell et al., 1999) and Dutch adult men with same-sex sex partners (de Graaf et al., 2006).

Stigma, Prejudice and Discrimination

Over the past decade, consensus has grown among researchers that at least part of the explanation for the elevated rates of suicide attempts and mental disorders found in LGB people is the social stigma, prejudice and discrimination associated with minority sexual orientation (Cochran, Mays & Sullivan, 2003; de Graaf et al., 2006; King et al., 2008; Mays & Cochran, 2001; McCabe, Bostwick, Hughes, West, & Boyd, 2010). The terms *gay-related stress* (Rosario, Schrimshaw, Hunter, & Gwadz, 2002; Rotheram-Borus, Hunter & Rosario, 1994) and *minority stress* (Meyer, 1995, 2003) have been used to describe a range of stressors resulting from individual and institutional discrimination against LGB people.

INDIVIDUAL DISCRIMINATION

There is ample evidence that across the lifespan, LGB people commonly experience discrimination in the form of personal rejection, hostility, harassment, bullying, and physical violence. One especially powerful stressor for LGB youth is rejection by parents and other family members. Several nonrandom studies have found an association between parental rejection because of sexual orientation and higher risk of suicide attempts among LGB youth (D'Augelli, Grossman, Salter, et al., 2005; D'Augelli, Hershberger, & Pilkington, 2001; Remafedi et al., 1991; Ryan, Huebner, Diaz, & Sanchez, 2009). One study of White and Latino LGB young adults aged 21–25 (Ryan et al., 2009) found that those who experienced frequent rejecting behaviors by their parents or caregivers during adolescence were over eight times more likely to report making a suicide attempt than those with accepting parents. Young Latino gay and bisexual men reported the highest number of rejecting behaviors and were more likely than Latina females or White respondents to report suicide attempts. The impact of parental and family rejection is suggested by the alarmingly high number of LGBT adolescents and young adults who are homeless, estimated to constitute 20–40% of the almost 2 million homeless youth in the United States (Ray, 2006).

A nationally representative U.S. survey (Russell & Joyner, 2001) and several nonrandom studies in the United States and abroad (Bontempo & D'Augelli, 2002; Friedman, Koeske, Silvestre, Korr, & Sites, 2006; Goodenow, Szalacha, & Westheimer, 2006; Ploderl & Fartacek, 2007; Rivers, 2004; Saewyc, Singh, Reis, & Flynn, 2000; Savin-Williams, 1994) have linked suicidal behavior in LGB adolescents to school-based harassment, bullying

or violence because of sexual orientation. The likelihood of gay-related victimization has been found to be especially high in youth with cross-gender appearance, traits or behaviors (D'Augelli, Grossman, & Starks, 2006; Fitzpatrick, Euton, Jones, & Schmidt, 2005; Friedman et al., 2006; Ploderl & Fartacek, 2007; Remafedi et al., 1991), or who express minority sexual orientation at an early age (Friedman, Marshal, Stall, Cheong, & Wright, 2008). Population-based research in the Netherlands found an association between suicidal behaviors among gay/bisexual men and perceived discrimination due to sexual orientation (de Graaf et al., 2006).

Analyses of data from large public health surveys of U.S. adults have also demonstrated a link between discrimination and hostile treatment based on sexual orientation, and increased risk of substance use and other mental disorders. Data from the National Survey of Midlife Development showed elevated anxiety, depression and other stress-related mental health problems in LGB adults aged 25–74 who reported personal experiences with discrimination (Mays & Cochran, 2001). Data from the National Epidemiologic Survey of Alcohol and Related Conditions (2004–2005) further documented the association between personal experiences of discrimination and interpersonal violence on elevated rates of substance use disorders (McCabe, Bostwick, et al., 2010) and posttraumatic stress disorder (Roberts, Austin, Corliss, Vander Morris, & Koenen, 2010) in LGB adults over the age of 20.

There is some evidence that the interrelationship among gay-related stressors, mental disorders and suicidal behavior may vary between different racial and ethnic groups. A nonrandom study of almost 400 ethnically diverse, self-identified LGB adults aged 18–59 living in New York City (Meyer et al., 2007) found that White participants had significantly higher rates of mood disorders than Black or Latino individuals. Black and especially Latino individuals, however, reported significantly higher rates of lifetime suicide attempts than did whites, with most attempts occurring before the age of 20. A key hypothesis emerging from the study, which is currently being tested, is that suicide risk among Black and Latino LGB people is more strongly related to major stressful events associated with coming out, such as assault, abuse and homelessness, than to depression and other mental disorders.

INSTITUTIONAL DISCRIMINATION

Institutional discrimination results from laws and public policies that create inequities or fail to provide protections against sexual orientation-based discrimination. Using the NESARC data, Hatzenbuehler, Keyes, and Hasin (2009) found that LGB adults who lived in one of 19 states that lacked specific protections against sexual orientation-based hate crimes or employment discrimination had significantly higher prevalence of mood, anxiety, and substance use disorders, compared to heterosexual adults living in those

states and LGB adults living in states that extended protection in at least one of these areas. LGB respondents in states without protective policies were almost five times more likely than those in other states to have two or more mental disorders.

A subsequent study (Hatzenbuehler et al., 2010) examined the effects of state constitutional bans on same-sex marriage on the mental health of LGB adults. Such amendments gained impetus following the passage of the 1996 Federal Defense of Marriage Act or DOMA, which affirmed that states are not required to treat a relationship between persons of the same sex as a marriage, even if the relationship is considered a marriage in another state. DOMA also defined marriage as a legal union exclusively between one man and one woman (The 'Lectric Law Library, 1996). Using the NESARC data from 16 states that enacted constitutional amendments against same-sex marriage during 2004 and 2005, the researchers found significant increases in mental disorders among self-identified LGB respondents in these states between wave 1 (2001–2002) and wave 2 (2004–2005) of the survey. Specifically, mood disorders increased by more than one-third, from 23 to 31% of LGB respondents. Increases were also found in generalized anxiety disorder, from 3 to 9%, and alcohol use disorder, from 22 to 31%. By contrast, no comparable increases in mental disorders between the two waves of the survey were observed in heterosexual respondents living in these 16 states. Noting that the constitutional amendments largely underscored pre-existing state laws, the researchers hypothesized that the negative mental health impact on LGB citizens stemmed primarily from the hostile political campaigns and public discourse that preceded their passage, which further promulgated stigma and reinforced the marginalized social and legal status of LGB people.

Among LGB respondents living in the 34 states where constitutional amendments against same-sex marriage were not enacted during the period examined, increases in generalized anxiety disorder and substance use disorders were also found between the two waves of the survey, possibly related to extensive national media coverage of the amendment campaigns and the associated anti-gay rhetoric. Again, comparable increases in mental disorders were not found in heterosexual respondents living in the same states.

Prohibiting same-sex marriage has also been found to result in significant disparities in health insurance coverage between heterosexual and same-sex couples (Buchmueller & Carpenter, 2010; Carpenter & Gates, 2008; Heck, Sell, & Gorin, 2006; Ponce, Cochran, Pizer, & Mays, 2010). One recent study in California found that partnered lesbians and gay males were more than twice as likely to be uninsured as married heterosexuals, primarily because of lower rates of employer-provided coverage of dependent partners (Ponce et al., 2010). Using data from the California Health Interview Survey in 2001, 2003, and 2005, the study found that partnered gay men

were less than half (42%) as likely to have dependent health insurance coverage as married heterosexual men, and partnered lesbians were only 28% as likely to have coverage as married heterosexual women. Even when insurance coverage is offered to domestic partners, this study noted that the benefit is not financially equivalent to that provided to heterosexual married spouses because federal law requires unmarried partners to pay income tax on the value of employer-sponsored health insurance. Because of the Defense of Marriage Act (DOMA), same-sex couples who have been legally married in a U.S. state or other jurisdiction are treated as unmarried for this and all other federal tax provisions.

Lack of health insurance coverage among persons with mental disorders has been related to delays in treatment-seeking (McLaughlin, 2004) and to self-treatment with alcohol and other substances and the development of psychiatric and physical comorbidities (Wang, Berglund, Olfson, & Kessler, 2004). It is not clear whether the Patient Protection and Affordable Care Act of 2010 (Government Printing Office, 2010) will close the insurance gap currently faced by many same-sex couples. While requiring large employers to provide health insurance to employees and their dependents, the law does not specify that domestic partners be included as covered dependents, and does not address the tax burden imposed on domestic partners who are covered by employer-sponsored health insurance (Ponce et al., 2010).

HIV/AIDS

Among some urban men who have sex with men, elevated risk of HIV/AIDS has been found to be associated with depression, substance abuse, and elevated risk of suicidal behavior (Paul et al., 2002; Stall, et al, 2003). Although increased rates of completed suicide and suicide attempts in persons with HIV/AIDS have been reported by numerous U.S. and international studies, understanding of any possible direct effect of the virus on suicidal behavior has been limited by a lack of longitudinal studies and inconsistencies in illness definitions and characteristics of the samples studied. One comprehensive review (Komiti et al., 2001) suggested that substance abuse, other psychiatric disorders, and previous suicide attempts may be more predictive of suicidal behavior in HIV-seropositive individuals than the diagnosis per se. Risk of suicidal behavior in HIV-positive individuals appears to have decreased as more effective antiretroviral treatments have offered a better prognosis. The psychological impact of HIV/AIDS on lesbian/bisexual women has not been sufficiently studied (Mays, Cochran, Pies, Chu, & Ehrhardt, 1996). In one report of HIV-positive U.S. Air Force personnel, which did not identify sexual orientation, suicidal behavior was found to be reported by a much smaller percentage of females than males (G. Brown & Rundell, 1989).

PROTECTIVE FACTORS

In spite of an increased risk of suicide attempts among LGB compared to heterosexual respondents, those reporting suicidal behavior are a clear minority of the LGB individuals who have been studied, estimated at 12–19% of gay/bisexual males, and a smaller percentage of lesbian/bisexual women (King et al., 2008). Relatively little research has been done on factors that protect the large majority of LGB people from suicidal behavior. Analysis of data from a statewide survey of 6th, 9th, and 12th grade students in Minnesota (Eisenberg & Resnick, 2006) found three factors to be significantly protective of reported suicide attempts in youth with same-sex sexual experience: family connectedness, perceived caring from other adults, and school safety. A nonrandom study of self-identified young and middle-aged LGB adults in New York City found connectedness to a gay/lesbian community and positive sexual identity were associated with greater social and psychological well-being (Kertzner, Meyer, Frost, & Stiratt, 2009).

The finding that exclusive same-sex sexual behavior and attraction are associated with positive mental health outcomes in women, but not men (Bostwick et al., 2010), suggests that women may be protected by greater latitude and tolerance in regard to female sexuality. This may also be reflected in the association between unsure sexual identity and elevated rates of mood and anxiety disorders in men, but not women. Although it has not yet been empirically studied in population-based research, intimate relationship stability may also protect against suicide risk, in some of the ways that marriage functions as a protective factor among heterosexual people (Kposowa, 2000; Masocco et al., 2009).

SUICIDE AND SUICIDE RISK IN TRANSGENDER POPULATIONS

Little information is available about completed suicide among transgender individuals (Mathy, 2002b). Because of researchers' greater access to transsexuals who seek medical treatments such as sex reassignment surgery or hormone therapy, studies have tended to focus on this subgroup of the overall transgender population. One clinical study reported a disproportionate number of suicide deaths among Dutch transsexual women and men receiving hormone therapy, compared to the general population (van Kesteren et al., 1997). Another international review of studies that followed over 2,000 persons in 13 countries who had undergone gender reassignment surgery identified 16 possible suicide deaths (Pfäfflin & Junge, 1998). If confirmed as actual suicides, these figures would translate to an alarmingly high rate of 800 suicides for every 100,000 post-surgery transsexuals. By contrast, the current suicide rate for the overall U.S. population is 11.5 suicides per

100,000 people. It is not clear whether this very high suicide rate still exists among transexuals.

Suicide attempt rates ranging from 19 to 25% have also been reported among clinical samples of transgender individuals seeking surgical gender reassignment (Dixen, Maddever, van Maasdam, & Edwards, 1984). More recent data from nonrandom surveys of self-identified transgender people found that up to one third of respondents report making one or more lifetime suicide attempts (Clements-Nolle, Noelle, Guzman, et al., 2001; Clements-Nolle, Marx, & Katz, 2006; Grossman & D'Augelli, 2008; Kenagy, 2005; Whittle et al., 2007; Xavier, Honnold, & Bradford, 2007). Suicide attempts appear to occur more frequently among transgender adolescents and young adults than among older age groups (Xavier et al., 2007).

Associated factors identified in these surveys include high rates of depression, anxiety and substance abuse (Clements-Nolle, Noelle, Guzman, et al., 2001; Mathy, 2002b; Xavier et al., 2007). Transgender youth have reported parental rejection to be a particular stressor (Grossman & D'Augelli, 2008), and frequent experiences of discrimination have been reported by transgender adults (Clements-Nolle, Marx, & Katz, 2006). Preliminary findings from a 2009 U.S. National Transgender Discrimination Survey (National Center for Transgender Equality & the National Gay and Lesbian Task Force, 2009), which included almost 6,500 transgender and gender-variant people identified through a network of 800 trans-related service and advocacy organizations, support groups, list-servs and online social networks, showed that 47% reported an adverse job action because of transgender status. This included not getting a job (44%), being denied a promotion (23%), or being fired (26%); Black and multiracial respondents were especially likely to report these events. Overall, respondents reported being unemployed at twice the rate of the population as a whole, and only 40% reported having employer-based insurance coverage, which directly impacts access to health and mental health care. Almost all (97%) reported having experienced mistreatment or harassment on the job, including invasion of privacy, verbal abuse and being purposefully referred to as the wrong gender.

Little research has compared prevalence of suicidal behavior in transgender people to other population groups. One study using a nonclinical sample of over 40,000 largely U.S. volunteers who completed an internet survey (Mathy, 2002b) found 73 individuals who identified themselves as transgender. This group's responses related to suicidal behavior were compared to those reported by six other groups: heterosexual males and females, homosexual males and females, and males and females who matched the transgender individuals on nationality, age, sexual orientation, relationship status, and population size of the area in which they resided. Transgender respondents had a higher rate of reported suicide attempts than any group except homosexual females. Although sexual orientation did not differentiate transgender attempters from non-attempters, attempters were more likely

to report past and current psychiatric treatment and problems related to substance use.

KNOWLEDGE GAPS

Population-based studies over the last decade provide firm evidence of elevated rates of reported suicide attempts in LGB compared to heterosexual adolescents and adults. Although comparably representative research on completed suicide among LGB populations is lacking, recent analyses of data from Danish registries suggest significantly higher suicide rates among men with histories of domestic partnerships with men. Many population-based studies have linked elevated risk of suicide attempts in LGB populations to higher rates of mental disorders, although there is increasing evidence that other factors—notably, sexual orientation-related stigma, prejudice and discrimination—may also play a role.

While these findings suggest a significant, largely unaddressed public health problem among LGB people (King et al., 2008), little is known about specific risk and protective factors in particular subgroups of the LGBT population. In addition, although findings from nonrandom surveys of transgender individuals have consistently found high rates of reported suicide attempts, virtually no generalizable conclusions have been generated about suicidal behavior or suicide risk in this population. Gaps in current knowledge about LGBT suicidal behavior and suicide risk result from a confluence of many factors, including the low priority and historically sparse funding given to the study of sexual minority populations, difficulties inherent in studying relatively small, largely hidden population groups, and the omission of sexual orientation and gender identity from the sociodemographic characteristics that are routinely assessed in most suicide and mental health studies.

Among the most pressing questions for future research is whether LGBT people are overrepresented among suicide deaths, and if so, why. Given the stigma and secrecy associated with minority sexual orientation and gender identity, psychological autopsy methods appear to have limited utility for this purpose (King et al. 2008), and few alternative research approaches have been developed. Better methodological approaches and routine collection of sexual orientation and gender identity data as part of the death record are needed to identify rates of completed suicide and related risk factors in different LGBT age, gender, and racial or ethnic groups.

In recent years, research on nonfatal suicidal behavior and related risk factors has relied heavily on large-scale population-based surveys, especially the increasing number of national surveys that have assessed markers of sexual orientation. On the positive side, national health surveys that have included questions related to sexual orientation have provided valuable opportunities to compare LGB and heterosexual adults on a wide range

of mental health variables, including rates of reported suicide attempts and mental disorders (Cochran, 2001). Examples in the United States include the National Survey of Midlife Development, the National Health and Nutrition Examination Survey, the National Survey of Family Growth, the National Household Survey on Drug Abuse, the National Comorbidity Study, the National Latino and Asian American Survey, and the National Epidemiological Survey of Alcohol and Related Conditions. In states that have added the optional sexual orientation questions to the CDC's school-based Youth Risk Behavior Survey, valuable information has been obtained about rates of suicidal ideation and behavior and associated factors in LGB compared to heterosexual adolescents. Surveys that follow a representative national sample over multiple waves of data collection, notably the National Longitudinal Study of Adolescent Health and the National Epidemiologic Survey of Alcohol and Related Conditions (NESARC), have been especially helpful in tracking changing patterns of mental disorders against events and evolving attitudes in the larger society.

Whenever appropriate, federal benchmark surveys related to health and mental health should include measures of sexual orientation and gender identity. This will require special attention to issues related to confidentiality and assurances of privacy during data collection. Eventually, appropriate and reliable methods for assessing gender identity must also be developed and incorporated into population-based surveys in order to track the anticipated effects of gender identity on suicide-related morbidity.

At the same time, the limitations of general health and mental health surveys as a research method for studying LGBT suicidal behavior and suicide risk must be recognized. Most such surveys are cross-sectional, collecting data at a single point in time. By their very nature, such data are retrospective and do not effectively allow cause-and-effect relationships to be discerned, especially when different windows of time are used for different questions. Most surveys have assessed lifetime or past year suicide attempts (or both), but have used a much more recent time period, such as the last two weeks or last 30 days, in assessing symptoms of mental disorders or mental distress. While surveys can demonstrate that current mental disorders tend to co-occur with reports of past suicide attempts, they cannot irrefutably determine that mental disorders—or other potential risk factors—are *causally* related to temporally earlier behaviors. Sorting out the complex relationships between potential risk factors and suicidal behavior, and among various risk factors themselves, is a challenge in all suicide research. Researchers who study suicidal behavior in the general population have used many different approaches including psychological autopsies, genetic and neurobiological studies, longitudinal cohort studies and randomized controlled clinical studies to advance understanding of causal factors. In contrast, nearly all of what is known about suicidal behavior in LGBT people has come from cross-sectional surveys or other nonexperimental research.

Another limitation of national health and mental health surveys is that they typically explore a range of topics and thus are restricted in the number of questions that can be asked about suicidal behavior. Often, surveys ask a single question about suicide attempt history, for example, "Have you ever made a suicide attempt?" Because of the tendency of some respondents to report plans or preparations for suicide or self-harm behaviors without the intent to die as a "suicide attempt," researchers who focus specifically on suicide have recognized the need for multiple questions that distinguish these behaviors from actual suicide attempts (Bongiovi-Garcia et al., 2009). In addition, surveys designed for the general population are usually limited in the number of questions that assess current sexual orientation, and are rarely able to identify changes in orientation (and related factors such as partnership status) that may occur over the lifespan (L. Diamond, 2008; Fergusson et al., 2005).

Much has been learned from population-based surveys, but researchers studying LGBT suicidal behavior and suicide risk need to augment this research method with other approaches. Identifying LGBT people among samples already being studied by suicide researchers would be a potentially valuable, low-cost first step toward improving assessment of suicidal morbidity in this higher-risk population. Even when relatively small samples are used, as is the case in many neurobiological and genetic studies, identifying research subjects with minority sexual orientation or gender identity may over time provide valuable clues about factors that are related to elevated rates of suicidal behavior in these populations.

In-depth studies of methodologically sophisticated samples of LGBT (and comparable heterosexual) populations are needed to identify pathways to suicidal behavior in different age, gender, and racial and ethnic groups within the overall sexual minority population. Longitudinal studies that follow representative samples of the population over different time points such as the New Zealand cohort study (Fergusson, Horwood, & Beautrais, 1999; Fergusson, Horwood, Ridder, et al., 2005) and the Add Health cohort (Russell & Toomey, 2010) have considerable promise. More studies are needed to identify the processes that create and maintain the vulnerability of sexual minority populations for suicide-related morbidity. These should focus on LGBT people in different cultural settings, beginning early in life and tracking participants through adolescence, adulthood and into the elder years so that time sequences of factors related to suicidal behavior can be established. Such studies are costly, however, and will require a significant expansion of the funding for LGBT research.

More studies are also needed to illuminate the relationship of suicidal behavior to LGBT developmental milestones such as recognition of same-sex attractions and/or transgender identity, or to stressors that are unique to LGBT individuals. Subgroups for which solid research data related to suicidal behavior and suicide risk are especially lacking include older LGB

adults, transgender people of all ages, and LGBT people who are further marginalized by homelessness, juvenile justice detainment or incarceration, or serious mental illness. In addition, very little research has been directed toward identifying factors that protect the large majority of LGBT people from suicidal behavior. Better understanding of protective factors and how LGBT individuals develop and sustain resilience in the face of the challenges inherent to sexual minority status, may contribute to reducing risk of suicidal behavior in these populations.

Recommendations for Future Research

To advance knowledge and understanding of LGBT suicide and suicide risk:

- Expand public and private funding for research on LGBT suicide and suicide risk over the lifespan, including funding from LGBT foundations and donors.
- Identify and test new ways of determining sexual orientation and gender identity among people who die by suicide. Explore the possibilities of linking existing records on same-sex marriages, civil unions or registered domestic partnerships with suicide mortality data in appropriate countries and U.S. states.
- Continue to test which aspects of sexual orientation and gender identity are most strongly related to negative mental health outcomes, including suicide attempts, and on that basis, establish empirically supported, standardized measures of sexual orientation and gender identity for use in suicide and mental health research. In this task, *Best Practices for Asking Questions about Sexual Orientation on Surveys* (Badgett, 2009) provides an excellent start.
- Develop and test measures to determine partnership status and intimate relationships among LGBT people in different age, racial and ethnic, geographic, and cultural groups.
- Encourage inclusion of measures of sexual orientation and gender identity and partnership status in all suicide and mental health research, including clinical, neurobiological and genetic studies, with appropriate safeguards for privacy and confidentiality. Public and private agencies that fund suicide and mental health research can play a critical role in this regard.
- Educate key stakeholders about the need for questions on sexual orientation and gender identity in suicide and mental health research. These include funding agencies, researchers, institutional review boards that ensure the protection of human research subjects in research, as well as coroners, medical examiners, police investigators and others who develop or create records of fact used by suicide researchers.
- Develop and conduct longitudinal studies, using large cohort designs to ensure sufficient numbers of LGBT participants, in order to:

- identify prevalence, causes, and pathways to suicidal behavior for LGBT individuals in all gender, age and racial and ethnic groups;
 - assess both risk and protective factors related to sexual/gender developmental milestones (e.g., feeling different, self-recognition, disclosure to others); and
 - examine the relationship between LGBT suicidal behavior and stigma and discrimination, and document the impact of evolving policies and laws related to LGBT people.
- Conduct studies of the prevalence of suicidal behavior and contributing contextual factors in LGB racial, ethnic, cultural and religious groups.
 - Conduct studies of LGB midlife and older adults to establish the prevalence and patterns of past and current suicidal behavior. Examine the role of specific risk factors including depression, drug and alcohol abuse, discrimination, long-term effects of HIV/AIDS and other chronic illnesses and social isolation in different developmental life stages. These studies should also include potentially protective factors such as positive sexual/gender identity, family and community connectedness, and access to affirming health and mental health services.
 - Conduct studies of suicidal behavior and suicide risk in diverse groups of transgender people across the lifespan.
 - Conduct studies of suicidal behavior and suicide risk among high-risk LGBT subgroups, including LGBT youth who are homeless, in juvenile detention facilities or incarcerated.
 - Conduct studies of factors that protect against or mitigate the impact of suicide risk factors in the large majority of LGBT people, and factors that contribute to the development of resiliency in each of these populations.
 - Mandate inclusion of empirically valid measures of sexual orientation and gender identity in all federally supported benchmark surveys related to health and mental health in which privacy and confidentiality can be appropriately ensured. Include assessment of sexual orientation and gender identity in existing large or longitudinal surveys such as the National Institute of Child Health and Human Development (NICHD) Study and the National Health Interview Survey (NHIS).
 - In health surveys and other research studies, use consistent time periods to assess sexual orientation and gender identity, suicidal behavior and suicide risk factors, in order to more precisely identify interrelationships.

GAPS BETWEEN KNOWLEDGE AND PRACTICE

Although much remains to be learned, what is already known has not yet been applied to practices aimed at reducing suicidal behavior and suicide risk in LGBT people. In this section, we discuss three areas in which improved practices may contribute towards this goal: mental health

interventions, suicide prevention strategies, and public policy. At the conclusion of each section, we offer recommendations to bring about needed change. Few mental health interventions or suicide prevention strategies have been evaluated with LGBT people, and it cannot be assumed that what has worked with predominantly heterosexual populations will have the same results with specific sexual minority groups. At the same time, as researchers have noted (King et al., 2008), the consistency of the data pointing to elevated risk of suicidal behavior and mental health problems among sexual minority people argues for taking action now rather than awaiting more research evidence. Where we recommend extending evidence-based practices for general populations to LGBT populations, we urge that careful process and outcome evaluations be conducted so that timely and appropriate adjustments can be made and differences in effectiveness determined. In this regard, it will be critical to look at outcomes among LGB individuals in different gender, age, racial and ethnic and cultural groups.

Generalizable information is lacking about suicidal behavior and suicide risk among transgender populations, and thus there is currently little empirical basis for specific recommendations for practices involving transgender individuals. Where there appears to be a logical basis for assuming commonalities across sexual minority persons, we include transgender along with lesbian, gay, and bisexual groups in our recommendations, again urging that careful evaluations be conducted to identify possible differences in outcomes among transgender compared to LGB people, and among transgender people having different sexual orientations as well as different gender identities, behaviors and expressions.

Mental Health Interventions

LGBT organizations have been at the forefront of bringing national attention to health problems that disproportionately affect LGBT people, notably HIV/AIDS, seeking remedies to associated disparities in research funding, and working to improve access to high quality, culturally appropriate health care services. Commensurate efforts have not been directed toward elevated rates of mental disorders in LGBT people and the risk these disorders pose for suicidal behavior, even though *Healthy People 2010: Companion Document for Lesbian, Gay, Bisexual and Transgender Health* (Gay and Lesbian Medical Association and LGBT Health Experts, 2001) provided well-documented recommendations to support a focus on LGBT mental health.

Up until 1973, when LGBT psychiatrists, other mental health professionals, and their allies spearheaded efforts at the annual meeting of the American Psychiatric Association to remove homosexuality per se as a psychiatric diagnosis, variant sexual orientation was routinely equated with mental disorder and sexual deviance, leading to a therapeutic focus

on “curing” people of same-sex sexual attraction and behavior. Today, more than three decades after homosexuality was removed from the American Psychiatric Association’s *Diagnostic and Statistical Manual of Mental Disorders (DSM)*, a small but vocal minority among mental health professionals continues to promulgate “curative” therapies for gay men and lesbians, despite evidence that such methods are ineffective and harmful (American Psychiatric Association, 2000). In addition, since 1980 the DSM has included diagnoses that pathologize variant gender identities and behaviors. Given this legacy, it is understandable that mental disorders and suicide risk have not been prioritized among the many pressing issues on the agenda of LGBT organizations. However, the strength of the empirical evidence that significant numbers of LGBT people suffer from mood, anxiety and substance use disorders compels concerted action aimed at encouraging help seeking, improving the quality and availability of culturally appropriate mental health services, and generating greater federal responsiveness to the mental health problems of LGBT people.

Although LGB people utilize mental health services more than heterosexual individuals (Cochran & Mays, 2000b; Cochran, Mays, & Sullivan, 2003; Grella, Greenwell, Mays, & Cochran, 2009), it is not clear how frequently they access evidence-based, time-limited treatments that have been established to be most effective in reducing depression and suicidal behavior (Guthrie et al., 2001; Brown, Ten Have, & Henriques, 2005). Although progress in developing culturally competent treatments has certainly been made since the 1990s when widespread dissatisfaction with mental health services was documented among LGBT people (Israel & Tarver, 1997; Liddle, 1996), access to competent and mental health care remains limited in many geographic areas. Given the high rates of substance use disorders among LGBT men and women, which in the general population increase risk for suicidal behavior, increasing access to and participation in culturally competent drug and alcohol treatment is especially critical. Particular efforts should be made to expand the participation of LGBT people in substance abuse treatment programs that incorporate approaches and protocols based on current research evidence (Center for Substance Abuse Treatment, 2006, 2009; Grella et al., 2009; Pettinati et al., 2010).

Evidence shows that targeted or modified mental health interventions for LGB individuals may increase treatment acceptability, retention, and effectiveness. One study showed that methamphetamine-dependent gay and bisexual men given “gay-tailored” cognitive behavioral therapy (CBT) showed more rapid declines in depressive symptoms and methamphetamine use, compared to those given traditional CBT or other general interventions (Jaffe, Shoptaw, Stein, Reback, & Rotheram-Fuller, 2007). A promising, empirically based approach for treating depressed and suicidal adolescents, Attachment-Based Family Therapy (G. S. Diamond, Siqueland, & Diamond, 2003), is currently being adapted and tested for use with LGBT adolescents.

While recognizing the need for individually focused treatment and support services for those who already have or are developing mental disorders, community-based programs are being developed by LGBT organizations in some European countries that emphasize LGBT-specific mental health promotion and behavioral health interventions (International Gay, Lesbian, Bisexual, Transgender and Queer Youth and Student Organization, 2007; Mule et al., 2009).

Overall, however, there is a dearth of mental health interventions specifically designed for LGBT people, which means the large majority of those who need treatment must rely on general community providers. In recent years, there has been growing recognition of the need to include more extensive information on LGBT people in educational and training programs for mental health professionals. One promising start is the development of a LGBT Mental Health Syllabus for psychiatry residents (Group for the Advancement of Psychiatry, 2007). Although this curriculum provides helpful information on such topics as LGBT psychological development and common LGBT medical and mental health problems, the lack of direct discussion of suicide or suicide risk is an unfortunate omission that should be addressed. No systematic information is available on the extent to which this or similar curricula are being implemented in psychiatry or other clinical training programs.

For current practitioners, the Association for Lesbian, Gay, Bisexual, and Transgender Issues in Counseling, a division of the American Counseling Association, provides *Competencies for Counseling Gay, Lesbian, Bisexual and Transgender Clients* (Association for Lesbian, Gay, Bisexual, and Transgender Issues in Counseling, n.d.). These offer excellent guidelines for ethical, culturally competent care of sexual minority clients, but do not touch specifically on heightened risk for suicidal behavior. Likewise, the American Psychological Association's *Guidelines for Psychotherapy with Lesbian, Gay and Bisexual Clients* (American Psychological Association, n.d.) provide helpful general principles but do not specifically address psychotherapeutic treatments for reducing suicidal behavior. The American Psychiatric Association has developed guidelines for the *Assessment and Treatment of Patients with Suicidal Behaviors* (American Psychiatric Association, 2003), which identify sexual orientation as a potential suicide risk factor, but provide limited information about factors associated with suicidal behavior among LGBT persons. Regarding adolescents, the American Academy of Pediatrics alerts physicians to elevated suicide risk among LGBT youth (Shain & the Committee on Adolescence, 2007), but its guidelines for the identification, assessment, and treatment of adolescent depression in primary care (Cheung et al., 2007; Zuckerbrot et al., 2007) do not address LGBT youth or young adults.

In lieu of any evidence of intrinsic pathology associated with transgender identities, mental health professionals as well as transgender and allied groups have voiced increasing concern that the *DSM* diagnoses of Gender

Identity Disorder (GID) and transvestic fetishism stigmatize variant gender identities and behavior and discourage many transgender people from seeking mental health care (Drescher, 2010). In advance of the publication of a fifth edition of the *DSM* in 2013, many are calling for the removal of these diagnoses. Some fear, however, that removing GID as a recognized condition that can lead to significant distress may result in the denial of insurance coverage for expensive health care services related to transitioning, leaving many transgender individuals without needed care. A number of compromise positions have been put forth, including changing the term Gender Identity Disorder to Gender Incongruence or Gender Dysphoria, and repositioning the condition in the medical rather than psychiatric realm to reduce stigma and assure access to care (Allison, 2010; Winters & Ehrbar, 2010).

Recommendations Related to Mental Health Interventions

To make the mental health needs of all LGBT people a priority within the national LGBT agenda, it is recommended that LGBT organizations and suicide prevention organizations work in concert to:

- Develop LGBT-focused campaigns to:
 - destigmatize mental disorders, particularly mood and anxiety disorders, among LGBT people;
 - educate LGBT people about the relationship of mood, anxiety, and substance use disorders to suicide;
 - encourage help seeking among LGBT people who are suffering from mental disorders, or are suicidal; and
 - encourage the development of equitable, accessible, and culturally appropriate mental health and substance abuse services for LGBT people of all ages.
- Provide leadership for the development of needed mental health interventions and programs for LGBT people, including:
 - adaptations to LGBT people of mental health interventions and therapies that have been established to be effective among the general population;
 - programs for early identification of risk behaviors and mental health disorders and substance abuse, especially among LGBT youth;
 - LGBT-specific behavioral health interventions, related in particular to substance abuse; and
 - LGBT-specific mental health promotion programs that provide education and information resources about healthy sexual and gender variations and promote positive identity and family and community connectedness.
- Ensure the involvement of LGBT people of all age, racial and ethnic, and gender identity constituencies in the planning, design, development, and

implementation of all new mental health interventions and programs for substance abuse treatment.

To insure the availability of professionals with the knowledge, skills, and attitudes to provide quality mental health care to LGBT individuals, including those who are at risk for suicide:

- All professional educational and training programs that prepare students to provide mental health care or administer mental health programs—including physician residency programs in psychiatry and primary care; graduate programs in psychology, social work, nursing, and public health; and other mental health and human services training programs—should develop and provide comprehensive, empirically based education about LGBT mental health needs and suicide risk.
- Professional organizations that accredit professional training programs and certify the competence of mental health care providers and primary care physicians, should:
 - determine the core body of knowledge and standards of care for the treatment of LGBT mental health problems and suicide risk within their specialty areas;
 - provide continuing education offerings and educational materials related to LGBT mental health needs and suicide risk to all current practitioners;
 - update existing guidelines for the treatment of LGBT people within their specialty areas, based on up-to-date research findings related to LGBT mental health and suicide risk and evidence-based treatments for those who are suicidal; and
 - develop guidelines for the treatment of LGBT people in all disciplines where they are currently lacking.

To reduce stigma of transgender people within mental health professions:

- Revise *DSM-V* diagnoses related to transgender people to:
 - affirm that gender identity, expression and behavior that differ from assigned birth sex is not indicative of a mental disorder; and
 - establish the medical necessity of transition treatments for those who perceive biological characteristics to be incongruent with their gender identity.

Suicide Prevention Strategies

Suicide prevention strategies focus on four key domains, in addition to mental health treatment (Mann et al., 2005):

- awareness campaigns and educational programs for the general public, primary care physicians, and community and organizational gatekeepers;
- screening programs, hotlines, and other activities that identify at-risk individuals and direct them to treatment;
- restriction of lethal means used for suicide; and
- programs that promote media as an avenue for public suicide prevention education, and discourage coverage that glamorizes or normalizes suicide.

By addressing LGBT suicide and suicide risk in such a limited way, national and most state-level suicide prevention strategies have provided little guidance for the development of suicide prevention programs that specifically target LGBT groups. One comprehensive review of suicide prevention programs for LGBT youth (Suicide Prevention Resource Center, 2008) identified only one such program, The Trevor Project, which operates the only national crisis and suicide prevention lifeline for LGBT and questioning youth. The Trevor Project also provides in-school workshops, educational materials, and online educational resources for youth, and advocates for public policies to reduce LGBT stigma. No systematic data are available on the impact of these programs on reducing suicidal behavior or suicide risk among LGBT youth.

Other national organizations serving LGBT populations focus on issues that, while not explicitly addressed to suicide prevention, may contribute to this goal. Best known among such organizations are the Gay, Lesbian and Straight Education Network (GLSEN), Services and Advocacy for Gay, Lesbian, Bisexual and Transgender Elders (SAGE), and Parents, Families and Friends of Lesbian, Gay, Bisexual and Transgender People (PFLAG). Many other state and local LGBT organizations provide suicide prevention resources in conjunction with activities focused on child welfare, HIV/AIDS prevention and support, violence prevention, or health promotion (Suicide Prevention Resource Center, 2008).

A recent program, the Family Acceptance Project based at San Francisco State University, is developing family interventions based on research findings on the relationship between parental and caregiver behaviors and mental health outcomes, including suicide attempts, among LGBT youth (Ryan et al., 2009). The Family Acceptance Project is also developing training materials on working with LGBT youth and families for school personnel, mental health professionals, and child welfare, juvenile justice, and family service providers.

Suicide prevention interventions designed for the general public rarely address suicidal behavior or suicide risk within LGBT groups. As a result, unless LGBT people are the specific focus of an intervention, they are generally not included in suicide prevention programming. Although guidelines

for increasing LGBT competency among human services organizations have been developed (Suicide Prevention Resource Center, 2008), there is as yet limited evidence that mainstream suicide prevention interventions are becoming more LGBT inclusive.

Recommendations Related to Suicide Prevention Interventions

To improve LGBT suicide prevention efforts:

- Address LGBT suicide risk and possible interventions for reducing risk in national and state suicide prevention strategies and plans.
- Provide educational and resource materials on LGBT suicide and suicide risk to LGBT organizations, and encourage consideration of how suicide prevention can be advanced within the context of each organization's mission and activities.
- Incorporate well-designed outcome evaluations into all interventions aimed at reducing suicidal behavior and suicide risk among LGBT people.
- Develop a wider range of interventions for reducing suicidal behavior and suicide risk in specific LGBT groups.
- Encourage a focus on LGBT groups within suicide prevention interventions and programs designed for the general population.
- Develop and implement educational programs for increasing competency in LGBT suicide risk within:
 - organizations and groups providing suicide prevention interventions for the general population; and
 - community gatekeepers including teachers and staff in youth programs, senior centers, aging services agencies and others who come in contact with at-risk individuals.
- Encourage training in LGBT suicide risk for staff and volunteers of suicide crisis lines, law enforcement, emergency care professionals, and others who work with suicidal individuals.

PUBLIC POLICY

Among the most salient findings to emerge from recent research are those linking public policies that discriminate against sexual minorities to elevated rates of mental disorders in LGB people (Hatzenbuehler, Keyes, et al., 2009; Hatzenbuehler, McLaughlin, et al., 2010). The well-established association between mental disorders and suicide attempts in

at least some LGBT subgroups points to the need to include advocacy for policy change as a component of a comprehensive plan for LGBT suicide prevention.

In the United States, as in other countries, LGBT organizations have long provided the key leadership in identifying and advocating for policy and legislative changes related to protecting LGBT people from violence, hate crimes, school bullying and harassment, and for ending discrimination in housing, the workplace, the military and marriage rights. With the exception of bullying and school safety issues, LGBT advocacy efforts have not commonly linked discriminatory laws and policies to negative health or mental health outcomes in LGBT people. In recent years, however, health and mental health associations have begun to articulate this linkage in speaking out against laws and policies that discriminate against LGBT people. In approving a December 2009 motion to advocate for repeal of the current Don't Ask, Don't Tell law that restricts gay men and lesbians from serving openly in the military, the American Medical Association (AMA) was especially critical of the law's requirement that military physicians and psychiatrists report gay and lesbian service members who disclose their sexuality in the context of treatment, noting that this discourages help seeking among gay and lesbian patients in need of care, while placing an untenable burden on treatment providers (Moran, 2009). At the same time, the AMA also approved a report titled "Health Disparities in Same-Sex Partner Households," which called for the AMA to work to eliminate inequities in access to health and mental health care arising from the exclusion of same-sex couples from civil marriage and the associated difficulties in obtaining health insurance (Moran, 2009). In its Position Statement for Support of Legal Recognition of Same-Sex Civil Marriage, the American Psychiatric Association (2005) noted its history of supporting equity, parity, and nondiscrimination in matters that have an impact on mental health. In addition to the negative impact of discriminatory marriage laws on the stability of same-sex couples' relationships and their mental health, the statement noted the particular effects on older adults in same-sex relationships, including deprivation of survivorship and inheritance rights, financial benefits, and legal recognition as a couple in health care settings, which increase the psychological burden associated with aging.

Suicide prevention organizations have shown strong support for policies that seek to improve mental health outcomes, such as the federal Mental Health Parity and Addiction Equity Act of 2008 (U.S. Department of Labor, 2010), which mandated that insurance coverage for mental health treatments be comparable to that for other medical interventions. Advocating for nondiscrimination and protections for LGBT people is a logical extension of the effort to lower suicide risk through alleviating mental disorders.

Recommendations Related to Public Policy

To reduce the negative mental health outcomes of institutional discrimination against LGBT people and its associated stigma and prejudice:

- Advocate for anti-bullying and safe schools legislation, and for the specific inclusion of sexual orientation and gender identity in protective legislation related to school safety.
- Advocate for changes in all federal and state laws and regulations that create inequities based on sexual orientation or gender identity and have been shown to have negative mental health outcomes or otherwise heighten suicide risk for LGBT people.
- Advocate for improved access to mental health services through nondiscrimination policies and expansion of health insurance coverage to same-sex partners.
- Advocate for legislation requiring measures of sexual orientation and gender identity to be incorporated into federally supported benchmark surveys and other population-based databases related to health and mental health, so that the consequences of inequities affecting LGBT people can be more fully identified.

CONCLUSION

Over the last two decades, an increasing body of empirical research in the United States and other countries has pointed to significantly elevated suicide risk among LGBT compared to heterosexual people. Although many questions are as yet unanswered, there appears to be little doubt that a broad national effort will be needed to encourage and fund the needed research, raise awareness of the problem among LGBT and suicide prevention leaders, and develop the interventions, prevention strategies, and policy changes through which suicidal behavior and suicide risk in LGBT populations can be reduced. We hope this report and the recommendations it offers will contribute to stimulating this effort.

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