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Suicide Attempts Among Sexual-Minority Youths: Population and Measurement Issues

Ritch C. Savin-Williams
Cornell University

Two questions were addressed regarding suicide attempts among sexual-minority youths: Who should be classified as a sexual minority, and what constitutes a suicide attempt? Results from 2 studies indicated that sexual-minority youths, broadly defined in terms of sexual orientation and recruitment venue, were slightly more likely than heterosexual youths to report a suicide attempt. To afford a more accurate assessment of suicide attempts, a detailed measure distinguished true from false attempts. This method eliminated over half of suicide attempt reports among sexual minorities because they were false attempts—ideation rather than a concrete act to end life. Furthermore, many true attempts were not life threatening, suggesting that the reports were attempts to communicate the hardships of lives or to identify with a gay community.

National attention first focused on the prevalence of gay youth suicide after Gibson (1989), reviewing the extant clinical and research literature, decried the lack of governmental concern in his report to the Secretary's Task Force on Youth Suicide. Gibson and subsequent researchers found that gay adolescents are three times more likely to attempt or commit suicide—the distinction between the two was often neglected—and constitute 30–40% of all adolescent suicides (Radkowsky & Siegel, 1997). As a result of these scientific studies (reviewed in Table 1), a prominent researcher recently declared that it was "time to put the controversy aside" (Remafedi, 1999b, p. 886) as to whether gay youths are disproportionately at risk for suicide.

This inference, however, ignores notable scientific shortcomings. Findings have been criticized by several researchers because of methodological shortcomings centering on population and measurement issues (Mathy, 2000; Muehrer, 1995; Savin-Williams, 1994; Shaffer, Fisher, Hicks, Parides, & Gould, 1995). These include problems (a) in sample selection—an inadequate sampling of the target population; (b) in the use of single-item questions to assess suicidality constructs; (c) in not specifying, or in using vague definitions of, suicide-related items; and (d) in the use of suicide attempt and sexual orientation measures with uncertain reliability and validity. This last point is partially exemplified in Table 1. The wide interstudy range of youths who report suicide attempts (from 5% to over 70%) suggests the possibility of reliability problems in the assessment of suicide attempts.

In terms of population issues, most studies reviewed by Gibson (1989) have been faulted for not including typical or diverse sexual-minority participants (Muehrer, 1995). One source, ironically cited in reports substantiating the elevated suicidality rates among gay youths, criticized these samples because they were often drawn from nonrepresentative settings such as crisis centers, runaway shelters, support groups, or other urban help-seeking agencies where self-referred youths in distress are found (Savin-Williams, 1994). This population limitation was reputedly redressed in subsequent research that included university students, Internet respondents, and especially school-based samples of adolescents (DuRant, Krowchuk, & Sinal, 1998; Faulkner & Cranston, 1998; Garofalo, Wolf, Kessel, Palfrey, & DuRant, 1998; Garofalo, Wolf, Wissow, Woods, & Goodman, 1999; Remafedi, French, Story, Resnick, & Blum, 1998). Although the percentage of gay youths in school-based studies who attempted suicide was slightly less than that reported for support group youths, the proportions were significantly higher than those among matched heterosexual samples. Remafedi (1999a, 1999b) referenced this improved recruitment of "representative" samples of youths in two major medical journal articles as conclusive evidence that gay youths are at risk for suicide.

However, recruiting from representative samples of youths does not guarantee that a representative, or even diverse, sample of youths with same-sex attractions will embrace the socially stigmatized identity label *gay* in these surveys (Savin-Williams, 2001a). School-based questionnaires elicit a positive gay identification response from a very small fraction (1–2% is usually reported) of the total adolescent population. An untested assumption is whether these high school youths who willingly identify as gay, lesbian, or bisexual on a questionnaire administered to representative adolescent populations are any different from youths who attend community support groups. They may be the same youths—the out, visible, and early identifiers. If true, then it is questionable whether surveys of high school youths are any more likely than community-based studies to draw an unbiased, representative proportion of those with same-sex attractions.

In addition to recruitment venue concerns, when one is assessing the impact of sexual orientation on suicide risk, one must decide who should be counted as the target population (Shaffer et al., 1995). Caution is advised when drawing conclusions about sexual orientation on the basis of those who self-identify as gay, lesbian, or bisexual or who engage in same-sex behavior. For example, the

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Correspondence concerning this article should be addressed to Ritch C. Savin-Williams, Department of Human Development, MVR Hall, Cornell University, Ithaca, New York 14853. Electronic mail may be sent to rcs15@cornell.edu.

Table 1
Studies Assessing Suicidality Among Sexual-Minority Youths (1989–2000)

Study	Source	Sample[a]	Suicide measures: Type	SA	SI	Other	Findings
Plummer (1989)	Community members, magazine ads, and friendship networks	415 gay males and 95 lesbians (age unreported)	Q, LH	Unreported	Unreported		20% of males had SA 40% of females had SA
Schneider, Farberow, & Kruks (1989)	Community and university support groups	108 gay males (20.5 years)[b]	Q	Yes/no, number, thoughts, feelings, treatment	Thoughts, feelings, 7 point scale	Plans: number "suicidal": history of any SA, SI, or plans	19% of university and 23% of community support groups had SA
Remafedi, Farrow, & Deisher (1991)	Advertisements in gay publications, support groups, university groups, & referrals	137 gay/bisexual males (19.6 years)[b]	I	Yes/no, number, method	Self-destructive thoughts and wishes	Seriousness: risky and rescue ratio	30% of youths had SA 54% of SA were moderate to high lethality
Sears (1991)	Community groups, networking, and advertisements	24 gay/bisexual males and 12 lesbian/bisexual females (23.0 years)[b]	Q	Yes/no	Contemplated suicide		11% of youths had SA 63% had SI
Uribe & Harbeck (1992)	Support group	37 gay/bisexual males and 13 lesbian/bisexual females (16–18 years)[b]	I	Yes/no			50% of males had SA 23% of females had SA
D'Augelli & Hershberger (1993)	Urban community groups	142 gay/bisexual males and 52 lesbian/bisexual females (excluded Kinsey 1s and 2s)[c] (18.9 years)[b]	Q	Yes/no, number, methods	Thoughts, 4-point scale		40% of males had SA 43% of females had SA
Hammelman (1993)	Support groups and university students	28 gay/bisexual males and 20 lesbian/bisexual females (15–32-year age range)	Q	Yes/no, age, number	Yes/no seriously considered, age, number		25% of males had SA 35% of females had SA 36% of males had SI 50% of females had SI
Herdt & Boxer (1993)	Urban community group	147 gay/bisexual males and 55 lesbian/bisexual females (18.3 years)[b]	I	Yes/no	Yes/no thoughts		20% of males had SA 53% of females had SA
Bradford, Ryan & Rothblum (1994)	National advertisements and networks	1,917 lesbians; 167 were 17–24 years	Q	Yes/no	Thoughts, 4-point scale		24% of youths had SA 27% of youths had SI sometimes or often
Proctor & Groze (1994)	Urban support groups	159 gay/bisexual males and 62 lesbian/bisexual females (18.5 years)[b]	Q	Yes/no	Yes/no had seriously thought about it		40% of youths had SA 26% had SI and no SA 34% had neither
Rotheram-Borus, Hunter, & Rosario (1994)	Urban community agency	131 gay/bisexual males (excluded "no labels") (16.8 years)[b]	I	Yes/no, age, number	Seriously thought about it every day for week or more	Family or friend with SA or completion	39% of youths had SA 14% had SA in last month 57% had SI 49% had family/friend with SA or completion
Kofkin & Schwartz (1995)	Community support group	35 gay/bisexual males and 34 lesbian/bisexual females (18.1 years)[b]	Q	Yes/no, number	Thoughts, 4-point scale		48% of youths had SA 73% had SI
Savin-Williams & Wright (1995)	Urban support group	51 gay/bisexual males and 25 lesbian/bisexual females (18.3 years)[b]	Q	Yes/no, lifetime, past year, number, medical attention	Considered, lifetime past year	Plan: yes/no in past year	39% of males had SA 56% of females had SA 71% of males had SI 92% of females had SI
DuRant, Krowchuk, & Sinal (1998)	Public and private junior and senior high schools	3,886 sexually active males (16.1 years)[b]; 338 had sexual intercourse with a male	Q	Yes/no in past year, number			.27 correlation between SA and number of male sex partners

Table 1 (*continued*)

Study	Source	Sample[a]	Suicide measures: Type	SA	SI	Other	Findings
Faulkner & Cranston (1998)	Public high schools	3,054 9th–12th graders; 58 males and 47 females had same-sex contact	Q	Yes/no in past year, number, medical attention	Yes/no seriously consider in past year	Plan: yes/no in past year	28% of youths had SA 20% of SAs medical attention 42% had SI 30% of youths had plan
Garofalo, Wolf, Kessel, Palfrey, & DuRant (1998)	Public high schools	4,159 9th–12th graders; 69 were gay/bisexual males and 35 were lesbian/bisexual females	Q	Yes/no in past year, medical attention	Yes/no seriously consider in past year		35% of youths had SA
Goodenow & Hack (1998)	Public high schools	3,982 youths (16.1 years)[b]; 161 were gay/bisexual youths or had same-sex contact (sex not specified)	Q	Yes/no in past year, number, medical attention	Yes/no seriously consider in past year	Plan: yes/no in past year	54% had SA 78% of youths had SI 71% of youths had plan 39% of youths had SA 51% of youths had SI 36% of youths had plan
Grossman & Kerner (1998)	Community center drop-ins	58 gay males and 32 lesbians (17.6 years)[b]	Q	Yes/no, number	Yes/no thoughts		26% of males had SA 38% of females had SA
!OutProud! (1998)	Internet respondents	2,388 sexual-minority males and 673 sexual-minority females (18 years)[b]	Q	Yes/no, number			56% of youths had SI 22% of youths had SA
Remafedi, French, Story, Resnick, & Blum (1998)	Public schools	730 youths (males, 15.1 years; females, 14.5 years)[b]; 212 were gay/bisexual males and 182 were lesbian/bisexual females	Q	Yes/no	Thoughts and wishes in past month	Intent: intentions to carry out suicide	28% of males had SA 21% of females had SA 31% of males had SI 36% of females had SI 15% of males had intent 10% of females had intent
Waldo, Hesson-McInnis, & D'Augelli (1998)	University students	38 gay/bisexual males and 16 lesbian/bisexual females (excluded Kinsey 1s and 2s)[c] (20.2 years)[b]	Q	Yes/no, number, method	Thoughts, 4-point scale		32% of youths had SA
Fergusson, Horwood, & Beautrais (1999)	New Zealand birth cohort	1,007 youths (21 years)[b]; 11 males and 17 females were LGB or in a same-sex relationship	I	Yes/no	Yes/no thoughts		32% of youths had SA 68% of youths had SI
Garofalo, Wolf, Wissow, Woods, & Goodman (1999)	Public schools	4,167 youths (16.1 years)[b]; 129 were LGB or "unsure"	Q	Yes/no in past year, number	Yes/no seriously considered in past year		35% of LGB had SA 23% of unsure had SA 35% of those with SI had SA
Safren & Heimberg (1999)	Community programs	104 youths; 29 were gay/bisexual males and 27 were lesbian/bisexual females[b] (18.4 years)[b]	Q	Yes/no	Yes/no briefly considered	Plan: thought would work Suicidality: 1 = *no chance* to 5 = *very likely to have*	30% of youths had SA 25% more had SI or plan 1.8 on present suicidality
Yoder (1999)	Homeless street youths	527 youths (16.0 years)[b]; 26 were LGBs	I	Yes/no in past year	4 questions on thoughts and plan		24% of all youths had SA LGBs were equal with heterosexuals in SA, SI, and nonsuicidal groups
Russell & Joyner (2001)	NLSA Health data (representative sample)	453 males and 414 females with same-sex romantic attractions or relationships	Q	Yes/no in past year, number	Yes/no seriously considered in past year		5% of males had SA 11% of females had SA 15% of males had SI 27% of females had SI

Note. Q = questionnaire; I = interview; LH = life history; SA = suicide attempts; SI = suicide ideation; LGB = lesbian, gay, or bisexual; NLSA = National Longitudinal Study of Adolescents.
[a] Unless otherwise specified, subjects are self-identified. [b] Mean age. [c] Sexual-minority youths not traditionally defined as gay, lesbians, or bisexual.

1997 Massachusetts Youth Risk Behavior Survey (YRBS; Goodenow, & Hack, 1998) offers youths four sexual orientation options: "heterosexual, gay or lesbian, bisexual, and not sure." This definition is not inviting because of its unidimensional, limited, forced-choice nature that omits those with a same-sex orientation who identify with another, unnamed sexual category; those who span multiple identities; and those who claim no sexual label (Battle, 1998). Sexual contact, another inclusion variable for assessing sexual orientation on the YRBS, is not defined but because of its proximity to other questions it appears to reference sexual intercourse. However, same-sex-oriented youths who have not had "sexual intercourse"—what this implies for same-sex partners is not clear—may still have erotic feelings for and sexual activities with same-sex others.

Several investigators have acknowledged that many youths who do not identify as gay have same-sex desires, attractions, and romances. For example, Remafedi and colleagues (Remafedi et al., 1998; Remafedi, Resnick, Blum, & Harris, 1992) inquired about several domains of sexual orientation and discovered that youths varied considerably in the extent to which they were willing to acknowledge various aspects of homoeroticism. Only 1.3% of youths identified as mostly or totally homosexual/bisexual or as having had sex with a same-sex other; however, twice as many reported having had sexual fantasies for both sexes or their own sex, and nearly four times as many reported that they had predominant sexual attractions for same-sex others. Despite the clear implication that more than 1–2% of youths surveyed had a nonheterosexual orientation, only self-identification was used to select participants for assessing suicide risk. The data set has not been analyzed to determine whether youths who do not identify as homosexual or bisexual but who have same-sex fantasies or attractions are at increased risk for suicide attempts (G. Remafedi, personal communication, December 6, 1999).

Not addressed empirically is whether elevated rates of suicide attempts are linked to self-identification as lesbian, gay, or bisexual or to some other domain of same-sex attractions. One study that defined the target population not by an identity label but by same-sex romantic attractions (5.3% of the total population) found relatively low rates of suicide attempts during the past year—5% among young men and 11% among young women (Russell & Joyner, 2001). Unfortunately, suicide attempt was calculated with a single question, compromising the validity of the assessment.

Despite concerns about the sample venue and the definition of the target population, the calculated risk of suicide among gay youths has remained considerably above the attempt rates of all other youths. This suggests the possibility of measurement errors. Questions about the validity and reliability of suicide assessment, as well as conflicting definitions of suicide-related phenomena, are long-standing (O'Carroll et al., 1996). Only rarely, however, have these methodological ambiguities been acknowledged in determining the accuracy of suicide attempt reports among sexual-minority youths (Muehrer, 1995; Savin-Williams, 1994). The most critical issues for cross-study comparisons are determining what constitutes a valid definition of suicide attempt, as well as the means to assess it. A common research procedure is to ask one or two cursory or perfunctory questions about suicidality (see Table 1). For example, the YRBS poses two questions—whether a suicide attempt has occurred "within the past 12 months" and whether the attempt has resulted in injury (Garofalo et al., 1998). Another study reported questions that assessed only the number of suicide attempts and the methods used (Hershberger, Pilkington, & D'Augelli, 1997); a third study (Remafedi et al., 1998) reported whether any attempts occurred within the past year, as well as any thoughts and wishes about suicide in the past month with intent to carry them out.

Thus, if a youth reported a suicide attempt—a simple "yes/no" response is usually required—then the researcher counts this as if it actually occurred. Although the veracity of the report is difficult to confirm, few studies have addressed the accuracy of this assessment. Meehan, Lamb, Saltzman, and O'Carroll (1992) argued that investigations seldom address what respondents mean when they report a suicide attempt. The method they advocate is to ask in-depth, probing questions that permit investigators to better distinguish a suicide attempt (a behavioral act) from suicidal ideation (a thought or a plan). In addition, they note that few researchers inquire about the seriousness of the attempt, such as whether it is life threatening or requires medical attention. In their research, the prevalence of self-reported suicide attempts did not reflect rates of self-injury or need for medical care. They concluded that future research should specify for respondents, using precise terminology, what constitutes a suicide attempt through a series of increasingly specific questions. As suggested by one reviewer of this article, an independent verification of the suicide attempt by a knowledgeable adult, such as a physician or nurse, would also increase reliability and validity.

Study 1

To address these population and methodological shortcomings, I conducted two studies. In Study 1, a diverse population of sexual-minority youths was recruited, including those who do not identify as a sexual minority, and a research instrument that probes the nature and intent of reported suicide attempts was developed.

Method

Participants were 83 young women between the ages of 18 and 25 years (M = 21.9) who were initially interviewed by Diamond (1998, 2000) in her longitudinal study of sexual identity development among adolescent and young adult women. Of Diamond's original sample of 89 young women who maintained a nonheterosexual sexual identity or declined to label their sexual orientation, 83 agreed to participate in a phone interview 2 years after the initial assessment. The young adults were recruited for a study of women who have same-sex attractions or who are questioning their sexual attractions. They were recruited from gender and sexuality classes and student groups at Cornell University (38%), SUNY (State University of New York) Binghamton (18%), and Wells College (13%); community events in the Finger Lakes region (17%); and youth support groups in Syracuse and Rochester (13%). The resulting sample was biased toward the inclusion of White (87%) women and women from families with at least one parent in a professional occupation (64%). Asked in an open-ended format for their current sexual identity, 41% identified as lesbian, 33% identified as bisexual, 14% declined to categorize themselves (unlabeled), and 12% reported that they are questioning or are unsure of their sexual identity.

At the conclusion of the 30-min phone interview based on a standard script assessing changes in sexual identity, behavior, and attractions from the Time 1 interview, Diamond followed a written format that I had developed on the basis of several forced-choice questions from the Centers for Disease Control Youth Risk Behavior Survey (Goodenow & Hack,

1998) and open-ended questions detailing suicide attempts developed for my study. First, each young woman was asked whether she had ever considered suicide, and if the answer was "no," then she was asked what factors had helped her to never consider it (interview ended). If the answer was "yes," then she was asked whether she had ever attempted suicide. If the answer was "no," then she was asked what factors had helped her to never attempt suicide (interview ended); if the answer was "yes," then she was asked how many times and at what specific ages she had attempted suicide. For the first three attempts, the following information was assessed:

factors that caused the attempt (open-ended)

severity of attempt, selecting one of the following choices: thought seriously about it, had a plan but did not carry it out; had a method but did not carry out, made serious attempt but no medical intervention occurred, or made serious attempt requiring medical attention

suicide method (open-ended)

injuries (open-ended)

medical intervention (open-ended)

why she survived (open-ended)

A *true attempt* was defined as a "yes" response to whether the individual had attempted suicide and to one of the final two responses on severity of attempt (i.e., whether she made a serious attempt with or without medical intervention). A *false attempt* was a "yes" on attempt and to one of the first three responses on severity of attempt (i.e., ideation, plan, or method without attempt). A *non-life-threatening attempt* was defined as a true attempt with no or minor injuries that required no medical intervention. A *life-threatening attempt* was a true attempt with injuries, often requiring medical attention. Factors that prevented consideration or attempts and reasons why youths survived are not reported here.

Results

Twenty-three percent of the young women reported attempting suicide at least once. Of those who reported at least one attempt, the mean number of attempts was 2.0 (one youth had more than three). Table 2 summarizes responses for these reported attempts. Of the total 34 suicide attempts reported, 29% were *false attempts*—ideation, plan, or method with no attempt. Of the remaining reported attempts, 80% were non-life-threatening—women sustained no or minor injuries and required no medical intervention. At the individual level, 26% of youths who reported a suicide attempt did not actually attempt suicide. Factoring out these individuals, the total percent of youths with true attempts dropped from 23% to 17%. Five percent of the total sample of young women reported a life-threatening suicide attempt. The reported attempt rate and the true attempt rate did not vary by sexual identity group, age, or ethnicity (all $ps > .05$).

The young women were subsequently divided into two groups, those from community support groups ($n = 11$) and those solicited from university and community classes and organizations ($n = 72$). The former were younger by an average of 2 years, less likely to be White (64% vs. 90%), and more likely to identify as lesbian (82% vs. 35%). Their suicide attempt rate was 45% (9% life threatening), with no reported false attempts; for the latter group, the suicide attempt rate was 19% (4% life threatening), with a true attempt rate of 13%. This group difference in true attempts was significant, $\chi^2(1, N = 83) = 7.39, p < .01$.

Discussion

A broadly defined and recruited population of sexual-minority young women reported a suicide attempt rate that was lower than most previous populations of gay youths (e.g., Grossman & Kerner, 1998; Hershberger et al., 1997) and comparable to the findings of a few investigators (e.g., Remafedi et al., 1998; Russell & Joyner, 2001). A second expectation, that youths would report a high level of false suicide attempts, was supported among the broad population of sexual-minority youths but not among young women in support groups. Thus, the suicide attempt rate decreased to 13% true attempts among non-support-group young women, only slightly above the 9% rate reported in the YRBS for non-gay-identified youths (see Ryan & Futterman, 1998). Although the number of young women recruited from support groups was small, they reported a suicide attempt rate comparable to those found in previous studies of at-risk lesbian and bisexual youths; however, only 1 young woman reported a life-threatening attempt.

These results suggest that the elevated rates of suicide attempts reported by other investigators are accurate if the sample is restricted to a select subpopulation of sexual-minority youth, if false attempts are not distinguished from true attempts, and if life- and non-life-threatening suicide attempts are not differentiated. Findings further indicate that the high incidence of potentially lethal

Table 2
Study 1 Seriousness of First Three Suicide Attempts And Percentage of Youths With Reported, True, And Dangerous Attempts

Suicidality measure	First attempt ($n = 19$)	Later attempts ($n = 15$)
Mean age (in years) when attempt occurred	14.6	15.8
Seriousness of attempts		
Thought seriously about it	0%	0%
Had a plan but did not carry it out	0%	7%
Had a method but did not carry it out	26%	27%
Made serious attempt but no medical intervention occurred	68%	47%
Made serious attempt requiring medical attention	5%	20%
Youths with a reported attempt	23%	
Youths with a true attempt	17%	
Youths with a life-threatening attempt	5%	

suicidality cannot be generalized to the much larger population of youths with same-sex attractions, highlight that greater inclusivity is needed when defining sexual-minority populations, and imply that previous investigations might have a serious research design flaw—inadequate assessment of the truthfulness of reported suicide attempts. Safren and Heimberg (1999) also observed a lower rate of suicide attempts when ideation alone was eliminated. Distinguishing true from false attempts attenuates the overall suicide attempt rate; differentiating life-threatening acts from those that result in no or slight injuries separates acts that have different intentions or functions.

Although informative, this study had several shortcomings. First, the nonanonymity of the interview format might influence responses on a topic as emotionally laden as suicide. Second, no control group was included. The next step was to test population differences by expanding the sample to include young men and women of all sexual orientations and by changing the methodology from an interview format to one in which anonymous questionnaires were distributed.

Study 2

Study 2 endeavored to replicate and extend findings from Study 1 with a mixed gender and mixed sexual orientation design. By defining a diverse population of sexual-minority youth with reference to a variety of sexual orientations and by distinguishing true from false attempts, I predicted that true suicide attempt rates would not differ by sexual orientation.

Method

The study was advertised as research investigating childhood and adolescent activities, hobbies, sports participation, teasing, friendships (all of which are not reported in this study), and suicide risk. Anonymous questionnaires were distributed in several introductory human development and sexuality college courses during 1998–1999. After completing the questionnaire during class, students placed it in a box and gave their name to a teaching assistant for extra credit. Thus, no names were attached to a questionnaire and completion of it was not necessary to receive extra credit. These instructions were given before the questionnaires were distributed and met the ethical concerns of the institutional human subjects committee. The questionnaire took 5–15 min to complete. Questions about suicidality were identical to those used in Study 1.

Of those in attendance, 88% completed the survey. The final sample consisted of 266 youths between the ages of 17 and 25 years old (M = 20.2)—73 female and 53 male sexual minorities who reported themselves to be at least "slightly homosexual" (Kinsey 1–6; Kinsey, Pomeroy, & Martin, 1948) and 79 female and 61 male heterosexuals who reported that they were "exclusively heterosexual" (Kinsey 0). The four groups did not vary by age, ethnicity (66% Caucasian), or hometown community location (48% suburban, 30% small town or rural, 23% urban).

Results

Sexual-minority men and women did not differ on reported suicide attempts and each was twice as likely as heterosexual young women and ten times more likely than heterosexual young men to report a suicide attempt (Table 3). Heterosexual young men reported significantly fewer suicide attempts than heterosexual women, $\chi^2(1, N = 140) = 4.94, p < .05$; sexual-minority women, $\chi^2(1, N = 134) = 12.34, p < .001$; and sexual-minority men, $\chi^2(1, N = 114) = 12.38, p < .001$. Approaching significance, heterosexual women had fewer suicide attempts than sexual-minority women, $\chi^2(1, N = 152) = 3.06, p < .10$; and sexual-minority men, $\chi^2(1, N = 132) = 3.00, p < .10$.

No significant differences were found among gender/sexual orientation groups in true suicide attempts. Approaching significance, heterosexual men had lower rates than sexual-minority men, $\chi^2(1, N = 114) = 3.30, p < .10$; and sexual-minority women, $\chi^2(1, N = 134) = 3.57, p < .10$. Three percent of sexual-minority and heterosexual women, 6% of sexual-minority men, and 0% of heterosexual men reported a life-threatening gesture requiring medical intervention ($p > .05$).

True attempts did not vary by age, educational level, community size, or ethnicity (all $ps > .05$). Within-group sexual orientation rating was not related to true attempts among sexual-minority women but was among sexual-minority men, $F(547) = 9.14, p < .0001$. Post hoc Bonferroni correction tests applied to the male participants' data revealed that young men who rated themselves a *Kinsey* 2 (predominantly heterosexual, but significantly homosexual) were more likely to report a true attempt than were all other

Table 3
Study 2: Seriousness of First And Later Suicide Attempts And Percentage of Youths With Reported, True, And Dangerous Attempts Separate By Sex And Sexual Orientation

	Sexual-minority women		Sexual-minority men		Heterosexual women		Heterosexual men	
Suicidality measure	First attempt	Later attempts	First attempt	Later attempts	First attempt	Later attempts	First attempt	Later attempts
Mean age (in years) when occurred	14.8	16.9	15.8	16.6	15.9	16.2	20.0	—
Seriousness of attempts								
Thought seriously about it	6%	0%	17%	0%	0%	20%	0%	0%
Had a plan but did not carry it out	25%	13%	0%	20%	11%	40%	0%	0%
Had a method but did not carry it out	25%	38%	42%	40%	22%	20%	0%	0%
Made serious attempt but no medical intervention occurred	31%	38%	17%	40%	44%	20%	100%	0%
Made serious attempt requiring medical attentions	13%	13%	25%	0%	22%	0%	0%	0%
Youths with a reported attempt	22%		23%		11%		2%	
Youths with a true attempt	10%		9%		8%		2%	
Youths with a life-threatening attempt	3%		6%		3%		0%	

sexual-minority male groups (all paired comparisons, $p < .01$). Sexual-minority males not traditionally defined as gay or bisexual (Kinsey 1s and 2s) reported a higher rate of suicide attempts than did gay and bisexual males (33% vs. 20%) and were more likely to have a true attempt (22% vs. 7%). This did not characterize young females (22% vs. 22% and 11% vs. 8%, respectively). Comparing gays (Kinsey 5s and 6s) and gays/bisexuals (Kinsey 3–6s) with heterosexuals (Kinsey 0s) of the same sex revealed no significant group differences for females or males (all $ps > .05$).

General Discussion

Consistent with previous findings, results from the two studies indicate that sexual-minority youths report higher rates of suicide attempts than do heterosexual youths. However, because many of these reports were false and because life-threatening true attempts did not vary by sexual orientation, the assertion that sexual-minority youths as a class of individuals are at increased risk for suicide is not warranted. Two methodological considerations might account for this conclusion. First, by broadening the target population beyond those likely to attend support groups and to self-identify as gay on high school questionnaires, the studies included sexual-minority populations that have seldom been sampled in the suicide attempt literature. Second, by assessment of suicide attempts through an in-depth methodology, it was possible to distinguish false from true suicide attempts.

In terms of population issues, several investigators of suicidal risk recognize that gay-identified adolescents are a subset of all youths and that they may indeed be disproportionately at risk for negative health outcomes and risk behaviors (Garofalo et al., 1998, 1999; Hershberger et al., 1997; Remafedi, Farrow, & Deisher, 1991). However, those who report the data seldom moderate their conclusions to include the caveat that most individuals with same-sex attractions do not identify themselves as gay. The net effect is that conclusions about suicide risk among sexual-minority youths are based not on same-sex attractions but on self-identification (McConaghy, 1999; Savin-Williams, 1994). Perhaps identifying as gay, lesbian, or bisexual during adolescence places one at risk because of society's disparaging attitudes toward sexual minorities, creating minority stress (Meyer, 1995; DiPlacido, 1998). Alternatively, claiming a gay identity prior to adulthood might overrepresent at-risk populations, independent of sexual identification or same-sex attractions. These early identifiers might include youths who were bullied by peers because of their sex atypicality, lived in dysfunctional families, abused substances, or suffered mental illness—all of which place youths, regardless of sexual orientation, at risk for psychological disturbance (Shaffer et al., 1995). By identifying during adolescence, gay youths may seek to find support, resources, and relief from their troubled histories.

Thus, researchers who rely solely on gay-identified youths might be omitting significant, more diverse and representative populations of youths with same-sex attractions. The usefulness of sexual categories per se is increasingly being questioned by researchers because of their limited efficacy in predicting basic developmental processes and because of their tendency to be misinterpreted (e.g., overlap among categories are often minimized and confounding variables that drive hypothesized effects are neglected; Diamond, 1998, 2000; Muehlenhand, 2000). One simple solution would be to eschew sexual labels altogether and rely on descriptions of sexual behaviors, desires, and attractions. Although several examples of such instruments have been published, few researchers incorporate these more complex measures into their research design. For example, in addition to identity questions, Sell (1996, 1997) and Friedman (2001) have developed sexual orientation scales that assess the intensity and frequency of sexual interests and behavior that an individual has toward men and women.

Although the generalizability of the present studies' findings to populations of youths with other demographic characteristics is unknown, it is worth noting that the participants' initial suicide attempt reports, regardless of sexual orientation category, were comparable to those found in previous investigations. This suggests that the critical issue accounting for the novel findings is one of measurement rather than population sampled. However, supplementing simplistic suicide measures is difficult in many studies because they rely on large-scale data sets that limit investigators to secondary data analyses of previously established questionnaires (e.g., Garofalo et al., 1998, 1999; Remafedi et al., 1998). Investigators can seldom determine through standardized or detailed measures of suicidality the reliability or the validity of the suicide attempt reports that are the basis of their conclusions. However, the current data intimate that forsaking a detailed assessment of suicide history in favor of a simple, one or two question measure is problematic because some sexual-minority youths confuse, embellish, or fabricate their suicide attempt history, as evident in their overreports, perhaps by a factor of one half. Unknown is why sexual-minority individuals are more likely than heterosexuals to claim a suicide attempt when indeed no such "event" took place. Further obscuring the picture, the vast majority of true attempts are likely to be non-life threatening, resulting in no or minimal injuries. The difference between an act with minor self-inflicted consequences where suicidal intent may or may not have been present and a determined attempt to end life would appear to be a vital distinction that must be acknowledged. Not only would this distinction aid mental health professionals attempting to target services for those most in need, but it might also lessen the stigma attached to being young and gay in American culture.

Consistent with O'Carroll et al.'s (1996) proposal for a consensus on suicidology nomenclature, it is also critical to reach agreement on measures that assess suicidality. At the minimum, this should include clearly defined, behaviorally based statements that incorporate and distinguish intent, plan, method, act, and consequence (e.g., type of injuries, medical care). One reviewer of this article suggested that respondents should also indicate the strength to which they endorse these statements on a Likert scale to enhance clarity and, thus, reliability; to reduce problems of circularity; and to restore meaning and true utility (validity) to the term *suicide attempt*. The nearly incomprehensible and diverse definitions applied to *suicide attempt* in the studies reviewed in Table 1 have made the term an undefined, anomalous construct.

Whatever it is that is being measured, sexual-minority youths appear more inclined than other adolescents to reply in the affirmative when simplistic suicide attempt research instruments are used. Perhaps they believe the exaggerated popular culture and gay press news bulletins of high suicidality among gay youths. That is, some youths may come to subscribe to a "suffering suicidal" script, a myth stating that suicide is a rite of passage for being young and gay (Russell, Bohan, & Lilly, 2000; Savin-Williams,

1990). Although reasons for false suicide attempt reports were not explored, perhaps youths merely misunderstood the questions. However, it is difficult to explain why heterosexual youths did not share the same confusion. Perhaps the false attempts and the relatively minor true attempts were intended to communicate, using the researcher in a triangular fashion, to a larger audience the distress that gay youths encounter through stigmatization, harassment, and discrimination.

Clearly, some sexual-minority youths, including the support-group young women in Study 1, are at risk for self-harm. It is incumbent on adults who work with these youths to accurately identify them so that effective medical and mental health interventions can be delivered. However, to target "gay youths" as a sexual category for such programs could increase harm rather than promote wellness, (a) by enhancing behavior that investigators and clinicians seek to halt (youths attempting suicide to prove their "gayness"), (b) by preventing behavior that they seek to advance (youths acknowledging their same-sex status), and (c) by providing sustenance to arguments that youths should not "choose" to be gay because it inevitably results in a horrible or deadly life (LaBarbera, 1994). Troubled sexual-minority youths may be most susceptible to this message. Nearly 30 years after major mental health organizations and agencies depathologized homosexuality, sexual-minority youths remain excluded from this modification, portrayed by scientists and clinicians as exceptionally vulnerable individuals who live high-risk lives.

An alternative perspective has emerged that recognizes the resiliency of youths to cope with the daily stresses of experiencing same-sex attractions (Savin-Williams, 1990, 1998, 2001b). Most sexual-minority youths, even early identifiers, do not attempt suicide. Future research agendas should document the ways in which sexual-minority youths, similar to most adolescents, become resilient, coping, healthy adults. This can be done without ignoring those who suffer, sometimes to the point of ending their lives.

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