Suicide Attempts among Norwegian Gay, Lesbian and Bisexual Youths

General and Specific Risk Factors

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abstract: The aim of the study was to identify the specific factors that affect the risk of attempted suicide in Norwegian gay, lesbian and bisexual (GLB) youths beyond the effect of general risk factors presumed to be of importance irrespective of sexual orientation. The national non-probability sample included 407 GLB youths aged between 16 and 25 years of age, among whom 26 per cent of both genders reported a previous suicide attempt. General risk factors for attempted suicide among GLB youths were: lack of parental contact, internalizing problems (depression/anxiety), low self-esteem, regular smoking and victimization. The following risk factors specific for GLB youths increased the risk of attempted suicide even when controlling for general risk factors: currently being in a steady heterosexual relationship, early heterosexual debut (<16), young age of coming out (<15), infrequent contact with heterosexual friends and openness to all heterosexual friends. For practitioners engaged in social work among young people in general or GLB youths in particular, these results show that while coming out is a vital aspect of sexual identity formation that enhances psychological well-being and should be celebrated, in another sense it is a serious stressor with potentially negative consequences unless a strong social support network is there to be relied upon.

keywords: adolescence ◆ identity ◆ risk factors ◆ sexual orientation ◆ suicidal behaviour ◆ young adults

Introduction

> From the time I was 14 and onward I was scared to death when thinking about what might happen, if I would be put in jail . . . From time to time, I was very depressed. What kept me going was simply thinking that I was not going to live my life as a grown-up [lesbian]. I put the limit at age 26. I thought that I would not be disclosed before that, because before the age of 26 it would not be suspicious not having a husband and children of your own. (Hegna et al., 1999: 285, translated from the Norwegian)

This is a Norwegian middle-aged lesbian who grew up in the 1950s talking about her adolescence and her fear of being exposed as lesbian. Growing up as a young lesbian in the 1950s must have been different from being young and gay or lesbian today. Since that time we have

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witnessed an important change in public opinion and understanding of homosexuality in all western countries. In Norway, homosexuality has been decriminalized (1974), people of the same sex are allowed to register their partnership (1993) and the Minister of Finance as well as the Chief Commissioner of Oslo City Council are both openly gay (2005). Public attitudes toward gays and lesbians in Norwegian society are steadily moving towards positive acceptance (Hegna et al., 1999). It is a mystery, then, that suicide attempts and mental health problems are alarmingly frequent among today's gay, lesbian or bisexual (GLB) youths, as stated in a Norwegian report on the living conditions of gays and lesbians (Hegna et al., 1999).

During the past couple of years, several high-quality quantitative studies based on probability samples have confirmed that GLB youths are at three to four times greater risk of attempting suicide than heterosexual young people in Norway (Wichstrøm and Hegna, 2003), in the United States (Bagley and Tremblay, 1997; DuRant et al., 1998; Faulkner and Cranston, 1998; Garofalo et al., 1998; Garofalo et al., 1999; Remafedi et al., 1998) and in New Zealand (Fergusson et al., 1999). The gender difference in attempted suicide among GLB youths has been found to be non-existent (Wichstrøm and Hegna, 2003) or to be the opposite of what is found in general studies of youth and young adults (Remafedi et al., 1998, Garofalo et al., 1999). In studies of mortality among hospitalized suicide attempters over a 10-year period in Helsinki it was found that an attempt to take one's own life is indicative of a severe risk of premature death and that suicide accounts for a substantial part of these (Ostamo and Lönnqvist, 2001), while a comparable study in Norway showed that 2.4 per cent of hospitalized suicidal people died of suicide during the 12-year surveillance period (Dieserud et al., 2000). As far as completed suicide in adolescence is concerned, however, research has not been able to establish higher rates among GLB youths (Shaffer et al., 1995). Still, the high prevalence of suicide attempts in this population is of concern and important questions remain regarding the processes and characteristics of GLB adolescent suicidal ideation and what may underlie this sign of distress or depression.

Research on suicide and attempted suicide is dominated by psychological and psychiatric perspectives. This literature often stresses intrapersonal and latent risk factors for suicide, such as high levels of depression and anxiety and low self-esteem (Brent et al., 1999; Garland and Zigler, 1993; Reifman and Windle, 1995; Wichstrøm, 2000). Depression and low self-esteem have been found to account for the female preponderance in suicide attempts among Norwegian youths (Wichstrøm and Rossow, 2002). Bjarnason and Thorlindsson (1994) have argued that a synthesis of prediction models based on latent factors like depression and self-esteem and a framework of lifestyle indicators would greatly improve our understanding of the processes leading to attempted suicide (Bjarnason and Thorlindsson, 1994). Among such general lifestyle indicators, the use of alcohol and drugs has been found to be important (Rossow et al., 2005; Rossow and Wichstrøm, 1994). In the case of gay and lesbian young people, this combined strategy seems particularly well suited in view of the social implications of belonging to a sexual minority and developing a non-heterosexual identity in adolescence and young adulthood.

The sociological literature within the Durkheimian research tradition on suicide (attempts) points out social integration, regulation and anomie as key issues in the empirical and theoretical approaches to the study of suicide (Thorlindsson and Bjarnason, 1998). Factors such as living in a one-parent family (Wichstrøm, 2000) and infrequent support from parents, parents' excessive drinking and low socio-economic status (Grøholt et al., 2000) have all been found to be risk factors associated with attempted suicide (Grøholt et al., 2000; Wichstrøm, 2000; Wichstrøm and Rossow, 2002) among Norwegian youths. These risk factors are taken to be indications of low social support and social integration (Grøholt et al., 2000). From a sociological perspective it is important to discern how the particular situation of growing up as gay, lesbian or bisexual may affect social integration and support, and in turn psychological well-being.

Particular challenges to gay, lesbian or bisexual youth

What are the specific challenges related to growing up as gay, lesbian or bisexual, and what are the possible consequences of sexual orientation on psychological well-being and social integration? The context for developing a GLB identity for young people is above all the stigma attached to homosexuality. The social importance of belonging to a stigmatized identity category involves the danger of 'turning those of us whom he meets away from him' (Goffman, 1963/1990: 14–15) and the loss of social acceptance. Following this, the stigmatized person is in need of controlling information that might reveal the stigma, and help him/her come to a decision on whether to 'come out' or to 'pass as normal' (Goffman, 1963/1990).

Being part of a social network is important for all young people, and for GLB youth it will be important to be part of both sexual majority and sexual minority social groups in addition to the family. A GLB individual who is afraid of situations and people that could contribute to disclosure or exposition of his or her sexual orientation could choose to avoid social settings and withdraw from peers, family or other social contexts. Finding a social network of other GLB youth on the other hand may be difficult, although this is an important part of the process of coming out (Herdt and Boxer, 1993). If such networks are unavailable, further problems related to feeling alone and feeling like an outsider may be reinforced. The stigma of homosexuality may thus have profound social consequences, e.g. rejection, lack of acceptance, lack of social integration and social support for GLB youth, and may in turn result in depression, low self-esteem and loneliness.

For many, becoming aware of one's homoerotic attractions and the first same-sex sexual contacts will be the start of achieving a GLB self-identity. Since most, if not all, Norwegian youths grow up in a heteronormative context, such an identity development must inevitably be pushing to the side an already ascribed heterosexual identity. Heteronormativity is the other important factor in the contexts of GLB identity development. Norms regarding heterosexual sexuality, love, coupling and gender are important aspects of what Durkheim termed our 'collective conscience'. The breakdown of this heteronormativity for GLB youths is thus not far from what we may call an anomic state (Durkheim, 1952/1992). While most heterosexual youths more or less follow the prescribed path to adulthood through dating and coupling, GLB youths may have to face the future lacking the role models, social structures and sexual scripts that guide them into adult gay or lesbian life. A result of this may be hopelessness for the future, which is a known risk factor for suicidal behaviour (Brent, 1995). Heteronormativity could also lead to denial of same-sex attractions or attempts to pass as heterosexual, for instance by going steady with someone of the opposite sex. Denying a homosexual orientation could present the individual with particular stress because of the mismatch between heteronormative expectations and a homosexual self and thus conflicts with the cultural value of 'authenticity' (Holt and Griffin, 2003). Thus, identity conflicts, lack of role models and normative futures are also factors that may negatively influence the psychological well-being of GLB youths.

Consequences for research

One possible explanation behind the higher risk of attempted suicide among GLB youth may be that their particular situation contributes to elevated levels of general risk factors[1] to suicide. Recent North American, European and New Zealand representative studies of GLB youths have revealed higher rates of important risk factors such as depression, anxiety, alcohol and drug abuse, threats and victimization (Hunter, 1990; Pilkington and D'Augelli, 1995; Bagley and Tremblay, 1997; DuRant et al., 1998; Faulkner and Cranston, 1998; Garofalo et al., 1998; Fergusson et al., 1999; van Heeringen and Vincke, 2000; Russell and Joyner, 2001). However, as Wichstrøm and Hegna (2003) have shown, GLB youth are still at a higher risk of attempting suicide than heterosexual youths even when the general risk factors (depressed

mood, low self-esteem or indicators of poor social integration) are controlled for. These findings imply that some of the risk associated with attempted suicide is related to factors that are specific for GLB youths and are related to their particular life situation, but that a higher level of general risk factors is not the only explanation.

Several studies based on non-representative samples of GLB young people in the United States address the question of suicide risk factors specific for gay, lesbian or bisexual youths, and compare between those who attempt suicide and those who do not. In these studies, based on non-representative samples, one can investigate the risk factors that are specific to GLB people, e.g. early awareness of homosexuality or gay-related stress, in which comparison with heterosexuals is not particularly meaningful. In these studies, those who attempted suicide were found to be more open about their sexual orientation, more likely to have lost a friend after disclosing their homosexual orientation, and they reported earlier awareness of homosexuality and more gay-related stress (i.e. disclosure or discovery of sexual orientation by friends and family) (Schneider et al., 1989; D'Augelli and Hershberger, 1993; Rotheram-Borus et al., 1994; Hershberger et al., 1997).

The complex challenge of understanding the causes of the higher risk of attempted suicide among GLB youths must therefore consider between GLB suicide attempters and non-attempters in GLB samples, and include both general and specific risk factors behind suicide attempts (McDaniel et al., 2001). By controlling for these general risk factors, the importance of specific risk factors can be made more explicit. In the present article we pursue this line of research.

However, the nature of the population of GLB youths calls for special consideration in sampling procedures. All the referred to North American non-probability studies were based on small samples (n = 48–194) of predominantly or exclusively males – many recruited from GLB social service groups – in North American urban areas. Multivariate analyses are few and, when conducted, the samples consist of males only. To delineate risk factors behind suicide among GLB youths, not only do we need larger samples of males and females, but the recruitment of respondents has to be made from a broad variety of social settings in both urban and rural areas. The sample must also be large enough for multivariate and gender-specific analyses to be conducted where general risk factors can be controlled for. Finally, there is a need for studies from contexts other than the North American. We do not know whether the processes that lead to a higher risk of attempted suicide among Norwegian GLB youths are any different from those in research on United States GLB youth samples.

Aim of the study

The present study highlights the risk factors for attempted suicide in a self-recruited, nation-wide sample of GLB youths/young adults of both genders in Norway. Do risk factors specific for GLB youths such as anti-gay victimization, integration in heterosexual or homosexual peer networks, aspects of coming out and disclosure, and sexuality/sexual relationships increase the risk of attempted suicide over and beyond the effect of risk factors presumed to be of importance irrespective of sexual orientation? What is the time relationship between coming out (i.e. talking to somebody about one's sexual orientation for the first time) and the suicide attempt? Are difficulties in the process of coming out and self-acceptance as homosexual subjective reasons for an attempted suicide?

Method and sample

Data were collected through the national survey 'Living conditions and quality of life among lesbians and gay men in Norway', a study aimed at describing the lives of gay men and lesbians of all age groups (Hegna et al., 1999). For the purpose of the present study, a subsample of GLB

youths/young adults was extracted consisting of 407 self-identified gay, lesbian and bisexual adolescents and young adults (age 15–25, mean age 21.7 years, SD = 2.43). All respondents were asked to complete a 15-page questionnaire in Norwegian, covering a wide range of topics. Eighty per cent of the respondents considered themselves to be gay or lesbian, 7.5 per cent bisexual. Respondents who indicated a homosexual orientation with elements of heterosexuality (9.1 per cent), a heterosexual orientation with elements of homosexuality (2.0 per cent) or who were unsure (1.4 per cent) were also included in the subsample, since many young people do not consider themselves to have a sexual identity as gay/lesbian during the transitional period of 'coming out' (Herdt and Boxer, 1993).

To maximize the probability of all relevant social groups of respondents being represented, subjects were recruited to the study through different channels and from different arenas. With regard to the subsample, 42 per cent of the respondents reported that they had received the questionnaire as an insert in a Norwegian monthly gay/lesbian magazine/newspaper, 19 per cent received it from the national gay/lesbian organization (L.L.H.), 11 per cent had been given it by a friend, 8 per cent had received it at a GLB meeting or café/bar. Eleven per cent had telephoned NOVA (Norwegian Social Research) and had downloaded the questionnaire from NOVA's web page or had obtained it through other sources (9 per cent missing information).

Special emphasis was put on recruiting very young respondents (<20 years), respondents living outside the urban areas of Norway, female respondents and respondents with no membership or affiliation to the gay/lesbian organization/movement. Of the subsample of adolescents/young adults, 43 per cent were female and 19 per cent were younger than 20 years of age. Forty per cent lived outside cities with a population of 100,000 inhabitants and half of these lived in rural areas or in small towns (<20,000 inhabitants). Thirty-eight per cent were not members of any kind of gay/lesbian organization or organized activity for gays/lesbians, but only 9 per cent had not been to a gay/lesbian bar/cafe/club during the previous 12 months. Norway is a relatively ethnically homogeneous country, thus only 2 per cent of the respondents had parents both of whom were born outside Norway. The distribution of respondents according to socio-economic indicators resembled that of the Norwegian population in general. Although we cannot assess the representativity of the sample, the sample is a good general representation of all relevant social groups (Hegna et al., 1999).

The first step was a descriptive analysis of number of suicide attempts, self-reported reasons for wanting to take one's own life, and age of first attempt reported by the respondents in this particular sample. The logistic regression strategy was first to analyse the bivariate associations between the relevant independent variables and the dependent variable – suicide attempt. Based on these associations, larger multivariate logistic regression models were then constructed. The aim of these multivariate analyses was to identify specific explanatory factors that have an impact on the probability of attempted suicide among gay/lesbian youths and young adults, controlling for relevant background factors and general suicide risk factors.[2] The models were tested in separate runs for males/females and youths/young adults.

Instruments

Suicide attempt: The prevalence of attempted suicide ever was measured using the general question: 'Have you ever tried to take your own life?' The alternative responses were: 'No, never', 'Yes, once' and 'Yes, several times'. This question was used as the dependent dichotomous variable in logistic regressions, where respondents reporting one or several suicide attempts were assigned the value 1. In the follow-up, respondents were asked to indicate their age at the time of the (first) attempt. They were also asked to tick off the most important reasons for attempting to take their own life on a list of 17 possible reasons (Bancroft et al., 1976; Schneider et al., 1989).

Table 1 *List of general risk factors to suicide attempt among young people*

	Scale Range/ Categories	Mean/%	Values
Intrapersonal variables			
Internalizing problems	1–4	1.63	Not troubled to very much troubled
Rosenberg's Self-esteem Scale	0–3	2.17	Low to high
Social life style and social integration variables			
Lack of parental contact	0–2	0.32	Contact monthly to more seldom
Lack of close friends	1–3	1.20	Several close friends to none
Smoking habits		49%	Non-smoker (0)
		13%	Occasional smoker
		38%	Regular smoker
Frequency of alcohol consumption		19%	Less than once per month (0)
		60%	Once per month–once per week
		20%	Twice per week–daily
Frequency of alcohol intoxication		52%	Less than once per month (0)
		40%	2–6 times per month
		8%	7 times per month or more
Rutger's Alcohol Problem Index	0–2	0.32	Low to high
Cannabis use during the last 12 months	0,1	25%	No use vs Once or more/last 12 m
Use of other drugs during the last 12 months	0,1	8%	No use vs Once or more/last 12 m
Experiences of physical violence or serious threats during the last 12 months	0–3	0.32	No victimization to threats and visible bruises

General risk factors (Table 1): Intrapersonal, latent factors included internalizing problems, measured by self-reported anxiety and depression during the previous 14 days (Hopkins Symptom Checklist HSCL; Derogatis et al., 1974) and global self-esteem, measured using the mean score for four items from Rosenberg's Self-esteem Scale (Rosenberg, 1965).

Manifest and interpersonal general risk factors included familial and peer social support as well as substance use and violence. Lack of parental contact was measured according to the average frequency of meeting or having telephone contact with mother or father, while number of intimate friends was used as a measure of social support in the peer group. The respondents were also categorized according to their smoking habits. Excessive use of alcohol was measured by frequency of alcohol consumption as well as by frequency of alcohol intoxication, the latter assessed by a question about alcohol intoxication during an average month in the previous year. To measure alcohol problems, five items from Rutger's Alcohol Problem Index (RAPI) were used (White and Labouvie, 1989). Respondents' use of illegal drugs was measured using two dichotomous variables on cannabis use and use of other drugs during the previous 12 months. Violent victimization was calculated using three items: serious threats of violence, being hurt without getting bruises or visible injuries, and being hurt with visible bruises or injuries during the previous 12 months.

Specific risk factors (Table 2): In order to separate general victimization from anti-gay victimization, we wanted to find out whether any of the respondents' experiences of violence, in the respondents' own opinion, were related to their sexual orientation. We also asked if the

Table 2 *List of specific risk factors to suicide attempt among gay/lesbian young people*

	Scale Range/ Categories	Mean/%	Values
Experiences of physical violence/ threats associated with sexual orientation last 12 months	0,1	17%	No, yes
Harassment/discrimination in the workplace (0–3)	0–3	0.46	Never to serious discrimination
Bisexual	0,1	20%	No, yes
Age of heterosexual debut		46%	Never (0)
		16%	Younger than 16 years
		28%	16–18 years
		10%	19 years or older
Age of homosexual debut		9%	Never (0)
		23%	Younger than 16 years
		31%	16–18 years
		37%	19 years or older
Currently in a steady homosexual relationship	0,1	43%	No, yes
Currently in a steady heterosexual relationship	0,1	6%	No, yes
Frequency of contact with heterosexual friends		36%	Daily (0)
		40%	Weekly, not as often as daily
		16%	Monthly, not as often as weekly
		8%	Yearly, not as often as monthly
Frequency of contact with homosexual friends		21%	Daily (0)
		44%	Weekly, not as often as daily
		21%	Monthly, not as often as weekly
		9%	Yearly, not as often as monthly
		5%	Rarely/have no homosexual friends
Age of 'coming out'		30%	20 years or older (0)
		60%	15–19 years
		9%	Younger than 15 years
Mother's/ Father's initial reaction	0,1	Mo = 51% Fa = 57%	Relatively/predom. positive vs negative
Mother's/ Father's present reaction	0,1	Mo = 32% Fa = 45%	Relatively/predom. positive vs negative
Being 'out' to heterosexual friends		74%	All/most heterosexual friends know (0)
		19%	Some heterosexual friends know
		6%	No heterosexual friends know
Being 'out' at work/school		48%	All/most colleagues know (0)
		26%	Some colleagues know (3)
		14%	No colleagues know (2)
		12%	Have no colleagues/co-students (1)
Public visibility as gay/lesbian	0,1	49%	Not visible vs visible
Shame and self-acceptance	1–4	1.59	High self-acceptance to low self-accept.

respondents had experienced any of eight different kinds of anti-gay harassment/discrimination in the workplace or at school.

Respondents assessed their own sexual orientation. Apart from 'gay/lesbian', other possible answers were 'bisexual', 'homosexual with elements of heterosexuality', 'heterosexual with elements of homosexuality' and 'uncertain sexual orientation'. Answers other than 'gay/lesbian' were given the value 1 on a dichotomous bisexuality variable. Experiences of heterosexual intercourse can be understood as a specific risk factor in a sample of homosexual individuals, in addition to the probable general risk of experiencing sexual intercourse at an early age. In asking two questions about age of sexual debut, we assessed both age of heterosexual debut and age of homosexual debut for all respondents. To identify those with an early debut, the answers were transformed into two categorical variables with three age categories, using non-debutants as the reference category. We also assessed current steady relationships with either sex; steady homosexual relationship and steady heterosexual relationship.

Social support is an important dimension, and since we needed to identify possible differences in the level of social integration in majority and minority peer networks, frequency of contact with homosexual friends was assessed separately from frequency of contact with heterosexual friends.

All aspects of coming out and issues related to identity formation are deemed of particular importance. Asking 'How old were you the first time you talked to somebody about your sexual orientation' assessed age of coming out. In the follow-up, we asked how the respondent's mother/father had initially reacted to finding out that their son or daughter was homosexual, and also what their present reaction to this was. The respondents who reported a negative reaction from their parents were compared to the others by mother's/father's initial reaction and mother's/father's present reaction. The degree to which respondents had told their friends and colleagues/co-students was also recorded. For the two questions about being out to heterosexual friends and being out to colleagues/co-students, possible answers were 'all/most know', 'some of them know' and 'no one knows'. Finally, we asked all respondents to assess their public visibility as gay/lesbian by asking if they in any way believed that they could be recognized as gay/lesbian by strangers in public, by way of dress, body language, buttons/badges or by caressing boyfriend/girlfriend. A scale of shame and self-acceptance as gay/lesbian was constructed as an additive index of three statements (I sometimes feel ashamed of being gay/lesbian; I accept myself fully as gay/lesbian; Most of the time I want others to know that I am gay/lesbian) (Cronbach's $\alpha = 0.65$).

Results

Twenty-six per cent of the adolescents and young adults in the sample had tried to take their own life at least once during their lifetime; 17.1 per cent had one attempt and 8.9 per cent had several attempts behind them. There was no difference between male (25.8 per cent) and female (26.3 per cent) respondents. The mean age for the first attempt was 17.1 years for males and 16.2 years for females ($t = -1.44$ (d.f. = 103), ns), and 37.1 per cent were younger than 16 years when the first attempt took place. The sample covers an age span of 10 years, but there was no difference in prevalence of suicide attempt(s) between adolescents (15–21 years) and young adults (22–25 years) (chi square = 0.01 (d.f. = 1), ns). Most of the respondents reported at least one same-sex sexual experience (90.9 per cent).

The majority (54.1 per cent) of attempts had been made after or during the year of homosexual debut, and an additional 12.2 per cent had been made during the year before sexual debut. The mean number of years between homosexual debut and first suicide attempt was +1.18 years for males (SD = 3.65) and –1.39 years for females (SD = 3.77), which implies that more girls than boys had attempted suicide prior to their sexual debut ($t = -3.39$, $p < 0.001$).

Almost half of those attempting suicide (43.8 per cent) reported that they had wanted to die in the attempt, and 34.3 per cent stated that trouble accepting herself/himself as gay or lesbian was a significant part of the problem leading to the attempt. However, the wish to die was negatively correlated to self-accept ($r = -0.13$, $p < 0.10$). Apart from this, the most frequent reasons were: hating oneself (40.0 per cent), feeling isolated and lonely (46.7 per cent), wanting to escape an unbearable situation (42.9 per cent), could not stand one's own thoughts (40.0 per cent), could not stand thinking of the future (36.2 per cent). Feelings of guilt and shame (23.8 per cent) and feelings of rejection (15.2 per cent) were indicated less frequently. It should be noted that non-acceptance of sexual orientation among close family and friends was rarely indicated as a reason for the attempt (1.0 per cent).

The bivariate logistic analyses of relationships between the outcome variable and background variables revealed no association with gender or age. The following general risk factors were associated with attempted suicide (Table 3, first column): low frequency of parental contact,

Table 3 *Bivariate and multivariate logistic regression analyses of attempted suicide, general and specific risk factors. Crude and adjusted odds ratio and model chi-square reported. Homosexual/bisexual youths aged 15–25.* N = *389 (4.4% listwise missing)*

	N	cOR	Model I aOR	Model II aOR	Model III aOR
General risk factors for suicide attempts					
Lack of parental contact (0–2)†		1.74**	1.98**		2,08**
Internalizing problems (1–4)†		3.04***	1.96*		2,15*
Rosenberg's Self-esteem Scale (0–3)†		0.38***	0.57*		0,52 *
Smoking habits					
Non-smoker (0)	194				
Occasional smoker	53	1.36	1.54		1,11
Regular smoker	147	2.83***	2.61**		2,07*
Frequency of alcohol intoxication					
Less than once per month (0)	206				
2–6 times per month	158	0.87	0.64		
7 times per month or more	30	2.98**	0.71		
Rutger's Alcohol Problem Index (0–2)†		2.92***	1.33		
Cannabis use during the last 12 months (0,1)	95	2.22**	1.59		
Experiences of physical violence or serious threats during the last 12 months (0–3)†		2.50***	2.19***		1,86*
Specific risk factors for suicide attempts					
Experiences of physical violence/threats associated with sexual orientation last 12 months (0,1)	65	2.57**		1,56	
Age of heterosexual debut					
Never (0)	181				
Younger than 16 years	63	3.43***		3,15**	2,79*
16–18 years	113	1.55		1,40	1,10
19 years or older	41	1.16		1,36	1,28
Age of homosexual debut					
Never (0)	36				
Younger than 16 years	92	2.50		1,78	
16–18 years	122	2.27		1,79	
19 years or older	148	1.20		1,30	

Continued over

Table 3 *Continued*

	N	cOR	Model I aOR	Model II aOR	Model III aOR
Currently in a steady homosexual relationship (0,1)	171	1.44		1,26	
Currently in a steady heterosexual relationship (0,1)	25	2.84*		3,43*	6,54**
Frequency of contact with heterosexual friends					
Daily (0)	143				
Weekly, not as often as daily	159	1.43		1,35	1,47
Monthly, not as often as weekly	65	2.59**		2,08	3,10**
Yearly, not as often as monthly	31	1.97		1,38	1,15
Frequency of contact with homosexual friends					
Daily (0)	83				
Weekly, not as often as daily	175	0.92		1,09	1,36
Monthly, not as often as weekly	85	0.97		1,13	1,14
Yearly, not as often as monthly	36	1.50		3,81*	3,28
Rarely/ have no homosexual friends	19	0.49		0,96	1,21
Age of 'coming out'					
20 years or older (0)	121				
15–19 years	238	1.90**		1,68	2,13*
Younger than 15 years	34	3.83*		2,65	5,49**
Being 'out' to heterosexual friends					
All/most heterosexual friends know (0)	300				
Some heterosexual friends know	75	0.40**		0,36*	0,17**
No heterosexual friends know	20	0.85		1,25	0,89
Being 'out' at work/school					
All/most colleagues know (0)	194				
Some colleagues know (3)	105	0.62		0,82	
No colleagues know (2)	53	0.55		0,66	
Have no colleagues/co-students (1)	46	1.39		1,65	
Harassment/discrimination in the workplace (0–3)		1.55**		1,36	
Model χ^2			78.45***	72,47***	127,20***

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.
† Scale range.

internalizing problems, regular smoking versus non-smoking, alcohol intoxication seven times per month or more versus less than once per month, alcohol problems (RAPI), cannabis use during the previous 12 months and experiences of violence/serious threats. High self-esteem was found to be negatively associated with attempted suicide in the bivariate analysis. No significant associations were found between attempted suicide and number of intimate friends, high frequency of drinking alcohol (irrespective of amount) and illegal drug use.

General risk factors associated with suicide were entered in a multivariate logistic regression (Table 3, second column). The final model included frequency of parental contact, internalizing problems, self-esteem, smoking habits and experiences of physical violence or serious threats during the previous 12 months from the block of general risk factors. Age-specific analyses of the general risk factors revealed an interaction effect of age in the association between attempted suicide and use of cannabis (Δ *LR* $\chi^2 = 4.79$ (d.f. = 1), $p < .03$). Use of cannabis during the previous 12 months was a definite risk factor for attempted suicide in the younger group (15–21 years) ($\chi^2 = 12.58$ (d.f. = 1), $p < .001$), but not in the older group (22–25 years).

With respect to specific risk factors, the bivariate analyses (Table 3, first column) revealed an elevated risk of suicide attempts among GLB youths with experiences of gay-related violence/serious threats, harassment in the workplace/school, age of heterosexual sexual debut younger than 16 years versus never, currently in a steady heterosexual relationship, contact with heterosexual friends monthly but not as often as weekly versus daily, age of coming out younger than 15 years versus 20 years or older as well as 15–19 years versus 20 years or older. In the bivariate analysis, reporting only partial disclosure of sexual orientation to heterosexual friends was negatively associated with attempted suicide. Frequency of contact with homosexual friends was included as a control variable. Bisexuality, public visibility, shame/self-acceptance and reaction from relationship to mother/father showed no association with the dependent variable, and were therefore not included in the multivariate analyses of the specific risk factors.

Sexual debut and steady relationships were included in the analysis by making use of heterosexuality and homosexuality as a discriminating factor. The correlation between age of heterosexual debut and age of homosexual debut was moderately strong (Pearson's $r = 0.24$, $p < 0.001$) among respondents with experiences of heterosexual intercourse, but only early heterosexual debut had a significant impact on suicide attempt in both the bivariate and the multivariate analysis. Anti-gay violence/serious threats were not significant in the multivariate analysis of this block. Additional logistic regression analysis of the relationship between anti-gay violence and violence as such showed no additional risk for respondents who perceived violence as anti-gay (Δ *LR* $\chi^2 = 0.23$ (d.f. = 1), ns) compared to other victimized respondents. Neither age-related nor gender-related interaction effects were found in the relationships between suicide attempts and the specific risk factors.

The results of the multivariate analysis[3] of general and specific risk factors are given in the last column of Table 3. The block of specific risk factors was introduced after general risk factors. The block of general risk factors made a significant contribution to the fit of the model ($\chi^2 = 75.89$ (d.f. = 7), $p < 0.001$). However, the contribution to the model fitness from the block of specific risk factors was of prime interest. The variables included in this block significantly increased the fit of the model (Δ *LR* $\chi^2 = 51.31$ (d.f. = 19), $p < 0.001$).

Of importance with regard to increasing the probability of having experienced a suicide attempt in the past among GLB youths was having their heterosexual debut before 16 years of age, currently being in a heterosexual steady relationship, 'coming out' at a young age, especially before 15 years of age, but also before 19 years of age, and seeing heterosexual friends as seldom as monthly. Being out to only some heterosexual friends reduced the probability of attempting suicide in the past. Consequently, both staying in 'the closet' and telling all friends can be regarded as definite risk factors. Being in 'the closet' increases the odds for suicide attempt by 4, being 'out' to all or most heterosexual friends by 6, compared to being 'out' to some friends.

The final model was tested on males and females separately. Both blocks of variables made significant contributions to the model fitness for both genders (males: block I $\chi^2 = 42.77$ ($p < 0.001$), block II $\chi^2 = 28.15$ ($p < 0.05$), females: block I $\chi^2 = 37.15$ ($p < 0.001$), block II $\chi^2 = 35.99$ ($p < 0.01$)). Although slightly different risk factors emerged as significant for the two genders, the numerous z-tests revealed only one significant difference between males and females, a difference that could be attributed to statistical coincidence in multiple comparisons. We followed the same procedure of testing the final model on youths (age 15–21) and young adults (age 22–25), respectively. The block of general risk factors was significant for both groups (adolescents $\chi^2 = 40.25$ ($p < 0.001$) versus young adults $\chi^2 = 39.86$ ($p < 0.001$)). When the block of specific risk factors was included, there was a significant increase in model fitness only among the oldest respondents (youths: $\Delta\chi^2 = 29.32$ (ns) versus young adults: $\Delta\chi^2 = 50.38$ ($p < 0.001$)). As in the gender-specific analyses, slightly different risk factors emerged as significant for the two age groups. However, testing for differences between estimators yielded

significant results ($p < 0.05$) for only two of the multiple comparisons. Again, this could be attributable to statistical coincidence.

Discussion

In this national non-probability sample of Norwegian GLB youths and young adults, 26.3 per cent of males and 25.8 cent of females reported at least one attempted suicide. However, the lack of gender differences in the prevalence of attempted suicide in this study stands in sharp contrast to the gender differences among youths found in studies based on the general youth population in Norway (Wichstrøm, 2000). A recent study of Norwegian young people aged 20–23 years revealed that 5.9 per cent of women and 2.2 per cent of men had attempted suicide (Wichstrøm and Hegna, 2003). However, as referred to earlier, in previous studies in the United States sexual orientation has been found to be a risk factor for attempted suicide mainly in males (Remafedi et al., 1998; Garofalo et al., 1999). The lack of gender differences in prevalence in the present study could be interpreted as being indicative of a heightened risk of attempted suicide among all GLB young people, but particularly among young gay men. The finding that the same model appears to fit both gay men and lesbians may be attributable to low statistical power in the gender-specific multivariate analyses.

The prevalence of attempted suicide found in this study cannot without further consideration be assumed to be representative of the general population of gay and lesbian youth and young adults in Norway. Although the sample of respondents used in the present study reflects a variety of social groups, heterosexual youths of this cohort that may discover/acknowledge their homosexuality in the years to come are not included in the sample. In this cross-sectional study, measures of variables reflecting the current situation were used to explain a previous event. We know that recall and reporting of attempted suicide is probably correlated with concurrent depression (Brewin et al., 1993), although the general trend is that risk factors identified in a cross-sectional study also serve as prospective risk factors (Wichstrøm, 2000). In addition, it is possible that the emergence of problems specific to GLB youths may cause higher levels of general risk factors, e.g. early age of coming out may reduce contact with parents, or GLB-related sexual harassment might lead to internalizing problems. Thus, on the one hand we need further studies based on probability samples of youths, while on the other prospective studies of specific factors and general risk factors that can disentangle the time relationship between these two types of risk factor, as well as between risk factors and suicidal behaviour.

Attempted suicide was predicted by a set of risk factors not specific to GLB youth in the multivariate model: Infrequent contact with parents, internalizing problems (anxiety/depression), regular smoking and experiences of threats and physical violence. In the multivariate analysis, high self-esteem was negatively associated with attempted suicide. However, in addition to the general risk factors is a set of risk factors specific to GLB youth's life situation added to the model fitness, that is low age of heterosexual debut, being in a heterosexual relationship, coming out before 19 years of age and in particular coming out before 15 years of age, infrequent contact with heterosexual friends and having told all or no heterosexual friends about one's sexual orientation. From a general point of view, the findings confirm that psychological factors like depression and low self-esteem, as well as social life style and social integration issues, are important. In addition, these findings seem to reflect a pattern of early and troublesome identity formation even among GLB youths at the end of the 1990s.

Identity formation in a hostile world?

In spite of the probable different public discourses on homosexuality in the North American context compared to the Norwegian one, the present study supports findings from previous studies of non-representative samples of North American GLB youths when it comes to

specific risk factors. In previous studies based on United States samples it has been found that a low age of awareness (D'Augelli and Hershberger, 1993), a young label age (Remafedi et al., 1998) and more openness towards family and friends (D'Augelli and Hershberger, 1993; Hershberger et al., 1997) are associated with attempted suicide. D'Augelli and Hershberger (1993) also found that attempters and non-attempters were similar in their public identifiability as lesbian or gay, and that they did not differ with regard to their parents' reactions to sexual orientation. The replication of findings from studies of youths and young adults in a cultural setting other than the Norwegian one is interesting, and points perhaps to explanations related to general features of adolescent development and young age identity formation, as well as to similarities between Western cultures, at least on a micro level if not at a political level.

In the present study, several specific risk factors not included in previous parallel studies were found to be of importance. These may be variations of general risk factors. Low age of heterosexual debut may be equally important for suicide attempt as sexual debut in general, the gender of the sexual partner not being of importance. Likewise, infrequent contact with heterosexual friends may be a sign of poor social support in general. On the other hand, the fact that it is heterosexual contact and heterosexual friends may be of significance to a young boy/girl who identifies himself/herself as homosexual. Poor relationships with heterosexual friends could be a sign of a hostile peer environment or rejections in the past, or exclusion or withdrawal from majority networks. Other specific risk factors, such as low age of coming out or being out to only some heterosexual friends, point more explicitly at the particular situation of GLB young people.

This study replicates the finding from North American studies that young age of coming out as gay or lesbian to family or friends is a specific risk factor for attempted suicide among GLB youths. This finding is robust, even when controlling for general risk factors. What are the possible explanations? Psychological and developmental aspects of being of young age may be important factors when coping with the social stressors related to a homosexual orientation. First, it is likely that the earlier one becomes aware of one's 'deviance from the normal' (Olson and King, 1995: 36), the greater the likelihood of developing negative self-schemata (Beck et al., 1979) and the cognitive patterns used to respond to life experiences. In turn, negative schemata may result in poor skills in coping with psychosocial stress associated with the coming out process, and may be further reinforced by covert and overt rejection from family or peer group. A second point made by Olson and King is that older adolescents are more mature in the way they cope with the stress of an emerging homosexual self-identity (Olson and King, 1995). Early awareness and coming out may result in a higher level of problem behaviour, because the young adolescent is not prepared to deal with the difficulties of identity confusion, of accepting a stigmatized identity and of a possible negative reaction from family and peers. Third, the youngest boys or girls who are aware of their 'difference' (Bell et al., 1981) and of being gay or lesbian may experience their peer group as being particularly hostile in the age group 12–15 years. On the one hand, studies of homophobia seem to indicate that homophobic attitudes in adolescents diminish with growing age (Hegna, 1996). Hostile peers may result in greater psychosocial stress for the young GLB adolescent compared to an older GLB adolescent. In addition, adolescents' perception of their peer group may exaggerate the imagined animosity of peers. Self-awareness is at its peak in the form of 'imaginary audience' (Elkind, 1967) at this age. To the awakening young homosexual this audience may be perceived as particularly hostile. Further studies, qualitative and quantitative, are needed to unravel the reasons for the importance of young age of coming out in attempted suicide. These may focus more explicitly on the social implications of young age, on the process of becoming gay or lesbian, and the possible differences in this process between young adolescents and young adults.

Afraid of being disclosed as gay and at the same time experiencing identity confusion, GLB adolescents typically respond by adopting strategies such as denial or avoidance, redefinition or acceptance (Troiden, 1993). Denying or avoiding homosexual feelings or situations may result in the adolescent engaging in 'girl's talk' or 'boy's talk' about the opposite sex, dating and going steady, either to convince themselves or others of their heterosexuality. The permanent stress associated with 'passing' (Goffman, 1963/1990; Humphreys, 1972) as heterosexual in a heterosexual steady relationship could be a factor underlying the association between previous suicide attempt(s) and being in a heterosexual relationship in the present study. In that case, we would interpret the heterosexuality of the relationship as the significant risk factor, seeing it as a possible sign of identity confusion and denial/avoidance. However, this interpretation rests on an essentialist understanding of sexual identity as a more or less stable core self, in conflict with the 'superficial' heterosexual self-presentation. This notion of the meaning of a GLB identity may not hold true for all individuals. Holt and Griffin (2003) claim that for young lesbians, gay men and bisexuals the pressure of articulating a sexual identity that does not fit the resilient norm of heterosexuality may make issues of authenticity particularly salient. However, while articulating authenticity can be invaluable for identity politics, it may also be problematic in that this assertion tends to privilege essentialist and exclusionary narratives of identity (Holt and Griffin, 2003).

We also found that infrequent contact with heterosexual friends was associated with risk of suicide. We do not know whether this is a function of lack of social support in general or lack of contact with heterosexual majority peer groups in particular. Either way, it is a strong sign of the importance of social integration of GLB youths for psychological well-being. GLB youths often try to cope alone without a social support group (Hetrick and Martin, 1987). Not having social support from peers and at the same time not being part of the majority culture could also have a joint effect on suicide risk. On the other hand, difficulties in managing an emerging homosexual identity could result in avoiding contact with same-sex or other-sex heterosexual peers, as a strategy for resolving stress. Withdrawal from social contexts to protect oneself from disclosure or harassment, or as a result of feeling different and an outsider, may further increase the risk of depression and suicide.

The question of disclosure of sexual orientation is always a big issue for GLB youth. Throughout life, new friends, new contacts and new colleagues will always emerge, to whom a GLB person can come out. In general, remaining in the closet and hiding a homosexual identity would seem to be the least safe and least healthy strategy. As the present study and previous studies (D'Augelli and Hershberger, 1993) have revealed, openness toward friends can also bring heightened risk, and must be considered as one of the most central gay-related stressors (Rotheram-Borus et al., 1994). There are many possible explanations, the most obvious being heightened risk of losing friends and being exposed to harassment or bullying. Although general attitudes to homosexuality may be changing towards acceptance and tolerance, there is still a fair chance that the next person you tell will be negative or hesitant. On a personal level, the safe option seems to be to carefully select whom to tell in order to minimize the probability of rejection.

Assuming that there is a greater general openness about issues of homosexuality in Norwegian society compared to 30 years ago, young people today learn that the social category representing homosexual preferences of behaviour exists and that some people occupy this social category and learn so at an earlier stage in life. It is a paradox that this positive openness at the same time may lead to more young people being aware of their sexual orientation and telling others about it at an age when, for various reasons, the risk of mental health problems and attempted suicide could be higher. Also, on a personal level, greater openness about sexual orientation to close family and heterosexual friends seems to entail an increased risk of suicidal behaviour. Consequently, while both personal and public openness about homosexuality and

public gay and lesbian role models are clearly important at a social macro level, and as such are often promoted by the gay movement, on a personal level the cost may be considerable. Thus, while coming out enhances the psychological well-being of young GLB youths, it may simultaneously reduce their social well-being. For the practitioners engaged in social work among young people in general or GLB youths in particular, these results show that while coming out is a vital aspect of sexual identity formation that in one sense should be celebrated, in another sense it is a serious stressor with potentially negative consequences unless a strong social support network is there to rely on.

Notes

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1. By general risk factors we mean risk factors for attempted suicide that, based on previous research, are presumed to be of importance irrespective of sexual orientation.
2. Only significant bivariate correlates were included in the multivariate analyses. The model-building procedure followed Hosmer and Lemeshow (1989) (backward deletion). Through all steps of the analyses, candidate variables with $p < 0.10$ were included. Some variables were included despite no association with the dependent variable, if the variable was suspected of having an impact on the association between other independent variables and attempted suicide. Possible gender-related or age-related differences were investigated by testing for interaction effects in all the bivariate analyses. The final model was also tested in separate runs, comparing males and females, as well as youths (15–21 years) and young adults (22–25 years). To estimate whether the differences between the estimators were significant, we used the formula:

$$Z = \frac{b_1 - b_2}{\sqrt{se_1^2 + se_2^2}}$$ (Paternoster et al., 1998).

3. Regression models were also constructed that included the main effects as well as the interaction effects identified previously. In the multivariate model, these interaction effects were no longer significant.

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