The Prevalence of Bisexual and Homosexual Orientation and Related Health Risks Among Adolescents in Northern Thailand

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Homo- or bisexual (HB) adolescents may have greater and different health risks than the population of heterosexual adolescents. We assessed sexual orientation and health risk behaviors in 1,725 consenting 15- to 21-year-old vocational school students in northern Thailand. Data were collected using audio-computer-assisted self-interviewing. Nine percent of males and 11.2% of females identified themselves as homo- or bisexual. HB males had an earlier mean age at sexual debut (14.7 years) and a higher mean number of lifetime sexual partners (7.9) than did heterosexual males (16.8 years and 5.8 partners, respectively). HB males (25.9%) and females (32.2%) were sexually coerced more often than were heterosexual males (4.6%) and females (19.6%). Drug use was reported significantly more frequently by HB females and significantly less frequently by HB males than by their heterosexual counterparts. HB males showed more signs of social isolation and depression than did heterosexual males. We conclude that HB adolescents in northern Thailand are at greater and different health risks than are their heterosexual counterparts. Differential health education messages for HB and heterosexual youth are warranted.

INTRODUCTION

Until the mid-1980s, Thai research on homosexuality was scarce and focused on identifying the causes of homosexual behavior in order to develop preventive interventions (Jackson, 1997a). The emergence of the HIV/AIDS epidemic in Thailand spurred scientific interest in homosexuality, mainly because homosexual men were initially identified as the main risk group for this disease (Brown, Sittitrai, Vanichseni, & Thisyakorn, 1994; Weniger et al., 1991). Consequently, most epidemiological studies of HIV/AIDS-relevant risk behavior included an assessment of same-sex behavior.

In a national survey of sexual behaviors in 1990, 0.2% of males described themselves as having sex with males only in the past year, while 3.1% said they had sex with partners of both sexes; among females, these percentages were 0.9% and 0.2%, respectively (Sittitrai, Phanuphak, Barry, & Brown, 1992). Research among cohorts of 21-year-old male military recruits throughout the 1990s showed varying percentages (3.3–16.3%) of men reporting ever having had sex with another man

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(Jenkins et al., 1999; Kitsiripornchai, Markowitz, Ungchusak, Jenkins, & Sangkharomya, 1998; London, VanLandingham, & Grandjean, 1997; Nelson et al., 2002). Almost all men reporting homosexual behavior in these military recruit studies had higher numbers of sexual partners, higher rates of male and female sex worker patronage, and a younger age at start of sexual activity than did men who reported to be exclusively heterosexual. Similarly, a study from the northeast of Thailand among a somewhat older "snowball" sample of men who had sex with men suggested that bisexuality and male sex worker patronage were common in this group (Sittitrai, Brown, & Sakondhavat, 1993).

The reported variety in male sexual behavior may reflect permissiveness of Thai sexual culture toward sexual experimentation by men, in contrast to the social constraints on premarital and extramarital sexual relations by women (Sittitrai & Brown, 1991; Taywaditep, Coleman, & Dumronggittigule, 1997). Moreover, research in other countries has found associations between sex with someone of the same gender and a broader sexual repertoire (Foxman, Aral, & Holmes, 1998), which would suggest that some of this behavior reflects sexual experimentation and exploration of different sexual identities. The Thai studies that have assessed the prevalence of homosexual behavior in young men, have not specifically asked about self-identified sexual orientation (Jenkins et al., 1999; Kitsiripornchai et al., 1998; London et al., 1997; Nelson et al., 2002). Research on women having sex with women in Thailand has been rare and has tended to be anecdotal in nature (e.g., Ford & Kittisuksathit, 1994).

Although data exist regarding sex with persons of the same sex among males, data regarding the prevalence of homo- or bisexual (HB) orientation and sexual attraction are scarce in Thailand, regardless of sexual behavior. In a study among 21-year-old medical students in Bangkok during 1982–1988, 13% of males and 3.4% of females reported having had same-sex experiences, and 8.5% and 8.8% said they felt mostly attracted to the same

sex (Pongthai, 1990). We know of no other studies describing the prevalence or occurrence of HB orientation among males and females, except for one qualitative study that mentioned the existence of female liaisons among young migrant women (Ford & Kittisuksathit, 1994), but even this study used the terminology of sexual orientation ("lesbian" pairings) without exploring how sexual orientation was defined by informants or by the persons whose behavior they described. In general, far less has been written about homosexual behavior among women than among men in Thailand (Jackson, 1995; Sinnott, 1999).

Research from Western countries has shown that HB male and female adolescents are more prone to sexual health problems and drug use than are their heterosexual counterparts (Cranston, 1992; Johnston, deWit, Janssen, Coutinho, & van Griensven, 1999; Maguen, Armistad, & Kalichman, 2000; Rosario, Meyer-Bahlburg, Hunter, & Gwadz, 1999). We do not know whether such problems exist in Thailand, as no such information is available. Therefore, in this study, we assessed the prevalence of male and female HB orientation in relation to sexual health and drug use behaviors among adolescents in northern Thailand. Such information may be helpful to evaluate the existence of different or greater health risks among HB adolescents and to design and implement targeted intervention programs, if necessary.

METHOD

Participants

Of 1,736 invited students, 1,725 agreed to participate (enrollment rate, 99.4%); 893 (52%) were male and 832 (48%) were female. Their mean age was 18.4 years ($SD = 1.6$ years; range = 15–21 years), 66% came from an agricultural background, 69% lived in a family situation, and 79% of the parents lived together (Table I). Significantly fewer HB males than heterosexual males came from an

Table I. Demographic Characteristics of Study Participants

	Male		Female	
Characteristic	Heterosexual ($n = 812$)	Homo- or bisexual ($n = 81$)	Heterosexual ($n = 739$)	Homo- or bisexual ($n = 93$)
Age (years)				
M	18.5	18.2	18.4	18.3
SD	1.6	1.4	1.5	1.6
Northern Thai (%)	92.5	95.1	95.3	91.4
Father is farmer (%)	67.4	55.6*	67.0	61.3
Live with family (%)	71.1	63.0	68.2	61.3
Parents co-habitate (%)	81.1	79.0	77.7	72.1

*$p < .05$. [Heterosexual versus homo- or bisexual, by χ^2 test.]

agricultural background, $\chi^2(1) = 4.6$, $p < .05$. No other demographic differences were observed.

Procedures

A detailed description of the study procedures has been published elsewhere (van Griensven et al., 2001). In short, during November and December 1999, 15- to 21-year-old students attending three private vocational schools in Chiang Rai were invited to participate in a cross-sectional survey regarding sexual and drug use behaviors. In Thailand, schools and universities can be operated by the private sector (private schools) or directly by the government (public schools). Thai vocational schools can be secondary schools (grades 9–12) with a vocational curriculum or postsecondary schools which focus on technical, business, or occupational training. Some institutions provide both levels of educational training (secondary and postsecondary), as was the case in this study. These were nonresidential schools (the typical case in Thailand).

After giving written informed consent, students completed an audio-computer–assisted self-interview (ACASI) with questions regarding sociodemographic characteristics and sexual and drug use behaviors. In this method, respondents hear questions and possible answers through an earphone; they can simultaneously read them from a computer screen and are asked to click or type their answers on the computer. Compared with face-to-face interviews and written questionnaires, ACASI has been shown to elicit data which are more reliable and valid regarding sexual and drug use behavior. In a study among adolescent males by Turner et al. (1998), more than threefold increases in reporting of male-to-male sex, drug injection, and sex with drug injectors were observed compared with data collected by written questionnaires. Similar effects were found when ACASI was compared with an interviewer-administered questionnaire in a randomized two-arm study design among gay men. Those who completed the ACASI questionnaire were significantly more likely to report having had HIV positive sexual partners and having had unprotected receptive anal intercourse than did those in the questionnaire group (Metzger et al., 2000).

The study protocol was approved by the Ethical Review Committee of the Thai Ministry of Public Health and by an Institutional Review Board of the United States Centers for Disease Control and Prevention.

Measures

Sexual behavior variables in the survey included: age at start of sexual activity, the number of male and female steady and casual partners during the past 3 months and during their lifetime, history of buying and selling sex, and history of sexual coercion. "Start of sexual activity" was defined as "the first time you had sexual contact (your genitals were being touched or you touched somebody's genitals for erotic stimulation, including the use of the mouth, but not anal or vaginal penetration) or sexual intercourse (the penis was entered in the vagina or anus)"; a "steady partner" was defined as "somebody you have known for more than 2 months, have sex with regularly and feel an emotional bond with"; a "casual partner" was defined as "a short-time partner with whom you have sex with only, have no relationship and without the exchange of money"; "buying and selling sex" was defined as "sexual contact or sexual intercourse in return for money, gifts, or favors"; "sexual coercion" was defined as "being mentally or physically forced to have sexual contact or sexual intercourse against your will."

Participants were asked whether they used condoms during sexual intercourse with sexual partners ("always," "almost always," "half of the time," "almost never," "never"). In addition, they were asked about alcohol use and cigarette smoking during the past 3 months ("never," "ever," and "how frequent"), and about the use of various drugs during their lifetime ("never," "ever"). Participants were also asked whether they (or their partner) had ever been pregnant, had ever taken a test for HIV or a sexually transmitted disease (STD), and whether they had ever had a sore or ulcer on their genitals. Two 5-point scales were used to assess perception of their own risk for HIV and STD (*very low* to *very high*).

Because the Thai language has no clear indigenous or formal terms to denote differences among biological sex, sexual identity, and sexual attraction, the following Thai verbal descriptions were used to assess these concepts: Biological sex (represented here by gender): *karuna rabu phet khong khun: chai rue ying* (Please tell us your sex: male or female); sexual identity: *kho hai khun chuai at ibaai tua khong khun waa khun yuu nai klum dai: rak tang phet, rak tang song phet rue rak ruam phet* (Can you explain to what group you belong: heterosexual [literally in Thai: "love outside of your sex"], bisexual [literally in Thai: "love in two sexes"], or homosexual [literally in Thai: "love within your sex"]); sexual attraction: *khun kit waa khun mie kwaam ruusuk tang phet kap krai dai bang*: *phu ying taunan, phu chai taunan rue tang phu ying le phu chai* (For whom do you have sexual feelings: females only, males only, or both males and females.). These terms were drawn from the vernacular used to discuss sexuality in Thailand. They were pretested and further developed for understandability in focus groups with students and pilot tested in a survey in a student population, comparing

ACASI with written questionnaires (Rumakom, Guest, Chinvarasopak, Utarmat, & Sontanakanit, 1999). Additional questions were asked about whether they had somebody to talk to about their personal problems and questions about the frequency of signs of depression during the past 3 months. These questions were "How often do you feel 'energetic,' 'down,' 'bored,' 'optimistic,' and 'lonely'?" Answers were scored on 5-point scales (*never* to *always*).

RESULTS

Sexual Identity and Same-Sex Attraction

Table II presents the frequencies and bivariate relationships between sexual identity and same-sex attraction. Self-identification as HB was reported by 7.7% of the males and 8.2% of the females; 7.8% of males and 9.6% of females said they felt sexually attracted to the same sex. In both males and females, sexual identity and sexual attraction were strongly correlated (males: $r[893] = .79$, $p < .001$; females: $r[832] = .64$, $p < .001$).

Sex and sexual identity were significantly associated, $\chi^2(2) = 7.2$, $p < .05$. Follow-up comparisons (comparing heterosexuals and homosexuals collapsed vs. bisexuals) showed that females were significantly more likely to identify as bisexual than were males (5.3% vs. 3.2%; $\chi^2(1) = 4.44$, $p < .05$). A significant association was found between sex and sexual attraction, $\chi^2(2) = 1417$, $p < .001$. Follow-up comparisons (comparing those attracted to females only and males only collapsed vs. those attracted to both males and females) showed that females were significantly more likely to be attracted to both males and females than were males (7.1% vs. 3.7%; $\chi^2(1) = 9.8$, $p < .002$).

In subsequent analyses, we defined as "heterosexual" all males and females who self-identified as such and who felt sexually attracted to the opposite sex only. This procedure yielded 812 (90.9%) heterosexual males and 739 (88.8%) heterosexual females. Since self-identifying bisexuals and those sexually attracted to both sexes did

not significantly differ from self-identifying homosexuals and those sexually attracted to the same sex regarding a number of key variables, they were combined in one category and defined as "homo- or bisexual" (Table I). Key variables for which no differences were found were: the percentages of students who had sexual intercourse experience, having been sexually coerced, having exchanged sex for money, gifts or favors, and the mean numbers of lifetime male and female sexual partners. This procedure resulted in 81 (9.1%) HB males and 93 (11.2%) HB females. Subsequent analyses compared these two groups with their heterosexual counterparts.

Sexual Health: Males

We compared HB males and heterosexual males regarding their sexual history, sexual partner types, condom use, pregnancy, sexual coercion, history of sexually transmitted diseases (STD), and perceptions of HIV and STD risk (Table III). Statistically significant differences between HB males and heterosexual males were found regarding the following variables. Mean age at first sexual contact and at first sexual intercourse was significantly lower among HB males (14.7 and 14.9 years old, respectively) than among heterosexual males (16.8 years old). Among males whose first sexual partner was a male, the average age at first sexual contact and intercourse was significantly lower than among males whose first sexual partner was a female (14.6 vs. 16.3 years old and 14.9 vs. 16.6 years old, respectively). HB males were significantly less likely than heterosexual males to report having had a steady sexual partner in the past 3 months (36.0% vs. 61.9%). HB males had a significantly higher mean number of total sexual partners during their lifetime than had heterosexual males (Table III). The mean age difference between respondents and steady sexual partners was smaller among HB (partner 0.2 years younger) than among heterosexual males (partner 0.7 years younger). More HB males (12%) had ever been paid for sex than had heterosexual males. For hetero-, homo-, and bisexual

Table II. Sexual Identity and Sexual Attraction of Study Participants

	Males feel sexually attracted to				Females feel sexually attracted to			
	Females only n (%)	Both males and females n (%)	Males only n (%)	Total n (%)	Females only n (%)	Both males and females n (%)	Males only n (%)	Total n (%)
Identity self as								
Heterosexual	812 (98.5)	9 (1.1)	3 (0.4)	824 (92.3)	5 (0.7)	20 (2.6)	739 (96.7)	764 (91.8)
Bisexual	3 (10.3)	20 (69.0)	6 (20.7)	29 (3.2)	5 (11.4)	32 (72.7)	7 (15.9)	44 (5.3)
Homosexual	8 (20.0)	4 (10.0)	28 (70.0)	40 (4.5)	11 (45.8)	7 (29.2)	6 (25.0)	24 (2.9)
Total	823 (92.2)	33 (3.7)	37 (4.1)	893 (100)	21 (2.5)	59 (7.1)	752 (90.4)	832 (100)

Table III. Sexual Characteristics of Study Participants

	Male		Female	
	Heterosexual	Homo- or bisexual	Heterosexual	Homo- or bisexual
Characteristic	($n = 824$)	($n = 81$)	($n = 764$)	($n = 93$)
Among the total study population				
Sexual experience				
No sexual contact or intercourse (%)	33.4	38.3	41.9	38.7
Sexual contact,[a] but no intercourse (%)	17.2	24.7	13.9	25.8
Among those with sexual contact				
Age at first sexual contact				
M	16.2	14.7***	16.8	16.9
SD	1.8	3.0	1.6	1.8
First sexual contact was with male (%)	4.1	81.0***	97.4	56.3***
Sexual intercourse[b] (%)	49.4	37.0	44.1	35.5*
Among those with sexual intercourse				
Age at first intercourse				
M	16.8	14.9***	17.6	17.7
SD	1.7	2.4	1.3	1.5
First intercourse was with male (%)	0.2	73.3***	98.8	81.8***
Condom used during that occasion (%)	23.7	16.7	26.1	21.1
Respondent or partner ever pregnant (%)	18.0	3.3*	28.8	12.1*
Among those with sexual experience				
Steady sexual partner[c] in last 3 months (%)	61.9	36.0**	75.5	73.7
Among those with a steady partner				
Condom during intercourse (%)	15.5	20.0	9.9	16.6*
Steady partner male (%)	0.0	63.2***	99.3	56.4***
Casual sexual partner(s)[d] in last 3 months (%)	22.7	34.0	7.2	12.3
Among those with a casual partner				
Condom during intercourse (%)	34.7	11.1	45.0	66.7
Casual partner male (%)	0.8	100.0***	96.8	57.1***
Number of male partners lifetime				
M	0.02	6.1***	3.4	3.2
SD	1.5	11.1	6.0	4.8
Number of female partners lifetime				
M	5.7	1.8***	0.04	1.4***
SD	6.9	3.5	.2	1.8
Total number of partners lifetime				
M	5.8	7.9*	3.4	4.6
SD	6.9	11.3	6.1	5.2
Years older/younger than steady partner				
M	−0.7	−0.2*	+2.0	+1.6
SD	−1.7	−1.8	+3.4	+3.5
Ever received money for sex (%)	2.4	12.0***	3.5	14.1***
Ever paid money for sex (%)	9.0	12.0	0.0	1.8
Ever been coerced to sex (%)	4.6	25.99***	19.6	32.2**
Among those coerced				
Age at first occurrence				
M	15.6	15.4	17.0	17.4
SD	2.4	2.7	2.2	1.4
First assailant male (%)	29.7	90.5***	100.0	90.0**
Involved intercourse (%)	27.0	38.1	55.2	33.3*
Condom was used (%)	50.0	0.0*	26.3	50.0
Among the total study population				
Ever had HIV test (%)	14.9	62.*	10.7	9.7
Ever had STD consult (%)	2.3	0.0	1.2	5.4*
Ever had ulcer on genitals (%)	13.2	19.8	10.0	14.0
Perception of risk for HIV[e]				
M	2.5	3.0***	2.4	2.3
SD	1.1	1.2	1.3	1.1

Table III. (*Continued*)

Characteristic	Male		Female	
	Heterosexual ($n = 824$)	Homo- or bisexual ($n = 81$)	Heterosexual ($n = 764$)	Homo- or bisexual ($n = 93$)
Perception of risk for STD[e]				
M	2.2	2.5***	2.3	2.3
SD	0.9	1.0	1.0	0.9
Somebody in family to talk to (%)	80.4	60.5***	77.3	72.0
Close friend to talk to (%)	90.9	82.7*	94.5	93.5
Depression scale (Range $= 1$–5)[f]				
M	2.9	3.0*	3.1	3.2
SD	0.6	0.6	0.6	0.6
Feeling energetic[g] (%)	50.9	48.2	40.6	33.3
Feeling down[g] (%)	9.7	17.3*	16.3	20.4
Feeling bored[g] (%)	5.5	13.5**	11.8	17.2
Feeling optimistic[g] (%)	57.8	59.3	44.1	38.7
Feeling lonely[g] (%)	13.6	30.8***	21.1	24.7

[a]Defined as you touched somebody's or somebody else touched your genitals with the purpose of erotic stimulation, including oral sex, but not vaginal or anal penetration.

[b]Defined as insertive or receptive penetration of the vagina or the rectum.

[c]Defined as somebody you know for at least 2 months, have sexual contact or intercourse with regularly and feel an emotional bond with.

[d]Defined as somebody you have sexual contact or intercourse with only, without the exchange of money.

[e]Measured on a scale from 1 to 5; 1 = *very low risk*; 5 = *very high risk*.

[f]Scale reliability coefficient $\alpha = .7$; mean score calculated over all five items combined.

[g]% responding always or almost always having the listed feeling during the last 3 months.

*$p < .05$. **$p < .01$. ***$p < .001$. [Heterosexuals versus homo/bisexuals within each sex stratum by χ^2 test for categorical variables and by a t test for interval variables.]

men, overall condom use was relatively infrequent with all partners, but, among HB men, condom use was significantly more frequent with casual male partners than with male steady partners. Twenty-six percent of HB males reported ever having been coerced into sexual contact or intercourse, which was significantly higher than the 4.6% of heterosexual males. For almost all HB men who had been coerced, the first assailant had been a male. Whereas HB males perceived themselves to be at significantly higher risk for HIV and STD than did heterosexual males, the latter significantly more often reported having been tested for HIV.

Sexual Health: Females

HB females and heterosexual females were compared regarding their sexual history, sexual partner types, condom use, pregnancy, sexual coercion, history of STD, and perceptions of HIV and STD risk (Table III). About 75% of both heterosexual and HB females reported having a steady sexual partner in the past 3 months. Regardless of sexual orientation, reports of casual partners were significantly less common than among males. Infrequent use of condoms during intercourse with steady partners was reported, but their use was significantly more frequent with

casual partners (Table III). No significant difference in mean age at first sexual contact and at first sexual intercourse was found between heterosexual and HB females. Heterosexual and HB females reported an almost equal mean number of male sexual partners during their lifetime (3.4 and 3.2, respectively). The mean number of female sexual partners during their lifetime was significantly higher among HB females (1.4 vs. 0). Despite this difference, the mean lifetime number of total sexual partners did not significantly differ (Table III), which may reflect the small number of HB women in this sample and their similar reports of lifetime male partners. The mean age difference between respondents and their steady sexual partners was not significantly different for heterosexual (partner 2.0 years older) or HB females (partner 1.6 years older).

A history of ever having provided sex in exchange for money, gifts or favors was significantly more common among HB females than among heterosexual females (14.1% vs. 3.5%, Table III). Buying sex was rare in both groups. More than 30% of HB females reported having ever been coerced to have sex, which was a significantly higher percentage than the 19.6% among heterosexual females. HB females significantly more often indicated having consulted a doctor/pharmacist about a possible STD (Table III).

Social Support and Depression

Significantly fewer HB males than heterosexual males reported having a family member (60.5% vs. 80.4%, respectively), or friend (82.7% vs. 90.9%, respectively), to talk to about personal problems than did heterosexual males (Table III). Significantly more HB males reported signs of depression (such as feeling down or bored) and had a significantly higher score on the depression scale than did heterosexual males. No such differences were found in females (Table III).

Drug Use

Alcohol use during the past 3 months was common in all subgroups (>80%). Significantly fewer HB males than heterosexual males had smoked cigarettes during the past 3 months (33.3% vs. 54.3%), and had ever used marijuana (7.4% vs. 22.9%). Of those who used methamphetamines, HB males used them significantly more often for weight reduction than did heterosexual males (52% vs. 21.8%; Table IV).

Significantly more HB females than heterosexual females had drunk three or more alcoholic drinks at least five times during the past 3 months (78.5% vs. 68.2%); had ever used methamphetamines (31.2% vs. 16.4%), marijuana (8.6% vs. 3.0%), and opiates (2.2% vs. 0.3%); and had injected drugs (3.2% vs. 0.1%; Table IV).

DISCUSSION

The purpose of this study was to assess the prevalence of self-identified HB orientation and evaluate the relations between sexual orientation and indices of HIV risk and mental health. Little information has been available regarding the prevalence of HB orientation among adolescents in Thailand and few studies have investigated this in adults. Several important conclusions about homosexuality and bisexuality in this population of Thai youth can be drawn. Firstly, approximately 10% of the students identified themselves as HB or reported that they felt attracted to the same sex. Secondly, both HB males and females were at higher risk of being sexually coerced and of selling sex than were heterosexual males and females. Thirdly, use of licit and illicit drugs was reported more frequently by HB females than by HB males and by heterosexual males more often than by heterosexual females. Generally speaking, it appeared that licit and illicit drug use patterns in HB females were similar to those in heterosexual males, whereas the patterns among HB males were similar to those in heterosexual females. Finally, HB males had a younger mean age of sexual debut, were more sexually active, and showed more signs of social isolation and depression than did heterosexual males.

The percentage of adolescents who identified themselves as HB or as feeling attracted to the same sex in our study was higher than in previous Thai studies (for males, threefold greater than that found in a national population survey in 1990; Sittitrai et al., 1992; 1.5 times higher than was found among male and female medical students in Bangkok; Pongchai, 1990). When compared to previous studies that have assessed sexual behavior with persons of the same gender (a literature that has only looked at males), the differences between this study and previous research were less dramatic. This may be partially due to the fact that our study data were collected by ACASI,

Table IV. Health Risk Behaviors of Study Participants

| | Male | | Female | |
| | Heterosexual | Homo- or bisexual | Heterosexual | Homo- or bisexual |
Characteristic	($n = 824$)	($n = 81$)	($n = 764$)	($n = 93$)
Alcohol use in the last 3 months (%)	92.9	88.9	82.8	87.1
Among those who used alcohol				
$\geq$ Five times three drinks or more (%)	70.4	77.8	68.2	78.5*
Smoking during the last 3 months (%)	54.3	33.3***	13.8	20.4
Among those who smoked				
$\geq$ one pack per week (%)	22.9	25.9	3.9	10.5
Ever use methamphetamines	40.0	30.9	16.4	1.2***
Among those who used methamphetamines				
Used to lose weight (%)	21.8	52.0***	48.8	65.5
Ever use marijuana (%)	22.9	7.4***	3.0	8.6**
Ever use opiates (%)	3.8	3.7	0.3	2.2***
Ever inject drugs (%)	0.7	0	0.1	3.2***

*$p < .05$. **$p < .01$. ***$p < .001$. [Heterosexuals versus homo- or bisexuals within each sex stratum, by χ^2 test.]

which has been shown to increase reporting of sexual and drug use behaviors (Des Jarlais et al., 1999; Metzger et al., 2000; Turner et al., 1998). Finally, changes may be taking place with regard to Thais' willingness to self-identify as HB.

The higher percentages of self-reported HB orientation seen here were noteworthy, because no clear and indigenous words for these identities exist in the Thai language, although some English language words have been imported into the Thai sexual lexicon during the past two decades as in the case of *phet gay* (literally: gay sex or gay gender). The notion of an identity based on a gay sexual orientation, as well as the evolution of a recognizable Western-style "gay lifestyle" and "gay identity" have evolved comparatively recently in Thailand (Jackson, 1995, 1997a, 1997b). In addition, rapid changes have been occurring in the sexual behavior of adolescents and young unmarried adults in Thailand (e.g., increasing acceptability of premarital sex among young women, the decline of commercial sex patronage among unmarried males, e.g., Ford & Kittisuksathit, 1994; Nelson et al., 2002). Consequently, the climate may now be one where the understanding of different sexual identities is greater and there is more openness about disclosing same-sex experiences and identifying as HB.

The percentage of males who identified as HB or reported attraction to males, taken together, falls within the range of proportions of young Thai men who have reported experience with male partners in other research in Thailand (Jenkins et al., 1999; Kitsiripornchai et al., 1998; London et al., 1997; Nelson et al., 2002). The percentage in these studies has varied from 3.3 to 16.3%. The use of differing data collection methods, question content, and sampling methods may explain the wide range of prevalence that has been obtained in these studies. Unfortunately, these studies have not asked about sexual orientation.

With respect to sexual history, HB males had an earlier mean age at first sexual experience than heterosexual males. No such difference was found among females,. Clearly, for males, sex with males starts at an earlier age than sex with females, which is confirmed by several other studies in Thailand (London et al., 1997; Sittitrai et al., 1993). Whereas HB males had a higher mean number of lifetime sexual partners than did heterosexual males, no such differences were present among females. The significantly lower percentage of HB males with a steady sexual partner suggests that this pattern may reflect more frequent partner turnover among HB males.

A notable gender difference was that 75% of all females reported having a steady sexual partner, compared to 61.9% of heterosexual males and 36.0% of HB males.

The higher percentage of females in steady relationships suggests that females more often experience more bonding and may be more likely to establish intimate relationships of a longer duration.

Although the focus of our analysis was on within-sex comparisons of HB and heterosexual youth, an interesting between-sex difference was the percentage of HB females reporting sexual partners of the opposite sex. Whereas almost all HB males had their first sexual contact with a partner of the same sex, less than half of HB females had done so (see Table III). Moreover, most current sexual partners of HB females were of the opposite sex, whereas among HB males, most were of the same sex. A speculative explanation for this difference may be that Thai sexual culture is more tolerant of male homosexual behavior than of female homosexual behavior. Thai culture generally permits males more opportunities to experiment with sex outside of marriage, although there is an expectation that this behavior not be public or lead to the loss of face for the family (Havanon, 1996; Jackson, 1995). In contrast, more constraints are placed on the sexual behavior of women, including heterosexual behavior. Despite increasing permissiveness about premarital heterosexual intercourse among young women (Ford & Kittisuksathit, 1994), open discussion about sex, outward expressions of sexual experience, and initiation of heterosexual sex in Thailand have continued to be discouraged (Podhisita & Pattaravanich, 1995). This pattern may extend to homosexually oriented females and their expressions of sexuality. Although studies in other cultures have found that sexual experience with persons of the same sex associated with broader repertoires of heterosexual experience and greater sexual experience (e.g., Foxman et al., 1998), such a pattern may be more true for males than females in Thailand because of the cultural constraints on females. Significantly, there has been much less scholarly and popular attention toward lesbianism than toward male homosexuality in Thailand (Jackson, 1995; Sinott, 1999) and this may reflect a tendency toward sexual relationships between women to be more hidden than those between men.

A uniform finding among all males and females in our study was the high level of unprotected intercourse. The absence of condom use during intercourse meant that these adolescents were directly exposed to the risks for HIV, STD, and unwanted pregnancy. Unwanted pregnancy and a self-reported history of STD were, indeed, common in our study population. Clearly, adolescents need to be educated and motivated to avoid the risks of unprotected intercourse, and contraceptive tools need to be made available to them.

Two important factors in which both HB males and females differed from their heterosexual counterparts were

the exchange of sex for money, gifts or favors, and a history of sexual coercion. Exchange of sex for money by HB males and females has been reported in other samples of gay and lesbian youth (Rosario et al., 1999). However, in these studies no direct comparisons with heterosexual young males and females were possible, making these data hard to interpret. In our study, there were clear-cut and significant differences between heterosexual and HB females regarding selling sex. We do not have any good explanation for why sex in exchange for money, gifts or favors is more frequent among HB youth. A speculative reason may be that HB youth have already crossed sexual boundaries in the face of moral disapproval by society at large. This may make it easier for them to engage in other morally disapproved behaviors such as selling sex. Another possibility is that since both homosexuals and sex workers may feel marginalized, they are more likely to interact socially than are heterosexuals and sex workers. This in turn may facilitate exposure and entry into sex work. And, as noted previously, broader sexual repertoires have been associated with having partners of the same sex and sexual experimentation in other cultures (Foxman et al., 1998), a pattern that, aside from selling sex, held for males here, but not for females.

The high percentage of HB males and females who had been sexually coerced is reason for concern. Sexual coercion has been found to be associated with several adverse psychological, psychopathological, and health outcomes, such as depression, suicide, unwanted pregnancy, STD, and HIV infection (Bartholow et al., 1994; Holmes & Slap, 1998; Lyon, Richmond, & D'Angelo, 1995; Paul, Catania, Pollack, & Stall, 2001; Siegel, Schubert, Myers, & Shapiro, 1995; Zierler et al., 1991). That adolescent HB males are at higher risk for sexual coercion has been found elsewhere (Bartholow et al., 1994; Paul et al., 2001). In our study, HB males were six times more likely to have been coerced than were heterosexual males. HB females were 1.5 times more likely to have been coerced than were heterosexual females. The percentages of HB males and females who had been coerced did not differ much (26 and 32%). The high risk of sexual coercion among HB males and females indicates the need for counseling and preventive interventions, such as awareness-raising programs, empowerment of young HB, and explicit inclusion of sexual coercion prevention in the school curriculum.

In our study, HB males more often reported signs of social isolation and depression than did heterosexual males. No such differences were present in HB females. Feelings of loneliness and depression among young and adult HB males have been reported in research outside of Thailand (Martin & Knox, 1997; Radkowski & Siegel, 1997). HB females in our study more often engaged in het-

erosexual relationships with steady partners than did HB males. These relationships are socially more acceptable, and females may, therefore, be more socially integrated. Even though Thai sexual culture is relatively tolerant toward male homosexual behavior, open expressions of it are strongly disapproved (Jackson, 1995, 1997a, 1997b). Homosexually active males may therefore experience social isolation and rejection from their social environment.

Regarding alcohol and drug use behavior, it is interesting to observe that patterns of use among HB males and females diverge in opposite directions, with HB males using less and HB females using more alcohol and drugs than their heterosexual counterparts. Anecdotal observations suggest that HB males in Thailand tend to socialize with heterosexual females, who are less likely to use drugs, which may influence their own levels of use. On the other hand, alcohol and drug use patterns of HB females are closer to those of males overall. Several studies from Western countries have shown higher rates of drug use among HB youth and older homosexual men and women (Maguen et al, 2000; McKirman & Peterson, 1989). Our research shows that, at least in Thailand, patterns of alcohol and drug use among HB males and females are quite distinct, a finding that needs to be considered in educational and prevention programs. One caution is that we used a rather global index of drug use (ever/never, lifetime and past 3 months), rather than looking at how often drugs were used, hence, a more detailed picture of drug use behavior needs to be observed in these populations.

Regarding the external validity of our study findings, it needs to be emphasized that our study was conducted in a vocational school setting and may therefore not be representative of the total population of adolescents and young adults. On the other hand, of the approximately eight million Thais in the 15- to 21-year-old age group, about 2.7 million (33%) are attending upper secondary and higher education, which includes vocational schools (Anonymous, 1999). Thus, our study population may represent a large segment of the Thai adolescent population. The majority of the students here came from rural, agricultural backgrounds and, for them, vocational training provides an opportunity for entering the industrial and technical workplaces of urban areas. Outside of the metropolis of Bangkok, this is the common social background of vocational school students. The kind of economic mobility that vocational training provides is increasingly common, hence, these students also represent a large, urbanizing, and economically mobile segment of the population.

In conclusion, the higher levels of sexual coercion and selling sex among HB males and females along with the higher levels of sexual activity, social isolation, and signs of depression in HB males point at the need for

differential health education messages among heterosexual and HB youth. Teachers, parents, health care providers, and youth counselors should be made aware of the prevalence of HB orientation and about the different health risks and behaviors with which they are associated. Only then will meaningful prevention education to young HB males and females be possible.

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