

# Sexual Orientation and Sexual Risk Behaviors among Male Students of a University in Southern Thailand

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**Objective:** To determine the prevalence of sexual orientation, identify predictors of being homosexual or bisexual (HB), and assess the association of sexual orientation with sexual risk behaviors among university male students in southern Thailand.

**Material and Method:** A cross-sectional study was conducted on third year male university students between June 2008 and February 2009 using anonymous self-administered questionnaires.

**Results:** Among 1,101 eligible students, 1,013 (92%) responded. The prevalence of heterosexuality, homosexuality, and bisexuality among respondents were 90.2%, 6.7%, and 3.1%, respectively giving a prevalence of HB of 9.8%. Significant factors predicting HB included having separated parents. Overall lifetime prevalence of men having sex with men (MSM) was 6.3% (2% in heterosexual males and 46.5% among HB males). HB males were more likely to have multiple sex partners and engage in group sex, and less likely to use condoms than were heterosexual males.

**Conclusion:** The prevalence of sexual risk behaviors among these male students, especially HB, was high.

**Keywords:** Sexual orientation, Sexual risk behaviors, Men who have sex with men, University student

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Sexual orientation is defined as a person's sexual feelings, sexual activities, and self-definition/identification<sup>(1)</sup>. It is generally divided into three categories, heterosexual, attracted to individuals of the opposite sex, bisexual, attracted to members of both sex, and homosexual, attracted to individuals of one's own sex<sup>(2,3)</sup>.

In Thailand, the reported prevalence of same-sex sexual behavior or sexual attraction, and self-report as homosexual and bisexual among students has varied between 3.3 and 16%<sup>(4-7)</sup>. In other countries, the reported prevalence among young males were, 7% in US<sup>(8)</sup>, 10% in Turkey<sup>(9)</sup>, 12% in New York<sup>(10)</sup>, and 13.9% in Portland, USA<sup>(11)</sup>.

Homosexual or bisexual men (HB) are more likely to have sexual risk behaviors such as unprotected anal intercourse, having multiple sex partners, having sex with commercial sex workers, and using substances

before sex compared to heterosexual men<sup>(4,5,12,13)</sup>. These behaviors could lead to an increased risk of sexually transmitted infections and human immunodeficiency virus (HIV)<sup>(14)</sup>.

Previous studies revealed certain associated factors for HB. These include suicidal ideation and suicidal behaviors<sup>(8)</sup>, cigarette smoking and alcohol use<sup>(1)</sup>, and homelessness<sup>(15)</sup>. In addition, low paternal closeness, experience in childhood sexual abuse, having parents who are separated, and having an urban background were predictors of same-sex sexual behaviors, and low parental closeness was the only independent predictor of self-identified same sex-sexual orientation<sup>(9)</sup>.

Prince of Songkla University is the largest university in southern Thailand. It has campuses located in Hat Yai, Pattani, Phuket, Trang, and Suratthani. Approximately 13,300 new students are admitted every year, and approximately 40% are male. Studies on sexual orientation and sexual behavior among students in Thailand are common. Therefore, it is hoped that the results of this study will assist planning of specific prevention programs against sexual risk behaviors.

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The objectives of the study are to determine the prevalence of sexual orientation, identify predictors of being HB, and assess the association of sexual orientation with sexual risk behaviors among male university students in southern Thailand.

## **Material and Method**

### ***Study population***

Of the five campuses, the third year male students had been persuaded to participate in the study. Those already had a period of university adaptation and experience. A cross-sectional survey was carried out between June 2008 and February 2009. Data from third-year male students were collected during the intervals of their regular class hours with permission from the lecturers. The students were informed about the research objectives, background of the study, and their rights to refuse to answer any question. The study was approved by the Ethics Committee of the Faculty of Medicine, Prince of Songkla University.

### ***Instrument***

A self-administered questionnaire was used, which included demographic characteristics and questions concerned with sexual orientation, family, university life, experiences of sexual intercourse, number of sexual partners, condom use, and other sexual risk behaviors. To determine sexual orientation of students, a scale from the National American Indian Adolescent Health Survey (NAIAHS)<sup>(16)</sup> was used. The subject was asked to choose one of following that best describes their sexual feeling and their intention to be sexual.

1) I am only attracted to people of the same sex as mine, and I will only have sex with persons of the same sex.

2) I am strongly attracted to people of the same sex and most of my sexual experience will be with persons of the same sex as mine.

3) I am equally attracted to both men and women and would like to have sex with either.

4) I am strongly attracted to persons of the opposite sex, and most of my sexual experience will be with persons of the opposite sex.

5) I am only attracted to persons of the opposite sex, and I will only have sex with persons of the opposite sex.

A student who answered choice 1 or 2 was classified as homosexual, 3 as bisexual, and 4 or 5 as heterosexual.

The whole questionnaire took 10 to 15 minutes to complete.

### ***Statistical analysis***

Twenty-four faculties of the university were classified into eight groups by the criteria of the Higher Education Commission, Thailand. Data were computerized using EpiData and analyzed using R<sup>(17)</sup>. Factors associated with sexual orientation and the associations between sexual orientation and sexual risk behaviors were assessed with Chi-squared or Fisher's exact test as appropriate. Logistic regression was used to determine the associations between independent variables and sexual orientation. The final models are presented with adjusted odds ratios (OR) and 95% confidence intervals. A p-value of less than 0.05 was considered statistically significant.

## **Results**

In 2008, there were 1,602 third year male students registered in PSU. During data collection, 501 were not available. Therefore, 1,101 questionnaires were handed out. Of these, 1,050 were returned, and of these, 37 were incomplete leaving 1,013 (92%) available for analysis. In the study, homosexual males and bisexual males were combined into one category and classified as HB.

### ***Prevalence of sexual orientation and the predictors of being homosexual and bisexual***

The prevalence of heterosexuality, homosexuality, and bisexuality were 90.2%, 6.7%, and 3.1%, respectively. The prevalence of being HB was 9.8%. Table 1 showed the prevalence of heterosexual males and HB males among various socio-demographic subgroups. The factor of parent's living status was significantly related with HB. The top three prevalence of HB distributed by faculty were health science (23.9%), education (13.3%), and social science and humanity (11.4%). The other faculties had less than 10% each.

### ***Prevalence of sexual risk behaviors***

Of 914 heterosexual males and 99 HB males, 302 (33%) and 53 (53%) reported having sexual intercourse with males or females, respectively. The overall lifetime prevalence of the student who had sex with men was 6.3% (64/1,013), 2% in heterosexual males, and 46.5% among HB males. Table 2 shows a comparison of sexual risk behaviors between heterosexual males and HB males among students who

**Table 1.** Prevalence of heterosexual male and homosexual or bisexual (HB) males by socio-demographic characteristics (n = 1,013)

Variables	Heterosexual (n = 914), n (%)	Homosexual or bisexual (n = 99), n (%)	p-value
Ethnicity			0.058
Thai	875 (95.7)	90 (90.9)	
Other	39 (4.3)	9 (9.1)	
Religion			0.261
Buddhist	687 (75.2)	72 (72.7)	
Muslim	217 (23.7)	24 (24.3)	
Other	10 (1.1)	3 (3.0)	
Parent's living status			0.049*
Cohabiting	814 (89.1)	81 (81.8)	
Separated	100 (10.9)	18 (18.2)	

\* Statistical significance,  $p < 0.05$

**Table 2.** Association between sexual orientation and sexual risk behaviors among the subjects

Sexual risky behavior	Heterosexual (n = 302), n (%)	Homosexual or bisexual (n = 53), n (%)	p-value
Multiple sex partners	33 (10.9)	17 (32.1)	$< 0.001^{**}$
Group sex	21 (7.0)	17 (32.1)	$< 0.001^{**}$
Never used a condom during sex	40 (13.3)	15 (28.3)	0.003*
Casual sex	81 (26.8)	21 (39.6)	0.08
Drinking alcohol before sex	84 (27.8)	9 (17.0)	0.14
Using substances before sex	9 (3.0)	3 (5.8)	0.40

\* Statistical significance,  $p < 0.05$ , highly statistical significance,  $p < 0.001$

had sex. HB males were more likely to have multiple sex partners and engage in group sex or casual sex and were less likely to use a condom during sex than were heterosexual males.

## Discussion

The prevalence of HB males in our study was 9.8%. A similar result was found in a study among vocational students in northern Thailand and among university students in Turkey<sup>(5,9)</sup>. The prevalence of HB in this study is higher than is reported in other countries, e.g. 6.5% in Norway<sup>(18)</sup> and 7.1% in California, USA<sup>(19)</sup> while lower than in New York (12%)<sup>(10,11)</sup> and Portland, USA (13.9%)<sup>(10,11)</sup>.

A high prevalence of HB males among health science related faculties in the present study is consistent with a previous study conducted in another university in Thailand where 13% of male medical students reported having a homosexual experience<sup>(7)</sup>. However, difference in profession of education became non-significant after adjustment for

grade point average, as the former was confounded by the latter.

The finding that parental separation was associated with HB was similar to a previous report<sup>(9,20)</sup>. Parents are important role models for sexual orientation. Maintenance of the relationship with one's father was critical factor; the boys could become fixated at this homosexual phase if they had a poor relationship with their fathers and having overly close relationship with their mothers<sup>(2,9,15)</sup>. Our study did not probe into detail whether the subject was brought up by the mother or father. However, it is generally accepted that the mother is more likely to be the single parent<sup>(21)</sup>. Thus, being brought up by the mother without a father figure may deprive the boy from having a proper male role model<sup>(22)</sup>.

HB males were more likely to engage in sexual risk behaviors than heterosexual males, a result similar to other studies in Thailand and elsewhere<sup>(14,23-25)</sup>. However, men having sex with men, a strong risk factor for HIV infection, is not confined

to HB males. These risk behaviors are much less common among heterosexual males, given that they are the majority. The proportion of heterosexual who have sex with men was as much as 28.1% in our study.

The limitation of the study might be encountered, due to specific group of the students. In conclusion, the prevalence of sexual risk behaviors among these male students, especially HBs, was high. Intervention programs are needed to reduce these sexual behaviors.

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### Potential conflicts of interest

None.

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### รสนิยมทางเพศและพฤติกรรมเสี่ยงทางเพศของนักศึกษาชายในมหาวิทยาลัยแห่งหนึ่งในภาคใต้ ประเทศไทย

สุรวิรัตน์ รงเรือง, สาวิตรี อัมฉนงค์กรชัย, วีระศักดิ์ จงสู่วิวัฒน์วงศ์, ผดุงยศ ดวงมาลา

**วัตถุประสงค์:** เพื่อศึกษาความชุกของรสนิยมทางเพศแบบระบุหาปัจจัยพยากรณ์รักเพศเดียวกันหรือรักสองเพศ และประเมินความสัมพันธ์ระหว่างรสนิยมทางเพศกับพฤติกรรมเสี่ยงทางเพศ ในกลุ่มนักศึกษาชายมหาวิทยาลัยแห่งหนึ่งในภาคใต้ของประเทศไทย

**วัสดุและวิธีการ:** ศึกษาแบบตัดขวางดำเนินการในกลุ่มนักศึกษาชายมหาวิทยาลัยชั้นปีที่ 3 ระหว่างเดือนมิถุนายน พ.ศ. 2552 ถึงเดือนกุมภาพันธ์ พ.ศ. 2553 โดยใช้แบบสอบถามบริหารจัดการด้วยตนเอง

**ผลการศึกษา:** แบบสอบถามทั้งหมด 1,101 ฉบับ ได้รับคำตอบจากนักเรียน 1,013 คน (ร้อยละ 92) อุบัติการณ์ของรักต่างเพศ รักเพศเดียวกัน และรักสองเพศ ร้อยละ 90.2, 6.7 และ 3.1 ตามลำดับ รักเพศเดียวกันและรักสองเพศเท่ากับ ร้อยละ 9.8 ปัจจัยทำนายรักเพศเดียวกันและรักสองเพศที่มีนัยสำคัญทางสถิติ คือ พ่อแม่แยกกัน อุบัติการณ์ตลอดชีวิตโดยรวมของชายรักชายเท่ากับ ร้อยละ 6.3 (ร้อยละ 2 ของกลุ่มรักต่างเพศ และร้อยละ 46.5 ของรักสองเพศ) ส่วนรักเพศเดียวกันและรักสองเพศก็มีคู่นอนหลายคน และเข้าร่วมเพศสัมพันธ์เป็นกลุ่ม และอัตราการใช้ถุงยางอนามัยต่ำกว่ารักต่างเพศ

**สรุป:** อุบัติการณ์ของพฤติกรรมเสี่ยงทางเพศในนักศึกษาชายโดยเฉพาะรักเพศเดียวกันและรักสองเพศค่อนข้างสูง นักศึกษาชายโดยเฉพาะกลุ่มชายรักชายและชายรักสองเพศมีความเสี่ยงด้านพฤติกรรมทางเพศสูง

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