

Emotional and behavioral problems among sexual minority youth in Thailand



Nonglak Boonchooduang^a, Orawan Louthrenoo^{a,*}, Nareuporn Likhitweerawong^a, Chawanun Charmsil^b, Assawin Narkpongphun^b

^a Department of Pediatrics, Faculty of Medicine, Chiang Mai University

^b Department of Psychiatry, Faculty of Medicine, Chiang Mai University

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ABSTRACT

Background: Sexual minority youth (SMY) had more risk behaviors and mental health problems than heterosexual youth. Relatively little research has differentiated among lesbian/gay, bisexual, and questioning (LGBQ) youth.

Objective: To examine the differences in emotional and behavioral problems between LGBQ youth in the city of Northern Thailand.

Methods: Data were from a school-based, cross-sectional study of grade 7–12 students in secondary and vocational schools. Five hundred and forty-three students who identified themselves as LGBQ and 3829 heterosexual peers completed the Youth Self-Report (YSR).

Results: Of 12.4% of LGBQ participants, 4.1% identified themselves as lesbian/gay, 4.8% as bisexual, and 3.5% were unsure. SMY had significantly higher scores in internalizing problems (16.84 VS 13.99, 95% confidence interval [CI] 1.94–3.77, $P < 0.001$), externalizing problems (15.23 VS 13.51, 95% CI 0.97–2.45, $P < 0.001$), and total behavioral scores (55.26 VS 47.16, 95% CI 5.55–10.63, $P < 0.001$) than their heterosexual peers. In sexual minority subgroup analyses, all syndrome subscales were highest in the bisexual group followed by the lesbian/gay group, and the questioning group, respectively.

Conclusion: LGBQ high school students had greater psychosocial problems than their heterosexual counterparts. Bisexual students were at the greatest risks of emotional and behavioral problems. Pediatricians and school mental health providers should be aware of emotional and behavioral problems among LGBQ students.

1. Introduction

Adolescence is a transitional period between childhood and adulthood which has dramatic growth in physical, psychological, cognition, and emotional development (Sanders, 2013). Adolescents experience a variety of challenges during their transition. Sexual minority youth (SMY) have to face these typical challenges and tremendous additional challenges related to the social stigma of their sexual identity (Coker et al., 2010; Hafeez et al., 2017). Several studies have demonstrated substantially more health risk behaviors and worse health outcomes for SMY compared with heterosexual youth (HY) (Mustanski et al., 2010; Song et al., 2017; Marshal et al., 2011; Katz-Wise et al., 2015; Ybarra et al., 2016). Psychosocial distress and mental health problems are also particularly common in sexual minority populations (King et al., 2008; Hafeez et al., 2017).

Based on particular distinguishing characteristics, sexual minority

adolescents vary among themselves (Coker et al., 2010). Bisexual and questioning students may face unique stressors that may not be experienced by lesbian and gay (Shearer et al., 2016). Recent studies have explored disparities between gay and bisexual males and their heterosexual counterparts (Sattler et al., 2017; Hickson et al., 2017). Another study in adults found that bisexual females had higher rates of anxiety, depression, and suicidality than straight or lesbian females (Jorm et al., 2002; Swannell et al., 2016). However, most studies were from Western countries. Patterns of mental health may vary across not only sexual orientation but also across countries and cultural backgrounds as well (Russell and Fish, 2016).

In Thailand, greater sexual and health risk behaviors were also reported among SMY. However, most studies examining the mental health of SMY did not differentiate among lesbian, gay, bisexual, and questioning (LGBQ) persons but tended to group them together (van Griensven et al., 2004; Sureerut et al., 2013; Patel et al., 2013). Most

* Corresponding author.

E-mail address: Orawan.l@cmu.ac.th (O. Louthrenoo).

studies have explored health risk disparities in men who have sex with men (MSM) due to a high prevalence of HIV infection in this group (Hiransuthikul et al., 2019; Khawcharoenporn et al., 2019; Sapsirisavat et al., 2016; Li et al., 2009). The information regarding mental health and emotional and behavioral problems of bisexual and questioning youth in Thailand are limited. Therefore, the objective of this study aimed to examine the differences in emotional and behavioral problems between LGBQ youth and heterosexual peers. We hypothesized that bisexual and questioning students in Chiang Mai would be at greater risk for lesbian/gay and their heterosexual counterparts.

2. Methods

2.1. Study design and participants

This study analyzed data from the 2015 Youth Risk Behavior Survey, Thai version (Thai-YRBS) web-based survey. A cross-sectional survey was conducted between June and August 2016 in Chiang Mai, a city in Northern Thailand. The study used a two-stage stratified cluster sampling method to achieve representativeness for secondary and vocational school students.

The 2015 Youth Risk Behavior Survey, Thai version (Thai-YRBS) was modified from the 2015 Youth Risk Behavior Surveillance System (YRBSS) (Centers for Disease Control and Prevention, 2015) which developed by The Centers of Disease Control and Prevention (CDC). The YRBSS is a school-based survey to monitor major risk-taking behaviors among youth.

A self-administered web-based questionnaire administered in the classes of grades 7–12 (aged 13–18 years) students after a regular computer class period. Parental consents were asked for verbally by school teachers. All students with parental consent were asked to indicate their consent on the first page of the web-based questionnaire. All students participating in this study were assured that their responses were anonymous and voluntary. The study protocol was approved by the Research Ethics Committee of the Faculty of Medicine, Chiang Mai University.

2.2. Measures

2.2.1. Sexual orientation

Information regarding sexual orientation was obtained from the 2015 Thai-YRBS. Sexual orientation was determined by the question: “Which of the following best describes you?” Response options were straight (heterosexual), lesbian or gay, bisexual, and not sure about own sexual orientation (questioning). Students were categorized by sexual orientation as either SMY (LGBQ) or HY.

2.2.2. Emotional and behavioral problems

Adolescent behavioral problems were assessed using the well-validated Achenbach System of Empirically Based Assessment: Youth Self-Report for ages 11–18 years (ASEBA-YSR) Thai version. The Youth Self-Report (YSR) is widely used for assessment of adolescent behaviors which consists of 120 items scored on a 3-point Likert scale (0 = absent, 1 = occurs sometimes, 2 = occurs often) (Achenbach and Dumenci, 2001; Achenbach and Ruffle, 2000). The questionnaire is organized in eight syndrome scales (anxious/depressed, depressed, somatic complaints, social problems, attention problems, thought problems, rule-breaking behavior, and aggressive behavior) that can be grouped into the higher-order score: internalizing and externalizing problems scores. The total problem scores derived from the summation of all items.

2.3. Statistical analysis

Demographic characteristics were explored using mean, standard deviation, and percentage. Student's *t*-test analysis was used to compare YSR-scores between SMY and HY group. One-way ANOVA and student's

Table 1

Characteristic of sexual orientation of participants.

Variables	SMY (n=543)	HY (n=3829)	p-value
Sex, n (%)			
Male	180 (33.1)	2043 (53.4)	< 0.01
Female	363 (66.9)	1786 (46.6)	
Mean Age in Years (SD)	15.32 ± 1.7	15.19 ± 1.7	0.08
Grade, n (%)			
7-9 th grade	212 (39.0)	1645 (43.0)	0.09
10-12 th grade	331 (61.0)	2184 (57.0)	
School, n (%)			
Secondary school	441 (81.2)	2965 (77.4)	0.05
Vocational school	102 (18.8)	864 (22.6)	

Note: SMY, sexual minority youth; HY, heterosexual youth.
p-value for the difference in estimate comparing SMY with HY.

t-test were used to compare sexual minority subgroups. A *p*-value of less than 0.05 was considered statistically significant. All analyses were performed using the SPSS program, version 22.0 (IBM Corp, Armonk, NY) for windows.

3. Results

3.1. Participant characteristics

Of 5639 invited students, 4372 (77.5%) agreed to participated. Of these, 12.4% identified themselves as SMY including 4.1% lesbian/gay, 4.8% bisexual, and 3.5% were unsure regarding their sexual orientation. The overall sample had a mean age of 15.2 ± 1.7 years. Table 1 summarizes the characteristics of adolescents included in the study.

3.2. Emotional and behavioral problems

According to the YSR scores, the internalizing behavior, the externalizing behavior, and the total problem scores were significantly higher in the SMY than HY ($p < 0.001$). The SMY also reported higher scores in all subscales scores ($p < 0.001$), as shown in Table 2.

3.3. Emotional and behavioral problems in sexual minority subgroup analyses

The YSR scores including the internalizing behaviors, the externalizing behaviors, and the total problem scores revealed statistically significant differences among various types of sexual minority youth in subgroup analyses, as shown in Table 3. All subscale scores were highest in the bisexual group followed by the lesbian/gay group, and the questioning group, respectively. Comparison of the questioning group to the straight group showed no statistical significance. Independent student's *t*-test revealed significant differences in most domains comparing the lesbian/gay group to the straight ($p < 0.05$) and the questioning group ($p < 0.05$) except for the rule-breaking behavior score. Furthermore, the findings revealed significant differences in all subscales scores comparing the bisexual group to the straight group ($p < 0.001$) and the questioning group ($p < 0.05$). YSR subscales scores of sexual minority subgroups were shown in Fig. 1.

4. Discussion

4.1. Prevalence of sexual minority youth

The findings from this study showed a prevalence of SMY of 12.4%, of which 4.1% identified themselves as gay or lesbian, 4.8% as bisexual, and 3.5% were not sure regarding their sexual identity. Compared with findings from Southern Thailand in 2008–2009 which reported the prevalence of homosexual and bisexual youth to be 9.8% (homosexual and bisexual were 6.7% and 3.1%, respectively) (Sureerut et al., 2013),

Table 2
Emotional and behavioral problems: Comparison of SMY to the HY.

YSR syndrome Scales	SMY (n=543)	HY (n=3829)	Mean difference	95%CI of the difference	p-value
Internalizing behaviors	16.84 (10.37)	13.99 (8.69)	2.85	1.94-3.77	< 0.01
Anxious/Depressed	6.95 (5.01)	5.59 (4.27)	1.36	0.92-1.81	< 0.01
Withdrawn/Depressed	5.56 (3.08)	5.03 (2.81)	0.53	0.26-0.81	< 0.01
Somatic complaints	4.33 (3.51)	3.38 (2.96)	0.95	0.65-1.27	< 0.01
Externalizing behaviors	15.23 (8.33)	13.51 (7.42)	1.72	0.97-2.45	< 0.01
Rule-breaking behavior	6.59 (3.81)	6.00 (3.51)	0.59	0.25-0.93	< 0.01
Aggressive behavior	8.64 (5.15)	7.52 (4.51)	1.12	0.66-1.58	< 0.01
Social behaviors	5.20 (3.52)	4.73 (3.17)	0.47	0.16-0.79	< 0.01
Thought problems	6.12 (4.36)	5.07 (3.70)	1.05	0.66-1.43	< 0.01
Attention problems	5.49 (3.18)	4.63 (2.92)	0.86	0.58-1.14	< 0.01
Other problems	6.37 (2.94)	5.23 (2.69)	1.14	0.88-1.40	< 0.01
Total Scores	55.26 (28.69)	47.16 (24.35)	8.10	5.55-10.63	< 0.01

Note: YSR, youth self-report; SMY, sexual minority youth; HY, heterosexual youth. p-value for the difference in estimate comparing SMY with HY.

the prevalence from this study was slightly increased, whereas the findings from the US 2015 Youth Risk Behavior Surveillance System report were reported to be 11.2% (Kann et al., 2016).

4.2. Emotional and behavioral problems

The Youth Self Report (YSR) is frequently used to measure emotional and behavioral problems in adolescents. It was found that the internalizing, externalizing, and total behavioral problem scores in SMY were significantly higher than HY. Previous studies have reported greater behavior problem scores in SMY, especially the internalizing symptoms (Reisner et al., 2015; Katz-Wise et al., 2015). Another study has reported more externalizing symptoms in SMY (Dermody et al., 2016). Both internalizing and externalizing scores in the SMY were higher than those in the HY. SMY have experienced psychological distress and social unacceptance or rejection which could explain their emotional or internalizing behavioral problems, however, further study is warranted regarding aggressive behavior or externalizing behavior in the sexual minority adolescents.

4.3. Emotional and behavioral problems in sexual minority subgroup analyses

Data were limited regarding mental health problems in various types of SMY. They were usually reported in the whole group of LGBTQ. This study has tried to explore mental health functioning within-group variations including lesbian/gay, bisexual, and questioning youth. Students who were not sure or questioning regarding their own gender identity reported significantly lower behavioral problem scores than the lesbian/gay and the bisexual groups without statistically significant differences compared to the straight group. The finding was consistent with a recent study that reported similar rates of risky sexual behaviors for questioning girls to those of heterosexual girls (Ybarra et al., 2016). This may be because questioning youth are still considering their

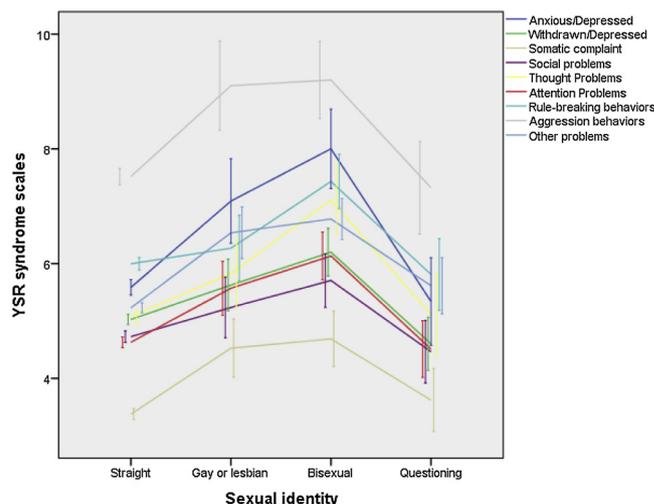


Fig. 1. YSR syndrome scales: sexual minority subgroup analyses. Note: Error bars represent 95% confidence intervals

gender identity and therefore are not yet “coming out” on their gender role, resulting in less discrimination from straight communities and less emotional and behavioral problems than other sexual minority subgroups. Additionally, the situation of gay boys versus lesbian girls elicits a gendered response. Trans youth have more social visibility compared to gay or lesbian youth who, on the face of it, can pass off as straight. Those who are confused/questioning about their orientation have their own unique issues so that they reported similar behavioral problems to the straight youth.

This finding, however, was inconsistent with the previous study by Shearer et al. which found that questioning females had significantly higher scores on depression, anxiety, and traumatic distress than heterosexual females (Shearer et al., 2016). Furthermore, the study by

Table 3
Emotional and behavioral problems: Sexual Minority Subgroup Analyses.

YSR Scores	Straight (n=3829)	Lesbian/Gay (n=179)	Bisexual (n=211)	Questioning (n=153)
Internalized behaviors	13.99 (8.69)	17.24 (10.04) ^{a,b}	18.89 (10.33) ^{c,d}	14.34 (8.96)
Externalized behaviors	13.51 (7.42)	15.37 (8.56) ^{a,b}	16.63 (7.81) ^{c,d}	13.13 (8.38)
Total Scores	47.16 (24.35)	55.78 (28.03) ^{a,b}	61.24 (27.36) ^{c,d}	48.17 (25.07)

Note: YSR, youth self-report. ANOVA < 0.001 all domains.

- ^a Statistic significant difference between Gay/Lesbian group and Straight group at $p < 0.05$.
- ^b Statistic significant difference between Gay/Lesbian group and Questioning group at $p < 0.05$.
- ^c Statistic significant difference between Bisexual group and Straight group at $p < 0.001$.
- ^d Statistic significant difference between Bisexual group and Queer group at $p < 0.05$.

Birkett et al. has also revealed that students who were questioning their sexual orientation reported more bullying, drug use, depression, and truancy than either heterosexual or LGB students (Birkett et al., 2009). Questioning youth are often excluded in the analysis because they are a small number and can be changeable during the developmental process of adolescent identity (Ott et al., 2011).

It was found that the behavioral problems scores including all subscales scores were highest in the bisexual group. These findings were consistent with previous studies showing that bisexual youth were at greater risk for suicidality (Marshal et al., 2011; Saewyc et al., 2007), alcohol use (Phillips et al., 2017) and substance abuse (Marshal et al., 2008) than their lesbian/gay and questioning peers. This may be explained by the perception of “double discrimination” in bisexual youth. Discrimination from gay and lesbian communities in addition to straight communities may contribute to a higher incidence of mental health problems in this particular group (Friedman et al., 2014). This finding highlights the need for pediatricians and school mental health providers to consider bisexuality as a unique identity. Our findings suggest the need for developing supportive mental health intervention for SMY particularly the bisexual in Thailand.

4.4. Strengths and limitations

Strengths of this study were that it was a large representative sample of students in the city and the study was designed by an epidemiologist. The self-administered anonymous web-based questionnaire ensured confidentiality so that participants could disclose their gender identity and feel free to indicate their psychosocial distress. Significant findings in subgroup analyses have provided more information about mental health problems in various types of sexual minority youth instead of the whole LGBQ group. However, the findings from this study should be interpreted alongside some limitations. Firstly, as a cross-sectional study design, the findings have limited any causal inference. Longitudinal prospective studies are needed to understand process operating on emotional and behavioral problems in the sexual minority group, especially in the bisexual and the questioning groups. Secondly, this school-based study did not include adolescents who had dropped out of school or population in other societies which may have more problems. Thirdly, the YRBS was originally intended to identify risk behaviors in adolescent. It did not specifically focus on SMY so that in-depth information regarding LGBQ could not be obtained. However, participants in this study came from the YRBS across vocational and secondary school students instead of actively recruited SMY, may remove a self-selected sampling bias. Fourthly, the details of SMY including disclosure to others, duration of sexual minority experience, or seeking medical advice, were not obtained from participants. Lastly, the details of family and social factors were not obtained in this study. The relationship of higher scores on YSR with factors like confusion about sexual orientation, the stress of coming out, experiences of stigma, discrimination, victimization, lack of family support or even internalized homophobia are important to further study.

5. Conclusions

LGBQ high school students had greater psychosocial problems than their heterosexual counterparts. Bisexual students were at the greatest risks of emotional and behavioral problems. These findings have emphasized the need for tailoring mental health screening and preventive counseling to this particular group.

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Declaration of Competing Interest

None.

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References

- Achenbach, T.M., Dumenci, L., 2001. Advances in empirically based assessment: revised cross-informant syndromes and new DSM-oriented scales for the CBCL, YSR, and TRF: comment on Lengua, Sadowksi, Friedrich, and Fischer (2001). *J. Consult. Clin. Psychol.* 69, 699–702.
- Achenbach, T.M., Ruffle, T.M., 2000. The Child Behavior Checklist and related forms for assessing behavioral/emotional problems and competencies. *Pediatr. Rev.* 21, 265–271.
- Birkett, M., Espelage, D.L., Koenig, B., 2009. LGB and questioning students in schools: the moderating effects of homophobic bullying and school climate on negative outcomes. *J. Youth Adolesc.* 38, 989–1000.
- Centers for Disease Control and Prevention, 2015. 2015 National Youth Risk Behavior Survey. [Online]. Available: ftp://ftp.cdc.gov/pub/data/yrbs/2015/2015_xxx_questionnaire.pdf [Accessed 12 November 2016].
- Coker, T.R., Austin, S.B., Schuster, M.A., 2010. The health and health care of lesbian, gay, and bisexual adolescents. *Annu. Rev. Public Health* 31, 457–477.
- Dermody, S.S., Marshal, M.P., Cheong, J., Chung, T., S, D. S, Hipwell, A., 2016. Adolescent sexual minority girls are at elevated risk for use of multiple substances. *Subst. Use Misuse* 51, 574–585.
- Friedman, M.R., Dodge, B., Schick, V., Herbenick, D., Hubach, R., Bowling, J., Goncalves, G., Krier, S., Reece, M., 2014. From Bias to bisexual health disparities: attitudes toward bisexual men and women in the United States. *LGBT Health* 1, 309–318.
- Hafeez, H., Zeshan, M., Tahir, M.A., Jahan, N., Naveed, S., 2017. Health care disparities among lesbian, gay, bisexual, and transgender youth: a literature review. *Cureus* 9, e1184.
- Hickson, F., Davey, C., Reid, D., Weatherburn, P., Bourne, A., 2017. Mental health inequalities among gay and bisexual men in England, Scotland and Wales: a large community-based cross-sectional survey. *J. Public Health Oxf. (Oxf)* 39, 645.
- Hirasuthikul, A., Trachunthong, D., Pattanachaiwit, S., Teeratakulpisarn, N., Chamnan, P., Pathipvanich, P., Thongpaen, S., Pengnonyang, S., Nonenoy, S., Lertpiriyasuwat, C., Phanuphak, P., Phanuphak, N. o. b. o. t. T. M. S. M. T. G. W. T., Treat Study, G., 2019. Changes in risk behaviors among Thai men who have sex with men and transgender women enrolled in the test and treat cohort. *AIDS Care* 31, 1178–1183.
- Jorm, A.F., Korten, A.E., Rodgers, B., Jacomb, P.A., Christensen, H., 2002. Sexual orientation and mental health: results from a community survey of young and middle-aged adults. *Br. J. Psychiatry* 180, 423–427.
- Kann, L., Olsen, E.O., McManus, T., Harris, W.A., Shanklin, S.L., Flint, K.H., Queen, B., Lowry, R., Chyen, D., Whittle, L., Thornton, J., Lim, C., Yamakawa, Y., Brener, N., Zaza, S., 2016. Sexual identity, sex of sexual contacts, and health-related behaviors among students in grades 9–12 - United States and selected sites, 2015. *Surveill. Summ.* 65, 1–202.
- Katz-Wise, S.L., Scherer, E.A., Calzo, J.P., Sarda, V., Jackson, B., Haines, J., Austin, S.B., 2015. Sexual minority stressors, internalizing symptoms, and unhealthy eating behaviors in sexual minority youth. *Ann. Behav. Med.* 49, 839–852.
- Khawcharoenporn, T., Mongkolkeawsab, S., Naitjitra, C., Khonphiem, W., Apisarnthanarak, A., Phanuphak, N., 2019. HIV risk, risk perception and uptake of HIV testing and counseling among youth men who have sex with men attending a gay sauna. *AIDS Res. Ther.* 16, 13.
- King, M., Semlyen, J., Tai, S.S., Killaspy, H., Osborn, D., Popelyuk, D., Nazareth, I., 2008. A systematic review of mental disorder, suicide, and deliberate self harm in lesbian, gay and bisexual people. *BMC Psychiatry* 8, 70.
- Li, A., Varangrat, A., Wimonasate, W., Chemnasiri, T., Sinthuwattanawibool, C., Phanuphak, P., Jommaroeng, R., Vermund, S., van Griensven, F., 2009. Sexual behavior and risk factors for HIV infection among homosexual and bisexual men in Thailand. *AIDS Behav.* 13, 318–327.
- Marshal, M.P., Dietz, L.J., Friedman, M.S., Stall, R., Smith, H.A., McGinley, J., Thoma, B.C., Murray, P.J., D'Augelli, A.R., Brent, D.A., 2011. Suicidality and depression disparities between sexual minority and heterosexual youth: a meta-analytic review. *J. Adolesc. Health* 49, 115–123.
- Marshal, M.P., Friedman, M.S., Stall, R., King, K.M., Miles, J., Gold, M.A., Bukstein, O.G., Morse, J.Q., 2008. Sexual orientation and adolescent substance use: a meta-analysis and methodological review. *Addiction* 103, 546–556.
- Mustanski, B.S., Garofalo, R., Emerson, E.M., 2010. Mental health disorders, psychological distress, and suicidality in a diverse sample of lesbian, gay, bisexual, and transgender youths. *Am. J. Public Health* 100, 2426–2432.
- Ott, M.Q., Corliss, H.L., Wypij, D., Rosario, M., Austin, S.B., 2011. Stability and change in self-reported sexual orientation identity in young people: application of mobility metrics. *Arch. Sex. Behav.* 40, 519–532.
- Patel, S.A., Bangorn, S., Aramrattana, A., Limaye, R., Celentano, D.D., Lee, J., Sherman, S.G., 2013. Elevated alcohol and sexual risk behaviors among young Thai lesbian/bisexual women. *Drug Alcohol Depend.* 127, 53–58.

- Phillips 2nd, G., Turner, B., Salamanca, P., Birkett, M., Hatzenbuehler, M.L., Newcomb, M.E., Marro, R., Mustanski, B., 2017. Victimization as a mediator of alcohol use disparities between sexual minority subgroups and sexual majority youth using the 2015 National Youth Risk Behavior Survey. *Drug Alcohol Depend.* 178, 355–362.
- Reisner, S.L., Vettes, R., Leclerc, M., Zaslow, S., Wolfrum, S., Shumer, D., Mimiaga, M.J., 2015. Mental health of transgender youth in care at an adolescent urban community health center: a matched retrospective cohort study. *J. Adolesc. Health* 56, 274–279.
- Russell, S.T., Fish, J.N., 2016. Mental health in lesbian, gay, bisexual, and transgender (LGBT) youth. *Annu. Rev. Clin. Psychol.* 12, 465–487.
- Saewyc, E.M., Skay, C.L., Hynds, P., Pettingell, S., Bearinger, L.H., Resnick, M.D., Reis, E., 2007. Suicidal ideation and attempts in North American school-based surveys: are bisexual youth at increasing risk? *J. LGBT Health Res.* 3, 25–36.
- Sanders, R.A., 2013. Adolescent psychosocial, social, and cognitive development. *Pediatr. Rev.* 34, 354–358 quiz 358-9.
- Sapsirisavat, V., Phanuphak, N., Keadpuksa, S., Egan, J.E., Pussadee, K., Klaytong, P., Reuel Friedman, M., van Griensven, F., Stall, R., Team, F.S., 2016. Psychosocial and behavioral characteristics of high-risk men who have sex with men (MSM) of unknown HIV positive serostatus in Bangkok, Thailand. *AIDS Behav.* 20, 386–397.
- Sattler, F.A., Franke, G.H., Christiansen, H., 2017. Mental health differences between German gay and bisexual men and population-based controls. *BMC Psychiatry* 17, 267.
- Shearer, A., Herres, J., Kodish, T., Squitieri, H., James, K., Russon, J., Atte, T., Diamond, G.S., 2016. Differences in mental health symptoms across lesbian, gay, bisexual, and questioning youth in primary care settings. *J. Adolesc. Health* 59, 38–43.
- Song, L., Yin, N.G., Tian, W.J., Gu, R., Jia, Y.T., 2017. [Clinical features of acute poisoning in hospitalized children: an analysis of 586 cases]. *Zhongguo Dang Dai Er Ke Za Zhi* 19, 441–445.
- Sureerut, R., Assanangkornchai, S., Chongsuvivatwong, V., Duangmala, P., 2013. Sexual orientation and sexual risk behaviors among male students of a university in southern Thailand. *J. Med. Assoc. Thai.* 96, 1224–1228.
- Swannell, S., Martin, G., Page, A., 2016. Suicidal ideation, suicide attempts and non-suicidal self-injury among lesbian, gay, bisexual and heterosexual adults: findings from an Australian national study. *Aust. N. Z. J. Psychiatry* 50, 145–153.
- van Griensven, F., Kilmarx, P.H., Jeeyapant, S., Manopaiboon, C., Korattana, S., Jenkins, R.A., Uthairoravit, W., Limpakarnjanarat, K., Mastro, T.D., 2004. The prevalence of bisexual and homosexual orientation and related health risks among adolescents in northern Thailand. *Arch. Sex. Behav.* 33, 137–147.
- Ybarra, M.L., Rosario, M., Saewyc, E., Goodenow, C., 2016. Sexual behaviors and partner characteristics by sexual identity among adolescent girls. *J. Adolesc. Health* 58, 310–316.