

Same-Sex Behavior and Health Indicators of Sexually Experienced Filipino Young Adults

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Abstract The Philippines is one of seven countries in which HIV incidence has recently increased—much of this increase has been among men who have sex with men. Despite this trend, knowledge on sexuality and same-sex behaviors in the Philippines is limited. This study examines same-sex behavior, sexual outcomes, substance use, and psychological distress among young adults participating in the 2005 Cebu Longitudinal Health and Nutrition Survey (CLHNS). We use gender-stratified, multivariate models to compare young adults who reported same-sex behaviors and those who did not. Among a cohort of 1,912 Filipino young adults (ages 20–22), 58.2 % were sexually experienced and 15.1 % of them reported same-sex sexual contacts or romantic relationships. Compared to females, more males reported same-sex sexual contact (19.4 vs. 2.3 %) or same-sex romantic relationships (9.2 vs. 4.1 %). Young adults reporting same-sex behavior had higher odds of smoking, drug use, perceived stress, and more sexual partners as compared to their peers. Males who reported same-sex behavior initiated sex earlier than those males who did not report same-sex behaviors. There were no significant differences in depressive distress. Earlier sexual initiation and higher levels of substance use among Filipino young adults engaging

in same-sex behavior highlight the need to address unique health issues within this population. Mixed findings for depressive distress and perceived stress indicate that further investigation is needed to explore the potential impacts of same-sex status on mental health outcomes, particularly in lower- and middle-income countries such as the Philippines.

Keywords Same-sex · Sexual behavior · Health risk behavior · Young adults · Cohort study · Philippines

Introduction

Research on young people's sexual behavior in lower- and middle-income countries was initially triggered by fears of an expanding HIV/AIDS epidemic and efforts to reduce risk through promoting sexual health (Cleland & Ferry, 1995; Tangmunkongvorakul, Banwell, Carmichael, Utomo, & Sleight, 2010; Wellings et al., 2006). Despite this work, the Philippines is one of seven countries in which HIV incidence has recently increased, with the majority of this increase found among men who have sex with men (MSM) (Joint United Nations Programme on HIV/AIDS [UNAIDS], 2010; Philippines National AIDS Council, 2012). Investigations of sexuality and same-sex behaviors in the Philippines are limited, particularly among adolescents and young adults. Given rapid changes in the social contexts of young adult populations from just a generation ago, as well as the increasing recognition of the public health importance of examining health and behavioral patterns among same-sex groups (Institute of Medicine [IOM], 2011), this article seeks to address this gap by examining same-sex behaviors and health outcomes among a community-based sample of young adults in the Philippines.

The few existing studies on sexual behavior among Filipino young adults identify nuanced and countervailing influences

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on sexuality. In the most recent nationally representative published study of young adult sexual behavior in the Philippines—the 2002 Young Adult Fertility and Sexuality (YAFS) study—15 % of males and 4 % of females reported having ever had sex with someone of the same-sex, placing the Philippines at the upper end of the range of reported prevalence of same-sex behaviors from other lower- and middle-income settings (Caceres, Konda, Pecheny, Chatterjee, & Lyerla, 2006; Raymundo, 2002). Another community-based survey among a sample of about 3,600 urban men in three cities in the Philippines found that whereas only 1.7 % of the total sample (3.3 % of young adults ages 15–24) reported only same-sex behavior, 12.1 % of the total sample and 16.1 % of the sample ages 15–24 reported bisexual behavior (sex with both women and men) (Ramos-Jimenez & Lee, 2001).

These findings underscore two, important aspects of Filipino sexual culture. First, differences in reporting between young women and men likely reflect gender differences in sexual norms, specifically greater permissiveness for male sexual expression and experimentation as compared to young women in the Philippines (Medina, 2001). Second, in the Philippines, as in other global settings, expressions of sexuality are fluid (Moore & Rosenthal, 1993; Troiden, 1988) and same-sex behaviors do not necessarily correspond with sexual orientation or identity and are shaped by the social context in which they occur (Blumenfeld & Raymond, 1989). For example, as noted by Tan (2001), the emergence and persistence of the sexual “servicing” of heterosexual males by *bakla* or *parloristas* (identified mainly as cross-dressing effeminate men) is an acknowledged form of sexual expression in the Philippines and one that has emerged and persisted in a culture where women are expected to retain their virginity until marriage. Thus, any investigation of same-sex behavior within the Philippines necessitates an appreciation and examination of these variations in sexual expression and identity.

To some extent, the persistence and tolerance for these variations may reflect greater leniency for same-sex sexual expression in the Philippines as compared to other Asian nations where more accepting views of same-sex behavior and homosexuality have only recently emerged (Feng et al., 2012; Zabin et al., 2009). Although homosexuality has traditionally been “frowned upon” in Filipino culture (Medina, 2001), the Philippines has also been noted as a society with one of the most tolerant views of homosexuality (Whitam & Mathy, 1986). In the 2002 YAFS, over half (51.8 %) of Filipino adolescents reported being accepting of homosexuality (60.7 % of females vs. 41.9 % of males) and a greater proportion of the younger adolescent cohort (15 % of adolescents ages 15–19) reported having a same-sex partner, as compared to older adolescents (9 % of adolescents ages 20–24) (Silverio, 2002).

As local experts also indicate, however, the widespread acceptance or tolerance of homosexuality has not equated to

true social integration of sexual minority groups. Moreover, this acceptance is conditional and remains limited to specific occupational and societal roles (Lee, 2002; Tan, 2001). Heterosexual norms persist, including the belief “that a Filipino will only be happy if he has a family (Lee, 1995),” as well as restrictions in the expression of homosexuality or non-heterosexual behavior resulting in the marginalization of sexual minority groups in the Philippines.

Although explored more extensively in higher-income and Western settings, social marginalization may predispose young adults who engage in same-sex behaviors to psychosocial stressors, such as prejudice, stigma, internalized homophobia, or homophobic culture that affect physical and mental health outcomes (Meyer, 2003). As evidenced in studies from higher-income settings, individuals with same-sex romantic or sexual partners generally experience more violence and have somewhat poorer health status including higher prevalence of health risk behaviors such as smoking and drinking, sexually transmitted infections (STIs), HIV, psychiatric disorders, and suicidality than do individuals who do not engage in same-sex sexual behaviors (Easton, Jackson, Mowery, Comeau, & Sell, 2008; Gilman et al., 2001; Halpern, Young, Waller, Martin, & Kupper, 2004; Lindley, Walsemann, & Carter, 2012; Marshal et al., 2008; Russell, Franz, & Driscoll, 2001). In lower- and middle-income settings, this research is more nascent; though these studies also find that individuals who engage in same-sex sexual behaviors experience violence, have poorer health outcomes including social isolation and depression, as well as risky sexual behaviors such as unprotected sex and having more sexual partners (Nguyen, Nguyen, Le, & Detels, 2008; Stephenson, Hast, Finneran, & Sineath, 2014; van Griensven et al., 2004).

The need to identify and address these and other health concerns is particularly pronounced for adolescents and young adults in lower- and middle-income settings. Despite the fact that adolescence and young adulthood represent critical periods in sexual development and initiation of sexual behavior, some aspects of young people’s sexuality are often omitted from research and program efforts, including the investigation of same-sex behaviors and possible associated health outcomes (Bearinger, Sieving, Ferguson, & Sharma, 2007; Brown, Jejeebhoy, Shah, & Yount, 2001). Moreover, young people are a vulnerable population at risk of HIV, particularly among young men who have sex with men (Family Health International, 2010).

Given the recent rise in HIV incidence in the Philippines, and the need to better understand and address the linkages between same-sex status and mental and physical health outcomes, the aim of this study is to examine the sexual behaviors and health indicators among a community-based sample of sexually experienced young adults in the Philippines. We describe same-sex behaviors and investigate associations between same-sex status and three domains of health risk behaviors/outcome: sexual, substance-related, and psychological. Furthermore, given

that early sexual initiation and risk-taking behavior are correlated, we model the independent effect of same-sex status on age at first sex by controlling for substance-use behavior.

Method

Participants and Procedure

The study sample comprised participants from the Cebu Longitudinal Health and Nutrition Survey (CLHNS), a longitudinal cohort study conducted in Metro Cebu. Cebu is the second largest metropolitan area in the Philippines with over 2 million in population. The CLHNS was initiated using a single-stage cluster sampling procedure in which 33 communities or *barangays* (17 urban, 16 rural) were surveyed in 1982–1983 to locate all pregnant women. About 3,300 women in the selected barangays who gave birth between May 1, 1983 and April 30, 1984 and their newborn children were included in the CLHNS. These women and the children (referred to as index children, or ICs) have been followed since this time with periodic follow-up surveys in 1991–92, 1994, 1998, 2002, 2005 and tracking surveys in 2007 and 2009 (see Adair et al., 2010 for a detailed description of the study background and methodology).

We used the 2005 CLHNS survey, the most recent survey in which same-sex behavior data were collected. In total, 1,912 ICs (ages 20–22) were interviewed and 1,112 (58.2 %) met the inclusion criteria of being sexually experienced. Thus, the current analytic sample of 677 males (60.9 %) and 435 females (39.1 %) is based on the IC's self-reports of sexual experiences and health-related indicators. The 2005 CLHNS survey was approved by the Institutional Review Boards of the University of North Carolina, Chapel Hill, and the Johns Hopkins Bloomberg School of Public Health. Secondary analysis of this data was also approved by the University of California, Los Angeles Office of the Human Research Protection Program. Informed consent was obtained from all adult participants.

Measures

Same-sex Behavior

ICs are included in the analytic sample if they reported ever having had sex (“*Nakipag ‘sex’ ka na ba sukad*”). In Cebuano culture, “sex” is typically understood as penile-vaginal sexual intercourse, though the interview provided no further clarification for the respondents. Respondents who reported “yes” to either or both questions of ever had (1) any same-sex sexual contact; and (2) same-sex romantic relationship were classified as the *same-sex* behavior group. Those who answered “no” to both questions are defined as the comparison or *nonsame-sex* behavior group. Among the sexually experienced individuals,

944 (84.9 %) reported no same-sex encounters of any kind and 168 (15.1 %) reported having had either same-sex sexual contact or a same-sex romantic relationship. Of the 168 young adults reporting any same-sex behavior, 88 (7.9 %) reported same-sex sexual contact only, 27 (2.4 %) reported a same-sex romantic relationship only, and 53 (4.8 %) reported having had both sexual contact and a romantic relationship with someone of the same-sex.

Health Indicators

Sexual Behavior

Participants were asked the age at which they first had sex and the number of people with whom they had ever had sex. Number of partners were highly skewed and thus we dichotomized it as 0 = 1–2 partners and 1 = 3 or more partners.

Substance-related Risk Behavior

Participants were asked if they had ever smoked, drank alcoholic beverages, or taken drugs. Responses were either “yes” or “no.”

Psychological Distress

Participants responded to a series of questions in which they were asked how often in the preceding 4 weeks they had experienced 12 common feelings or problems. These questions are based on the Center for Epidemiologic Studies Depression Scale, a measure of depressive distress, and were locally refined and tested (Hindin & Gultiano, 2006; Radloff, 1977). Sample depressive distress questions include “How frequently have you felt lonely for the past 4 weeks?” and “How frequently have you felt life isn’t worth living for the past 4 weeks?” Ratings were made on a scale ranging from none of the time (1) to most of the time (3). Items were summed to create a single score (Cronbach’s $\alpha = 0.78$). Participants also responded to a set of 10 locally refined questions modeled on Cohen’s Perceived Stress Scale (Cohen, Kamarck, & Meermelstein, 1983) which were summed to create a stress score (Cronbach’s $\alpha = 0.73$). Sample stress questions include “In the last 4 weeks, how often have you felt nervous and stressed?” and “In the last 4 weeks, how often have you felt that you were unable to control the important things in your life?” Responses ranged from never (0) to very often (4). Higher scores indicate higher levels of perceived psychological distress.

Background Characteristics/Covariates

Based on prior research, we included sociodemographic characteristics of gender, marital status, level of education, current

employment status, household wealth index, urban or rural household residence, religion, and religiosity as control variables. Marital status was categorized as never married, married/cohabiting, or widowed/separated. Level of education was collapsed into four categories: no high school, some high school, completed 4 years of high school, or completed 1–5 years of college. Current employment status was a binary variable indicating whether the IC was currently working for pay or not. The household wealth index was derived from asset variables such as having electricity, air conditioning, home ownership, car ownership, TV, and other household electronics and appliance items and has been used in other studies of this Cebu sample (Gipson, Gultiano, Avila, & Hindin, 2012). Religion was categorized as Catholic vs. non-Catholic, with the non-Catholic groups mostly Protestant or Iglesia ni Cristo (Church of Christ). Religiosity was categorized into a dichotomous variable based on church attendance (attends at least weekly versus attends less often).

Data Analysis

To describe the prevalence of sexual experience, same-sex status and to compare group differences, we conducted bivariate analyses with cross-tabulations and χ^2 for discrete outcome variables and ANOVAs for continuous outcome variables. Multivariate ordinary least squares and logistic regression methods were employed to assess associations between same-sex and nonsame-sex groups and the health indicator variables while controlling for sociodemographic confounding. Because females and males were expected to differ across most of the investigated outcomes, we further stratified our analyses by gender. To address potential biases in parameter estimates due to small sample size (particularly among same-sex females), we used Firth's penalized likelihood estimation where appropriate (Heinze, 2006; Heinze & Schemper, 2002). Last, we modeled the effects of three blocks of variables on age at first sex: sociodemographic characteristics, substance use, and same-sex status. Statistical significance was determined by the criterion of $p < .05$ and confidence intervals were estimated with 95 % certainty.

Results

Sample Characteristics and Bivariate Analyses

The ages of the index children ranged from 20 to 22 years with a mean of 20.94 ($SD = 0.34$) at the time of interview. All sociodemographic characteristics were significantly associated with sexual activity among our cohort of young adults. Fifty-eight percent of the total sample was sexually experienced by the time of the 2005 survey. A greater proportion of males reported being sexually experienced as compared to females (67.2 vs. 48.1 %). As indicated in Table 1, sexually experienced young adults were more likely to be male ($p < .001$), married/cohabiting ($p < .001$),

have lower levels of education and household wealth ($p < .001$), and to be currently working ($p = .006$) than non-sexually active young adults. Among those who were sexually experienced, significant gender differences were found with all sociodemographic characteristics with the exception of urban/rural household residence and Catholic religion (see Table 1).

Among the sexually experienced young adults, 22 % of the males and 4.4 % of the females reported any same-sex experience. Specifically, more males than females had a history of same-sex sexual contact (19.4 vs. 2.3 %) or same-sex romantic relationship (9.2 vs. 4.1 %). As noted in Table 2, young adults with same-sex experience were also less likely to be married (28.6 vs. 46 %), have completed four year high school (34.5 vs. 39.9 %), and more likely to live in urban areas (81.5 vs. 71 %) than those with no same-sex experience.

Bivariate analyses comparing same-sex histories showed significant group differences in two of the three domains of health outcomes: sexual behaviors and substance use. Young adults with same-sex experience were more likely to report first sex at a younger age, ($M = 16.77$ vs. $M = 18.05$, $p < .001$), to have had three or more partners (64.9 vs. 18.8 %, $p < .001$), and to have ever smoked cigarettes (92.3 vs. 67.3 %, $p < .001$), drank alcohol (99.4 vs. 93.3 %, $p = .002$), and taken drugs (60.1 vs. 31.1 %, $p < .001$), as compared to those with no same-sex experience. No significant group differences were found with the two psychological distress outcomes. Sociodemographic and health characteristics of the sample with and without histories of same-sex behavior stratified by gender are presented in Table 2.

Multivariate Analyses

Sexual Behaviors

Table 3 depicts the multivariate models controlling for covariates. Young adults who reported same-sex behavior initiated sex at a younger age, as compared to young adults who did not report any same-sex behavior (16.8 vs. 18.1 years, respectively), $B = -1.16$; $\beta = -.21$, $p < .001$. Additionally, same-sex experience was positively associated with increased odds of reporting three or more partners as compared to those without any same-sex experience (64.9 vs. 18.8 %), $OR = 5.70$, 95 % CI [3.81, 8.52].

Results from the gender-stratified multivariate regression analyses indicated that same-sex behavior remained a significant predictor of age at first sex for males but not for females, $B = -1.27$; $\beta = -.25$, $p < .001$. Same-sex behavior was also a significant predictor of number of sexual partners for males, $OR = 4.78$, 95 % CI [3.18, 7.19] (see Table 4). Table 5 presents the full, multivariate model for males showing that same-sex behavior remained a significant predictor of age at first sex over and above the effects of sociodemographic characteristics and substance use, $F(15, 638) = 6.08$, $p < .001$.

Table 1 Sociodemographic characteristics and sexual activity comparisons of young adults in Cebu, Philippines—2005 CLHNS ($N = 1912$)

	No sexual experience ($n = 800$)		Sexually experienced ($n = 1112$)		χ^2 or F^a	Female No sexual experience ($n = 469$)		Sexually experienced ($n = 435$)		Male No sexual experience ($n = 331$)		Sexually experienced ($n = 677$)		χ^2 or F^b
	<i>n</i>	%	<i>n</i>	%		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
	Gender						71.02***							
Male	331	41.4 %	677	60.9 %										
Female	469	58.6 %	435	39.1 %										
Marital status					513.21***									179.46***
Never married	799	99.9 %	590	53.1 %		468	99.8 %	122	28.0 %	331	100.0 %	468	69.1 %	
Married/Cohabiting	1	0.1 %	482	43.3 %		1	0.2 %	289	66.5 %	0	0.0 %	193	28.5 %	
Widowed/separated	0	0.0 %	40	3.6 %		0	0.0 %	24	5.5 %	0	0.0 %	16	2.4 %	
Education					102.81***									21.14***
No high school	85	10.6 %	211	19.0 %		19	4.1 %	63	14.5 %	66	19.9 %	148	21.9 %	
Some high school	85	10.6 %	237	21.3 %		27	5.8 %	98	22.5 %	58	17.5 %	139	20.5 %	
4 year high school	327	40.9 %	435	39.1 %		205	43.7 %	200	46.0 %	122	36.9 %	235	34.7 %	
1–5 year college	303	37.9 %	229	20.6 %		218	46.5 %	74	17.0 %	85	25.7 %	155	22.9 %	
Currently employed					7.70**									18.69***
Yes	314	40.3 %	513	46.8 %		280	61.5 %	193	45.1 %	185	57.1 %	391	58.4 %	
No	465	59.7 %	584	53.2 %		175	38.5 %	235	54.9 %	139	42.9 %	278	41.6 %	
Household wealth index mean (<i>SD</i>)	5.54 (1.91)		5.01 (2.09)		31.48***	5.78 (1.79)		4.69 (2.03)		5.20 (2.02)		5.22 (2.10)		16.91***
Household residence					5.75*									1.78
Urban	540	67.5 %	807	72.6 %		339	72.3 %	306	70.3 %	201	60.7 %	501	74.0 %	
Rural	260	32.5 %	305	27.4 %		130	27.7 %	129	29.7 %	130	39.3 %	176	26.0 %	
Religion					4.30*									2.06
Catholic	751	93.9 %	1067	96.0 %		442	94.2 %	422	97.0 %	309	93.4 %	645	95.3 %	
Non-Catholic	49	6.1 %	45	4.0 %		27	5.8 %	13	3.0 %	22	6.6 %	32	4.7 %	
Religiosity					4.01*									22.87***
Yes	511	63.9 %	657	59.3 %		287	61.2 %	220	50.6 %	224	67.7 %	437	65.0 %	
No	289	36.1 %	450	40.7 %		182	38.8 %	215	49.4 %	107	32.3 %	235	35.0 %	

* $p < .05$; ** $p < .01$; *** $p < .001$

^a Significance tests between no sexual experience and sexually experienced groups

^b Significance tests between sexually experienced males and females

Substance-Related Risk Behavior

Holding all sociodemographic variables constant, young adults who reported same-sex behavior were more likely to report lifetime substance use, particularly smoking (92.3 vs. 67.3 %), $OR = 2.90$, 95 % CI [1.55, 5.44] and drug use (60.1 vs. 31.1 %), $OR = 2.01$, 95 % CI [1.36, 2.97], as compared to young adults who did not report any same-sex behavior. There were no significant differences in alcohol use (99.4 vs. 93.3 %), $OR = 3.25$, 95 % CI [.61, 17.18] (see Table 3).

For males, the odds of smoking were nearly three times, $OR = 2.88$, 95 % CI [1.33, 6.24] and the odds of drug use were nearly twice as high, $OR = 1.79$, 95 % CI [1.19, 2.69] for the males who had engaged in same-sex behavior as compared to

those who had not. A similar pattern was observed for females. The odds of ever smoking among females who reported same-sex behavior were about three times, $OR = 3.11$, 95 % CI [1.10, 8.82] and the odds of ever using drugs were about six times the odds, $OR = 6.20$, 95 % CI [2.14, 17.98] of females who did not report same-sex behavior (see Table 4).

Psychological Distress

There was no significant association between same-sex status and the depressive distress summary score net of the control variables, $B = .34$; $\beta = .04$, $p = .225$, overall model fit $F(13, 1065) = 9.19$, $p < .001$. Gender-stratified analyses also showed no significant associations between same-sex behavior and the

Table 2 Sociodemographic and health characteristics by same-sex status of sexually experienced young adults in Cebu, Philippines—2005 CLHNS ($N = 1112$)

	Nonsame-sex ($n = 944$)		Same-sex ^a ($n = 168$)		χ^2 or F^b	Female ($n = 416$)				Male ($n = 528$)			
						Nonsame-sex ($n = 416$)		Same-sex ($n = 19$)		Nonsame-sex ($n = 528$)		Same-sex ($n = 149$)	
	<i>n</i>	%	<i>n</i>	%		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Sociodemographic													
Male gender	528	55.9 %	149	88.7 %	64.26***								
Married/Cohabiting	434	46.0 %	48	28.6 %	18.13***	277	66.6 %	12	63.2 %	157	29.7 %	36	24.2 %
4 year high school education	377	39.9 %	58	34.5 %	9.77*	194	46.6 %	6	31.6 %	183	34.7 %	52	34.9 %
Currently employed	499	53.7 %	85	50.9 %	0.43	183	44.7 %	10	52.6 %	316	60.7 %	75	50.7 %
Household wealth, mean (<i>SD</i>)	4.98	(2.11)	5.20	(1.92)	1.63	4.72	(2.03)	4.11	(1.91)	5.18	(2.16)	5.34	(1.88)
Urban residence	670	71.0 %	137	81.5 %	8.01**	291	70.0 %	15	78.9 %	379	71.8 %	122	81.9 %
Catholic religion	906	96.0 %	161	95.8 %	0.01	403	96.9 %	19	100 %	503	95.3 %	142	95.3 %
Religiosity	560	59.4 %	97	58.8 %	0.03	212	51.0 %	8	42.1 %	348	66.2 %	89	61.0 %
Sexual behavior													
Age first sex, mean (<i>SD</i>)	18.05	(1.88)	16.77	(2.10)	62.93***	18.22	(1.74)	17.63	(1.67)	17.91	(1.98)	16.66	(2.13)
Three or more partners	177	18.8 %	109	64.9 %	158.86***	10	2.4 %	6	31.6 %	167	31.6 %	103	69.1 %
Risk behavior													
Ever smoked	635	67.3 %	155	92.3 %	43.31***	181	43.5 %	14	73.7 %	454	86.0 %	141	94.6 %
Ever drank alcohol	881	93.3 %	167	99.4 %	9.72**	364	87.5 %	18	94.7 %	517	97.9 %	149	100 %
Ever taken drugs	294	31.1 %	101	60.1 %	52.28***	36	8.7 %	7	36.8 %	258	48.9 %	94	63.1 %
Psychological distress													
Depression, mean (<i>SD</i>)	17.08	(3.32)	16.97	(3.31)	0.16	18.04	(3.56)	18.79	(3.92)	16.33	(2.91)	16.74	(3.16)
Perceived stress, mean (<i>SD</i>)	17.20	(4.50)	17.26	(4.75)	0.02	18.61	(4.51)	19.95	(3.84)	16.09	(4.18)	16.91	(4.76)

* $p < .05$; ** $p < .01$; *** $p < .001$

^a Respondents with any reported same-sex sexual contact or romantic relationship are categorized in the same-sex group

^b Significance tests between nonsame-sex and same-sex groups

depression score. There was a weak but significant association between same-sex status and the perceived stress summary score ($B = .79$; $\beta = .06$, $p = .04$), overall model fit $F(13, 1065) = 8.73$, $p < .001$. That is, net of the control variables, those in the same-sex group reported higher levels of perceived stress than those in the nonsame-sex group. However, gender-stratified analyses revealed no association between same-sex status and perceived stress (see Tables 3 and 4).

Discussion

Recent increases in HIV incidence, combined with a broader recognition of the importance of investigating potential health correlates and behavioral patterns among young people with same-sex experience in global settings prompted this examination of self-reported same-sex behavior and health indicators among a community-based sample of young adults in the Philippines.

Three key findings emerged from our analysis of the Cebu data. First, same-sex behaviors among our cohort of sexually experienced Filipino young men and women, though uncommon,

are not rare. Second, sexually experienced Filipino young adults are engaging in sexual and health behaviors that are more likely to increase their risk for adverse health outcomes—more so for those with same-sex sexual experiences as compared to those who deny such histories. Last, contrary to findings from other global settings, we did not observe a significant association between same-sex behavior and depression, though there was a relationship with perceived stress.

An important finding is that this sample of sexually experienced Filipino young men and women in Cebu is reporting levels of same-sex behavior that match or exceed rates documented elsewhere internationally (Barbosa & Koyama, 2008; Hayes, Chakraborty, & McManus, 2012; Herbenick et al., 2010; Smith, Rissel, Richters, Grulich, & de Visser, 2003). About 15 % of the sexually experienced young adults reported a positive history of same-sex sexual and/or romantic behavior. Similar to studies from this and other global settings, more males (22 %) than females (4.4 %) reported same-sex experience, and a substantially larger proportion of males reported same-sex sexual contact (19.4 %) than females did (2.3 %). In comparison to the 2002 YAFS study of Filipino young adults where 13.2 % of males and 3.5 % of females between ages 20–24 reported ever

Table 3 Multivariate regression summary of same-sex status and health outcomes among sexually experienced young adults in Cebu, Philippines

	Same-sex (Referent is nonsame-sex) ^a				
	<i>B</i>	<i>SE</i>	β	<i>OR</i>	95 % <i>CI</i>
Sexual behavior					
Age at 1st sex	−1.16***	0.17	−0.21		[−1.48, −0.83]
Three or more partners	1.74***	0.21		5.70	[3.81, 8.52]
Risk behavior					
Ever smoked	1.07**	0.32		2.90	[1.55, 5.44]
Ever drank alcohol ^b	1.18	0.85		3.25	[.61, 17.18]
Ever taken drugs	0.70***	0.20		2.01	[1.36, 2.97]
Psychological distress					
Depression	0.34	0.28	0.04		[−0.21, 0.89]
Perceived stress	0.79*	0.38	0.06		[0.04, 1.54]

Beta weights and odds ratios are adjusted for gender, marital status, education, household wealth index, employment status, household residence, religion, and religiosity

SE standard error, *OR* adjusted odds ratio, *CI* confidence interval

* $p < .05$; ** $p < .01$; *** $p < .001$

^a Respondents with any reported same-sex sexual or romantic experience are categorized in the same-sex group, coded as 0 = nonsame-sex and 1 = same-sex

^b Coefficient and odds ratio derived from Firth's penalized likelihood estimation

having sex with someone of the same sex, we observed a higher rate of same-sex behavior among males, but a lower rate among females.

These findings suggest that same-sex behaviors among young Filipino males in Cebu may be more common than that observed in other countries (Caceres et al., 2006). Moreover, young men who reported previous same-sex behavior were more likely to report sexual intercourse at a younger age and to have had more sexual partners as compared to young men who

did not report any same-sex behavior. There were no significant differences found for young women. These findings may reflect opportunities for greater sexual freedom and expression, at least among males, in the Philippines, as the social norms surrounding sexuality are more lenient for Filipino males than for Filipino females (Natividad & Marquez, 2002; Upadhyay, Hindin, & Gultiano, 2006; Medina, 2001). This is not surprising, as gender differences in sexual expression are found in other global settings as well, with a higher prevalence

Table 4 Gender-stratified multivariate analyses of same-sex status and health outcomes among sexually experienced young adults in Cebu, Philippines

	Same-sex females ($n = 19$)					Same-sex males ($n = 149$)				
	<i>B</i>	<i>SE</i>	β	<i>OR</i>	95 % <i>CI</i>	<i>B</i>	<i>SE</i>	β	<i>OR</i>	95 % <i>CI</i>
Sexual behavior										
Age at 1st sex	−0.33	0.38	−0.04		[−1.07, 0.41]	−1.27***	0.19	−0.25		[−1.65, −0.89]
Three or more partners ^a	–	–		–		1.56***	0.21		4.78	[3.18, 7.19]
Risk behavior										
Ever smoked	1.14*	0.53		3.11	[1.10, 8.82]	1.06**	0.39		2.88	[1.33, 6.24]
Ever drank alcohol ^b	0.35	0.88		1.42	[0.25, 7.98]	–	–		–	–
Ever taken drugs	1.82***	0.57		6.20	[2.14, 17.98]	0.58**	0.21		1.79	[1.19, 2.69]
Psychological distress										
Depression	0.33	0.83	0.02		[−1.30, 1.96]	0.39	0.28	0.06		[−0.16, 0.94]
Perceived stress	1.46	1.06	0.07		[−0.62, 3.54]	0.65	0.41	0.06		[−0.15, 1.45]

Beta weights and odds ratios are adjusted for marital status, education, household wealth index, employment status, household residence, religion, and religiosity

SE standard error, *OR* adjusted odds ratio, *CI* confidence interval

* $p < .05$; ** $p < .01$; *** $p < .001$

^a Results omitted for females due to small n

^b Results omitted for males as all same-sex males reported ever drank alcohol

Table 5 Summary of ordinary least squares model for sexual debut (age at first sex) among sexually experienced males in Cebu, Philippines

	Full model		
	<i>B</i>	<i>SE B</i>	β
Sociodemographics			
Never married (referent)			
Legally married	−0.28	0.33	−0.03
Not legally married	−0.69	0.20	−0.14**
Widowed/separated	−0.25	0.56	−0.02
No high school (referent)			
Some high school	−0.25	0.24	−0.05
4 year high school	0.15	0.23	0.03
1–5 years college	−0.37	0.28	−0.07
Household wealth index	−0.05	0.04	−0.05
Currently working	0.13	0.17	0.03
Rural residence	0.31	0.18	0.07
Catholic religion	0.04	0.38	0.01
Religious	−0.02	0.17	−0.01
Risk behaviors			
Ever smoked	−0.64	0.26	−0.10*
Ever drank alcohol	0.63	0.66	0.04
Ever taken drugs	−0.43	0.17	−0.10*
Same-sex status	−1.18	0.19	−0.23***
Constant	18.10	0.79	
$R^2\Delta$		0.05	
Adjusted R^2		0.11	
F for ΔR^2		37.85***	

Respondents with any reported same-sex sexual or romantic experience are categorized in the same-sex group, coded as 0 = nonsame-sex and 1 = same-sex

* $p < .05$; ** $p < .01$; *** $p < .001$

of premarital sex and earlier sexual initiation among males as compared to females (Bearinger et al., 2007; Brown et al., 2001). It is also possible that males may be more willing to report their sexual behaviors, same-sex or otherwise, as compared to females. Similar reporting differences between heterosexual men and women have been documented in other global settings (Curtis & Sutherland, 2004; Nnko, Boerma, Urassa, Mwaluko & Zaba, 2004), with males consistently reporting more sexual partners than females do.

Apart from the differences in gender, findings indicating earlier sexual initiation and a greater number of sexual partners among young men engaging in same-sex behavior have important public health implications, particularly for HIV prevention and intervention. While this finding is not unique to the Philippines, it underscores the need to develop overlapping and reinforcing public health interventions that especially target MSMs in lower- and middle-income countries. In addition to national-level increases in the incidence of HIV among MSM, Metro Cebu is one of the three highly urbanized areas with the

most reported HIV cases (others being Metro Manila and Davao City) (Philippines National AIDS Council, 2012). In addition to continuing to ease restrictions on the provision of sexual and reproductive health services and information in the Philippines (e.g., such as restrictions on condoms documented under the previous president) (Human Rights Watch, 2004), public health intervention efforts need to ensure that young people, regardless of sexual preferences or orientation, are receiving accurate, high-quality information and services to facilitate adoption or maintenance of behaviors that reduce the risk of acquiring HIV or other STIs, including consistent condom use, delayed sexual debut, and reductions in multiple partners (UNAIDS, 2010).

In addition to differences in sexual behavior, young adults who reported a history of same-sex behavior were also more likely to have smoked cigarettes and to have used drugs, as compared to young adults with no reported same-sex behavior. These effects were consistent across gender, with the exception of alcohol use. Interestingly, whereas both same-sex young men and women were more likely to report ever having smoked than were nonsame-sex young men and women, women with same-sex experience were six times more likely to report drug use than women who had not engaged in same-sex behavior. It should be noted that we only used a single measure of drug use (i.e., ever used) in the present study, thus it is unclear if the reported behavior was experimental or suggests a pattern of continued use. Given the difficulty of establishing stable odds ratios with small sample size, particularly for our cohort of women with same-sex experience, this finding must be interpreted with caution. Nonetheless, our analysis indicates that sexually experienced young women with a reported history of same-sex behavior may be a higher risk group for drug use and thus the need to design targeted substance use education and prevention programs for this population.

Our findings are congruent with observations in studies from other lower- and middle-income settings, though these latter studies are extremely limited in number (e.g., Clark et al., 2007; van Griensven et al., 2004; Wei, Guadamuz, Lim, Huang, & Koe, 2012). In one, investigating 15- to 21-year-old students in Northern Thailand, 9 % of males and 11 % of females identified themselves as homosexual or bisexual (van Griensven et al., 2004). Males who reported positive histories of same-sex behavior also reported younger ages of sexual debut (14.7 vs. 16.8 years) and a higher mean number of lifetime sexual partners (7.9 vs. 5.8 partners), as compared to males who did not report same-sex behavior. This Thai study also found that females who identified as homosexual or bisexual were more likely to report any illicit drug use than did heterosexual females. Although young people's sexual and risk behaviors are relatively well-documented in global settings, more work is needed to understand and address the global patterns of higher risk sexual and health behaviors among young adults who engage in same-sex behaviors in lower- and middle-income countries.

The observation of higher levels of stress among young adults who report same-sex behaviors is consistent with the minority stress framework—that these young adults may be differentially exposed to stressors in their social environments than those who do not report same-sex behaviors. We did not, however, observe a significant association between same-sex behavior and depressive distress. This null finding stands in contrast to previous studies from high-income countries (King et al., 2008; Lam et al., 2004; Marshal et al., 2011) and a limited number of studies from low- to middle-income countries demonstrating higher levels of depressive symptoms among MSM populations in sub-Saharan Africa and India (e.g., Poteat et al., 2011; Risher et al., 2013; Safren et al., 2009). Some researchers have suggested that young adults with same-sex experience do not necessarily exhibit psychopathology or behavior problems (e.g., Consolacion, Russell, & Sue, 2004; Savin-Williams, 2001), as stigma-related stress that leads to psychopathology may be mediated by psychological processes such as coping, resilience, and social support that serve as protective factors to stigma (Crocker & Major, 1989; Hatzenbuehler, 2009). Our mixed findings with more reports of substance use but no depression deserve further exploration and discussion, especially considering evidence from many global settings indicating the important relationship between same-sex status and/or homosexuality and adverse health outcomes. Only further studies can demonstrate the robustness of our results.

Although data from the Philippines indicate higher, and possibly growing, levels of acceptability of homosexuality as compared to other countries (Mangahas, 2011; Pew Research Center, 2013; Raymundo, Kabamalan, Berja, & Laguna, 2002), heterosexual norms are strong and pervasive in the Philippines. Marriage between a man and a woman is considered a requisite and important milestone in the creation of a family and, at times, a condition for family inheritance (Lee, 2002). Thus, individuals not adhering to these traditional norms and trajectories may face social isolation and prompt the concealment of their sexual identity (Lee, 2002). It should be noted, however, that the young adults participating in the 2005 CLHNS survey were all 20–22 years old and had not yet reached the mean age at marriage for men and women in the Philippines (26.5 and 23.8 years, respectively) (National Statistics Office, 2009). As such, young adults who may wish to deviate from predominant Filipino cultural norms promoting marriage and childbearing would face less pressure to reconcile these differences at this point in their lives, thereby minimizing potential conflicts, stigma, and discrimination that may result.

The CLHNS offered community-based data from both men and women and the inclusion of data on a range of health outcomes and sociodemographic characteristics; however, the CLHNS was not designed to investigate same-sex behavior, sexual identity, or psychological processes. Ideally, future studies in the Philippines—either through the CLHNS or other surveys—will be able to explore the extent to which higher levels

of perceived stress may be attributable to higher degrees of stigma and discrimination among young adults who report same-sex behavior and to assess the extent to which engagement in same-sex behavior and self-identification with a sexual minority group may affect health outcomes. Moreover, because depression is inversely associated with health behaviors including HIV prevention and treatment, future research on young adults with same-sex experience in low- and middle-income countries should investigate psychosocial factors as potential buffering mechanisms to understand disparities in mental health outcomes and to better tailor intervention programs.

A few, additional limitations should be noted in the interpretation of these findings. First, all of the self-reported sexual and risk behaviors as well as psychological distress were retrospective and derived from one cross-sectional survey. Thus, we cannot establish for certain that a causal relationship exists between same-sex status and adverse health outcomes. Second, although this study is relatively unique in collecting data on both same-sex romantic behaviors and same-sex sexual contact, our operationalization of same-sex status may be confounded by the fact that some of these young men and women are bisexually behaving young adults, as respondents had to report having had “sex” to be included in the analytic sample. It is possible that youth who were not heterosexually experienced, as well as those who responded yes to having same-sex romantic relationship but had no experience of sexual intercourse, were excluded. In addition, no other measures of sex such as engagement in oral or anal sex were asked. Given documented variations in the perceptions of what constitutes “sex,” as well as potential differences in how these acts may be characterized within the context of same-sex and nonsame-sex encounters, it is possible that there is some misreporting or misclassification (Caceres & Rosasco, 1999; Teunis, 2001). Third, the CLHNS did not measure sexual orientation identity; in the United States for example, many same-sex experienced individuals identify as heterosexual when explicitly asked for an identity (Cochran, 2001). Hence, extrapolating our findings to lesbian, gay, and bisexual identified persons should be done with caution. Additional research is greatly needed in this area to better understand how sexuality and sexual practices are described and defined among Filipino youth and young adults. Last, the prevalence data should be interpreted with caution as data were abstracted from the 2005 survey when the young people were between 20 and 22 years old. The reported estimates here are for only those members of the cohort who had reported any sexual experience by 2005 (58 %). It is possible that the remaining members of the cohort may have different sexual experiences and associated health outcomes. However, since these young adults have been participating in the CLHNS (and often with the same study staff) since their birth, it is also possible that they may feel a greater rapport and trust with CLHNS staff to report these behaviors. Conversely, all of the surveys are based on face-to-face interviews that may result in underreporting of sexual behaviors.

Given the paucity of information on same-sex behaviors from lower- and middle-income community-based studies, this study provides valuable insight into same-sex behavior in a large metropolitan area of the Philippines. The greater proportion of same-sex Filipino young adults reporting higher risk sexual and health behaviors highlights the importance for future investigations in possible causal pathways, protective factors, and alternative explanations (Marshall et al., 2008). Increasing HIV incidence, rampant urbanization, as well as rapid social and economic changes that have characterized the Philippines over the last 25 years makes it more important than ever to understand young people's sexuality, health and risk behaviors, and their implications for public health programs.

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