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## Sexual attraction and experiences in the primary care setting: Examining disparities in satisfaction with provider and health self-efficacy

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### Abstract

**Introduction:** To test whether sexual minority males and females report lower satisfaction with primary care providers and lower health self-efficacy relative to heterosexual males and females.

**Methods:** Data from 535 adolescents who participated in one of two randomized clinical trials conducted in a primary care setting were analyzed. Multiple linear regressions controlling for demographic characteristics and treatment condition were used to examine sexual attraction differences in indicators of satisfaction with provider and health self-efficacy.

**Results:** Sexual minority and heterosexual youth both endorsed high satisfaction with providers. Relative to heterosexual males, sexual minority males reported lower self-efficacy in reaching their health goals. Relative to heterosexual females, sexual minority females reported lower confidence in positively impacting their own health, and lower self-efficacy in setting goals and working actively to improve their health.

**Conclusions:** Sexual minority youth may benefit additional support from health care providers to enhance their health self-efficacy and reach their health goals.

### Keywords

Sexual orientation; patient satisfaction; health self-efficacy; primary care

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Relative to heterosexual peers, sexual minority youth are at risk for higher depressive symptoms and poorer health-related outcomes, including substance use, sexual risk behaviors, and lower physical activity (Luk, Gilman, Haynie, & Simons-Morton, 2018; Rosario et al., 2014). Moreover, mental health issues including traumatic stress and suicidality are elevated among sexual minority youth in primary care settings (Shearer et al., 2016). Given these disparities, health care providers in the primary care setting may be well positioned to deliver screening and brief counseling with sexual minority youth to improve health-related outcomes (Luk, Gilman, Haynie, & Simons-Morton, 2017).

The Society for Adolescent Health and Medicine encourages all adolescent health care providers to provide competent and nonjudgmental care for sexual minority youth (Reitman et al., 2013). However, empirical data suggest that about two-thirds of sexual minority youth had a desire to discuss sexual orientation related issues with their physician but did not have the chance to do so (Allen, Glick, Beach, & Naylor, 1998). It is estimated that only 35% of high-school aged youth reported that their physicians know about their minority sexual orientation (Meckler, Elliott, Kanouse, Beals, & Schuster, 2006). An internet-based survey revealed that sexual minority youth ranked the following health care provider qualities to be important: competency in medical skills, being nonjudgmental, and treating sexual minority youth the same way as other youth (Hoffman, Freeman, & Swann, 2009). However, limited research has tested whether sexual minority adolescents are as satisfied with their health care providers in the primary care setting, and if they feel as competent and confident in attaining their health goals when compared to heterosexual peers.

Self-efficacy can be defined as an individual's belief in his or her capabilities to execute control over his or her own motivation and behaviors (Bandura, 1977). Health self-efficacy more specifically refers to an individual's beliefs about their ability to manage their health (Lee, Hwang, Hawkins, & Pingree, 2008), and can be conceptualized as a common pathway leading to increased motivation and perseverance in adopting and maintaining health behaviors (Bandura, 2004). Past studies suggest that adolescents are interested in receiving more health communication information and having more frequent health- and sexuality-related discussion with their primary care provider (Ford et al., 2016; Fuzzell, Fedesco, Alexander, Fortenberry, & Shields, 2016). A competent, caring and nonjudgmental health care provider could potentially help adolescents build health self-efficacy by providing tailored health information and by discussing topics relevant to health promotion. This study examined whether sexual minority youth report lower satisfaction with provider and lower health self-efficacy relative to heterosexual peers within a primary care setting.

## Method

### Sample

Data from two clinical trials testing the efficacy of an electronic health screening tool were combined for analyses. Participants were adolescents aged 13–18 drawn from primary care practices in the greater Seattle area and were randomized into a control group and an intervention group. The analytic sample included 535 youth (mean age = 14.6, SD = 1.4) who identified as male or female. Three youth of the original 538 identified as non-binary gender and were not included in these analyses. Parents provided written consent

for adolescent participation and adolescents provided assent. Both studies were approved by the Institutional Review Board of Seattle Children's Hospital.

## Measures

**Gender Identity and Sexual Attraction.**—Participants reported their gender identity (“male,” “female,” or “other”) and sexual attraction (“I am attracted to:” “males,” “females,” “both,” “not sure,” or “none”). Frequencies and percentages of responses are presented in Table 1. For the main analyses, responses were dichotomized as sexual minorities versus heterosexual.

**Satisfaction with Provider.**—Three items from the Consumer Assessment of Health Providers and Systems (Darby, Crofton, & Clancy, 2006) assessed adolescents' satisfaction with their provider one day after their primary care appointment. For the first two satisfaction items (“courtesy and respect” and “easy to understand”), responses were given on a four-point scale with 0 = “definitely no”, 1 = “somewhat no”, 2 = “somewhat yes”, and 3 = “definitely yes”. For the overall satisfaction rating, responses ranged from 0 = “worst possible care” to 10 = “best possible care”.

**Health Self-Efficacy.**—Five items were taken from a prior study of health self-efficacy (Lee et al., 2008) to capture its five aspects one day after their primary care appointment, including: “I am confident I can have a positive effect on my health,” “I have set some definite goals to improve my health,” “I have been able to meet the goals I set for myself to improve my health,” “I am actively working to improve my health,” and “I feel that I am in control of how and what I learn about my health.” (Lee et al., 2008) These items were rated on a 5-point scale with 0 = “disagree very much”, 1 = “disagree”, 2 = “neither agree or disagree”, 3 = “agree”, and 4 = “agree very much”.

## Statistical Analyses

As exploratory analyses, we presented descriptive data on satisfaction with provider and health self-efficacy and used one-way analysis of variance (ANOVA) to test heterosexual and sexual minority subgroup differences. For the main analyses, we conducted multiple linear regressions controlling for age, race/ethnicity, and treatment condition to examine whether sexual minority youth (all subgroups combined) and heterosexual youth differed in satisfaction with provider and health self-efficacy. All analyses were conducted in SPSS 21, and the main analyses were stratified by sex.

## Results

Demographic characteristics are presented in Table 1. The study sample was racially/ethnically diverse, with 4% lesbian/gay, 5% bisexual, 4% questioning, and 3% asexual. Means and standard deviations of satisfaction with provider and health self-efficacy items by heterosexual and sexual minority subgroups are presented in Table 2. None of the ANOVAs were significant.

Results from the multiple linear regressions are presented in Table 3. After controlling for age, race/ethnicity, and treatment condition, sexual minority and heterosexual youth

similarly endorsed high levels of satisfaction with providers. Relative to heterosexual males, sexual minority males reported lower self-efficacy in meeting goals set to improve health (standardized  $b = -0.30$ ,  $p = .044$ ). Relative to heterosexual females, sexual minority females reported lower confidence in having a positive impact on health ( $b = -0.20$ ,  $p = .035$ ), lower self-efficacy in setting some definite goals to improve health ( $b = -0.28$ ,  $p = .047$ ) and in actively working to improve health ( $b = -0.30$ ,  $p = .034$ ).

In terms of covariate effects, female participants who were in the Patient-Centered Outcomes Research Institute (PCORI) study reported lower overall satisfaction rating with providers than female participants in Agency for Healthcare and Research and Quality (AHRQ) study ( $b = -0.16$ ,  $p = .013$ ), and treatment condition was not associated with any of the outcomes. Older age was associated with lower self-efficacy in meeting goals set to improve health ( $b = -0.09$ ,  $p = .014$ ) and lower self-efficacy in actively working to improve health ( $b = -0.10$ ,  $p = .016$ ) among females. Race/ethnic minority status was associated with lower self-efficacy in feeling in control of how and what I learn about my health ( $b = -0.22$ ,  $p = .041$ ) among females and lower self-efficacy in actively working to improve health ( $b = -0.22$ ,  $p = .043$ ) among males.

## Discussion

While routine screening and brief counseling on sexual health issues would benefit all adolescents (Burke et al., 2014), the current study shows sexual orientation disparities in self-efficacy, a key variable that could lead to worse health outcomes. Our results indicate that sexual minority youth reported high satisfaction with their primary care provider at a similar level as heterosexual peers, but endorsed lower health self-efficacy than heterosexual peers. High satisfaction ratings may reflect that primary care providers are able to deliver quality care that is sensitive to the needs of sexual minority youth (Hoffman et al., 2009; Reitman et al., 2013). Lower self-efficacy among sexual minority adolescents may be due to greater sexual orientation-based discrimination experienced in their lives, which is outside of their control and may contribute to increased emotional distress (Almeida, Johnson, Corliss, Molnar, & Azrael, 2009). These disparities highlight the potential need for primary health care providers to provide additional emotional and practical support to sexual minority youth to facilitate their goal setting and attainment. For instance, health care providers in the primary care setting could help sexual minority males create a step-by-step plan to meet their health goals, and help sexual minority females better refine goals and engage in motivational talks to increase self-efficacy. Further research is needed to understand why sexual minority youth report lower health self-efficacy and if additional supports are beneficial.

In terms of covariate effects, older age and racial/ethnic minority status were inversely associated with aspects of self-efficacy. Late adolescence is a challenging developmental period with increased risk behaviors (Hair, Park, Ling, & Moore, 2009) and interpersonal challenges (Smetana, Campione-Barr, & Metzger, 2006). Research on the development of self-esteem across the lifespan has also shown that self-esteem decreases from childhood into adolescence and subsequently increases from adolescence into adulthood (Robins & Trzesniewski, 2005). The lower self-efficacy observed among older adolescents may

reflect these previous findings and calls for further studies to evaluate their specific developmental needs and study the intersectionality between age, race/ethnicity, and sexual orientation.

Limitations of this study include the assessment of a single dimension of sexual orientation (attraction, not behavior or identity) and inadequate sample size to examine potential interactions with demographic characteristics. The single-item sexual attraction measure used in this study provides multiple response options and captures some extent of the diversity within sexual minority youth. However, due to small cell sizes, the sexual orientation subgroup analyses could only be conducted in the full sample and should be considered exploratory. Moreover, as adolescents may describe their gender and sexual identity in ways not fully captured by this single item, future research is needed to understand the optimal way of assessing sexual orientation in routine pediatric care settings. Despite these limitations, results from the sex-stratified analyses provide novel yet preliminary data pointing to potential disparities in health self-efficacy among sexual minority youth. The extent to which lower self-efficacy may impact health-related behaviors among sexual minorities should be examined in larger research studies with improved measure of sexual orientation and consideration of potential sexual minority subgroup differences.

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## Abbreviations:

<b>LGBQA</b>	Lesbian, Gay, Bisexual, Questioning and Asexual
<b>SD</b>	Standard Deviation

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**Table 1.**Demographic characteristics by sex ( $n = 535$ )

	Overall		Males ( $n = 284$ )		Females ( $n = 251$ )	
	Mean	SD	Mean	SD	Mean	SD
<b>Age</b>	<b>14.57</b>	<b>1.38</b>	<b>14.57</b>	<b>1.37</b>	<b>14.57</b>	<b>1.40</b>
	<b>Frequency</b>	<b>Percent</b>	<b>Frequency</b>	<b>Percent</b>	<b>Frequency</b>	<b>Percent</b>
<b>Race/Ethnicity</b>						
Caucasian	371	69%	197	69%	174	69%
African American	18	3%	8	3%	10	4%
Asian/Pacific Islander	38	7%	14	5%	24	10%
Hispanic	25	5%	15	5%	10	4%
Mixed/Other	83	16%	50	18%	33	13%
<b>Sexual orientation</b>						
Heterosexual	450	84%	248	87%	202	81%
Lesbian/Gay	20	4%	11	4%	9	4%
Bisexual	28	5%	5	2%	23	9%
Questioning	19	4%	11	4%	8	3%
Asexual	18	3%	9	3%	9	4%

*Note.* Race/Ethnicity was dichotomized into Caucasian vs. Racial/Ethnic Minorities for analyses, whereas sexual attraction was dichotomized into sexual minorities vs. heterosexuals.

Means and standard deviations of satisfaction with provider and health self-efficacy by heterosexual and sexual minority subgroups ( $n = 535$ )

**Table 2.**

	Heterosexual ( $n = 450$ )	Lesbian/Gay ( $n = 20$ )	Bisexual ( $n = 28$ )	Questioning ( $n = 19$ )	Asexual ( $n = 18$ )	ANOVA	
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>F</i>	<i>p</i>
Satisfaction with provider							
1. Courtesy and respect	2.97 (.23)	2.95 (.22)	2.96 (.19)	2.95 (.23)	2.94 (.24)	.09	.986
2. Easy to understand	2.93 (.30)	3.00 (.00)	2.89 (.32)	2.84 (.50)	2.89 (.32)	.82	.510
3. Overall rating	9.29 (.94)	9.40 (.68)	9.14 (1.38)	9.16 (.90)	8.94 (1.47)	.82	.512
Health self-efficacy							
1. Confidence in having a positive effect on my health	3.46 (.61)	3.35 (.49)	3.25 (.59)	3.37 (.50)	3.28 (.67)	1.24	.291
2. Set some definite goals to improve my health	2.80 (.84)	2.60 (.88)	2.79 (1.10)	2.79 (0.86)	2.94 (0.73)	.53	.714
3. Able to meet goals set to improve my health	2.61 (.82)	2.25 (.79)	2.36 (.83)	2.37 (.83)	2.50 (.62)	1.83	.122
4. Actively working to improve my health	2.93 (.87)	2.55 (.69)	2.57 (.84)	2.68 (.82)	2.83 (.71)	2.27	.061
5. Feel in control of how and what I learn about my health	3.22 (.78)	3.05 (.83)	3.25 (.59)	2.80 (.98)	2.94 (.80)	2.08	.082

Note. ANOVA = Analysis of Variance.



**Table 3.** Sexual orientation differences in satisfaction with provider and health self-efficacy by sex ( $n = 535$ )

	Males				Females				
	LGBQA	Heterosexual	Linear Regression	LGBQA	Heterosexual	Linear Regression	LGBQA	Heterosexual	Linear Regression
	<i>M (SD)</i>	<i>M (SD)</i>	<i>b (SE)</i>	<i>p</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>b (SE)</i>	<i>p</i>	
Satisfaction with provider									
1. Courtesy and respect	2.94 (.23)	2.98 (.16)	-.04 (.03)	.144	2.96 (.20)	2.95 (.30)	.01 (.05)	.830	
2. Easy to understand	2.92 (.37)	2.96 (.26)	-.03 (.05)	.522	2.90 (.31)	2.90 (.35)	-.01 (.05)	.927	
3. Overall rating	9.11 (1.04)	9.30 (.94)	-.18 (.17)	.295	9.20 (1.26)	9.28 (.94)	-.07 (.16)	.650	
Health self-efficacy									
1. Confidence in having a positive effect on my health	3.42 (.50)	3.48 (.63)	-.05 (.11)	.639	<b>3.22(.59)</b>	<b>3.43 (.59)</b>	<b>-.20 (.09)</b>	<b>.035</b>	
2. Set some definite goals to improve my health	3.06 (.75)	2.78 (.84)	.26 (.15)	.079	<b>2.57 (.98)</b>	<b>2.84 (.85)</b>	<b>-.28 (.14)</b>	<b>.047</b>	
3. Able to meet goals set to improve my health	<b>2.36 (.87)</b>	<b>2.67 (.82)</b>	<b>-.30 (.15)</b>	<b>.044</b>	2.37 (.70)	2.54 (.82)	-.19 (.13)	.139	
4. Actively working to improve my health	2.75 (.69)	2.99 (.84)	-.23 (.15)	.128	<b>2.57 (.82)</b>	<b>2.85 (.89)</b>	<b>-.30 (.14)</b>	<b>.034</b>	
5. Feel in control of how and what I learn about my health	3.06 (.89)	3.24 (.78)	-.20 (.14)	.156	3.02 (.72)	3.20 (.79)	-.17 (.12)	.172	

Note. LGBQA = Lesbian, Gay, Bisexual, Questioning and Asexual. Regression analyses controlled for age, race/ethnicity, and treatment condition. Significant findings are presented in **bold**.