

Access to Health Care by Sexual Minorities: A Population-Based Assessment

Are Adolescent Patients Screened for their Sexual Health and Gender Identity in the Emergency Department?: The PEDSS (Pediatric Emergency Department Sexual Health Screening) Study

BY

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Thesis

Submitted in partial fulfillment of the requirements for the Degree of Master of Public Health in

the Brown University School of Public Health

PROVIDENCE, RHODE ISLAND
MAY 2019

This thesis by *Matthew Lecuyer* is accepted in its present form
by the Brown University School of Public Health as satisfying the
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Preface and Acknowledgements

Thank you to Siraj Amanullah, MD, MPH for pushing me to finish this.

Thank you to James Linakis, MD, PhD for reading my thesis and encouraging me to be the best researcher I can be.

Thank you to Annie Gjelsvik, PhD for encouraging me and believing in my vision.

Thank you to Elizabeth Jacobs, MD for allowing me to pursue my M.P.H.

Thank you to Scott Resnick, MD for always supporting me.

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Access to Health Care by Sexual Minorities: A Population-Based Assessment

Abstract:

Introduction: Sexual minorities face health care disparities and delay seeking care as compared to heterosexuals. Identifying a primary care provider has a positive impact on health outcomes for all patients. It was the objective to perform an assessment of health care access as reported by sexual minorities in the United States, hypothesizing that being a sexual minority inversely relates to regular health care access.

Methods: This study utilized data from the Behavioral Risk Factor Surveillance System (BRFSS) 2015, a telephone survey of United States residents, 18 years and older, assessing their health and use of preventive services. Responses from 21 states asking questions pertaining to sexual orientation were included (N = 163,803). Respondents self-identified as lesbian or gay, bisexual, other or responded that they didn't know or weren't sure to a question about sexual identity were considered sexual minorities. Primary outcome was identification of at least one primary care provider. Secondary outcomes included having health insurance, and routine care, and a flu shot in the past year. Covariates for adjusted model were age, race, sex, marital status. Weighted data was analyzed using STATA 14.1.

Results: Among all respondents, 6838 were defined as sexual minorities. When comparing to heterosexuals (N=156,965), 72% of sexual minority respondents identified having at least one primary care provider (81% of heterosexuals) and 21.2 % of sexual minorities reported being uninsured (10.6% of heterosexuals). In adjusted model, sexual minorities were found to have .79 odds (95% CI .70, .90) of identifying at least one primary care provider compared to heterosexuals. No difference was found between the sexual minorities and heterosexuals for regular checkups in the last year [OR .91 (95% CI .80, 1.02)]. Sexual minorities were found to have 1.14 odds (95%

CI 1.02, 1.26) of having a flu shot within the last year but had only .60 odds (95% CI .52, .70) of being insured.

Conclusion: Sexual minorities are less likely to report having a primary care provider or being insured but were more likely to have received a flu shot in the past year compared to heterosexuals. Enhanced access to care, as seen by public health efforts to increase annual flu shot prevalence, may help decrease health related disparities for sexual minorities.

Introduction:

Barriers to health care faced by both sexual minorities and heterosexuals include sex, gender, race, socioeconomic status, and geographic location. Data suggests that members of the lesbian, gay, bisexual, and transgender (LGBT) community, also known as sexual minorities, utilize health care and preventative medicine less than heterosexuals.^{1,2} Many sexual minorities are unwilling to disclose sexual orientation to a provider due to stigma.³ In a study published in 2015, approximately 29% of sexual minorities delay seeking medical care or avoid care completely versus 17% of heterosexuals.⁴ LGBT patients delay care for various reasons, including an attempt to avoid stigma by hiding their sexual orientation.^{1,2}

Hiding their orientation from providers has branded sexual minorities as the “invisible minority” which negatively impacts their health and wellbeing. If their primary care provider does not screen for sexual orientation, a provider will miss an opportunity to counsel patients regarding any of the high-risk behaviors associated with sexual minority status, impacting health outcomes. It is known that primary care is associated with better health outcomes by providing longitudinal and comprehensive care for patients.⁵ Sexual minority patients are at an increased risk of depression, suicide, and substance use disorders. These are conditions that are screened for,

detected by, and monitored by primary care providers.⁴⁻⁶ Without a primary care provider, sexual minorities are a vulnerable population.

As previously mentioned, data suggests LGBT patients delay seeking care.² One recent study suggested that an LGBT patient feeling more stigmatized was correlated with decreased utilization of health care services.³ However there is limited data related to sexual minorities identifying a personal healthcare provider or utilizing common healthcare services associated with primary care. It was the goal of this study to assess health care access as reported by sexual minorities in the United States. The main objective was to examine the differences between sexual minorities and heterosexuals in regard to identifying a personal healthcare provider and utilization of primary care services such as visiting their primary care office in the last year or obtaining an annual flu vaccine. This study hypothesized that identification of at least one primary care provider and use of primary care services would be lower for self-reported sexual minorities as compared to heterosexual counterparts.

Methods:

For the purpose of this study, data from the 2015 Behavioral Risk Factor Surveillance System (BRFSS), a national survey used to represent health and risk behaviors of the entire United States non-institutionalized adult (18 years or older) population, was analyzed. This survey is conducted by the Centers for Disease Control and Prevention via telephone (both landline and cell phone) and examines health related risk behaviors, chronic medical conditions, and use of preventative health services, with 441,456 responses across the country in 2015.⁷ This study was considered IRB exempt for use of de-identified, publicly available dataset and is not considered human subjects research

Sexual minority status was determined using data from states that asked module 21.1 “Sexual Orientation and Gender Identity.”⁷ This was asked in 21 states in 2015 (list states here). There were 196,141 observations in states that asked the module. Of eligible observations 164,046 (83.6%) had valid information for sexual orientation. Respondents were asked, “Do you consider yourself to be: (We ask this question in order to better understand the health and health care needs of people with different sexual orientations.)” and given the options of straight, lesbian or gay, bisexual, or other. Responses of don’t know/not sure and refusals were also captured. Sexual minority status was defined as self-identifying as “lesbian or gay,” “bisexual,” “other,” or “don’t know/unsure.” “Other” was accepted as valid response due to fluidity of sexual orientation.¹ A response of “straight” was considered heterosexual. “Refused” and missing were considered invalid (32,095 excluded).

Identification of at least one primary care providers was the primary outcome. It was assessed using data from module 3.2 “Health Care Access.”⁷ Surveyors asked, “Do you have one person you think of as your personal doctor or health care provider? (If “No” ask “Is there more than one or is there no person who you think of as your personal doctor or health care provider?”)” “Yes, only one” and “More than one” were grouped as having a primary care provider (PCP) while “No” and “Don’t know/Unsure” were grouped as not having a PCP.⁷ Respondents that refused to answer were excluded. There were 163,803 observations with valid information for sexual identity and having a primary care provider.

Secondary outcomes were use of a medical service typically associated with primary care. These included primary care visit within the previous year and obtaining an influenza vaccine in the previous year. Participants were asked, “During the past 12 months, have you had either a flu shot or a flu vaccine that was sprayed in your nose?” They could respond, “yes,” “no,” or “not

sure, do not know.” “Yes” was grouped as having had a flu vaccine. “No” and “not sure, do not know,” were grouped as not having a flu vaccine. The question “About how long has it been since you last visited a doctor for a routine checkup?” was used to assess recency of primary care. Patients could respond that this was within the last year, within the past two years, within the past 5 years, 5 years or more, or they did not know. This data was grouped into two groups, a PCP visit within the past year and those who answered within the past two years, within the past 5 years, 5 years or more, or did not know as no PCP visit within the past year.

Important factors that contribute to having primary care providers and using routine health maintenance services include social determinants of health. For the purposes of this study, we considered insurance coverage, education level, and income level as social determinants of health.² Demographic and socioeconomic position variables were sex, age, marital status, education level, insurance status, race and income level. BRFSS surveyors asked sex of respondents as binary, male and female. Sex was kept binary, male and female. Age categories were 18-24/25-35/35-44/45-54/55-64/65+. Marital Status was categorized as married or unmarried (divorced, widowed, separated, never married, a member of an unmarried couple) with refused considered as missing. Education level was categorized as “Less than High School,” and “High School Diploma or Greater”. “Refused” was coded as missing. Insurance coverage was categorized as yes or no, with don’t know/refused considered as missing. Race was categorized into a binary variable of white, non-Hispanic and non-white (“Black, non-Hispanic,” “Other Race Only, Non-Hispanic,” “Multiracial, Non-Hispanic,” and “Hispanic”). Income was recoded to categories “<\$25,000,” and “\$25,000 or greater” and excluded if missing or not recorded.

Statistical Analysis:

Analysis was done using statistical software package STATA version 14 (StataCorp LP, College

Station, TX). To accommodate for complex survey design, survey commands and weights were applied as per BRFSS guidelines. First, distributions of demographics, socioeconomic, and health care access variables was assessed by sexual minority status. Second, adjusted and unadjusted odds ratios of having a primary care provider were obtained using logistic regression. The primary outcome examined was identification of at least one primary care provider. Secondary outcomes included having a routine check-up in the past year, and having a flu shot in the past year. The primary independent variable for all outcomes was self-identification as a sexual minority. Adjusted analyses controlled for age, race, marital status and sex. Third, adjusted and unadjusted odds ratios were obtained for insurance coverage, education level, and income level using logistic regression. Adjusted analyses controlled for age, race, marital status and sex.

Results:

Sexual minorities composed an estimated four percent of adults in the states that asked the sexual orientation module. (Table 1). Eighty-one percent of the study population identified at least one personal health care provider. Compared to heterosexuals, sexual minorities were more likely to be female (55.4%, heterosexuals 51.9%), more likely to be 34 years old or younger (41%, heterosexuals 26.5%), non-white (50.4%, heterosexuals 29.9%), and unmarried (67.8%, heterosexuals 46.7%) (Table 1). Also compared to heterosexuals, 20.5% of sexual minorities graduated college (heterosexuals 27.5%), 55.6% of sexual minorities had income of \$25,000 or greater (heterosexuals 75.3%) and 78.8% were insured (heterosexuals 89.4%) (Table 1). Sexual minorities were less likely to identify at least one primary care provider (72%, heterosexuals 81%) and less likely to have a regular checkup within the last year (71.7%, heterosexuals 75.9%) than heterosexuals (Table 1). No difference was found for having a flu shot within the last year.

Unadjusted odds of a sexual minority identifying a primary care provider was .60 times that of heterosexuals (95% CI .54, .68). When adjusted for age, race, sex and marital status, the odds were .79 (95% CI .70, .90) (Table 2). The unadjusted odds ratio for sexual minorities to have a check-up with in the last year was .80 (95% CI .72, .90). Adjusted for the same covariates above, the odds ratio was .91 (95% CI .80, 1.02). Finally, the unadjusted odds ratio for receiving the annual flu shot in the year prior for sexual minorities was .95 (95% CI .86, 1.04) and adjusted was 1.14 (95% CI 1.02, 1.26) (Table 2).

Social determinants of health were also looked at as outcomes, including insurance coverage, education level, and income level. These were adjusted for age, race, sex, and marital status. In an adjusted model, the odds ratio for having insurance was .60 for sexual minorities (95% CI .52, .70), .40 for having a high school diploma or greater education level (95% CI .36, .46) and .56 for having an income \$25000 or greater (95% CI .50, .64) (Table 3).

Discussion:

The results of this study suggest that sexual minority patients are less likely than heterosexuals to identify at least one primary care provider. This remains significant even when controlled for age, sex, race and marital status. This is consistent with the notion that sexual minority patients identify difficulty establishing a provider they believe is able to address the health issues specific to the sexual minority community.⁴ As mentioned, sexual minority patients are at an increased risk of depression, suicide, and substance use disorders, conditions that are screened for, detected by, and monitored by primary care providers.⁴⁻⁶ Benefits of primary care have been established and include improved health outcomes, stable longitudinal care, and early detection of serious health risks.⁵ There is, therefore, a significant health disparity between sexual minority patients and heterosexuals if they do not establish a primary care provider.

LGBT stigma remains both institutional and social.⁴ We demonstrated that LGBT patients are less likely to identify at least one primary care provider, which may exacerbate known health disparities that primary care services mitigate. These include increased rates of alcohol abuse, unprotected sexual intercourse, self-injury, poor diet and nutrition.⁸ Sexual minorities have increased rates of smoking, homelessness, joblessness, and poverty.¹ LGBT youth are at an increased risk of intimate partner violence, victimization, and harassment.¹ Sexual minorities are less likely to seek care when needed than heterosexuals as well.⁸ Increased levels of violence towards and harassment of sexual minorities have been shown to lead to increased psychological stress, anxiety, and depression among sexual minority youth as compared to heterosexual counterparts.⁶ The true reason that LGBT respondents do not identify a primary care provider remains to be elucidated. It is known that LGBT patients fear of provider bias.^{2,4} Other reasons may include lack of access to partner benefits, cost, and structural stigma contribute to healthcare disparities for LGBT patients. For example, sexual minorities have reported refusal of treatment, verbal abuse, and disrespectful behaviors from providers and staff due to their sexual orientation.⁴

When assessing the ability to receive traditionally associated primary care services, adjusted odds ratios showed that sexual minorities are more likely to obtain an annual influenza vaccine as compared to heterosexuals. This finding was unexpected, as receipt of an influenza vaccine was assumed to be associated with the primary care setting. This may no longer be the case, now that pharmacies, supermarkets, and department stores are offering flu vaccine clinics across the country. Vaccine hesitancy is a complex issue, that includes cultural, physical, and socioeconomic boundaries.⁹ The convenience of free flu shot clinics or promotions at local pharmacies that incentivize obtaining the flu vaccine with gift cards to their stores may be another important factor. Overall, important public health interventions, such as allowing pharmacists to

administer vaccines at little to no cost to the patient have a clear impact on populations, as seen in recent Canadian studies regarding this topic.^{10,11} It is important to note that the overall majority of responders were not receiving influenza vaccination.

There was no difference between sexual minorities and heterosexuals reporting having a checkup within the last year. This is interesting in light of the fact that LGBT patients were younger than heterosexuals and older patients typically utilize primary care services more so than younger people according to the CDC and is why age was controlled for in our study.¹² Data was dichotomized into two groups in this study. BRFSS categorized having a PCP visit into numerous groups (within the last year, within the last two years, within the last five years, and five years or greater). Future studies could explore the length of time between visits for LGBT patients as compared to heterosexuals.

Previous studies have suggested that LGBT patients have decreased access to care due to poorer socioeconomic status, insurance coverage, and education level.⁴ In addition, sexual minorities often have less access to partner care, and are more likely to be unemployed than heterosexuals.⁴ This study supports findings that LGBT patients have lower income, have lower education levels, and are less likely to be insured than heterosexual counterparts. Again, these differences remain significant when controlled for age, race, sex, and marital status. This project demonstrated that, despite the Affordable Care Act being passed in 2010, LGBTQ respondents are less likely to have insurance than heterosexuals. Lack of insurance may contribute to decreased identification of a primary care provider and decreased use of primary care services. We do not know why sexual minorities lack insurance coverage, but a significant difference between sexual minorities and non-sexual minorities remains regardless of age, race, and marital status regarding insurance coverage. In an era where the Affordable Care Act is in jeopardy, it is important to

ensure continued safeguards for at risk populations in order to promote health and access to the benefits of primary care for all people. Access to partner healthcare benefits is limited.⁴ Coverage, if obtained, is often not equal to heterosexual partners. For example, insurance of same sex partners often does not cover infertility treatment to the same extent of heterosexual couples. Partnered gay men and partnered lesbians are more than two times as likely to be uninsured as married heterosexuals.^{1,2}

As noted, sexual minorities are less likely to report a primary care provider than heterosexuals for various reasons and noted barriers. Even if these barriers are overcome, sexual minority patients also often have difficulty securing a provider with proper training in LGBT health needs, leaving patients feeling as though they hold an inferior status and are discarded by the healthcare system, and inadequate care.^{1,2} A 2007 study of California physicians showed that 16% of San Diego physicians surveyed reported that they “sometimes” or “often” felt uncomfortable providing care for LGBT patients.⁴ Education of providers is not a standard competency in medical education, making finding a competent provider difficult for many sexual minority patients.

Limitations

To the best of our knowledge, this study is the first of its kind to use BRFSS data in order to examine LGBT health disparities. The main limitation of this study is that only 21 states asked questions related to sexual orientation when obtaining demographic data from participants in the survey. This is less than half of the states in the United States. The true prevalence of sexual minorities in the United States remains unknown. Data collection led to a sizable study population, with about 4% of the respondents identifying as a sexual minority. This is close to what the estimates of sexual minority prevalence in the US. In 2010, the National Survey of Sexual Health

and Behaviors identified that 6.8% of men and 4.5% of women 18 years of age or older self-identified as a homosexual, gay, lesbian, or bisexual.¹ The findings of this study suggest that sexual orientation should be added to all states in future BRFSS data collection to have a better national understanding of the public health issues associated with this vulnerable population.

Another limitation is that the BRFSS surveys only adults, aged 18 and older. Data for adolescents who experience same sex or other sexual minority attractions is limited and further studies need to be done to address adolescent sexual minorities.¹ Furthermore, as sexual orientation is fluid, the “other” response was included in coding for sexual minorities when defining the exposure variable. This may have overestimated the population, with some patients using other if they are gender nonconforming, asexual, or pansexual. More inclusive responses should be included in future BRFSS surveys. Furthermore, this study did not address where respondents obtained their influenza vaccine. It was assumed that this was a service traditionally associated with primary care, however, as mentioned, there are various locations providing the vaccine to the public.^{10,11} A final limitation to this study is the treatment of gender as a binary variable, ignoring intersex, gender nonconforming, and transgender patients.¹

Conclusions/Recommendations:

As same sex relationships begin to find equal footing with heterosexual relationships and social and structural stigma surrounding sexual minorities decreases, the health concerns of this population will become more prominent as well. This project suggests that this vulnerable population is at risk due to poorer social determinants of health. It also suggests that current public health interventions, such as improved access to influenza vaccines, have had a positive impact on this population. More data is needed in order to fully define the national prevalence of sexual minority patients, their health concerns, and their access and utilization of primary care services.

This study demonstrates the need to enhance primary care health care provision to this vulnerable population to possibly provide them with a consistent person and place for medical care and possibly have a positive impact on their overall health and well-being.

Table 1. Demographics of Sexual Minority and Heterosexual Respondents to the Behavioral Risk Factor Surveillance System survey, 2015 (N=163, 803)		
	Sexual Minority Weighted % (n=6838)	Heterosexual Weighted % (n=156,965)
Female*	55.4	51.9
Age (in years)*		
18-24	20.2	11.5
25-34	20.8	15
35-44	16	16.1
45-54	14.6	18.4
55-64	13.4	18
65 and older	15	21
Non-White*	50.4	29.9
Unmarried ^{1*}	67.8	46.7
Highest Education Level ^{3*}		
Less than High School	29.4	12.1
High School Graduate	25.2	29.4
Some College/Technical School	24.9	31.1
College Graduate	20.5	27.5
Insured ^{4*}	78.8	89.4
Income Level ^{5*}		
Less than \$25000	44.5	24.8
\$25000 or more	55.6	75.3
Identifies Personal Healthcare Provider*	72	81
Had Regular Check-up Within the Last Year**	71.7	75.9
Had Flu Shot Within the Last Year***	40.5	41.8
* p value <.05 **p value <.05 ***p value 0.28 ¹842 participants were missing information for marital status ²946 participants were missing information for employment status ³91 participants were missing information for education level ⁴539 participants were missing information for insurance coverage ⁵24981 participants were missing information for income level		

Table 2. Unadjusted and adjusted odds ratios for health outcomes for sexual minority respondents ¹		
	Unadjusted OR (95% CI)	Adjusted* OR (95% CI)
Identification of at least one primary care provider	.60 (.54, .68)	.79 (.70, .90)
Regular check-up within the last year	.80 (.72, .90)	.91 (.80, 1.02)
Flu shot within the last year	.95 (.86, 1.04)	1.14 (1.02, 1.26)
¹ BRFSS 2015 *Data was adjusted for age, race, sex, marital status		

Table 3. Unadjusted and adjusted odds ratios for social determinants of health for sexual minorities ¹		
	Unadjusted OR (95% CI)	Adjusted* OR (95% CI)
Insurance Coverage	.44 (.39, .51)	.60 (.52, .70)
High school diploma or greater	.33 (.29, .37)	.40 (.36, .46)
Income > = \$25,000/year	.41 (.37, .46)	.56 (.50, .64)
¹ BRFSS 2015 *Data was adjusted for age, race, sex, marital status		

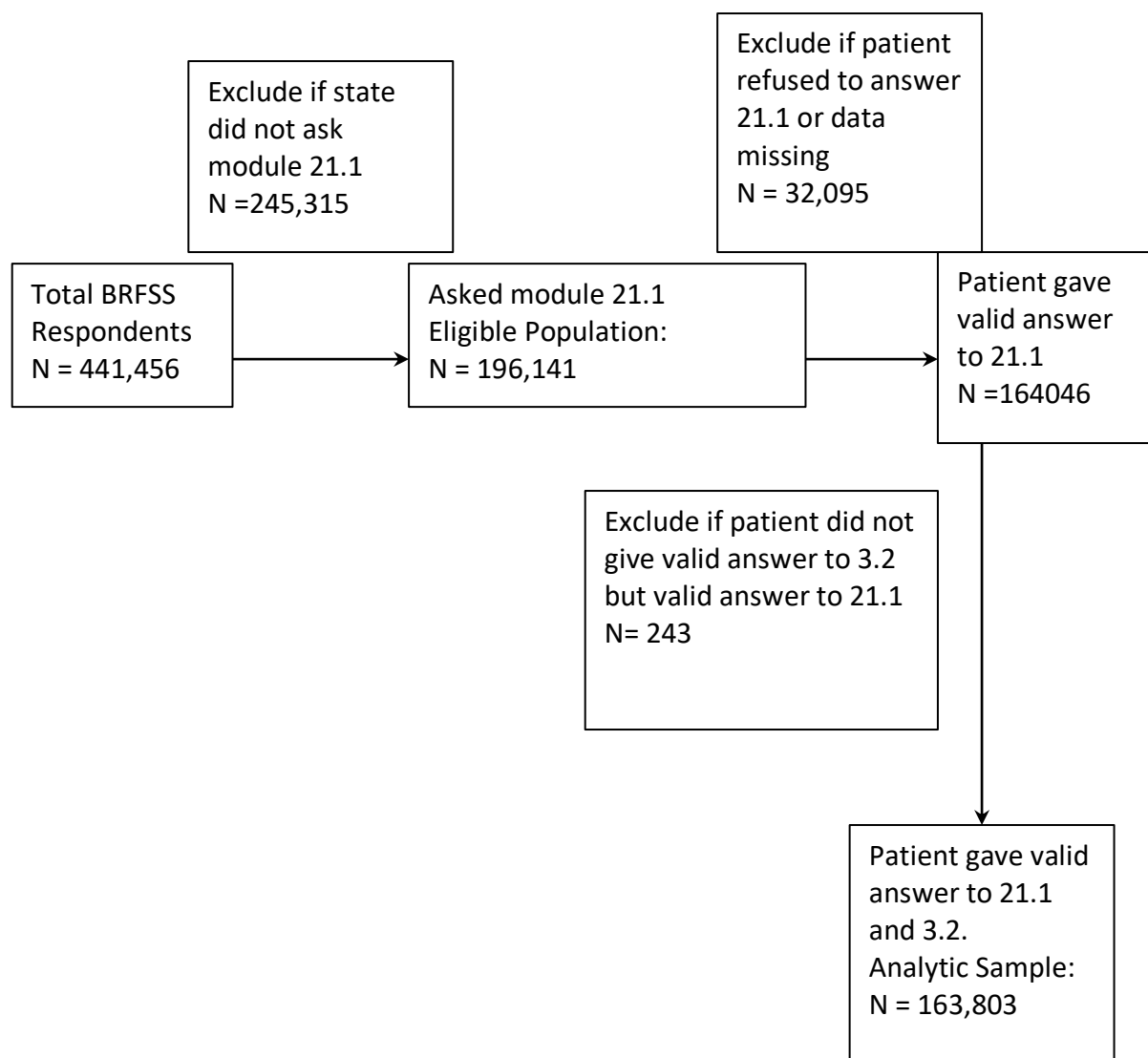


Figure 1. Analytic Sample

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**Are Adolescent Patients Screened for their Sexual Health and Gender Identity in the
Emergency Department?: The PEDSS (Pediatric Emergency Department Sexual Health
Screening) Study**

Abstract:

Introduction: Currently, universal screening of adolescent patients for sexual orientation and gender identity is recommended in all medical encounters. This is in part due to the health risks associated with sexual activity, but also the health risks associated with being a member of a sexual minority or being a member of a non-traditional gender identity. The actual rate of screening adolescents for gender identity and sexual orientation in the emergency department remains unknown, especially in a pediatric emergency department. The goal of this study was to assess the current state of screening of adolescent patients in the pediatric emergency department.

Methods: An electronic survey was administered at Hasbro Children's Hospital Emergency Department in Providence, RI via tablet on RedCap. A survey tool pilot of 10 patients was performed for evaluation of the survey tool. The survey was self-administered by 100 patients aged 14-17. The survey asked questions regarding patient experience being asked questions of the sexual orientation and gender identity. Demographic data was also collected. Analysis was done using statistical software package STATA version 14 (StataCorp LP, College Station, TX).

Results: Of the 100 patients survey, 7% were asked their sexual orientation and 5% were asked their gender identity. The majority of patients identified as cisgendered (86%) and were heterosexual (81%). There was no difference between sexual minorities and heterosexuals or gender identity minorities and traditionally gendered individuals being asked their sexual orientation or gender identity.

Discussion: This study identified that adolescents were not asked about their sexual orientation or gender identity during their emergency department visits. The reason for this remains to be elucidated. Adolescents also reported not wanting to be asked their sexual orientation or gender

identity during their emergency department visits. In order to assess the barriers to screening, providers are currently being surveyed regarding their clinical practice regarding screening for sexual orientation and gender identity in the emergency department.

Introduction:

The American Academy of Pediatrics recommends screening all adolescent patients for sexual health and gender identity in every patient interaction. These guidelines published in 2004, entitled “Sexual Orientation and Adolescents” highlight that effective adolescent care includes the discussion of sexual health. If patients are sexually active, they are at risk for STIs, HIV, and pregnancy. Furthermore, the AAP notes that “most non heterosexual youths are ‘invisible’ and will pass through without raising the issue of sexual orientation on their own,¹” without provider-initiated sexual health screening. The AAP points out that, “many heterosexual youth also may have sexual experiences with people of their own sex.¹” The AAP urges pediatricians to be sensitive to the unique health needs of non-heterosexual youth. However, a recent survey of adult providers shows that contrary to urging discussion of sexual orientation, most feel that this would negatively impact their ability to treat all patients equally and therefore they do not address sexual orientation on a routine basis.² A 2007 survey of California physicians showed that 16% of San Diego physicians who were surveyed reported that they “sometimes” or “often” felt uncomfortable providing care for LGBT patients.³ The actual rate of screening adolescent sexual orientation and gender identity has yet to be determined. The Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues and Research Gaps and Opportunities examined the root cause of inequities in healthcare, including the experience of LGBT patients, provider attitudes and education, and determined that limited research has been performed with this population. Their report was published in 2011 and identified adolescent sexual health as an area of focus for further

research and development of medical literature.⁴

Barriers to patient-initiated disclosure of sexual orientation and gender identity have been studied. They include patient fear of encountering homophobic providers or staff, patient perception of lack of provider training in LGBTQ health, knowledge, and comfort surrounding LGBT issues, and patient concerns for confidentiality.⁵ In a recently published, qualitative study of both adult patients (aged 18+) and providers who care exclusively for adult patients, the importance of sexual orientation was valued as “always” relevant by patients and as “only when medically relevant” by providers.² A 2006 survey of a group of adolescents in a non-clinical setting, who self-identified as a sexual minority showed that 65% of these adolescents’ providers did not know their sexual orientation, though 66% of adolescents felt as though it was somewhat or very important that their doctor know their sexual orientation.⁵ Seventy percent of the LGB teens in this study said that they were open about their sexual orientation to everyone they knew, however only 35% stated that their physician was aware of their sexual orientation.⁵ When asked why they were not open about their sexuality with their provider, 33% of teens stated that their provider did not ask them, 30% stated that parents were in the room when a provider asked them, and 14% were concerned about confidentiality.⁵

Due to the increased health risks and significant health disparities, the AAP recommends that adolescents be screened for sexual health at all health encounters. However, it has yet to be assessed if adolescents are being screened in all health care settings, including the emergency department. Sexual minority patients are less likely to seek routine care, and it can be inferred that they will seek care in an emergency department when needed.^{6,7} If sexual orientation is undisclosed, a provider misses the opportunity for counseling a patient regarding sexual activity, contraceptive options, health screening including STIs and pregnancy, and provision of

appropriate guidance and resources.⁵ Sexual minority patients have previously been reported to have increased rates of substance abuse, high-risk sexual behaviors, mental health disorders, and homelessness, among other conditions.^{6,7}

Despite increased health risks, data suggests that members of the sexual minority community, including bisexuals, utilize health care and preventative medicine less than heterosexuals.^{4,8} Approximately 29% of sexual minority patients delay seeking care or avoid care completely versus 17% of non-sexual minority patients.³ In a 2016 examination of the National Health Interview Survey, adult LGBT patients (aged 18+) delay care for various reasons, including an attempt to avoid stigma by hiding their sexual orientation.⁸ Encounters in the emergency department are often the only opportunity for the healthcare system to screen patients for sexual health behaviors and the associated risks.

Many members of the LGBT community are unwilling to disclose sexual orientation to a provider due to fear of repercussion and provider bias. This can be translated to youth who fear expulsion from their home if they declare sexual minority status to parents.¹ LGBT patients are, as a result, invisible to both health care providers and researchers, leading to a lack of evidence-based recommendations and research on sexual minorities, contributing to the disparities faced by this population mentioned above.^{1,4}

It was the aim of this study to assess the current state of screening of adolescents' sexual orientation and gender identity when seen in the Pediatric Emergency Department setting. Specifically, it was our goal to assess screening by surveying adolescents seen in the Pediatric Emergency Department asking questions about their experience regarding screening of these topics. Our hypothesis was that adolescent patients are not asked their gender identity or sexual orientation.

Methods:

An anonymous survey of adolescent patients in the Hasbro Children's Hospital Emergency Department, a level 1 pediatric trauma center in Providence, RI was administered between March 2018 and April 2019. The pediatric emergency department treats approximately 55,000 patients of all ages annually. A pilot survey was conducted with ten adolescents in order to assess the survey tool. The inclusion criteria, exclusion criteria, and procedure for both the pilot and research subjects were the same, with the following exception for the survey tool pilot: Researchers completed the survey with the initial 10 patients, asking for feedback on the style and wording of the survey tool in order to assess if the target patient population would understand the questions and for clarity. No changes were required to the survey tool after the assessment of the 10 pilot surveys due to positive feedback from pilot patients who stated that they felt the survey tool was clear and understandable.

After pilot testing, a convenience sample of 100 patients was obtained. Patients were approached by researchers and asked if they would be willing to complete a survey after being seen by a provider in the emergency department about their experience of being asked questions regarding sexual orientation and gender identity by their providers. Patients were told that this was an anonymous, optional survey that would not impact their care in the emergency department. A convenience sample of patients was collected. Verbal assent was provided by the patient prior to written consent being obtained by parents in order for a subject to be enrolled. The survey tool was administered via RedCap on a tablet to the adolescent. The survey collected both demographic data and patient experience regarding screening of both sexual orientation and gender identity (Appendix A). Providers and caregivers were asked to leave the room to ensure patient privacy when answering survey questions.

Definitions: For the purposes of this study, homosexual referred to patients who identified attraction to members of the same gender, “cis” referred to patients whose identified gender and biologic sex were congruent, where “trans” referred to patients whose identified gender was the opposite of their biologic sex.

Inclusion Criteria: Patients were only enrolled at ESI level 1-3, who were deemed medically stable by their medical team. ESI 4-5 may not have been seen by an attending physician, therefore were not included in this study. Patients had to be aged 14 -17 (inclusive), English speaking, and literate as the survey tool was written in English and delivered via the written word and had to consent to participation. Patients also had to have an English-speaking parent or guardian at the bedside to provide written consent.

Exclusion Criteria: Patients with neurologic impairment or developmental delay were excluded as the survey tool was to be completed by the patient themselves without help from the researchers. Wards of the state were excluded due to no caretaker available to provide consent for the study. Patients who presented for suspected physical or sexually assault were excluded from recruitment due to the social complexity of these cases.

This study was approved by the Lifespan Hospitals IRB. Data was collected via a Lifespan Hospitals hosted, secure, HIPAA compliant REDcap survey tool.

Statistical Analysis

Analysis was performed using statistical software package STATA version 14 (StataCorp LP, College Station, TX). Data was analyzed using Pearson’s chi square test of independence.

Results:

Table 1 shows the demographics of the 100 patients surveyed. Of all participants, 35% were 17 years of age and identified 62% of white/non-Hispanic origin (Table 1). The majority

were ESI level 3 (68%) and 25% had a chief complaint related to gastroenterology (Table 1). The majority of patients surveyed were cisgender (86%) and were heterosexual (81%) (Table 1). Of the 100 patients surveyed, only 7 adolescents were asked their sexual orientation (Table 2) and 5 were asked their gender identity (Table 3). Of the 7 that were asked their sexual orientation, two or 28.6%, had a chief complaint related to psychiatric reasons (Table 2). This trend was not the same for gender identity (Table 3). There was no statistical difference between sexual minorities and heterosexuals and no statistical difference between gender identity minorities and non-gender identity minorities for being asked either sexual orientation or gender. No patients aged 14 were asked their sexual orientation, however of the 7 patients asked their sexual orientation, 4 were 17 years old (Table 2). No sexual minority was asked their sexual orientation (Table 2) and only 1 gender identity minority was asked their gender identity (Table 3).

The majority of patients did not want to be asked their sexual orientation during their visit (96%) (Table 4), nor did they want to be asked their gender identity (89%) (Table 5). None of the patients that wanted to be asked their sexual orientation were a sexual minority (Table 4), while only 2 gender identity minorities reported wanting to be asked their gender identity (Table 5).

Chi square tests of independence were performed to examine differences between groups with being asked sexual orientation and gender identity, including age, ESI, chief complaint, gender identity, and sexual orientation of patient responders. No statistically significant difference was apparent between groups for being asked either sexual orientation or gender identity.

Chi square tests of independence were also performed to examine differences between groups for patients stating that they wanted to be asked their sexual orientation or wanted to be asked their gender identity. It was noted that wanting to be asked sexual orientation was not independent of race ($\text{Chi}^2 = 6.8$, $P < 0.05$) where white/non-Hispanics were more likely to be asked

their sexual orientation. Otherwise, there were no differences between groups.

Survey items:

As this was a pilot study to trial the administration of the survey items with a convenience sample of adolescents being treated within the ED, a main focus was on the acceptability of the survey among the adolescents, and the feasibility of conducting the survey during the ED visit. However, we did examine the performance of the survey items to measure the main constructs of interest; gender identity and sexual orientation. We considered the scale reliability of the three items on gender identity; identifying gender identity, awareness of family and friends of gender identity. The rationale for this analysis was the expectation that adolescents who identified as gender nonconforming would be less likely than those identified as a traditional gender identity (cis-male/female) to endorse all family or friends being aware of their gender identity. Using Cronbach's alpha, measure of internal consistency, resulted in an alpha of 0.80 for these items, indicating a good level of internal consistency for these items as a scale have acceptable reliability.

We repeated this analysis with the three items measuring sexual orientation, identifying sexual orientation and family and friend awareness of the identified sexual orientation. The Cronbach's alpha for these three items was 0.85, again indicating good internal consistency for these items to be considered a scale.

Discussion:

The results of this study suggest that adolescents are not asked their sexual orientation or gender identity during their emergency department encounters. Of the 100 patients surveyed, only 7 were asked their sexual orientation and only 5 were asked their gender identity by any provider that they encountered in the Pediatric Emergency Department. This is contrary to the published guidelines from the AAP regarding screening adolescents for sexual orientation.¹ The AAP

recommends that adolescents should be screened for sexual orientation and sexual health due to the importance of ensuring healthy development. In 2018, the AAP clarified recommendations for the care of transgendered adolescents, the goal of a gender-affirming care model for patients.⁹ It is important to note that the AAP recognizes that adolescents may not initiate discussion of sexual orientation and gender identity,^{1,9} leading to the creation of an “invisible minority”¹ unless healthcare providers initiate screening.

Transgender and sexual minority youth are at increased risk for negative health outcomes related to depression, substance use, physical abuse and intimate partner violence, and bullying.^{1,6,7,9} By not screening patients for their sexual orientation and gender identity, providers miss an opportunity to identify patients who would benefit from additional attention to both medical and psychologic needs. It appears that in this single center study, in an urban northeast pediatric emergency department, providers are not screening for sexual orientation, missing an opportunity to provide needed care for these patients. The reason for this remains to be elucidated. Providers may not feel that sexual orientation or gender identity are relevant to the patient’s chief complaint, may perceive a lack of time during the patient encounter, or be uncomfortable asking adolescents questions regarding gender identity or sexual orientation.

It did appear that more older patients were screened for sexual orientation as compared to younger patients, though there was no statistically significant difference between the age groups. One reason for older patients are screened more than younger patients may be that providers are more comfortable discussing sexual activity with older adolescents, or assume that older patients are more likely to be sexually active than younger patients. Future studies may examine the question of why older patients are asked sexual orientation more frequently than younger adolescents.

There are some limitations to this study. This study was a single center study, limiting the ability to generalize results. We also were only able to screen patients aged 14 through 17, although patients may be sexually active before age 14 and patients may present to a pediatric emergency department after the age of 17. A broader depth of patient ages would help to truly define the adolescent population and examine true differences between age groups. This study also only examined 100 patients, which is a relatively small portion of the over 55,000 annual visits to our pediatric emergency department. This sample was selected based on the availability of researchers and patients in the emergency department. Other research studies were also being conducted at the time and therefore not all patients were approached for this study. Future studies currently planned include examination of providers' perspectives of their practice of screening adolescent patients for sexual health and gender identity.

Conclusions/Recommendations:

Despite these limitations, we believe that this study provides important background regarding the state of screening adolescent patients for sexual orientation and gender identity in the pediatric emergency department. Patients are unlikely to be screened for gender identity and sexual orientation in a pediatric emergency department, with no difference between ages, ESI, chief complaints, race, gender identity, or sexual orientation. Our study survey was evaluated by initially screening ten patients for clarity regarding questions and responses. Patients reported that the survey was clear and easy to understand. No changes were made after the initial pilot study, leading us to be confident in the responses we were able to collect.

In an era where adolescents attend schools in school districts that do not include LGBTQ health¹⁰ and they face fear of discrimination of healthcare providers or their families⁶⁻⁸, their medical provider may be the only place they can discuss their sexual health or gender identity.

While patients may not divulge this information due to fear of institutionalized stigma, it is imperative for medical providers to screen patients for sexual orientation and gender identity.

Table 1. Patient demographics and chief complaints for the 100 adolescent patients who responded to the survey (n=100).	
Age (in years)	
14	14
15	24
16	27
17	35
Emergency Severity Index	
2	32
3	68
Chief Complaint	
Gastrointestinal	25
Genitourinary	5
Psychiatric	14
Dermatologic	2
Cardiac/Pulmonary	11
Trauma	12
Neurologic	11
Musculoskeletal	6
Head, Ears, Nose, Throat	3
Infectious Disease	9
Endocrine	1
Hematology	1
White/Non-Hispanic	62
Gender Identity	
Cis-male	30
Cis-female	56
Trans-male	2
Gender Queer	1
Agender	1
Nonbinary	3
Other	1
Prefer Not to Answer	6
Sexual Orientation	
Heterosexual	81
Homosexual	1
Bisexual	14
Prefer Not to Answer	4

Table 2. Demographics of patients asked their sexual orientation as compared to those that were not (n=100)		
	Asked Sexual Orientation (n=7) n, %	Not Asked Sexual Orientation (n=93) n, %
Age (in years)		
14	0, 0	14, 15.1
15	1, 14.3	23, 24.7
16	2, 28.6	25, 26.9
17	4, 57.1	31, 33.3
Emergency Severity Index		
2	3, 42.9	29, 31.2
3	4, 57.1	64, 68.8
Chief Complaint		
Gastrointestinal	0, 0	25, 26.9
Genitourinary	0, 0	5, 5.4
Psychiatric	2, 28.6	12, 12.9
Dermatologic	0, 0	2, 2.2
Cardiac/Pulmonary	0, 0	11, 11.8
Trauma	1, 14.3	11, 11.8
Neurologic	1, 14.3	10, 10.8
Musculoskeletal	1, 14.3	5, 5.4
Head, Ears, Nose, Throat	1, 14.3	2, 2.2
Infectious Disease	1, 14.3	8, 8.6
Endocrine	0, 0	1, 1.1
Hematologic	0, 0	1, 1.1
White/Non-Hispanic	4, 57.1	58, 62.4
Gender Identity		
Traditional binary gender	6, 85.7	80, 86.0
Gender Identity Minority	1, 14.3	7, 7.5
Prefer Not to Answer	0, 0	6, 6.5
Sexual Orientation		
Heterosexual	7, 100	74, 79.6
Sexual Minority	0, 0	15, 16.1
Prefer Not to Answer	0, 0	4, 4.3

Table 3. Demographics of patients asked their gender identity as compared to those that were not (n=100)

	Asked Gender Identity (n=5) n, %	Not Asked Gender Identity (n=95) n, %
Age (in years)		
14	1, 20	13, 13.7
15	2, 40	22, 23.2
16	1, 20	26, 27.4
17	1, 20	34, 35.8
Emergency Severity Index		
2	2, 40	30, 31.6
3	3, 60	65, 68.4
Chief Complaint		
Gastrointestinal	1, 20	24, 25.3
Genitourinary	0, 0	5, 5.3
Psychiatric	1, 20	13, 13.7
Dermatologic	0, 0	2, 2.1
Cardiac/Pulmonary	0, 0	11, 11.6
Trauma	1, 20	11, 11.6
Neurologic	0, 0	11, 11.6
Musculoskeletal	1, 20	5, 5.3
Head, Ear, Nose, Throat	1, 20	2, 2.1
Infectious Disease	0, 0	9, 9.5
Endocrine	0, 0	1, 1.1
Hematologic	0, 0	1, 1.1
White/Non-Hispanic	2, 40	60, 63.2
Gender Identity		
Traditional binary gender	4, 80	82, 86.3
Gender Identity Minority	1, 20	7, 7.4
Prefer Not to Answer	0, 0	6, 6.3
Sexual Orientation		
Heterosexual	4, 80	77, 81.1
Sexual Minority	1, 20	14, 14.7
Prefer Not to Answer	0, 0	4, 4.2

Table 4. Demographics of patients wanting to be asked Sexual Orientation		
	Yes (n=4) n, %	No (n=96) n, %
Age (in years)		
14	0, 0	14, 14.6
15	2, 50	22, 22.9
16	1, 25	26, 27.1
17	1, 25	34, 35.4
Emergency Severity Index		
2	1, 25	31, 32.3
3	3, 75	65, 67.7
Chief Complaint		
Gastrointestinal	1, 25	24, 25.0
Genitourinary	1, 25	4, 4.2
Psychiatric	0, 0	14, 14.6
Dermatologic	0, 0	2, 2.1
Cardiac/Pulmonary	0, 0	11, 11.5
Trauma	1, 25	11, 11.5
Neurologic	1, 25	10, 10.4
Musculoskeletal	0, 0	6, 6.3
Head, Ears, Nose, Throat	0, 0	3, 3.1
Infectious Disease	0, 0	9, 9.4
Endocrine	0, 0	1, 1
Hematologic	0, 0	1, 1
White/Non-Hispanic	0, 0	62, 64.6
Gender Identity		
Non-Gender Identity Minority	2, 50	84, 87.5
Gender Identity Minority	1, 25	7, 7.3
Prefer Not to Answer	1, 25	5, 5.2
Sexual Orientation		
Heterosexual	4, 100	77, 80.2
Sexual Minority	0, 0	15, 15.6
Prefer Not to Answer	0, 0	4, 4.2

Table 5. Demographics of patients wanting to be asked Gender Identity		
	Yes (n=11) n, %	No (n=89) n, %
Age (in years)		
14	2, 18.2	12, 13.5
15	4, 36.4	20, 22.5
16	2, 18.2	25, 28.1
17	3, 27.3	32, 36.0
Emergency Severity Index		
2	3, 27.3	29, 32.6
3	8, 72.7	60, 67.4
Chief Complaint		
Gastrointestinal	3, 27.3	22, 24.7
Genitourinary	1, 9.1	4, 4.5
Psychiatric	2, 18.2	12, 13.5
Dermatologic	0, 0	2, 2.2
Cardiac/Pulmonary	0, 0	11, 12.4
Trauma	2, 18.2	10, 11.2
Neurologic	0, 0	11, 12.4
Musculoskeletal	1, 9.1	5, 5.6
Head, Ears, Nose, Throat	1, 9.1	2, 2.2
Infectious Disease	0, 0	9, 10.1
Endocrine	0, 0	1, 1.1
Hematologic	1, 9.1	0, 0
White/Non-Hispanic	6, 54.5	56, 62.9
Gender Identity		
Non-Gender Identity Minority	8, 72.7	78, 87.6
Gender Identity Minority	2, 18.2	6, 6.7
Prefer Not to Answer	1, 9.1	5, 5.6
Sexual Orientation		
Heterosexual	8, 72.7	73, 82.0
Sexual Minority	3, 27.3	12, 13.5
Prefer Not to Answer	0, 0	4, 4.5

Appendix A: Survey Tool

To Be Entered by Researcher After Consent/Assent:

ESI: (drop down 3, 2, 1)

Chief Complaint as Documented on EMR Track Board: (free text)

Tablet given to Patient:

Start Patient Screens:

1. What is your age?: (drop down menu to selection 14, 15, 16, or 17)
2. What grade are you in?: (drop down menu to select 7, 8, 9, 10, 11, 12, college student)
3. What is your race/ethnicity (please select all those that apply)?
 - a. White/non-Hispanic
 - b. Asian/ non-Hispanic
 - c. Pacific Islander/non-Hispanic
 - d. Hispanic/Latino
 - e. Black/African American
 - f. Black/African American/Hispanic
 - g. Other
4. Who lives with you? Think of where you spend most of your time and please select all that apply:
 - a. Mom
 - b. Dad
 - c. Brother(s)
 - d. Sister(s)
 - e. Extended family (grandparents, aunts, uncles)
 - f. My mother's boyfriend/girlfriend
 - g. My father's girlfriend/boyfriend

The following questions pertain to 'gender identity'. Gender identity refers to how you interpret your feelings of being a boy or a girl. These feelings could match your physical body (i.e. you feel like you are a girl and have girl's body/you feel like you are a boy and have a boy's body), they may not match your physical body (i.e. you feel like a girl and have a boy's body/you feel like you are a girl and have a boy's body), or you may not feel as though your body matches your feelings of being a boy or girl at all (i.e. you have no gender).

5. What is your gender identity?
 - a. I am someone with both the anatomy and inner feeling of being a boy.
 - b. I am someone with both the anatomy and inner feeling of being girl.
 - c. I am someone with the anatomy of a girl, but inner feeling of being a boy.
 - d. I am someone with the anatomy of a boy, but inner feeling of being girl.
 - e. I am someone who does not identify as either a boy or girl inwardly but does have a gender.

- f. I am someone who does not identify as either a boy or girl and does not believe that have a gender.
 - g. I am someone who does not inwardly feel as though I have a traditional one gender.
 - h. Other:
 - i. Prefer not to answer
6. On average, how many of family members are aware of your gender identity?
- a. Everyone
 - b. Most
 - c. Some
 - d. A few
 - e. No one
 - f. Prefer not to answer
7. On average, how many of your friends are aware of your gender identity?
- a. Everyone
 - b. Most
 - c. Some
 - d. A few
 - e. No one
 - f. Prefer not to answer

The following questions refer to 'sexual attraction'. This means the person you are attracted to. For example, you could be a girl who is attracted to boys, a girl who is attracted to girls, or a girl who is attracted to both boys and girls. The same is true for boys. You could be a boy who is attracted to girls, a boy who is attracted to boys, or a boy who is attracted to both girls and boys. You may not be attracted to either boys or girls.

8. You would describe your 'sexual attraction' as I am attracted to:
- a. Members of the opposite sex (i.e. a girl who is attracted to boys or a boy that is attracted to girls)
 - b. Members of the same sex (i.e. a girl who is attracted to girls or a boy that is attracted to boys)
 - c. Members of both sexes
 - d. Neither boys nor girls
 - e. Other:
 - f. Prefer not to answer
9. On average, how many of family members are aware of to whom you are attracted?
- a. Everyone
 - b. Most
 - c. Some
 - d. A few
 - e. No one
 - f. Prefer not to answer
10. On average, how many of your friends are aware of to whom you are attracted?

- a. Everyone
- b. Most
- c. Some
- d. A few
- e. No one
- f. Prefer not to answer

The following questions pertain to your interaction with your healthcare providers during this emergency department visit. Healthcare providers include nurses, doctors, resident doctors, nurse practitioners, medical students, and physician assistants. These people are healthcare professionals who make up a healthcare team. They are the people who took care of you today in the emergency department. The following series of questions specifically asks if there was discussion today about your sexual attraction and or gender identity. Remember, sexual attraction refers to the person you are attracted to would want to pursue physical and romantic relationships with. Gender identity refers to how you inwardly feel that you are a boy or a girl and may or may not match your body.

11. Did any person who took care of you today ask your sexual attraction?
 - a. Yes – (if yes, please go to question 12)
 - b. No – (if no, please go to question 17)
12. The person who asked me the question was a (please select all that apply):
 - a. Nurse
 - b. Doctor
 - c. Medical Student
 - d. PA
 - e. Nurse Practitioner
 - f. Resident physician
13. Did you feel as though you could answer the question related to your sexual orientation comfortably and honestly?
 - a. Yes – if yes, please go to question 14
 - b. No – if no, please go to question 15
14. A. What did the person who took care of you today do that made you comfortable answering the question? (Please select all that apply).
 - a. Explained why they asked the question.
 - b. Assured me that my parents/caretakers would not find out my answer.
 - c. Asked my parents/caretakers to leave the room.
 - d. Provided me a way to disclose that did not require me to say it out loud (i.e. an electronic survey, nonverbal self-report).
 - e. Other:
15. What could the person who took care of you today have done to make it more comfortable for you to answer the question? Please select all that apply.
 - a. Explain why they were asking the question.
 - b. Assure you that your parents/caretakers would not find out your answer.

- c. Have your parents/caretakers leave the room.
 - d. Provide a way for me to disclose that did not require me to say it out loud (i.e. An electronic survey, nonverbal self-report)
 - e. Other:
16. Were your parents/caregivers/family in the room when you were asked about who you were sexually attracted to?
- a. Yes
 - b. No
17. Did the person who was taking care of you let you know that what you said was private information between you and your healthcare team, and the person providing you care will not tell your parents/caregivers?
- a. Yes
 - b. No
18. Were you afraid that the team taking care of you today would treat you negatively if they knew your sexual attraction?
- a. Yes
 - b. No
19. Did you want to be asked about who you were attracted to at today's visit?
- a. Yes
 - b. No
20. Did the person taking care of you ask your gender identity?
- a. Yes – if yes, please go to question 11
 - b. No — if no, please go to question 16
21. The person who asked my gender identity was a (please select all that apply)
- a. Nurse
 - b. Doctor
 - c. Medical Student
 - d. PA
 - e. Nurse Practitioner
 - f. Resident physician
22. Did you feel as though you could answer the question related to your gender identity comfortably and honestly?
- a. Yes – if yes, please go to 24
 - b. No – if no, please go to 25
23. A. What did the person who provided your care today do that made you comfortable answering the question? Please select all that apply.
- a. Explained why they asked the question
 - b. Assured me that my parents/caretakers would not find out my answer
 - c. Had my parents/caretakers leave the room

- d. Provided me a way to disclose that did not require me to say it out loud (i.e. An iPad survey, nonverbal self-report)
 - e. Other:
24. What could the person who provided your care have done to make it more comfortable for you to answer the question? Please select all that apply.
- a. Explain why they were asking the question.
 - B. Assure you that your parents/caretakers would not find out your answer.
 - c. Have your parents/caretakers leave the room.
 - d. Provide a way for me to disclose that did not require me to say it out loud (i.e. An iPad survey, nonverbal self-report)
 - e. Other:
25. Were your parents/caregivers in the room when you were asked about your gender identity?
- a. Yes
 - b. No
26. Did the person taking care of you let you know that what you said is private information between you and your healthcare team, and the person providing you care will not tell your parents/caregivers?
- a. Yes
 - b. No
27. Were you afraid that the team taking care of you today would treat you negatively if they knew your gender identity?
- a. Yes
 - b. No
28. Did you want to be asked about your gender identity at today's visit?
- a. Yes
 - b. No

Thank you for your participation in today's survey. Please let the researcher know that you have completed this survey.

If you have any concerns or questions about your answers to this survey or you want more information, please see the information sheet that has been provided to you.

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