1. Introduction

Despite advances in human rights, including the landmark Supreme Court decision upholding marriage equality, sexual and gender minority youth (SGMY) continue to face numerous mental health challenges. Unfortunately, sexual (e.g., lesbian, gay, bisexual, pansexual) and gender (e.g., transgender, non-binary, gender non-conforming) minority young people are more likely to develop mental health problems[1] due to their experiences of discrimination and victimization[2,3]. SGMY, including those questioning their sexuality or gender identity, are at increased risk of developing emotional problems[4,5,6], eating disorders[7], engaging in risky behaviors[5,8], and harming themselves[4,5] compared to young people who identify as heterosexual and cisgender youth (HCY).

Meyer's minority stress model has been widely cited to explain how the high rates of certain health issues experienced by SGM individuals are due to chronic minority-related stressors[9]. In particular, this theoretical model posits that the high prevalence of mental health problems among SGMY is caused by the chronic stress of SGMY having to manage societal stigma and mistreatment because of their sexuality and/or gender identity.[9,10] For instance, SGMY experience higher rates of harassment and bullying[5,11], homelessness[12,13], sexual and physical violence[5,14], parental rejection[15,13], and social isolation[8] than HCY. These recurring negative experiences coupled with a relative lack of social support place SGMY at substantial risk for depression[4,5, 16], anxiety[16], hopelessness[5,17], traumatic stress[18], substance use[5,19,20] non-suicidal self-injury (NSSI)[21,22], and suicidality. [1,2,13,14,15,16] Overall, sexual minority youth have nearly four times (OR=3.50; 95% CI,2.98–4.12) and gender minority youth have nearly six times

(OR=5.87; 95% CI,3.51-9.82) the odds of attempting suicide compared to heterosexual youth.[23]

1.1. Mental health problems of SGMY in psychiatric samples

While research with SGMY in community and epidemiological studies has yielded detailed information about the unique needs and challenges these young people experience, little is known about the mental health of SGMY in acute clinical settings. To date, only two studies have examined differences among inpatient psychiatric samples. One study found sexual minority youth (12-18 years) reported greater rates, variety, and frequency of NSSI and higher levels of suicidal ideation, but no differences were observed for depression, life satisfaction, or clinical impairment compared to heterosexual youth.[24] Results were limited by a small sample size (N=52), a predominantly Caucasian (77%) and non-Hispanic (75%) sample, and patients' gender minority status was not established. A second study found SGMY (11–18 years) comprised approximately 40% of inpatients in a psychiatric unit (N=515); SGMY reported significantly higher rates of suicidal ideation, suicidal behavior prior to hospitalization, NSSI, and adverse childhood experiences.[25] Additionally, SGMY had significantly higher rates of depression, generalized anxiety, social phobia, and post-traumatic stress. While this study had a substantial sample size, the participants were primarily Caucasian (66.5%) and non-Hispanic (75%), and their socio-economic status was not reported.

1.2. The current study

SGMY, especially transgender youth, are often invisible in hospital settings because sociodemographic forms used in hospitals do not reliably collect data on gender

identity and sexuality.[26] The purpose of this study was to extend the investigation of SGMY in acute, psychiatric samples to understand better the mental health needs of these vulnerable young people and to investigate how their psychological symptoms compare to those of HCY admitted to a psychiatric hospital. Given the majority of adolescent patients admitted to the hospital are Hispanic/Latino and Black/African American, we had the opportunity to compare SGMY to HCY in an ethnically diverse patient population. More specifically, this study sought: (1) to pilot three items related to sexual identity, dating preferences/intentions, and gender identity to determine if adolescent inpatients understand and answer these questions willingly; (2) to identify the prevalence of SGMY in an acute, psychiatric inpatient sample comprised primarily of Hispanic/Latino and Black/African-American youth; (3) to assess differences in psychological symptoms, drug use, suicidality, and NSSI between SGMY and HCY; and, (4) to predict the likelihood of 'high' versus 'low' suicide risk based on psychological symptoms and problems, demographic factors, and sexuality and gender identity.

We hypothesized a priori we would replicate key findings from the two previous studies with a more ethnically diverse sample, specifically SGMY would report significantly elevated rates of psychological symptoms, drug use, suicidality, and NSSI in comparison to HCY, and SGMY would be significantly more likely to be categorized as being at high risk of suicide attempts relative to HCY.

2. Method

2.1. Study design

The current study utilizes a cross-sectional design to explore differences in psychological symptoms between SGMY compared to HCY admitted to an acute,

psychiatric hospital. Within 48 hours of admission, patients completed a demographic questionnaire and a survey of measures on Qualtrics™, an online platform for data collection, to provide detailed information about their symptoms and functioning. The unit child psychologist, a psychology pre-doctoral intern, or a psychiatry resident was present to explain the survey and to answer questions. After the survey is completed, a summary of scores is added to medical records for hospital staff to review; scores may aid in diagnosis, treatment, and discharge planning. As data collection was part of standard clinical practice, written parental consent and written child assent was waived, although verbal child assent was obtained. The current study utilized chart review for data; scores from the survey were extracted from medical records between July 2019 and December 2020. This study (HSC-MS-19-0878) was approved by the Committee for the Protection of Human Subjects at The University of Texas Health Science Center on October 12, 2019.

2.2. Setting

This study was conducted on an acute child and adolescent unit in an inpatient, psychiatric hospital in a major, metropolitan area in Texas. The unit houses 21 patients, ranging in age from 4 to 17 years, and is staffed by psychiatrists, psychiatric nurses, psychiatric technicians, social workers, and a clinical psychologist (first author's initials - removed for blind review), as well as psychiatry residents and psychology pre-doctoral interns. The hospital provides a combination of pharmacotherapy, psychotherapy, and case management aimed at symptom stabilization. Patients must be medically stable before admission, and there are no exclusionary psychiatric diagnoses for admission.

2.3. Participants

Patients were invited to complete the survey if they were adolescents aged 13 to 17 years, could speak and read English, and were able to follow directions and accurately complete the survey. Patients did not complete the survey for the following reasons: (1) they were 12 years or younger, (2) they had a moderate to severe intellectual or developmental disability, (3) they were experiencing a manic or psychotic episode, (4) they did not read and speak English, or (5) they declined to complete the survey.

2.4. Measures

2.4.1. Demographic information

Demographic variables (age, race/ethnicity, and biological sex) were self-reported. Biological sex was determined by one question: *What is your biological sex?* (i.e., sex assigned at birth). Responses included: male, female, intersex, I don't know, I prefer not to answer the question, and I don't understand the question.

2.4.2. Length of current hospitalization

Length of hospitalization and insurance status were extracted from medical records.

2.4.3. Sexuality and gender identity

There is no standardized means to measure SGMY status; hence, we utilized items from earlier research with SGMY. [27, 28,29] *Sexuality* was measured with two questions: (1) "Who do you want to date?" Responses included: males, females, both males, and females, I do not want to date anyone yet, and other (free text option); and (2) "How would you describe your sexual orientation?" Responses included: heterosexual, mostly heterosexual (i.e., not exclusively heterosexual or bisexual) [30], bisexual, gay or lesbian, and other (free text option).

Gender identity was determined by one item: "Please describe yourself." Responses included: boy/man, girl/woman, transboy/man, transgirl/woman, genderqueer, and other (free text option). For the three sexuality and gender identity questions, participants also had the option to select: I don't know, I prefer not to answer the question, and I don't understand the question.

2.4.4. Depression

The *Center for Epidemiological Studies -Depression Scale for Children* (CES-DC) is a 20-item self-report measure of depressive symptom severity during the past week.[31] Scores of 15 or higher indicate significant levels of depression. The CES-DC has reported good internal consistency (Cronbach's α=.84).

2.4.5. Hopelessness

The *Hopelessness Scale for Children* (HSC) is a 17-item self-report measure of hopelessness.[32,33] Scores of 8 or higher indicate significant levels of hopelessness about the future. The HSC has reported good to excellent internal consistency (Cronbach's α ranging from .84 to .97).

2.4.6 Anxiety

The *Screen for Child Anxiety Related Disorders – Child Version* (SCARED) is a 41-item self-report measure of anxiety disorders and related emotional problems.[34] Scores of 25 or higher indicate the presence of an anxiety disorder. The total score has demonstrated excellent internal consistency (Cronbach's α=.90).

2.4.7. Traumatic Stress

The *Child PTSD Symptom Scale for DSM-5* (CPSS-5) is a self-report measure of post-traumatic stress severity and diagnosis in children who have experienced a traumatic

event.[35] A score of 31 or higher indicates a probable diagnosis of Post-Traumatic Stress Disorder. The CPSS-5 has demonstrated excellent internal consistency (Cronbach's α=92).

2.4.8. Emotional Regulation

The *Difficulties in Emotion Regulation Scale-16* (DERS-16) is a 16-item self-report measure of emotional regulation.[36] The measure yields a total score as well as five sub-scales (non-acceptance of emotional responses, difficulty in engaging in goal-directed behaviors, impulse control difficulties, limited access to emotional regulation strategies, and lack of emotional clarity). Total scores range from 16 to 80, with higher scores reflecting greater difficulties. The DERS-16 has high internal consistency (Cronbach's α=.95).

2.4.9. Suicidality

The *Columbia - Suicide Severity Rating Scale* (C-SSRS) *Screener- recent version* was used to assess suicidal risk. The C-SSRS Screener - recent version is comprised of six items assessing suicidal ideation and behavior.[37] Scores can be classified as null (no suicidality), low (suicidal ideation only), moderate (suicidal ideation with plan and past suicidal behavior), or high (suicidal ideation with plan, current intent, and past suicidal behavior) risk for suicide. Suicidality was collapsed into two categories: low suicide risk (no and low suicidality) and high suicide risk (moderate or high suicidality) for ease of meaningfully determining risk. The null and low risk groups were combined together because most adolescents who only experience suicidal thoughts (i.e., thoughts of death) will not attempt suicide.[38,39] The moderate and high suicide risk groups were combined

together because both groups endorsed past suicidal behavior (i.e., suicide attempt), which is one of the strongest predictors of a future suicide attempt.[40]

Lifetime number of suicide attempts prior to admission was also gathered during admission. The C-SSRS and number of suicide attempts was extracted from medical records.

2.4.10. Self-harming behaviors

The *Deliberate Self-Harm Inventory* (DSHI) is a self-report measure of NSSI.[41] Individuals are asked about 17 types (e.g., cutting, burning) of NSSI. If an individual answers *yes* to one type of NSSI they are asked follow-up questions about age at first harm, frequency of harm, time since last harmed, and if harm resulted in hospitalization. The DSHI has high internal consistency (Cronbach's α=0.82). NSSI was dichotomized into *yes* (current/past history) or *no* (no history).

2.4.11 Drug use

Drug use consisted of any drugs (e.g., prescription, over-the-counter, illegal) used recreationally as well as any alcohol or tobacco use. Drug use was categorized as *yes* (current/past history) or *no* (no history). Drug use history was assessed during admission and was extracted from medical records.

2.5. Sample Size

Sample size was determined by an a priori power analysis using the G*Power software package.[42] To detect an effect size of Cohen's *d*=.50 with 95% power (alpha=.05, two tailed), 105 participants per group (N=210) would be needed for independent samples t-test, and 110 participants per group (N=220) would be needed for Mann-Whitney U tests. For Chi-Square Goodness of Fit tests, to detect an effect size of

Cohen's w=0.3 with 95% power (alpha=0.5), 220 total participants would be needed. After 100 patients had completed the survey, preliminary analyzes suggested approximately one-third of participants identified as SGMY. Thus, for a SGMY sample size of 110 participants, the total sample size estimated was 350 patients.

2.6. Missing data

There was no missing data for any of the demographic questions, sexuality and gender identity questions, or self-reported questionnaires. Missing data was observed for data extracted from medical records: C-SSRS risk level (3.20%), number of suicide attempts (4.30%), and drug use history (1.70%). Missing data was handled by excluding participants with missing data for analyzes related to the variable.

2.7. Analytic plan

All analyzes were performed using IBM SPSS 26.[43] Means, standard deviations, and percentages were calculated to describe the total sample and subgroups. To examine differences between groups, independent t-tests were used for continuous data with a normal distribution and Mann Whitney U tests were employed for continuous data demonstrating skewness or kurtosis. Chi-square analyzes were used for categorical data.

A stepwise likelihood ratio (forward LR) logistic regression analysis was conducted to estimate a regression model that correctly predicts the probability of suicidality risk level, low (coded 0) versus high (coded 1), at admission, and to identify which variables were related to increased odds of suicidality. Forward stepwise logistic regression was chosen because it is commonly used in social sciences research, provides a reproducible and objective way to reduce the number of predictors, and yields a simple model that is easy to interpret.[44, 45]

3. Results

3.1. Demographic characteristics

The number of eligible and ineligible patients is presented in Figure 1. The final sample (N=348) was majority female (63.22%), on average 15-years-old (Mean=15.31 years, SD=1.42 years), and the largest ethnic group was Hispanic/Latino (40.20%). The median length of hospitalization was 6 days. Health insurance was used as a proxy for socioeconomic status; based on patients' medical records, the majority of the sample was uninsured or had public-assisted insurance such as Medicaid (86.21%). Demographic variables are presented in Table 1.

3.2. Descriptive data

For ease of interpretation of the sexuality and gender identity items, responses are presented in Table 2 according to patients' self-reported biological sex.

3.2.1. Sexuality

When asked whom they wanted to date, based on biological sex, females said males (45.00%), both males and females (31.82%), or females (8.64%). While based on biological sex, males reported females (83.87%), both males and females (8.06%), or males (4.84%). Overall, 17 participants reported they did not want to date anyone yet, and eight selected "other." An additional seven patients said they did not know whom they wanted to date and four preferred not to answer the question.

Based on biological sex, females described their sexuality as heterosexual (41.82%), bisexual (32.27%), mostly heterosexual (8.18%), or lesbian (7.73%). Whereas, based on biological sex, males reported their sexuality as heterosexual (78.23%), mostly heterosexual (6.45%), bisexual (6.45%), or gay (4.03%). Overall, five patients said they

were “not sure yet” about their sexual orientation, and six preferred not to answer the question. Only one patient reported not understanding the question.

3.2.2.Gender identity

When asked to describe themselves, based on biological sex, the vast majority of females chose girl/woman (91.82%), two stated boy/man, and six selected trans boy/man. Based on biological sex, the vast majority of males chose boy/man (95.16%) and two selected trans girl/woman. Overall, eight patients self-reported as gender queer and two patients identified as “other.” Additionally, two patients preferred not to answer the question and four reported, “I don’t know.”

3.2.3. SGMY and HCY status

Based on patients’ answers, 213 (61.21%) participants were classified as HCY and 132 (37.93%) participants were classified as SGMY (see Table 3 for classification criteria). Three patients (0.86%) did not provide enough information to be accurately classified in either group and, thus, were excluded from all analyzes.

3.3. Main Results

Descriptive statistics are summarized in Table 4.

3.3.1. Psychological symptoms

Significant differences on psychological symptoms were found between SGMY and HCY, with SGMY reporting higher levels of depression; t (343)=3.36, p<.001, hopelessness about the future, t (343)=3.08, p=.002, anxiety, t (343)=6.50, p<.001, and emotional regulation difficulties, Mann-Whitney U = 17311, p< .001. However, no significant differences on post-traumatic stress were observed, Mann-Whitney U = 14145, p=.91.

3.3.2. Suicidality and self-harm

Differences in suicide risk level were detected, with significantly more SGMY reporting high suicide risk relative to HCY, χ^2 (1, N=344) = 11.99; p<.001. Lifetime number of suicide attempts also differed with SGMY reporting more suicide attempts than HCY, Mann-Whitney U = 14639, p=.018, and significantly more SGMY reported self-harming behaviors than HCY, χ^2 (1, N=344) = 14.63, p<.001.

3.3.3. Drug use

No significant difference were found for drug use between SGMY and HCY, χ^2 (1, N=339) = 0.51, p=.48.

3.4. Logistic Regression

Prior to conducting the stepwise likelihood ratio (forward LR) logistic regression analysis, chi-square and independent t-tests were employed to examine the bivariate relation between suicide risk level and the variables of interest. The results showed significant relationships between suicide risk level and biological sex, SGMY status, depression, hopelessness, anxiety, emotion regulation, lifetime number of suicide attempts, and NSSI. No significant relationships were observed for race/ethnicity, age, traumatic stress, or drug use; therefore, these variables were excluded from further analyses. Tolerance and VIF values were also computed for all factors to evaluate the assumption of multicollinearity; no problems existed among factors.

3.4.1. Multivariate model

The final multivariate model (Table 5) revealed three significant factors: depression, lifetime number of suicide attempts, and SGMY status. Biological sex, anxiety, hopelessness, NSSI, and emotion regulation were not significant and, thus, were

excluded from the model. The test of the final model against a constant-only model was statistically reliable, χ^2 (3,N=345)=44.28, p< .001, suggesting the predictors, as a group, distinguished between patients at low and high risk for suicide (-2LL=333.43). Overall, the final model accounted for 18.60% of the variability in suicide risk level. The model had an overall 75.80% prediction success rate; 94.40% of patients at high risk for suicide were correctly classified while only 26.10% of patients at low risk for suicide were correctly classified.

3.4.2. Odds ratios

Odds ratios revealed higher levels of depression, greater number of suicide attempts across the lifetime, and self-identification as SGMY were independently associated with suicide risk at admission. Holding all variables constant, a unit increase in depression increased the odds of patients reporting high suicide risk by 3% (OR=1.03, 95% CI,1.02–1.06), and a unit increase in lifetime number of suicide attempts increased the odds of patients reporting high suicide risk by 62% (OR=1.62, 95% CI,1.17–2.24). Patients who identified as SGMY had over twice the odds of reporting high suicide risk compared to HCY (OR=2.08, 95% CI,1.14–3.71).

4. Discussion

This study was unique in asking adolescent inpatients about their dating preferences/intentions, sexual identity, and gender identity. We selected sexuality and gender identity-related questions we thought would be developmentally appropriate and easily understood by young people. For example, we asked about dating preferences (i.e., "Who do you want to date?") because asking about dating is a developmentally and clinically appropriate way to ask about romantic and sexual attractions, especially as

many adolescents may not have engaged in sexual activity. It also provides further information about sexuality than sexual identity alone, especially for youth who identify as "mostly heterosexual," a unique sub-population of SGMY previously highlighted as a distinctive sexual orientation group.[30] Additionally, we made the pragmatic decision to ask about 'biological sex,' because we believed adolescents (most of whom identified as HCY) would understand the question better even though 'sex assigned at birth' might have been preferable to some SGMY. Results demonstrated adolescent inpatients understood questions related to their sexuality and gender identity, and almost all of the patients answered these questions willingly when confidentiality was assured.

In contrast to the two previous inpatient studies, this sample was ethnically and racially diverse (17.24% Caucasian in the present study) and the majority of adolescents were from economically disadvantaged backgrounds based on their insurance status (86.21%). More than one-third of participants identified as SGMY including nearly 3% identifying as transgender, which is approximately three times higher than population-based samples of adolescents.[20,46] Results suggest SGMY inpatients have significantly higher levels of depression, hopelessness, anxiety, and emotional dysregulation, more suicide attempts across their lifetime, and higher rates of NSSI than comparable HCY in an acute, psychiatric setting. In contrast to previous findings, no differences were found for traumatic stress or drug use in the current study. The lack of differences on traumatic stress and drug use may be attributable to the low socioeconomic status of the sample. Socioeconomic disparities such as living in disadvantaged neighborhoods is associated with youth experiencing greater exposure to community violence[47] while low levels of parental education is related to drug use in young people.[48] Additionally, SGMY had

double the odds of being classified as high suicide risk, even after controlling for symptoms of depression and lifetime number of suicide attempts.

Results from the current study reflect a similar pattern of SGMY having higher rates of psychological symptoms and problems than HCY, which has been well documented in the literature. Although all of the patients were admitted to the hospital in crisis and were experiencing acute symptoms, SGMY reported even higher levels of symptoms and more problems than their HCY peers, suggesting these youth are an especially vulnerable clinical sub-population. These findings are similar to the results obtained in two other inpatient, psychiatric samples.[24,25] Mental health providers should be aware of the sexuality and gender identity of their patients, but this important demographic data does not appear to be routinely collected. Providers should gather this information so they can establish how many SGMY are utilizing inpatient, psychiatric services, and then develop specialized services to meet the unique needs of this under-served population. It is important SGMY are better supported by mental health services given the ongoing stigma and discrimination they often face when seeking care.[49,50] However, when inclusive and affirming care is provided, professionals can reduce the stigma in health care environments, detect early signs and symptoms of psychological problems, and promptly refer for specialized services.[51,52] Additionally, mental health providers can utilize psychosocial interventions specifically developed for SGMY[53,54,55] or can tailor existing evidence-based treatments to the needs of SGMY youth.[56] A variety of interventions for SGMY are currently being developed and tested; preliminary evidence suggests individual therapy (i.e., Strengths First,[57] Community Reinforcement Approach[58]) family therapy (i.e., ABFT -LGB[59]), group therapy (i.e., AFFIRM[60],

ASSET[61]), and computer-based therapy (i.e., Rainbow SPARX[62]) can reduce depression, anxiety, hopelessness, and suicidality, and increase self-esteem and coping skills.

4.1. Limitations

When interpreting the results of this study, several limitations merit further discussion. First, the cross-sectional design represents patients' clinical presentation and functioning at one time point and cannot capture the changing nature of psychological symptoms or the development of sexuality and gender identity over time. Previous research has suggested sexuality and gender identity can be fluid and often develop over adolescence and into adulthood.[63] Additionally, more adolescents are now "coming out" earlier which may lead to SGMY identifying in different ways at different times in their lives.[64] For example, a patient who identified as gay or lesbian during the survey may later identify as pansexual, and another patient who initially identified as a boy/man may later identify as non-binary. Second, as participation in the study was voluntary and the majority of patients who refused to complete the survey were male (based on biological sex), the results of the study may more accurately reflect female patients. Third, given the age range of patients, sexual behavior was not assessed, because many adolescents will not be sexually active and the study's focus was not on sexual health.[28] Had patients reported their sexual behavior, their responses may have yielded additional information, which may have changed their classification as either SGMY or HCY. Fourth, SGMY were grouped together because the sample was not large enough to explore within group differences; however, to best understand the complexities of these young people, future research should investigate diversity amongst SGMY including the intersectionality between SGMY and race/ethnicity.[65] Fifth, we did not explore specific experiences of

minority-related stress so we do not know how these experiences affect the psychological symptoms and suicidality of SGMY. Sixth, we utilized forward stepwise logistic regression, which may lead to over reliance on a single best model (i.e., overfitting problems) and might reduce the parsimony of the model and the generalizability of results.[45] Thus, future studies should consider using other statistical methods to replicate results.[66] Lastly, the COVID-19 pandemic occurred during study recruitment, which has had a remarkable impact on the lives and functioning of adolescents, especially for those who are at risk of developing or already have mental health problems. Although, patients admitted to the hospital during the pandemic may differ in important ways from patients admitted before the pandemic began, preliminary evidence found patients admitted to the hospital during the pandemic were very similar and only differed by being slightly older and more likely to have a substance use disorder.[67]

4.2. Generalizability of findings

Findings of this study will need to be replicated across other psychiatric samples to confirm results. Given the high acuity of the clinical sample, aspects of the results are unlikely to generalize to community settings but are expected to generalize to other comparable psychiatric settings.

4.3. Conclusions and implications

The findings of the current study offer critical information for clinicians, researchers, and hospital administrators involved in inpatient psychiatric care of young people. The outcomes suggest SGMY have significantly higher levels of depression, hopelessness, anxiety, and emotional dysregulation, more suicide attempts across the lifetime, and higher rates of NSSI compared to HCY on an inpatient, psychiatric unit.

Moreover, SGMY had twice the odds of being classified as high suicide risk compared to HCY. This study also emphasizes the importance of asking adolescents specific questions about sexuality and gender identity. Mental health providers need to be aware of the sexuality and gender identity of their patients to understand their unique needs and to provide inclusive and affirming care. Future studies should consider including measures of minority-related stress[68] to explore the stigma, discrimination, and victimization SGMY can face to understand further how these experiences contribute to mental health problems and suicidality.

Acknowledgements

The authors would like to thank Dr. Philippa Waterhouse for her helpful comments on a previous draft of this manuscript. The authors would also like to thank the psychology pre-doctoral interns and psychiatry residents who administered the survey to patients.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

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Table 1. Demographic Variables (N=348)

Age	M=15.31 years	(SD=1.42)
Biological Sex[a]	Female	n=220 (63.22%)
	Male	n=124 (35.63%)
Race/Ethnicity	Hispanic/Latino	n=140 (40.23%)
	Black/African American	n=67 (19.25%)
	White/Caucasian	n=60 (17.24%)
	Asian/Asian American	n=9 (2.59%)
	Two or more races/ethnicities	n=48 (13.79%)
	Other	n=24 (6.89%)
Insurance Status	No insurance/Medicaid	n=300 (86.21%)
	Private insurance	n=48 (13.79%)
Length of hospitalization	M=6 days	Range 1- 41 days

[a] Three individuals preferred not to answer the question, and one person reported not knowing their biological sex.

Table 2. Sexuality and Gender Identity Items by Biological Sex

Biological Sex[a]	Female (n = 220)	Male (n = 124)
Who do you want to date?[b]	n (%)	n (%)
Responses:		
Females	19 (8.64)	104 (83.87)
Males	99 (45.00)	6 (4.84)
Both males and females	70 (31.82)	10 (8.06)
I don't want to date anyone yet	15 (6.82)	2 (1.61)
Other	6 (2.73)	2 (1.61)
I don't know	7 (3.18)	0 (0.00)
I prefer not to answer	4 (1.82)	0 (0.00)
I don't understand the question	0 (0.00)	0 (0.00)
How would you describe your sexual orientation?[c]		
Responses:		
Heterosexual/straight	92 (41.82)	97 (78.23)
Mostly heterosexual/straight	18 (8.18)	8 (6.45)
Bisexual	71 (32.27)	8 (6.45)
Gay or lesbian	17 (7.73)	5 (4.03)
Other	13 (5.91)	3 (2.42)
I am not sure yet	4 (1.82)	1 (0.81)
I prefer not to answer	5 (2.27)	1 (0.81)
I don't understand the question	0 (0.00)	1 (0.81)
Please describe yourself:[d]		
Responses:		
Girl/woman	202 (91.82)	0 (0.00)
Boy/man	2 (0.91)[e]	118 (95.16)
Trans girl/woman	0 (0.00)	2 (1.61)
Trans boy/man	6 (2.73)	0 (0.00)
Gender queer	6 (2.73)	2 (1.61)
Other	2 (0.91)	0 (0.00)
I don't know	0 (0.00)	2 (1.61)
I prefer not to answer	2 (0.91)	0 (0.00)
I don't understand the question	0 (0.00)	0 (0.00)

[a] One participant reported "I don't know" and three participants reported "I prefer not to answer." [b] This item measured dating preferences/intentions. [c] This item measured sexual identity. [d] This item measured gender identity. [e] Two participants who were female in terms of biological sex identified as "boy/man" and not as "trans boy/man."

Table 3. Criteria for Classification as Heterosexual, Cisgender Youth or Sexual and Gender Minority Youth

Heterosexual, Cisgender Youth (n= 213)[a]	
Criterion	*Sexuality & Gender Identity Items*
• Identified as "heterosexual/straight" or "mostly heterosexual/straight"	• "How would you describe your sexual orientation?"
• Categorized as cisgender	• "What is your biological sex?" • "Please describe yourself?"
• Reported wanting to date opposite gender peers only	• "What is your biological sex?" • "Who do you want to date?"
Sexual and Gender Minority Youth (n = 132)[b]	
Criterion	*Sexuality & Gender Identity Items*
• Identified as "mostly heterosexual/ straight" and endorsed at least one other SGMY criterion	• "How would you describe your sexual orientation?" • "Who do you want to date?" • "What is your biological sex?" • "Please describe yourself?"
• Identified as gay, lesbian, or bisexual	• "How would you describe your sexual orientation?"
• Identified as a trans boy/man or trans girl/woman	• "Please describe yourself?"
• Identified as boy/man when biological sex is female • Identified as girl/female when biological sex is male	• "What is your biological sex?" • "Please describe yourself."
• Identified as gender queer	• "Please describe yourself?"
• Wanted to date their same gender peers or both males and females	• "What is your biological sex?" • "Who do you want to date?"
• Described self as "other" (e.g., pansexual, non-binary, "no label," "date all humans")	• "Please describe yourself?" • "Who do you want to date?" • "How would you describe your sexual orientation?"
• Were questioning their sexuality or gender identity (i.e., answered "I don't know.")	• "Please describe yourself?" • "Who do you want to date?" • "How would you describe your sexual orientation?"

[a] Participants had to meet all three criteria to be classified as HCY.
[b] Participants had to meet at least one criterion to be classified as SGMY but could endorse more than one of these items.

Table 4. Main Outcome Variables

	Heterosexual, Cisgender Youth		Sexual and Gender Minority Youth		
	n	Mean (SD)	n	Mean (SD)	*p* value
Depression (CES-DC)	213	28.75 (14.38)	132	34.05 (14.06)	<.001
Hopelessness (HSC)	213	.84 (4.59)	132	7.43 (4.83)	.002
Anxiety (SCARED)	213	30.94 (17.92)	132	43.48 (17.31)	<.001
Traumatic Stress (CPSS-5)	213	17.56 (24.91)	132	16.07 (23.28)	.91
Emotion Regulation (DERS)	213	44.37 (23.28)	132	52.08 (16.56)	<.001
Lifetime No. Suicide Attempts	205	.84 (1.48)	125	1.20 (1.84)	.018
	n	%	n	%	*p* value
Suicide Risk Level (CSSRS)	208	High = 64.90 Low = 35.10	126	High = 82.54 Low = 17.46	<.001
NSSI (DSHI)	213	Yes = 68.01 No = 30.99	132	Yes = 87.12 No = 12.88	<.001
Drug Use	210	Yes = 56.67 No = 43.33	129	Yes = 52.71 No = 47.29	.48

Table 5. Stepwise Likelihood Ratio Logistic Regression Predicting Suicide Risk Level

	β	SE	OR	95%CI	χ^2
Model – Step 1					25.55***
Depression	.45***	.01	1.05	1.03-1.07	
Model – Step 2					38.23***
Depression	.04***	0.1	1.04	1.02-1.06	
Lifetime No. of Suicide Attempts	.50**	.17	1.64	1.19-2.27	
Model – Step 3					44.28***
Depression	.03**	.01	1.03	1.02-1.06	
Lifetime No. of Suicide Attempts	.48**	.17	1.62	1.17-2.24	
SGMY Status	.72*	.30	2.06	1.14-3.71	

*p<.05, ** p <.01, *** p <.001

Figure 1. Participant Flowchart