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Non-suicidal Self-Injury, Suicidal Behaviors, and Mental Health Symptoms among Sexual Minority Youth with Juvenile Justice System Involvement

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Abstract

Sexual minority youth have long remained an understudied population within the juvenile justice system, despite emerging evidence suggesting that sexual minority youth are overrepresented. Recent literature indicates that system-involved sexual minority youth may have more behavioral health concerns than their heterosexual counterparts. Even so, more work is needed to elucidate the unique needs of sexual minority youth who become involved in the system, especially as it pertains to suicidal behaviors and non-suicidal self-injury (NSSI). The present study provided a descriptive evaluation of the prevalence of sexual minority youth making early system contact and their mental health concerns. Of the 218 justice-involved youth from a Northeastern family court in the sample, over a quarter identified as a sexual minority ($n = 58$). Our findings indicated that these youth evidenced significantly higher scores on a mental health screener compared to their heterosexual counterparts, evidencing greater symptomology on scales indicative of depression/ anxiety, thought disturbance, etc. Further, sexual minority youth reported higher rates of lifetime, past year, and past month NSSI as well as lifetime and past year suicide attempts. These findings

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Alyssa Vieira: Conceptualization, Data curation, Formal analysis, Writing - original draft - review & editing. **Kaitlin M. Sheerin:** Conceptualization, Formal analysis, Writing - original draft - review & editing. **Shannon Williamson-Butler:** Data curation, Writing - original draft - reviews & editing. **Casey A. Pederson:** Writing - original draft - review & editing. **Elizabeth C. Thompson:** Conceptualization, Writing - original draft - review & editing. **Sheiry Soriano:** Data curation, Writing - original draft. **Jennifer C. Wolff:** Writing - original draft - review & editing. **Anthony Spirito:** Investigation, Writing -review & editing. **Kathleen Kemp:** Conceptualization, Investigation, Methodology, Resources, Supervision, Project administration, Data curation, Formal analysis, Funding acquisition, Writing - original draft - review & editing.

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highlight the need to support the well-being of sexual minority youth in the juvenile justice system by screening for and addressing their mental health needs in this unique setting.

Keywords

juvenile justice; adolescents; sexual minority; suicidal ideation; non-suicidal self-injury; mental health

1.0 Introduction

In the U.S. more than 31 million youth were under juvenile court jurisdiction in 2019, with nearly 723,000 delinquency cases processed in a year (Hockenberry & Puzzanchera, 2021). The multitude of youth within the juvenile justice system (JJS) represent a group of youth at particularly high risk for deleterious outcomes and comorbidities; perhaps, most concerning among them are the high rates of suicidal thoughts and behavior (STB). In general, justice-involved youth (JIY) die by suicide at approximately three times the rate of youth in the community (21.9 vs. 7 per 100,000 adolescents; Gallagher & Dobrin, 2016). Further, between 12.0% and 15.5% of JIY have attempted suicide within the past year (Stokes et al., 2015). The high rates of suicidality within the population of JIY may be due to the high concentration of associated risk factors that include psychiatric diagnoses (Merikangas et al., 2010; Shufelt & Cocozza, 2006; Teplin et al., 2002; Wasserman et al., 2002), substance use disorders (Teplin et al., 2002; Yurasek et al., 2021), past traumas (King et al., 2011), and social isolation/separation from family (Ford et al., 2006). Prevalence estimates suggest that approximately two-thirds of JIY meet criteria for a psychiatric disorder (even when excluding conduct disorder; Merikangas et al., 2010; Teplin et al., 2002); approximately half of JIY meet criteria for a substance use disorder (Teplin et al., 2002; Yurasek et al., 2021); and, over half have experienced a potentially traumatic event (Abram et al., 2004; Adams, 2010; Dierkhising, et al., 2013; Rosenberg et al., 2014).

These risks may be compounded for lesbian, gay, bisexual, and queer youth within the JJS; hereafter referred to as sexual minority youth. According to the 2015 Youth Risk Behavior Surveillance Survey, which surveys a nationally representative sample of high school students, approximately 11.2% of adolescents in grades 9-12 identified as a sexual minority (2.0% gay/lesbian, 6.0% bisexual, and 3.2% unsure or questioning their sexual identity; Kann et al., 2016). In addition, between 2009 and 2017, the percentage of adolescents identifying as a sexual minority increased 96.0%, from 7.3% to 14.4% respectively, likely due to cultural shifts in the acceptance of sexual minority identities (Raifman et al., 2020). Prevalence studies have varied in their reports of sexual minority youth in the JJS ranging from 6.5% to 27.1% (Beck et al., 2013; Buttar et al., 2013; Irvine, 2010; Wilson et al., 2017) suggesting sexual minority youth are likely overrepresented in certain areas within the JJS (Hunt & Moodie-Mills, 2012; Irvine, 2010; Majd et al., 2009). For example, Wilson and colleagues (2017) found that in a nationally representative sample of youth in custody, 6.5% identified as a sexual minority (identifying as lesbian, gay, or bisexual) and another 5.3% identified as mostly straight, but also endorsed being “kind of attracted” to people of their own sex. However, samples of youth in less restrictive settings have yielded different results. In a sample of court involved non-incarcerated youth, 19.6% identified as a non-heterosexual sexual orientation, and 31.4% were classified a sexual minority because they endorsed being attracted to the same sex (Hirschtritt et al., 2018).

Sexual minority youth represent a marginalized group characterized by their own unique set of environmental stressors and behavioral health needs (Hirschtritt et al., 2018). The minority stress model posits three levels of stressors that may contribute to the disparate outcomes for sexual minority youth when compared to their heterosexual counterparts, including general stressors (e.g., traumatic loss of an identity-affirming family member), distal stressors (e.g., discrimination and/or victimization due to one's identity), and proximal stressors (e.g., expectations of rejection, concealment of one's sexual identity, internalized homophobia; Goldbach & Gibbs, 2017). Extant research has supported that many sexual minority youth experience a myriad of stressors related to their identity, including childhood physical and sexual abuse (Friedman et al., 2011), rejection and discrimination (McCormick et al., 2018), violence and harassment at school (Centers for Disease Control and Prevention, 2015; Kosciw et al. 2010), and family violence after "coming out" (Himmelstein & Brückner, 2011). These factors are often related to negative behavioral health outcomes. In fact, compared to heterosexual youth, these adolescents often experience a heightened risk of maltreatment and victimization (Roberts et al., 2012), homelessness (Corliss et al., 2011), post-traumatic stress disorder (PTSD; Roberts et al., 2012), substance abuse (Craig et al., 2013; Marshal et al., 2008), psychotic symptoms (Gevonden et al., 2014), and mood disorders (e.g., anxiety and depression; Craig et al., 2013; Lucassen et al. 2017). Sexual minority youth are also more likely to experience suicidal ideation and are five times more likely to make a suicide attempt compared to their heterosexual counterparts (Kann et al., 2016). This minority stress (Goldbach & Gibbs, 2017) may interact with or exacerbate perceived burdensomeness and or thwarted belongingness highlighted in Interpersonal Psychological Theory of suicidal behaviors (Joiner, 2005; Joiner et al., 2009) increasing the likelihood sexual minority youth will engage in STBs. (Ploderl et al., 2014).

The mental health concerns among sexual minority youth involved in the JJS have not been well documented. Dembo and colleagues (2018) examined differences between sexual minority (gay, lesbian, or bisexual) and non-sexual minority (heterosexual) justice-involved youth who were released into the community, placed on house arrest, or placed in detention after their juvenile intake appointment. A total of 8.6% of the 1,619 youth in the study identified as sexual minority (n = 135). This study found that sexual minority youth reported significantly higher rates of depression and more severe drug use. However, the study is limited in that it did not assess for other mental health symptoms, non-suicidal self-injury (NSSI), or STBs. Only one other study solely examining the differences between sexual minority (n = 133) and heterosexual (n = 290) first-time offending court-involved, non-incarcerated youth was identified (Hirschtritt et al., 2018). These youth took part in a longitudinal study to examine mental health, sexual behavior, and substance use risk from the point of first court contact. In this study, sexual minority youth were more likely to endorse substance use (i.e., alcohol, cannabis, other drugs), internalizing symptomatology, inattention/hyperactivity, and posttraumatic stress. Further, sexual minority youth were more likely to endorse a history of engaging in NSSI. However, this study was limited by the inability to assess histories of STBs. Given that this represents the only study to date to examine the behavioral health needs of first-time offending court-involved, non-incarcerated sexual minority youth in the juvenile justice system, further work is needed to replicate and extend these prior findings.

Building on the work of Hirschtritt and colleagues (2018), the current study aims to add to the literature on suicidality, NSSI (hurting oneself without the intent to die), and mental health concerns (depression, anxiety, thought disturbance, etc.), with a specific focus on STB (suicidal thoughts and suicide attempts), among sexual minority youth involved in the JJS compared to their heterosexual counterparts. Given that sexual minority youth in the general population experience similar adversities and risk factors (e.g., trauma, maltreatment, family violence, PTSD) as other JIY but which may be exacerbated by their minoritized sexual identity, we conducted a secondary data analysis to see if sexual minority youth in the JJS have a differential risk for mental health symptoms, NSSI, and STB. Given prior research, we expected to see sexual minority youth experiencing more mental health symptoms, NSSI, and STBs compared to their heterosexual counterparts.

2.0 Method

2.1 Participants

Youth who participated in the present study were drawn from a sample of court-involved, non-incarcerated youth who were part of a larger, ongoing study on brief screening and intervention for youth endorsing STB within the JJS. Youth were recruited when attending an appointment at a northeastern United States family court's diversionary program. The program is designed to divert youth with a status offense (i.e., truancy, disobedient child, alcohol use by a person under the age of 21) or non-status offense (i.e., assault and/or battery, disorderly conduct, arson, breaking and entering) from formal judicial processes.

A total of 223 youth met inclusion criteria for the study. On average, youth were 15.07 years old (*SD* = 1.43) and 62% of youth were assigned female sex at birth. Youth identified their gender as male (38%), female (60%), transgender (1%), and other (1%); additionally, 0.5% preferred not to answer. Seventy-two percent of youth identified as heterosexual. Youth identified as White (35%), Black (14%), Multiracial (10%), Native American (3%), Asian (1%), Other (5%), and 32% declined to answer. Additionally, 41% of youth identified as Hispanic/Latinx. Forty-three percent of youth entered the court system with a status offense and 57% with a non-status offense.

2.2 Procedures

Data were collected between February 2017 and May 2021. Youth were screened for behavioral health concerns using a mental health and substance use screening measure (i.e., the Massachusetts Youth Screening Inventory-2; MAYSI-2; Grisso & Barnum, 2006) as a routine part of the diversion procedure. Research assistants approached youth and families before the start of their court diversion appointments to provide information about the study and request consent to contact them at a later date. Youth and caregivers who expressed interest in the study were asked to sign a consent-to-contact form or provide verbal consent (as outlined by IRB-approved COVID-19 procedures) and were contacted

3 months later to set up the research appointment. The consent-to-contact form included consent to review court records for eligibility criteria. Eligibility criteria included youth flagging in the “caution” or “warning” range of the Suicide Ideation, Depressed-Anxious, or Angry-Irritable subscale of the MAYSI-2, in addition to youth being between the ages of 12 and 18, speaking English, and their parent/guardian speaking English or Spanish. Any imminent suicidality concerns identified at their initial court appointment were handled by the intake workers and staff of the on-site mental health clinic and not by the research team, as youth were not yet enrolled in the study. All procedures were approved by the associated hospital Institutional Review Board.

At the time of the research appointment, caregivers completed a written informed consent document and teens gave their assent to participate in the project. Due to COVID-19, additional consent procedures were approved by the IRB to accommodate remote/online appointments. Caregivers and youth provided consent and assent, respectively via electronic signatures and a recorded verbal agreement to participate. Once they provided informed consent/assent, participants completed the assessment battery. Data use for the current manuscript was collected from the study baseline appointment which occurred 3-months following the youth’s initial court appointment. The study assessment took place in-person or remotely via HIPAA-compliant teleconferencing software and consisted of the youth and parent responding separately to an interview as well as REDCap online self-report surveys on a tablet or personal device. Appointments took approximately one hour, and participants were each compensated $30 for their time. If youth endorsed suicidal ideation at the research appointment, the research assistant conducted the IRB-approved suicidality protocol and contacted the principal investigator of the study to assess risk level and imminence. Follow-up actions to ensure safety (e.g., informing parents, safety planning, etc.) were taken when necessary.

2.3 Measures

2.3.1 Demographic variables—Youth completed a demographics form, which asked for their race, ethnicity, age, sexual identity, gender identity, and sex assigned at birth. For the present sample, race and ethnicity were collapsed together due to most Latinx youth not identifying a race. All response options were multiple choice. For sex assigned at birth, youth were able to choose either male, female, or do not want to answer. Youth were also asked about their gender identity and could choose from male, female, transgender, other, and do not want to answer. In addition, youth were asked to choose from six options to identify their sexual orientation, choosing either Straight (Heterosexual), Gay/Lesbian (Homosexual), Bisexual, Undecided/Questioning, Other, or Prefer not to Answer. The options Gay/Lesbian, Bisexual, Undecided/Questioning, and Other were combined into a grouping of “sexual minority” youth for data analyses.

2.3.2 Mental Health and Substance Use Screening—The MAYSI-2 is a 52-item self-report mental health screening tool that is widely used with delinquent youth to determine possible suicide risk as well as mental health and substance use treatment needs (Grisso & Barnum, 2006; Grisso et al., 2012). The MAYSI-2 has seven scales: Alcohol/Drug Use (e.g., “have you used alcohol or drugs to help you feel better?”); Angry-Irritable (e.g.,

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“have you had too many bad moods?”); Depressed-Anxious (e.g., "have you felt lonely too much of the time?”); Somatic Complaints (e.g., “when you have felt nervous or anxious, have you had bad headaches?”); Suicide Ideation (e.g., “have you wished you were dead?”); Thought Disturbance (e.g., “have you heard voices other people can't hear?”); and Traumatic Experiences (e.g., “have you ever in your whole life had something very bad or terrifying happen to you?”). With the exception of the Traumatic Experiences scale, all subscales have a “caution” and “warning” cut off that indicates possible clinical significance and need of more immediate clinical attention, respectively (for more information on scale cutoffs see Grisso et al., 2012). The MAYSI-2 follow-up policy required by the family court where the current research was conducted requires referral for a “caution” score on either Suicide Ideation or Thought Disturbance, a “warning” score on one of any of the other subscales, or a “caution” score on two or more of any subscales.

Participants are asked to respond to questions in the time frame of “the past few months.” Higher scores indicate greater experience of symptoms. Of note, the Thought Disturbance subscale is only normed for males; however, the scores for all youth despite gender are included in analyses. Research suggests that the MAYSI-2 has adequate reliability and validity for use among youth involved in the JJS (Archer et al., 2010; Grisso & Barnum, 2006). Internal consistency ($\alpha = 0.70$), retest reliability (median ICC = 0.74), and convergent validity (rs = 0.35-0.65) with the Child Behavior Checklist, Youth Self Report (Achenbach, 1994) has been demonstrated with youth in detention (Ford, 2008). In the present sample, Cronbach’s alphas across scales ranged from .65 to .89.

2.3.3 Non-suicidal Self-Injury and Suicidal Thoughts and Behaviors—

The Suicidal Thoughts and Behaviors Inventory – Short Form (SITBI-SF) is a 6-item self-report measure, comprised of “yes” or “no” gate questions asking about lifetime presence of: (1) suicidal ideation, (2) suicide plans, (3) suicide gestures, (4) suicide attempts, (5) thoughts of non-suicidal self-injury, and (6) non-suicidal self-injury (Nock et al., 2007). If youth responded “yes” to any of these questions, they were immediately asked follow-up questions assessing the recency, frequency, severity, and circumstances of each STB. For the purpose of the present study, we used frequency of NSSI and suicide attempts for analysis.

The SITBI NSSI gate question, “Have you ever actually engaged in NSSI (self-harm)?” is used to indicate the presence/absence of NSSI behaviors. If participants responded yes, they were asked to answer 10 follow up questions to assess the frequency and characteristics of NSSI behaviors. The SITBI suicide attempts gate question, “Have you ever made an actual attempt to kill yourself in which you had at least some intent to die?” is used to determine lifetime history of suicide attempts. If participants responded yes, they were asked to answer 14 follow up questions to evaluate the recency, frequency, severity, and circumstances of past attempts. The SITBI is a well-validated measure with strong psychometric properties that correlate with other measures of NSSI and suicide attempts (Nock et al., 2007).

2.4 Analytic Strategy

The purpose of the present study was to evaluate differences between sexual minority youth and heterosexual youth across measures of mental health symptoms, NSSI, and STB.

Due to the descriptive nature of the study, chi-square tests and t-tests were chosen to demonstrate differences across the two groups. Further, eta squared values are provided for the t-test and effect sizes are expressed as small $\eta 2 = 0.01$, medium $\eta 2 = 0.06$, and large $\eta 2 = 0.14$ according to Cohen's (1992) criteria. For chi square tests, Cramer's V (V) was utilized to calculate effect sizes, as some categorical variables had more than 2 categories. This produces the same values for Phi when two binary variables are used. For tests with two binary variables effects sizes are interpreted as small (.10), medium (.30), and large (.50). For tests with variables that have 3 categories, effect sizes are interpreted as small (.07), medium (.21), and large (.35). These guidelines follow Cohen's (1998) criteria. Benjamini–Hochberg procedure was applied to reduce type I error at 5% across the multiple comparisons (Benjamini & Hochberg, 1995). Data were analyzed using SPSS version 27.

3.0 Results

3.1 Preliminary analyses

We examined the dataset containing 223 participants for missing reports and less than 5% of data regarding sexual identity were missing ($n = 5$). However, missing data replacement strategies (e.g., multiple imputation) was not conducted given the data was not missing at random (i.e., data were missing because participants chose not to disclose their sexual orientation) and also due to the descriptive nature of the present study. Therefore, missing data was deleted listwise, resulting in a final sample of 218 youth with complete data. Over one quarter of the sample (26.6%; n = 58) self-identified as a sexual minority and over two thirds (73.4%; $n = 160$) self-identified as heterosexual. Of the sexual minority youth, 60.3% identified as bisexual ($n = 35$); 15.5% identified as gay, lesbian, or queer ($n = 9$); 15.5% identified as undecided or questioning ($n = 9$); and 8.6% identified as other ($n = 5$).

3.2 Descriptive Statistics

3.2.1 Demographics—There was a significant difference between the groups on their sex assigned at birth ($\chi^2 = 12.933$; $p < .001$), revealing that the sexual minority group had significantly more participants with female sex assigned at birth (81.0%, $n = 47$) compared to the heterosexual group (55.6%, $n = 89$). There were no other significant demographic differences between the groups. All demographics for the sample are reported in Table 1.

3.2.2 Mental Health Screening—Sexual minority youth (84.5%, $n = 49$) were more likely to flag in the clinically significant range on the MAYSI-2 subscales compared to heterosexual youth (62.5%, $n = 100$; $\chi^2 = 9.509$; V = .21, $p =.002$). Further, 27.6% ($n = 16$) of sexual minority youth and 24.4% ($n = 39$) of heterosexual youth flagged on only one subscale, while significantly more sexual minority youth (56.9%, $n = 33$) flagged on two or more subscales compared to heterosexual youth (38.1%, $n = 61$; $\chi^2 = 10.152$; V = .22; $p =.006$). As shown in Table 2, chi-square tests revealed that sexual minority youth were more likely than heterosexual youth to flag above the clinical cut off on the Depressed-Anxious ($\chi^2 = 5.831$; V = .16; $p = .016$), Somatic Complaints ($\chi^2 = 5.546$; V = .16; $p = .019$), Suicide Ideation ($\chi^2 = 7.401$; V = .19; $p = .007$), and Thought Disturbance ($\chi^2 = 6.326$; V = .17; $p = .012$) subscales. The Traumatic Experiences subscale was not included in analyses because it does not have a clinical cutoff range, and the Alcohol/Drug Use subscale was not reported because only 3 youth (all sexual minority) flagged in the clinical cut-off range. Table 3 shows *t*-tests run on the subscale scores for sexual minority and heterosexual youth. Sexual minority youth had significantly higher mean scores on all the same subscales noted above in addition to traumatic experiences: Depressed-Anxious ($t = -3.687$; $\eta 2 = .06$; $p < .001$), Somatic Complaints ($t = -3.687$; $\eta 2 = .05$; $p < .001$), Suicide Ideation, ($t = -3.148$; $\eta 2 = .05$; $p = .002$), Thought Disturbance ($t = -2.808$; $\eta 2 = .05$; $p = .006$), and Traumatic Experiences ($t = -3.635$; $\eta 2 = .06$; $p < .001$) subscales. No other significant differences emerged.

3.2.3 Non-Suicidal Self-Injury—As shown in Table 4, chi-square tests revealed that significantly more sexual minority youth (56.9%; $n = 33$) previously engaged in NSSI compared to heterosexual youth (21.4%; $n = 50$; $\chi^2 = 11.654$; V = .23; $p < .001$). Frequency of lifetime NSSI was significantly different between the groups, with 20.7% ($n = 12$) of sexual minority youth and 18.9% ($n = 30$) of heterosexual youth engaging 1-4 times in their life and 36.2% ($n = 21$) of sexual minority youth and 12.6% ($n = 20$) of heterosexual youth engaging 5 or more times ($\chi^2 = 17.088$; V = .28; $p < .001$). Regarding past year NSSI, significantly more sexual minority youth (41.4%, $n = 24$) reported engaging in NSSI compared to heterosexual youth (18.2%, $n = 29$; $\chi^2 = 12.328$; V = .24; $p < .001$). Additionally, significantly more sexual minority youth (15.5%, $n = 9$) reported engaging in NSSI in the past month compared to heterosexual youth (5.7%, n =9; $\chi^2 = 5.426$; V = .16; $p = .020$). However, *t*-tests revealed that there were no significant differences at their age of onset or age at most recent NSSI engagement. Regarding the methods used to self-harm, a *t*-test revealed that, of those who self-harmed, sexual minority youth used significantly more methods ($M = 2.88$ $SD = 2.39$) compared to heterosexual youth ($M = 1.70$, $SD = 1.23$; $t = -2.945$, $\eta 2 = .10$; $p = .012$). Chi-square tests revealed that there was no significant difference between the number of youth requiring medical treatment for their NSSI ($\chi^2 = 1.658$; V = . 14; $p = .198$) with 39.4% ($n = 13$) of sexual minority youth and 26.0% ($n = 13$) of heterosexual youth receiving medical treatment.

3.2.4 Suicidal Behavior—As shown in Table 5, a chi-square test revealed that significantly more sexual minority youth (29.3%; $n = 17$) attempted suicide compared to heterosexual youth (12.5%; $n = 20$; $\chi^2 = 8.536$; V = .23; $p = .003$). A t-test revealed that there was no significant difference in youths' mean age at first attempt. Frequency of lifetime suicide attempts were significantly different between the groups with 6.9% ($n = 4$) of sexual minority youth and 5.6% ($n = 9$) of heterosexual youth attempting once, and 22.4% ($n = 13$) of sexual minority youth and 6.9% ($n = 11$) of heterosexual youth attempting 2 or more times ($\chi^2 = 10.900$; V = .28; $p = .004$). Further, significantly more sexual minority youth reported attempting suicide in the past year (17.2%, $n = 10$) compared to their heterosexual counterparts (6.9%, $n = 11$; $\chi^2 = 5.255$; V = .24; $p = .022$). There were no significant differences regarding whether their last suicide attempt was in the past 90 days or not.

Methods used for suicide attempts were recorded as ingestion (29.4%, $n = 5$ sexual minority and 40.0%, $n = 8$ heterosexual), sharp objects (29.4%, $n = 5$ sexual minority and 20.0%, $n = 4$ heterosexual), other (11.8%, $n = 2$ sexual minority and 20.0%, $n = 4$ heterosexual), or methods from multiple categories (29.4%, *n* = 4 sexual minority and 20.0%, *n* = 4 heterosexual). Reasons for youths' most recent suicide attempt were reported to be job loss, job stress, academic failure (23.5%, *n* = 4 sexual minority and 15.0%, *n* = 3 heterosexual), dispute with family or friends (58.8%, *n* = 10 sexual minority and 55.0%, *n* = 11 heterosexual), dispute with lover (17.6%, *n* = 3 sexual minority and 10.0%, *n* = 2 heterosexual), death of another person (11.8%, *n* = 2 sexual minority and 5.0%, *n* = 1 heterosexual), psychiatric symptoms (11.8%, *n* = 2 sexual minority and 20.0%, *n* = 4 heterosexual), humiliating event (0%, *n* = 0 sexual minority and 10.0%, *n* = 2 heterosexual), and other (29.5%, *n* = 5 sexual minority and 40.0%, *n* = 8 heterosexual). Percents total above 100% due to youth being able to select multiple reasons for the attempt. Between group comparisons were not able to be conducted given small cell sizes. These results are also displayed in Table 6.

4.0 Discussion

Results from the current study indicate that sexual minority youth represent a substantial proportion of youth presenting to a diversion program within a family court system, with over a quarter of this sample identifying as non-heterosexual. Notably, 81% of sexual minority youth in this sample were assigned female at birth and 35% of females in the full sample identified as a sexual minority (compared to 12% of males), indicating that justice-involved females may warrant particular attention and support. Further, this finding is consistent with previous findings that sexual minority females are disproportionally involved in the JJS (Jonnson et al., 2019). The vast majority of the sexual minority youth (85%) flagged in the clinically significant range on at least one of the MAYSI-2 subscales, indicating that these youth are struggling with current mental health symptoms. Compared to their heterosexual counterparts, sexual minority youth were more likely to flag on and had higher mean scores on MAYSI-2 subscales screening for Depressed-Anxious symptoms, Somatic Complaints, Suicide Ideation, and experiences indicative of Thought Disturbance. Sexual minority youth also had higher mean scores on the Traumatic Experiences scale, indicating greater lifetime exposure to potentially traumatic events. These results align with well-established trends indicating greater severity of mental health concerns among sexual minority youth across mental health settings (Craig et al., 2013, Geyonden et al., 2014; Lucassen et al., 2017; Roberts et al., 2012) and extend the literature to highlight similar trends among JIY.

Other significant results from the current study highlight the increased rates of NSSI and suicidal behaviors among sexual minority youth compared to heterosexual youth. With regard to NSSI, over half of the sexual minority youth reported prior NSSI engagement. Compared to heterosexual youth, sexual minority youth had significantly higher rates of NSSI, more methods of self-harm, and greater frequency of NSSI across their lifetime, the past year, and the past month. NSSI is both an important clinical issue on its own and a well-established risk factor for suicidal behavior (Klonsky et al., 2013). With regard to suicidal behaviors, nearly one-third of sexual minority youth reported a lifetime suicide attempt. Compared to heterosexual youth, sexual minority youth were more likely to report a past attempt in their lifetime and were more likely to have multiple attempts. Additionally, sexual minority youth were more likely to have attempted suicide in the past year. These results highlight the elevated risk for suicidal behavior among sexual minority youth in a population of JIY already at markedly high risk for suicide compared to the general population (Gallagher & Dobrin, 2016) and the importance of screening for NSSI and STBs among sexual minority youth. This is especially true for those who were assigned female at birth, as females were more likely to identify as a sexual minority in this sample and female youth report higher rates of NSSI and STBs in general and in JIY populations (Abram et al., 2008; Bakken & Gunter, 2012; Tsypes et al., 2016). Further, it is important to consider that JIY may use a variety of methods and not be restricted to self-cutting which is the most common method of self-harm seen in community samples (Madge et al., 2008). Given the importance of restricting access to means, this highlights the importance of more thorough NSSI and STB assessment as well as safety planning with JIY.

Interventions designed for JIY that target self-harm, suicidal thoughts, and safety in general may be particularly beneficial for sexual minority youth. To our knowledge, there are currently no evidenced-based STB or NSSI interventions that specifically focus on sexual minority youth within the JJS. However, future efforts focused on understanding and tailoring interventions to the unique needs of sexual minority, particularly female, JIY may be critically important from a suicide prevention standpoint. It will be crucial for these services to be sensitive not only to the youth's mental health needs, but also unique considerations surrounding their sexual identity. Prior to beginning any intervention, it is critical to ask youth if their caregivers are aware of their sexual identity and how their caregiver's have responded previously (SAMHSA, 2020). Safety planning can be conducted with sexual minority youth and involves a caregiver as part of best practice. Safety planning reviews how to identify feelings of suicidality and develop a plan for ways the youth can support themselves, identify people they can ask for help and support or distraction, identify professionals/ crisis lines they can reach out to for support, find ways to keep their environments safe (restricting means), as well as identifying reasons to live. It is important to consider that family and social support may be low for these youth. Though youth would benefit from access to resources that are sensitive to their needs (e.g., Youth Pride, The Trevor Project). Therefore, techniques that addresses the youth's feelings of burdensomeness and lack of belonging (as highlighted in IPT) while being sensitive the unique stressors that may be present due to minority stress are critical. Information contained within the safety plan shared with the caregiver may require finessing to not unintentionally disclose sexual identity.

Further, many service recommendations for youth in the justice system are family based, which may not be the best approach for all sexual minority youth if there are high levels of family stress due to their identity or if they are concealing their identity from their family. The Substance Abuse and Mental Health Services Administration (SAMHSA) put out a report in 2020 highlighting suicide treatment with moderate evidence among youth in general (Attachment Based Family Therapy, Integrative Cognitive Behavioral Therapy, Safe Alternatives for Teens and Youth, etc.) and have some research with diverse samples that included LGBTQ+ youth. However, adaptations to these treatments, especially ones that are family based, may be needed for sexual minority youth as it is important for practitioners to consider factors the youth may have faced like discrimination, trauma, rejection, concealment of identity, internalized homophobia or biphobia, increased risk for mental health disorder, etc. (see SAMHSA, 2020 for a more detailed review). Treatment adaptions such as not including caregivers until safety can be established, teaching caregivers about microaggressions when sexual identity is discussed, or having sessions focused on relationship repair may be necessary if sexual minority have felt intentionally or unintentionally rejected by their caregiver.

Beyond adapting self-harm and suicidal ideation interventions to take special care and consideration when working with sexual minority youth, it is important to increase identification right out the gate. For example, one current method for identifying suicidality among individuals is the Question, Persuade, Refer method (QPR; Keller et al., 2009). This is a universal training which can be applied in school, juvenile justice centers, and beyond to help staff recognize warning signs, offer hope and support, and get the necessary help. However, trainings like this may also need to be adapted to recognize and address unique risk factors and sources of support for sexual minority youth. Adjustments could be using inclusive language and connecting the individual to a community where they feel a sense of belonging to further be assessed and treated for suicide risk.

4.1 Future Directions

Given well-established trends indicating the vulnerability of sexual minority youth with respect to mental health, it is critically important for future research to explore the question of why these patterns may arise, with an eye towards prevention and intervention. Compared to heterosexual youth, sexual minority youth experience stressors that stem directly from the marginalization of their sexual orientation (OJJDP, 2014), also known as minority stress (Goldbach & Gibbs, 2017), which may serve to exacerbate behavioral health concerns among these youth. In the current study, we were unable to measure minority stress and other important factors that may buffer the relationship between minority stress and the development of behavioral health concerns, including social supports (e.g., family, friends) and specific characteristics of one's identity (e.g., prominence, integration). These factors are relatively unexplored among sexual minority justice-involved youth who are particularly vulnerable to negative mental health outcomes, and a better understanding of the multifaceted nature of minority stress for these high-risk youth is necessary to develop effective interventions.

The association between minority stress and STBs is particularly concerning for sexual minority youth, as identity-related stressors have been consistently linked to suicidal ideation and attempts (Mongelli et al., 2019). The empirically supported Interpersonal Psychological Theory (IPT) of suicidal behaviors posits that STBs are driven by two interpersonal states, perceived burdensomeness (i.e., the perception of being a burden to others) and thwarted belongingness (i.e., failure to develop a sense of belonging or feeling isolated from others; Joiner, 2005; Joiner et al., 2009). Research has supported the notion that the minority stress model and IPT are intertwined and together may account for increased STBs among sexual minority individuals (Ploderl et al., 2014). For sexual minorities, the process of "coming out," family and peer rejection, victimization, and internalized homophobia have all been linked to increased feelings of being a burden and thwarted belongingness and these factors, in turn, are associated with NSSI (Smithee et al., 2019), STBs, and other psychological symptoms among sexual minority individuals (Baams et al., 2018; see Baams et al., 2015 for a review of this literature). Some research also suggests that these social risk and protective factors may operate differently for sexual minority youth, with some concepts, like IPT's "belongingness," exacerbating minority stress in relation to suicidality (McKay et al., 2019). How these factors and theoretical models fit the experiences of justice-involved sexual minority youth has yet to be explored empirically. Further investigation into these phenomena within the context of JJS will provide insight into if and how problem behaviors resulting in contact with the legal system may stem from underlying factors linked to minority stress, emotional dysregulation, and previously unaddressed mental health concerns, including belongingness and perceived burdensomeness.

4.2 Limitations.

Study findings must be interpreted within the context of several limitations. First, the study primarily relied on self-report measures. In future studies, interviews of mental health symptoms and STBs may offer additional information to corroborate reports. Further, five individuals in the sample chose not to disclose their sexual identity, resulting in an incomplete picture of the relationship between sexual identity status and STBs for all participants. Second, the current study only assessed sexual minority status and clinical symptoms at a single time point. As a result, the degree to which sexual identity status is associated with mental health, NSSI, and STB over time could not be explored. The limited assessment of sexual identity, based on a single question at a fixed time period, also prohibited consideration of the long-term stability of sexual identities and exploration of different stages of identity development over time, factors that have been shown to impact mental health and suicidal risk (D'Augelli et al., 2001; Pachankis, 2018). Third, while the current study had a robust sample, the study includes a predominately female sample and significantly more females identified as a sexual minority. In addition, the low numbers of gender minority youth prohibited analyses related to the intersection of sexual and gender minority status. Further, the small sample size limited our ability to explore any differences in STBs among bisexual and monosexual sexual minority participants. Given the differences displayed in previous research (Saewyc et al., 2007) this is an important facet for future studies to explore. Finally, it is possible that unmeasured variables, particularly identity-related stressors and protective factors, might account for the relation between sexual minority status and mental health. Such work is needed in future studies to better understand concomitants from risk factors for poor mental health outcomes.

5.0 Conclusion

Trends indicating more severe mental health concerns among sexual minority youth are particularly important to highlight in JJS settings given the overrepresentation of sexual minority identities among JIY (Hunt & Moodie-Mills, 2012; Irvine, 2010; Majd et al., 2009). These findings emphasize the need for suicidality and NSSI screening beyond general mental health screening for diversion to treatment in the JJS. These results also call for more attention to developing individualized care for sexual minority youth in these unique settings. It may be appropriate for youth in JJS to be sensitively asked about their sexual identity in a way that is open and nonjudgmental or offer opportunities for self-disclosure, given the importance of sexual minority identity as a risk factor for STB and mental health symptoms. Understanding this part of a youth's identity may be critical to connecting youth to appropriate supports and mental health services.

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- Sexual minority youth in the juvenile justice system (JJS) report significantly higher scores on many mental health symptoms (e.g., depression/ anxiety) compared to their heterosexual counterparts.
- JJS involved sexual minority youth report significantly higher rates of lifetime, past year, and past month non-suicidal self-injury compared to JJS involved heterosexual youth.
- Sexual minority youth in the JJS report significantly higher rates of lifetime suicide attempts and were more likely to make multiple attempts compared to heterosexual youth in the JJS.

Table 1.

Demographics

Variable	**Total Sample (*N* = 218)**	**Heterosexual (*n* = 160)**	**Sexual Minority (*n* = 58)**	χ^2	***p*-value**
Sex				12.933	**<.001**
Male	81 (37.2%)	71 (44.4%)	10 (17.2%)		
Female	136 (62.4%)	89 (55.6%)	47 (81.0%)		
Gender Identity					
Male	81 (37.2%)	71 (44.4%)	10 (17.2%)		
Female	132 (60.6%)	89 (55.6%)	43 (74.1%)		
Transgender	2 (0.9%)	0 (0%)	2 (3.4%)		
Genderqueer/ Gender non-conforming	2 (0.9%)	0 (0%)	2 (3.4%)		
Race				3.711	.054
White Non-Latinx	68 (31.2%)	44 (27.5%)	24 (41.4%)		
Racial/Ethnic Minority	149 (68.3%)	115 (71.9%)	34 (58.6%)		
Initial Charge					
Status	94 (43.1%)	70 (43.8%)	24 (41.4%)	0.098	.755
Non-Status	124 (56.9%)	90 (56.3%)	34 (58.6%)		
Mean Age (*SD*)	15.08 (1.42)	15.10 (1.44)	15.02 (1.36)	0.374	.709

Notes: Bolded values indicate significant differences between sexual minority and heterosexual youth. Chi-square tests were not included for variables with cells containing less than 5 participants. Percentages may not sum to 100 as some youth did not respond to all demographic questions.

Table 2.

MAYSI-2 subscales clinical cutoff range

Variable	Total Sample	Heterosexual	Sexual Minority	χ^2	*p*-value	Cramer's V
Alcohol/Drug Use						
No flag/caution	214 (98.6%)	160 (100.0%)	54 (94.7%)			
Warning	3 (1.4%)	0 (0.0%)	3 (5.3%)			
Angry-Irritable				0.024	.876	.01
No flag/caution	167 (76.6%)	123 (76.9%)	44 (75.9%)			
Warning	51 (23.4%)	37 (23.1%)	14 (24.1%)			
Depressed-Anxious				5.831	**.016**	.16
No flag/caution	158 (72.5%)	123 (76.9%)	35 (60.3%)			
Warning	60 (27.5%)	37 (23.1%)	23 (39.7%)			
Somatic Complaints				5.546	**.019**	.16
No flag/caution	164 (75.2%)	127 (79.4%)	37 (63.8%)			
Warning	54 (24.8%)	33 (20.6%)	21 (36.2%)			
Suicide Ideation				7.401	**.007**	.19
No flag	147 (67.7%)	116 (73.0%)	31 (53.4%)			
Caution/Warning	70 (32.3%)	43 (27.0%)	27 (46.6%)			
Thought Disturbance				6.326	**.012**	.17
No flag	106 (48.6%)	86 (53.8%)	20 (34.5%)			
Caution/Warning	112 (51.4%)	74 (46.3%)	38 (65.5%)			

Notes: One heterosexual youth did not respond to the Suicidal Ideations subscale questions and one sexual minority youth did not respond to the Alcohol/Drug Use subscale questions and are excluded from the respective subscale analysis. Bolded values indicate significant differences between sexual minority and heterosexual youth. Chi-square tests were not included for variables with cells containing less than 5 participants. With 1 degree of freedom, Cramer's V effect sizes for this table indicate a small association.

Table 3.

MAYSI-2 subscales means and standard deviation

Variable	Total Sample	Heterosexual	Sexual Minority	*t*	*p*-value	*η2*
Alcohol/Drug Use	0.90 (1.56)	0.81 (1.48)	1.16 (1.78)	−1.434	.153	.01
Angry-Irritable	5.19 (2.66)	5.08 (2.70)	5.50 (2.53)	−1.028	.305	.01
Depressed-Anxious	3.77 (2.49)	3.41 (2.38)	4.78 (2.55)	−3.687	**<.001**	.06
Somatic Complaints	3.76 (1.96)	3.50 (1.99)	4.48 (1.71)	−3.586	**<.001**	.05
Suicide Ideation	1.27 (1.77)	1.03 (1.64)	1.93 (1.95)	−3.148	**.002**	.05
Thought Disturbance	0.93 (1.20)	0.78 (1.06)	1.36 (1.46)	−2.808	**.006**	.05
Traumatic Experiences	2.09 (1.59)	1.86 (1.50)	2.72 (1.66)	−3.635	**<.001**	.06

Notes: One heterosexual youth did not respond to the Suicidal Ideations subscale questions and one sexual minority youth did not respond to the Alcohol/Drug Use subscale questions and are excluded from the respective subscale analysis. Bolded values indicate significant differences between sexual-minority and heterosexual youth. All eta squared values are in the small to medium effect size range.

Table 4.

Non-suicidal self-injury

Variable	Total Sample	Heterosexual	Sexual Minority	χ^2	*p*-value	Cramer's V
Prior NSSI				11.654	**<.001**	.23
No	134 (61.8%)	109 (68.6%)	25 (43.1%)			
Yes	83 (38.2%)	50 (21.4%)	33 (56.9%)			
Frequency of lifetime NSSI				17.088	**<.001**	.28
0 times	134 (61.8%)	109_a (68.6%)	25_b (43.1%)			
1-4 times	42 (19.4%)	30_a (18.9%)	12_a (20.7%)			
5 or more times	41 (18.9%)	20_a (12.6%)		21_b (36.2%)		
Frequency of NSSI: Past Year				12.328	**<.001**	.24
0 times	164 (75.6%)	130 (81.8%)	34 (58.6%)			
1 or more times	53 (24.4%)	29 (18.2%)	24 (41.4%)			
Frequency of NSSF Past month				5.428	**.020**	.16
None	199 (91.7%)	150 (94.3%)	49 (84.5%)			
1 or more	18 (8.3%)	9 (5.7%)	9 (15.5%)			
				t	***p*-value**	***η2***
Mean age at first time engaging in NSSI (SD)	12.88 (2.04)	13.06 (2.20)	12.61 (1.77)	0.993	.324	.01
Mean age at most recent NSSI engagement	14.57 (1.56)	14.62 (1.64)	14.50 (1.44)	0.339	.736	<.01

Notes: NSSI = non-suicidal self-injury. One heterosexual youth did not respond to the prior NSSI is excluded from the results in this chart. Bolded values indicate significant differences between sexual-minority and heterosexual youth. Values that do not share any common subscripts across rows are significantly different at the .05 level. All eta squared values represent a small effect size. For Cramer's V, with 2 degrees of freedom, the frequency of lifetime NSSI represents a medium effect size, the rest of the variables, with 1 degree of freedom, represent a small effect size.

Table 5.

Suicide attempts

Variable	Total Sample	Heterosexual	Sexual Minority	χ^2	*p*-value	Cramer's V
Prior suicide attempt				8.536	**.003**	.20
No	181 (83.0%)	140 (87.5%)	41 (70.7%)			
Yes	37 (17.0%)	20 (12.5%)	17 (29.3%)			
Number of lifetime suicide attempts				10.900	**.004**	.22
0 attempts	181 (83.0%)	140_a (87.5%)	41_b (70.7%)			
1 attempt	13 (6.0%)	9_a (5.6%)	4_a (6.9%)			
2 or more attempts	24 (11.0%)	11_a (6.9%)	13_b (22.4%)			
Number of suicide attempts in the past year				5.255	**.022**	.16
0 attempts	197 (90.4%)	149 (93.1%)	48 (82.8%)			
1 or more attempts	21 (9.6%)	11 (6.9%)	10 (17.2%)			
Days since last suicide attempt				0.466	.495	.11
90 days or less	11 (29.7%)	5 (25.0%)	6 (35.3%)			
Greater than 90 days	26 (70.3%)	15 (75.0%)	11 (64.7%)			
				t	***p*-value**	$\eta 2$
Mean age at first suicide attempt (SD)	12.95 (2.00)	13.00 (2.03)	12.88	.176 (2.03)	.861	<01

Notes: Means that do not share any common subscripts across rows are significantly different at the .05 level. Bolded values indicate significant differences between sexual-minority and heterosexual youth. For Cramer's V, with 2 degrees of freedom, the number of lifetime suicide attempts represents a medium effect size, the rest of the variables, with 1 degree of freedom, represent a small effect size.

Table 6:

Suicide attempt *methods* and *reasons* for most recent attempt.

	Total of those who attempted suicide	**Heterosexual**	**Sexual Minority**
Method			
Ingestion	13 (35.1%)	8 (40%)	5 (29.4%)
Sharp Objects	9 (24.3%)	4 (20%)	5 (29.4%)
Other	6 (16.2%)	4 (20%)	2 (11.8%)
Methods from Multiple Categories	9 (24.3%)	4 (20%)	5 (29.4%)
Reasons			
Job loss, job stress, academic failure	7 (18.9%)	3 (15%)	4 (23.5%)
Dispute with family or friend	21 (56.8%)	11 (55.0%)	10 (58.8%)
Dispute with lover	5 (13.5%)	2 (10.0%)	3 (17.6%)
Death of another person	3 (8.1%)	1 (5.0%)	2 (11.8%)
Psychiatric symptoms	6 (16.2%)	4 (20.0%)	2 (11.8%)
Humiliating event	2 (5.4%)	2 (10.0%)	0 (0.0%)
Other	13 (35.1%)	8 (40%)	5 (29.5%)

Note: Percents total above 100% due to youth being able to select multiple reasons for the attempt.