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## Suicide Screening Among Youth at First Court Contact

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### Abstract

Youth involved in the juvenile justice system are at elevated risk for suicide and co-occurring mental health symptoms. This study aims to examine the suicide risk and treatment needs of court-involved, non-incarcerated (CINI) youth, and to understand the acceptability and effectiveness of implementing a mental health screening procedure at time of first court contact. By embedding a forensic mental health screening tool into the intake process of a family court diversionary program, a total of 891 youth (aged 12–18) were assessed using the Massachusetts Youth Screening Instrument-2 (MAYSI-2). Analysis of screening responses revealed 12.5% of youth indicated risk for suicide with risk levels differentiated by youth sex, race and ethnicity. Suicide ideation was also significantly associated with flagging, an indication of clinical risk, on all other scales of the MAYSI-2, as well as subsequent referrals to treatment. Screening for suicide at first point of court contact within an existing diversionary program may serve as a critical and effective point of intervention for youth in need.

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Suicide is the second leading cause of death among adolescents 12 to 18 years of age (Centers for Disease Control and Prevention, 2014). Youth Risk Behavior Surveillance System data revealed 17.2% of high school youth seriously considered suicide and 7.4% report a suicide attempt in the past year (Kann et al., 2017). Suicide and suicidal behaviors are even more common among juvenile justice-involved youth (Gray et al., 2002; Hayes, 2009). A recent review (Stokes, McCoy, Abram, Byck, & Teplin, 2015) examined the varying rates of suicide ideation and behavior across points of contact within the juvenile

justice system and revealed consistently high rates of lifetime suicide ideation (SI) ranging from 13.9% to 36.4% (Abrantes, Hoffman, & Anton, 2005; Archer et al., 2004; Bhatta, Jefferis, Kavadas, Alemagno, & Shaffer-King, 2014; Rohde et al., 1997). Similarly, high rates of lifetime suicide attempts (11% to 26.8%) were recorded among youth assessed across intake to detention (Abram, Choe, Washburn, Teplin, King, & Dulcan, 2008; Abrantes et al., 2005), highlighting the importance of screening for suicide.

Youth involved in the juvenile justice system have a greater burden of risk factors associated with SI and suicidal behaviors. More than two-thirds of justice-involved youth are diagnosed with a psychiatric and/or substance use disorder, compared to 20% of youth in the general population (Teplin, Abram, McClelland, Dulcan, & Mericle, 2002; Wasserman et al., 2002). Among this group, depression is the most common predictor of suicide risk (Abram et al., 2008; Battle et al., 1993; Bhatta et al., 2014; Stokes et al., 2015) and concerning, 17% of males and 26% of females report symptoms consistent with criteria for a major depressive disorder (MDD) or dysthymia compared to 10% of youth in the general population (Teplin et al., 2002). Additional internalizing (e.g., anxiety) and externalizing (e.g., oppositional defiant and conduct disorder) psychiatric disorders have also been associated with suicide risk, all of which occur at higher rates among detained youth (Abram et al., 2008; Teplin et al., 2002). Substance use, substance use disorders (Battle et al., 1993; Bhatta et al., 2014; Chapman & Ford, 2008; Nolen et al., 2008), and trauma exposure (King et al., 2011; Dierkhising, Ko, & Goldman, 2013) are also found at higher rates among juvenile justice youth and associated with increased suicide risk. Nolen et al. (2008) found that among youth at probation intake, those that reported previous suicide attempts were “more likely to meet criteria for at least one diagnosis and more likely to meet criteria for at least one disorder in each category (i.e., Mood, Substance Use, Anxiety, and Disruptive Behavior)” (p. 118). Recidivism has also been linked with a history of suicide. One study showed that repeat offenders were 3 times more likely to report past suicide attempts (Wasserman, McReynolds, Schwalbe, Keating, & Jones, 2010).

In direct response to the increased rate of suicide ideation/attempts as well as mental health diagnoses, many juvenile detention centers have instituted evidence-based routine screening (Grisso, Barnum, Fletcher, Cauffman, & Peuschold, 2001). Yet, the majority of youth within the juvenile justice system are not detained or incarcerated (Hockenberry & Puzanchera, 2014), and routine screening procedures are not well established in juvenile justice settings outside of detention facilities (Nolen et al., 2008). While in the community, court-involved, non-incarcerated (CINI) youth, defined as pre-adjudication diverted youth and post-adjudication youth on probation or parole, are not routinely screened for suicide ideation or the associated risk factors. The limited available data with CINI youth found lifetime suicidal ideation/suicide attempt rates to be slightly lower (13%–14%; Kemp et al., 2016; Kemp et al., under review; Wasserman & McReynolds, 2006), but comparable to those found in detainee samples. However, these youth often lack access to immediate mental health and medical resources (Skowrya & Coccozza, 2007) that are more readily available in detention facilities (Grisso et al., 2001). There should be increased concern for the risk of suicide and suicidal behaviors among CINI youth considering their rates of suicide attempts and associated psychiatric diagnoses are comparable to youth that are detained or incarcerated. Given that further justice system penetration is also associated with

increased suicide risk (Wasserman et al., 2010), it is important to intervene with CINI youth and their families as early as possible in the juvenile justice process.

Suicide risk among CINI youth is a public health concern that requires, at a minimum, the collaboration of mental health and juvenile justice systems to implement routine front-line staff training and suicide screening policies that meet the needs of these youth at their earliest point of court contact. In efforts to stymie suicide trends among juvenile justice populations, the National Action Alliance for Suicide Prevention [NAASP] has recommended that all youth who are arrested or detained receive screening for suicidal ideation (NAASP: Youth in Contact with the Juvenile Justice System Task Force, 2013). Yet, there are specific issues that need to be addressed in order to appropriately implement effective suicide screening and intervention for CINI youth. For example, few suicide risk screening tools have been validated with juvenile justice youth, and there is a lack of uniformity and established procedures that would represent best practice for administration of suicide screenings in juvenile justice settings (Stokes et al., 2015). In addition, Stokes et al. (2015) identifies some prevention interventions that have been used in juvenile justice settings, but mentions that the success of these interventions with juvenile justice populations has yet to be empirically tested. Findings from one study support the feasibility of screening for suicide and other psychiatric diagnoses at youths' first point of contact with the justice system, and authors suggest that intake settings serve as valuable opportunities for suicide risk screening (Nolen et al., 2008). Screening for suicide at the earliest point of contact with the juvenile justice system helps to ensure timely and comprehensive intervention with those youth with the greatest burden of mental health risk factors. Most importantly, early identification of suicide risk and mental health needs could help to prevent premature deaths.

The current study uses data collected as part of a larger implementation project to embed mental health, including suicide screening, using the Massachusetts Youth Screening Inventory - 2 (MAYSI-2; Grisso et al., 2012) within a family court diversion program, primarily serving youth at the time of first ever justice contact. The MAYSI-2 is widely administered in juvenile detention facilities and, increasingly, in juvenile diversion departments to provide juvenile justice staff the opportunity to detect current feelings and behaviors that may place youth at risk for mental health difficulties, and to identify whether further forensic assessment or emergency intervention is necessary. Embedding mental health and suicide screening presents a valuable opportunity to intervene with CINI youth. The current study aims to fill gaps in the literature by examining not only the characteristics and mental health needs of CINI youth who screen positive for suicide risk, but by discussing the implementation of suicide screening by juvenile justice staff of CINI youth attending their first court appointment.

## Participants

Data were obtained between January 2017 and February 2018, from youth (N=891) attending their first appointment at a family court diversionary program for youth with a first-time or a repeat status offense in the Northeast. The sample includes youth, ranging from ages 12–18, who were charged either with status offenses (e.g., truancy, curfew

violations, alcohol consumption) or delinquent offenses (e.g., simple assault, destruction of property, vandalism). Demographic characteristics of youth include a mean age of 15.13 ( $SD=1.52$ ) years and 62.2% were male. The distribution of self-identified race/ethnicity was 40.9% White, 25.7% Latinx, 15.2% Black, 13.6% Multi-Racial, and 4.5% identifying as Other. Overall, 12.7% ( $n=112$ ) of youth endorsed suicide ideation *within the past few months* either in the caution (3.3%) or warning (9.4%) range on the MAYSI suicide ideation (SI) scale.

## Study Design and Procedures

A Northeast family court juvenile diversion department implemented evidence-based mental health and substance use screening (specifically, the MAYSI-2) as a standard component of their diversionary intake proceedings (i.e., diverted from formal court hearings and adjudication). The jurisdiction of family court includes matters relating to delinquent and wayward children. Youth completed the paper and pencil measures in a quiet, private space separate from their legal guardians who attended the court appointment with the youth. When English was not the first language of the youth, the measures were provided in the standardized Spanish version. Intake workers immediately hand-scored the measures. In cases where youth indicated elevated levels of risk, intake workers completed a secondary-screen and/or contacted a member of the family court's mental health clinic. Mental health screen data were used to assist with decision-making related to treatment needs and options. Data were examined as part of a chart review study approved by the primary author's university institutional review board.

## Measures

### Demographics.

Adolescents reported demographic information (e.g. race/ethnicity, age).

### Massachusetts Youth Screening Instrument—Second Version (MAYSI-2; Grisso and Barnum 2006).

The MAYSI-2 is a 52 item self-report inventory meant to serve as a mental health screening tool administered by juvenile justice personnel. Instructions ask youth to “answer whether that question has been true for you IN THE PAST FEW MONTHS.” The measure contains seven subscales: Alcohol/Drug Use, Angry-Irritable, Depressed-Anxious, Somatic Complaints, Suicide Ideation, Thought Disturbance, and Traumatic Experiences. The thought disturbance scale was scored only for males consistent with scoring manual, and the traumatic experiences scale also has sex-specific questions (e.g., a sexual assault question specifically for females). The scores are calculated by adding up the “yes” responses on each scale. Each MAYSI-2 scale, except Traumatic Experiences, has a caution cutoff score, which is a level considered to meet “possible clinical significance,” or score high enough to be in likely need of clinical attention, and a warning cutoff score when youth score exceptionally high and are most in need of clinical services (Grisso et al., 2001).

A scoring protocol was developed as a guideline for juvenile intake workers to respond when scores fell in the caution or warning range. For the Suicide Ideation scale specifically,

any youth who fell in the caution (i.e., endorsed 2 items) or warning (i.e., endorsed 3 or more items) range was either administered standardized “secondary screener” questions (provided by MAYSI-2 developers) or the intake worker contacted the on-call family court mental health clinic staff to assess the youth for imminent safety issues and need for immediate treatment services. If the “secondary screener” denoted concern for imminent self-harm, court mental health clinic staff was immediately contacted for further follow-up assessment with the youth and determination of need for emergency psychiatric hospitalization. For all other mental health needs as determined by scores on other MAYSI subscales, the juvenile intake worker exercised final discretion on referral determination (i.e., whether a new community-based referral was made, current treatment services were continued, or no treatment referral was made).

### **Treatment Referral.**

Youth were categorized into three groups: 1) those not referred for services; 2) those referred (regardless of treatment status), and 3) youth already engaged in treatment and not given an additional referral.

### **Type of Referral.**

Intake workers charted whether they referred to mental health, alcohol and drug, or co-occurring disorder services.

## **Data Analysis Plan**

Demographic and descriptive statistics on the outcome variables were calculated and presented for the entire sample and by caution and warning ranges (See Table 1). Descriptive data is provided on all ethnicities/races, however, to examine potential racial and ethnic disparities in referral practices, primary analyses compared referral rates of self-identified racial and ethnic minority youth to White youth. Similarly, because we were interested in predictors of referral to treatment, any analyses examining referral did not include those participants who were identified as already receiving treatment. A series of logistic regression analyses were conducted to determine associations between scoring in either the caution or warning range of the suicide ideation domain of the MAYSI-2 domain and 1) rate of flagging on the other MAYSI-2 scales and 2) rates of treatment referral.

## **Results**

### **Demographics**

Overall, 12.7% (N=112) of youth endorsed suicide ideation *within the past few months* either in the caution (3.3%) or warning (9.4%) range on the MAYSI suicide ideation (SI) scale. Of those who flagged, 71.4% ( $n = 80$ ) were female and 43.1% identified as White ( $n = 47$ ), 22% as Latinx ( $n = 24$ ), 16.5% as Black ( $n = 18$ ), 15.6% as Multi-racial ( $n = 17$ ) and 2.8% as other ( $n = 3$ ). Logistic regression was conducted to determine whether sex, race/ethnicity, or their interaction were associated with flagging on the suicide ideation scale. Overall the model was significant  $\chi^2 = 57.44$ ,  $df = 3$ ,  $p < 0001$ , Nagelkerke's  $R^2 = .122$ . Prediction success of the full model was 87.3%. The Wald criterion demonstrated that

sex was a significant predictor of flagging on the SI scale. Females had 4.90 greater odds of flagging on the SI scale compared to males ( $p < .0001$ ; CI = 2.57, 9.36). Race/ethnicity, and the interaction of sex and race/ethnicity were not significant predictors of flagging on the SI scale. (See Table 2).

### Association of flagging on the suicide ideation domain with other mental health symptoms

A series of logistic regression analyses were conducted to examine associations between scoring in the caution or warning range of the SI domain of the MAYSI-2 and rates of flagging on the other MAYSI-2 scales when controlling for sex and race/ethnicity (Table 2). Youth who flagged on the SI scale were more likely to flag on the Alcohol/Drug (OR = 7.09,  $p = .000$ , CI = 3.52–14.29), Anger/Irritability (OR = 6.69,  $p = .000$ , CI = 4.12–10.84), Somatic Complaints (OR=3.82,  $p = .000$ , CI = 2.37–6.16), Thought Disorder (boys only; OR = 7.07,  $p = .000$ , CI = 3.22–15.50), Trauma (OR = 3.62,  $p = .000$ , CI = 2.18–5.99), and the Depression/Anxiety (OR = 20.59,  $p = .000$ , CI = 11.43–37.09) subscales of the MAYSI-2.

### Suicide Ideation and Referral Status

Of the 112 youth who flagged on the SI domain of the MAYSI-2, 111 had complete data on treatment referral disposition. Approximately 45.9% ( $n = 51$ ) were referred to treatment, 45% ( $n = 50$ ) were already receiving treatment and did not receive any additional referral, and 9% ( $n = 10$ ) were not referred. Of the 51 youth that were referred, 86.3% ( $n = 44$ ) were referred to mental health services, 9.8% ( $n = 5$ ) were referred to a drug and alcohol program, and 3.9% ( $n=2$ ) were referred to a co-occurring disorders program. Controlling for sex, race/ethnicity, and flagging on multiple scales, those who flagged on SI had 5 times greater odds of being referred compared to those who did not flag on the SI scale ( $p = .000$ ; CI = 2.37–10.53).

## Discussion

In a family court setting with diverted youth living in the community, mental health screening capturing suicide risk presents an opportunity to address a significant public health issue. Almost thirteen percent of CINI youth reported recent (i.e., past few months) suicidal ideation at the point of first court contact. This rate is comparable to the general population of adolescents who seriously consider suicide *in the past year*. Ultimately, embedding suicide screening during the youth's initial appointment was integrated into daily operations. Current experiences suggest implementation of a mental health screening tool with suicide specific items in a family court setting requires careful consideration of several factors to enhance system success.

Consistent with previous adolescent suicide research, the rate of recent suicide ideation among CINI females was higher than males. There were no differences in suicide ideation by race or ethnicity among all diverted CINI youth or when considering males and boys separately. Prior research studies (Kann et al., 2017; Stokes et al. 2015) found varied results in the relationship between race/ethnicity, sex, and suicide ideation but have generally found increased suicide ideation rates among White and Latinx youth and, particularly, White and

Latinx female youth. Yet, among this sample of CINI youth, there were no interactions between race, ethnicity, or sex in rates of suicide ideation.

Prior suicide research has focused primarily on youth in the general population (Kann et al., 2017) and detention (26 out of 33 samples assessed were juveniles detained or entering detention; Stokes et al., 2015) – it is possible that juveniles first coming into contact with the justice system have different mental health needs than youth with deeper involvement. An alternative, or concurrent, explanation may be that the less explicit nature of some items in the MAYSI-2 makes it a more effective tool for identifying youth at risk for suicide who are culturally unlikely to state an explicit desire to commit suicide. For example, the MAYSI-2 asks “Have you ever felt like life was not worth living?” versus “Have you ever had thoughts of wanting to kill yourself?”, an item on the Self-injurious thoughts and behavior questionnaire (Nock, M. K., Holmberg, E. B., Photos, V. I., & Michel, B. D., 2007). This explanation fits well with findings from Abram, et al. (2008) showing that while Black, Latinx, and White youth endorsed implicit suicide ideations at comparable levels, Black females and Black and Latinx males were significantly less likely to endorse any kind of explicit suicide ideation or action.

Another potential explanation looks to evolving trends. Nationwide suicide rates have increased significantly among African-American adolescents (13–19 y/o) in recent years; specifically, suicide rates increased by 60% for males and 182% for females from 2001 to 2017 (Price & Khubchandani, 2019). Our observation of comparable rates of suicide ideation and attempts across racial and ethnic groups may be reflective of this larger trend.

Regarding the remaining MAYSI-2 subscales, youth endorsing suicide ideation were also more likely to be in the caution or warning range in all other clinical areas. Known risk factors for suicide include substance use, depression and trauma (Teplin et al., 2002; Adams, et al, 2002; Bhatta et al, 2014); therefore, it is perhaps unsurprising that youth who reported suicide ideation are also more likely to flag on these other MAYSI-2 scales compared to other diverted CINI youth. It is concerning that these youth who have multiple risk factors for suicide have not historically been screened at the point of initial contact with the court system and about half were not currently engaged with a treatment provider. The current study suggests that the implementation of mental health and suicide screening at this early point of first-ever court contact could identify youth in need in the community whose might otherwise be missed.

Notably, greater than eighty percent of diverted youth who reported suicide ideation also fell in the caution or warning range on anger and irritability. With prior research linking suicide and aggressive behavior among youth (Cairns, Peterson & Neckerman, 1988; Plutchik and van Praag, 1997; Wasserman et al., 2006), it may not be surprising that the emotional states of anger and irritability are also more prevalent in CINI youth who reported suicide ideation. However, the mechanism connecting suicide and aggression towards others is still not clear. Given the connection between suicide and aggression, and the connection between aggression/externalizing behaviors and deeper involvement in the justice system, further evaluation of this connection is critical to understanding how best to intervene with CINI youth.

Successful implementation of suicide risk screening in a family court requires careful consideration of issues specific to this setting. First, front-line court staff from a range of educational backgrounds require training to appropriately administer and score the standardized and to understand the relevance of suicide risk and treatment referrals. Systems may need increased buy-in from staff without prior mental health training as to the importance of screening and necessity of standardized, uniform administration across all youth. Second, screening tools, such as the MAYSI-2, identify youth who endorse recent suicide ideation but who may not meet current hospital level of care criteria. To decrease the family and system burden of costly emergency room visits when hospitalization is not likely or needed, a secondary more in-depth suicide risk assessment is needed. Yet, family courts do not routinely employ licensed mental health clinicians available for a more thorough suicide assessment. Prior to implementing mental health and suicide screening, a partnership between community-based mental health and juvenile justice agencies can identify resources for further assessment of imminent safety concerns (e.g., mobile crisis team, court mental health clinic, or urgent care center with same day appointments) when youth endorse suicide ideation. Having these resources identified a priori could reduce staff anxiety about how to proceed after a youth reports suicide ideation and support a seamless transition for CINI youth and their family from the court to community-based services.

Third, screening provides an opportunity to link youth and their family to outpatient care, which will often be the youth's first referral to a mental health professional and will help reduce future suicide risk. Unlike most detained youth who endorse suicidal thoughts, diverted youth living in the community rarely have immediate access to community-based mental health providers. In the current sample, one-quarter of all diverted youth were engaged in treatment at the time of their initial court appointment and half of youth who endorsed recent suicide ideation were in treatment. The previously mentioned collaboration between mental health and juvenile justice agencies will provide guidelines for a clear referral process to one or more community-based providers when youth do not require hospital level of care. Ideally, this referral process will enable the family to leave the court with an appointment in-hand and reduce barriers to receiving care. These partnerships are especially important in successfully linking youth to treatment given the low rates of treatment engagement among first-time offending court-involved youth (Burke, Mulvey, Shubert, 2015).

Finally, prior to implementation, careful consideration must also be given to how information gathered during mental health and suicide screening will be protected in juvenile justice settings. Court diversionary programs, for example, may wish to discuss how long raw and/or summary data related to mental health and suicide screenings will be maintained in a court file, if at all. Juvenile records are protected from public view, but special circumstances including military and federal employment allow juvenile records to be potentially reviewed several years later. Therefore, with the stigma of suicide risk and/or mental health symptoms, family courts may be understandably concerned about the potential impact of a point-in-time screening influencing future employment opportunities. Implementation of mental health and suicide screening in novel settings unveil new challenges to address but these challenges can be overcome through thoughtful collaboration and partnership.



## Limitations

The current study faces some limitations. First, the point-in-time perspective that this screening provides does not allow us to draw conclusions about how youths' needs evolve or are fulfilled throughout their interaction with the justice system. There is currently little data on justice-involved youth outside of detention. Longitudinal research with youth in diversionary programs is needed to understand the significance of this specific intercept in the trajectory of adolescents' mental health.

Second, little is known about how effective treatment referrals are in facilitating engagement with services or in improving mental health outcomes including reductions in suicide ideation and behaviors at this intercept. We suggest investigation of the impact on treatment referrals and engagement as next steps. Critical outcomes such as future suicide attempts and hospitalizations should also be specifically considered to better illuminate the importance of treatment referrals within the context of diversionary programs.

## Conclusion

Court and probation diversion/intake centers present a public health opportunity to conduct standardized mental health and suicide screening with a population of youth who have elevated rates of suicide ideation relative to youth who are not in court contact. Furthermore, the combination of suicide ideation and higher rates of mental health symptoms illustrate a particularly concerning picture of risk. Yet, suicide screening alone is not enough. It is essential that mental health and juvenile justice partnerships develop to link these vulnerable youths and their families to needed treatment.

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**Table 1.**

Demographic and Descriptive Data for outcome variables by SI clinical range

Demographics/Outcome Variables	Total Sample N=891		SI No Flag N=770		SI Flag N=112	
	N	Mean (SD)/%	N	Mean (SD)/%	N	Mean (SD)/%
Age	891	15.13 (1.51)	770	15.15 (1.52)	112	15.07 (1.44)
Sex	890		769		112	
<i>Male</i>	554	62.2%	518	67.4%	32	28.6%
<i>Female</i>	336	37.8%	251	32.6%	80	71.4%
Race/Ethnicity	867		749		109	
<i>White</i>	355	40.9%	306	40.9%	47	43.1%
<i>Black</i>	132	15.2%	113	15.1%	18	16.5%
<i>Latinx</i>	223	25.7%	195	26.0%	24	22.0%
<i>Multi-Racial</i>	118	13.6%	100	13.4%	17	15.6%
<i>Other</i>	39	04.5%	35	04.7%	3	02.8%
Referral	876		756		111	
<i>No referral</i>	407	46.5%	393	52.0%	10	09.0%
<i>In treatment</i>	229	26.1%	178	23.5%	50	45.0%
<i>Referral</i>	240	27.4%	185	24.5%	51	45.9%
Referral Type	874		755		110	
<i>No referral</i>	635	72.7%	571	75.6%	59	53.6%
<i>Mental Health</i>	190	21.7%	142	18.8%	44	40.0%
<i>Drug/Alc</i>	41	4.7%	36	04.8%	5	04.5%
<i>Co-occurring</i>	8	0.9%	6	0.80%	2	01.8%
<b>MAYSI-2</b>						
Alcohol and Drugs	878		764		111	
<i>Caution</i>	31	3.5%	18	02.4%	13	11.7%
<i>Warning</i>	16	1.8%	9	01.2%	7	06.3%
Anger/Irritability	887		770		112	
<i>Caution</i>	236	26.6%	183	23.8%	51	45.5%
<i>Warning</i>	71	8%	35	04.5%	34	30.4%
Depression/Anxiety	885		769		112	
<i>Caution</i>	195	22.0%	134	17.4%	59	52.7%
<i>Warning</i>	63	7.1%	26	03.4%	37	33.0%
Somatic complaints	884		768		112	
<i>Caution</i>	333	37.7%	271	35.3%	61	54.5%
<i>Warning</i>	54	6.1%	29	03.8%	25	22.3%
Suicidal ideation	882		770		112	
<i>Caution</i>	29	3.3%	-	-	29	25.9%
<i>Warning</i>	83	9.4%	-	-	83	74.1%
Thought Disturbance (boys only)	544		514		30	
<i>Caution</i>	80	14.7%	74	14.4%	6	20.0%
<i>Warning</i>	36	6.6%	24	04.7%	12	40.0%

Demographics/Outcome Variables	Total Sample N=891		SI No Flag N=770		SI Flag N=112	
	N	Mean (SD)/%	N	Mean (SD)/%	N	Mean (SD)/%
Traumatic Experience	880		763		112	
<i>Flag</i>	511	58.1%	417	54.7%	90	80.4%

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**Table 2.**

Logistic regression models examining demographics and SI screening associations of other MAYSI-2 subscale flagging.

<b>Demographics Associated with Flagging on the SI scale</b>					
<i>Variable</i>	<i>B</i>	<i>OR</i>	<b>95% CI</b>		<i>p</i>
			<b>Lower</b>	<b>Upper</b>	
Sex <sup>†</sup>	1.59	4.90	2.57	9.36	0.000***
Race/Ethnicity*	-0.33	0.72	0.35	1.47	0.367
Sex*Race/Ethnicity	0.06	1.06	0.44	2.59	0.893
<b>MAYSI Subscale Models</b>					
<i>Alcohol and Drug Use Scale</i>					
<i>Variable</i>	<i>B</i>	<i>OR</i>	<b>95% CI</b>		<i>p</i>
			<b>Lower</b>	<b>Upper</b>	
Sex <sup>†</sup>	-0.36	0.69	0.34	1.40	0.308
Race/Ethnicity *	-0.71	0.49	0.26	0.93	0.028
Suicide Ideation	1.96	7.09	3.52	14.29	0.000***
<i>Anger and Irritability Scale</i>					
Sex <sup>†</sup>	0.70	2.01	1.47	2.75	0.000***
Race/Ethnicity *	0.39	1.48	1.08	2.03	0.015*
Suicide Ideation	1.90	6.69	4.12	10.84	0.000***
<i>Anxiety and Depression Scale</i>					
Sex <sup>†</sup>	0.81	2.26	1.60	3.19	0.000***
Race/Ethnicity *	0.48	1.62	1.12	2.32	0.010**
Suicide Ideation	3.03	20.59	11.43	37.09	0.000***
<i>Somatic Complaints Scale</i>					
Sex <sup>†</sup>	0.72	2.06	1.53	2.78	0.000***
Race/Ethnicity *	-0.22	0.81	0.60	1.08	0.144
Suicide Ideation	1.34	3.82	2.37	6.16	0.000***
<i>Thought Disorder Scale (boys only)</i>					
Sex <sup>†</sup>	-	-	-	-	-
Race/Ethnicity *	0.80	2.23	1.42	3.52	0.001***
Suicide Ideation	1.96	7.07	3.22	15.50	0.000***
<i>Trauma Experience Scale</i>					
Sex <sup>†</sup>	-0.29	0.75	0.56	1.01	0.060
Race/Ethnicity *	-0.01	0.99	0.74	1.31	0.919
Suicide Ideation	1.29	3.62	2.18	5.99	0.000***
<b>Treatment Referral Model</b>					

Sex <sup>†</sup>	0.77	2.17	1.42	3.32	0.000**
Race/Ethnicity*	-0.05	0.95	0.62	1.44	0.803
Flagging on Multiple Scales	0.70	2.02	1.30	3.12	0.002**
Suicide Ideation	1.61	5.00	2.37	10.53	0.000***

*Note.* *OR* = odds ratio; *CI* = confidence interval.

<sup>†</sup>Females were coded as 1.

\* Ethnic minority participants were coded as 1. Flagging on a particular scale was coded as 1 and non-flagging was coded as 0. Referral to treatment was coded as 1 and non-referral was coded as 0.

\* *p* .05;

\*\* *p* .01;

\*\*\* *p* .001.