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## Suicidal Behavior in Children and Adolescents: Introduction to Themed Section of RIMJ

ANNE S. WALTERS, PhD; JENNIFER C. WOLFF, PhD  
GUEST EDITORS

One in five. This is an oft-quoted statistic for healthcare professionals working with children and families and refers to the number of children and adolescents with a diagnosable psychiatric disorder. For these five children in every classroom, or the 20 out of 100 students on the playground at recess, access to mental health treatment is challenging during the best of circumstances. During the past two years, stressors related to the pandemic have led to a sharp increase in anxiety and depression in our youth. Rates of suicidal thinking and behavior in emergency departments (EDs) have increased by 25% or more,<sup>1</sup> and rates of children and adolescents “boarding” in the ED while waiting to gain access to a mental health hospital bed have also increased by an estimated 25–31%.<sup>1</sup> Emergency-service utilization for suicide and self-injury has nearly doubled in the past 15 years.<sup>1</sup> This crisis among our nation’s youth has been steadily building. Last fall, the American Academy of Pediatrics (AAP), American Academy of Child and Adolescent Psychiatry (AACAP) and Children’s Hospital Association (CHA) declared a national emergency in children’s mental health, citing the serious toll of the COVID-19 pandemic and the struggle for racial justice.<sup>3</sup> In the first half of 2021, children’s hospitals reported a 45% spike in reported cases of self-injury and suicide among youth aged 5 to 17 compared to 2019, according to the CHA. The crisis is not limited to the United States; global estimates are that pediatric anxiety and depression have doubled during the past year. Further, suicidal behavior among youth of color has trended upward at greater rates than among White youth, and recent estimates among LGBTQ+ youth indicate that almost half have considered death by suicide.<sup>2</sup>

These estimates are not likely to be a surprise to those working with children and adolescents during this particularly challenging time frame. We have watched with dismay as the level of need has steadily increased to crisis proportions, after months of concern about the effects of isolation, loss, and stress on children during the pandemic. This means that physicians and other healthcare professionals must be attuned to the presence of elevated levels of distress among the youth they are working with, and points to the need for additional information about identifying suicidal thoughts and behaviors (STBs) and resources for effective treatment.

In this special edition of the *Rhode Island Medical Journal* (RIMJ), we have gathered articles from mental health

professionals sharing the results of their work with children and adolescents at risk for STBs. Authors from Brown University’s Alpert Medical School and their colleagues in other settings have contributed to this edition of RIMJ. Our hope is that these articles will draw attention to STBs in children and adolescents and strategies to help them and their families.

To start off, in the article, “A Comparison of Acute Mental Health Presentations to Emergency Services Before and During the COVID-19 Pandemic,” **MARY KATHRYN CANCELLIERE, PhD**, and **KATHLEEN DONISE, MD**, outline how the pandemic affected youth presentations to the ED’s psychiatric service and how many warranted an inpatient/acute residential admission. Their study noted an increase in acuity among patients evaluated by the emergency service, where 11% more children and 12% more adolescents met criteria for inpatient/acute residential admission from before to during the pandemic. This increase was observed despite fewer overall emergency service evaluations.

Moving on to the role of screening youth that present with STBs, in the contribution, “Single- vs. Multi-Item Assessment of Suicidal Ideation Among Adolescents,” authors **ILANA GRATCH, BA**; **KATHERINE M. TEZANOS, MS**; **SARA N. FERNADES, MA**; **KERRI-ANNE BELL, MA**; **OLIVIA H. POLLAK, BS**, and **CHRISTINE B. CHA, PhD**, point out the barriers to assessment of suicidal ideation (SI) in adolescents. They compare single- and multi-item assessments of SI and factors associated with different responses. Their work provides support for the notion that multi-item assessments provide a more accurate and nuanced picture of SI among adolescents and may be a vital component of routine screening.

Moving on to treatment considerations, “Assessing the Quality of Patient Responses to a Psychosocial Intervention Implemented on an Adolescent Psychiatric Inpatient Unit: Devising the Safety Plan Quality Metric,” authors **PAULINE H. L. BAGATELAS, MD’22, ScM’22**; **JEFFREY I. HUNT, MD**, and **JENNIFER C. WOLFF, PhD**, offer a quality assessment of the Safety Planning Intervention (SPI) that helps individuals identify what they can do to stay safe when they have suicidal thoughts. This intervention is used widely in Rhode Island for addressing suicidality in children, and their project examined whether the quality of the intervention impacted the likelihood of readmission to a psychiatric hospital.

**ELIZABETH C. THOMPSON, PhD; MARGARET NAIL, BS,** and **SHIRLEY YEN, PhD,** in their article, “Suicide Risk and Psychotic Experiences: Considerations for Safety Planning with Adolescents,” focus on discussion of individuals with psychosis-spectrum conditions who tend to have high rates of STBs. The authors provide suggestions for conducting safety planning with this difficult-to-treat population and their family members.

Consideration of cultural approaches to treatment is the focus of the article by **GISELA JIMENEZ-COLON, PhD,** and **YOVANSKA DUARTE-VELEZ, PhD.** In “Raising Children in Different Cultures: Working with Latinx Youth with Suicidal Behaviors and Their Families,” they discuss working with the families of Latinx/Hispanic youth who have a history of STB, given that suicide is the third-leading cause of death among Latinx/Hispanic youth aged 10 to 14, and the second-leading cause for those aged 15 to 24 in the United States. They present a case to illustrate the application of the Socio-Cognitive Behavioral Therapy for Suicidal Behaviors (SCBT-SB) approach with a Latinx/Hispanic family.

In “Recognizing Suicidal Risk in Very Young Children,” **ELIZABETH WAGNER, MD, MPH; ANJALI GOTTIPATY, BA; JEFFREY I. HUNT, MD,** and **JOHN R. BOEKAMP, PhD,** focus on their work with very young (e.g., preschool age) children who present with self-injurious or suicidal behavior. They outline de-identified cases of young children who were admitted to a local psychiatric hospital. Their aim is to provide information about common risk factors and to reduce the likelihood that these concerns will be under-identified in very young children.

We hope that RIMJ readers find this issue both illuminating and helpful as they navigate their response to the current mental health crisis and needs of youth at risk for suicide.

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## Guest Editors

Anne S. Walters, PhD, Clinical Professor, Department of Psychiatry and Human Behavior, The Warren Alpert Medical School of Brown University; Clinical Director of the Children’s Partial Hospital Program, Emma Pendleton Bradley Hospital, East Providence, RI.

Jennifer C. Wolff, PhD, Associate Professor, Clinician Educator, Department of Psychiatry and Human Behavior, The Warren Alpert Medical School of Brown University; Director of the Adolescent Mental Health Collaborative and Director of the Pediatric Biopsychology Core at Emma Pendleton Bradley Hospital, East Providence, RI.

## Correspondence

Anne S. Walters, PhD  
Bradley Hospital  
1011 Veteran’s Memorial Parkway  
East Providence, RI 02915  
anne\_walters@brown.edu

# A Comparison of Acute Mental Health Presentations to Emergency Services Before and During the COVID-19 Pandemic

MARY KATHRYN CANCELLIERE, PhD; KATHLEEN DONISE, MD

## ABSTRACT

**OBJECTIVE/BACKGROUND:** This study aimed to understand how the COVID-19 pandemic affected youth presentations to the Emergency Department's psychiatric service and how many warranted an inpatient and acute residential admission.

**METHODS:** This cross-sectional study examined the patients (youth ages 3 to 18 years) evaluated at Hasbro Children's Hospital's Emergency Department by Lifespan's Pediatric Behavioral Health Emergency Service (LPBHES) over four months, March through June, of years 2019, 2020, and 2021. The sample was categorized into two groups: Children ages 3 to 11 years and adolescents ages 12 to 18 years.

**RESULTS:** Youth evaluated by LPBHES showed an increase in acuity, where 11% more children and 12% more adolescents met criteria for inpatient and acute residential admission from years 2019 to 2020. This increase was observed despite fewer overall LPBHES evaluations.

**CONCLUSION:** Future directions include prospective studies that explore the barriers to youth receiving the appropriate level of outpatient mental health services to prevent acute mental health crises.

**KEYWORDS:** Emergency Department, children, adolescents, COVID-19, mental health

Control and Prevention (CDC) community COVID-19 mitigation "lockdown" measures that spanned March through June 2020 (hereafter, the year 2020 is referred to as the "pandemic lockdown").<sup>8</sup> Understanding how the COVID-19 pandemic has affected youth presenting to the ED is of great importance, as EDs and other mental health services are in an unprecedented state of overburden since the onset of the pandemic that has created a national public health crisis.<sup>9,10</sup>

Mental health disorders frequently emerge before the age of 14.<sup>11,12</sup> Caregivers sharing concerns about their youths' mental health with their primary care provider has been shown to improve access to mental health services.<sup>13,14</sup> However, many youth seen in the ED do not have regular contact with primary care providers and are less likely to receive either intervention or prevention services.<sup>15</sup> As such, EDs are an integral part of the identification, treatment, and coordination of care for youth with mental health concerns. Further, EDs often function as a safety net for youth with mental health conditions seeking care.<sup>15,16</sup> This is important as EDs have also observed a post-pandemic increase in youth mental health acuity.<sup>3</sup>

The objective of this study was first to characterize youth presentations to the ED's psychiatric services during the spring (March through June) prior to and during the pandemic. Second, this study aimed to determine the number of youth presentations warranting an inpatient hospital admission over the same time period due to the acuity of their mental health condition.

## INTRODUCTION

In the United States (US), approximately 20% of youth are diagnosed with a mental health disorder.<sup>1,2</sup> Emergency Departments (EDs) are often the first point of entry for youth into the mental health system, where over 50% of youth seeking psychiatric care use the ED without previously seeking outpatient services.<sup>3,4,5</sup> Over the last decade, EDs have seen an increase in the number of youth presenting with a psychiatric crisis. In the US, ED visits for youth in psychiatric crisis increased 40% between 2009 and 2013 and 28% between 2011 and 2015.<sup>4,6</sup> However, during the 2020 COVID-19 pandemic, youth presentation to EDs nationally saw a decrease.<sup>7</sup> This 2020 decrease coincided with the widespread implementation of the U.S. Centers for Disease

## METHODS

This cross-sectional study examined patients evaluated at Hasbro Children's Hospital's ED by Lifespan's Pediatric Behavioral Health Emergency Service (LPBHES) via an administrative dataset over four months, March through June, of years 2019, 2020, and 2021. The sample consists of youth ages 3 to 18 years who were referred to LPBHES for a psychiatric evaluation after presenting to the ED for an acute, emotional and/or behavioral concern that needed treatment and/or stabilization.

Hasbro Children's Hospital, in Providence, RI, is part of an academic health care system and is the region's only Level 1 pediatric trauma hospital, serving patients ranging in age from birth through young adulthood, and representing a

wide diversity of racial, ethnic, and socioeconomic groups. Hasbro's ED (HED) exceeds 58,000 patients per year and is the only ED in the region dedicated to the emergency needs of children and adolescents. LPBHES is a multisite, multi-agency service that provides urgent and emergent psychiatric evaluations to approximately 3,000 youth presenting in behavioral health crisis annually, with the majority presenting at HED. With a site embedded in the HED, LPBHES evaluates a subset of the HED's highest acuity (i.e., a safety to self and others) youth presenting in behavioral crisis. The total number of youth presenting to the HED for behavioral health concerns during this study's time frame from March through June were 1,610 in 2019, 996 in 2020, and 1,632 in 2021. These youth were first triaged by the HED team, including vital signs, a medical screening exam, and screened for suicide risk in part by the use of the Columbia-Suicide Severity Rating Scale.<sup>17</sup> Then, after determining acuity level, they were referred to LPBHES for further psychiatric evaluation.

## PROCEDURES

This study was approved by the hospital's Institutional Review Board (IRB). Data making up the administrative data set were taken from the electronic health record (EHR; EPIC™ 2010) to characterize and compare youth in March through June, of years 2019, 2020, and 2021. These particular months were selected because they correspond to the March through June 2020 pandemic lockdown, and have been routinely observed as the months with the highest volume of youth referrals to LPBHES each year. Data were collected on youth demographics, including patient age, sex, race, ethnicity, insurance type (private or public, as a proxy of socioeconomic status [SES]), city (urban core: yes/no), primary problem/diagnosis for insurance, Columbia-Suicide Severity Rating Scale score of youth 11-years-old and older in 2020 and 2021, and LPBHES disposition (discharge plan). We categorized youth into two groups: children ages 3 to 11 years and adolescents ages 12 to 18 years. We also included the presentation of a documented (via the administrative report) primary mental health problem, including depression, adjustment, anxiety, attention deficit hyperactivity disorder (ADHD), oppositional/conduct, disruptive mood, schizophrenia, and other psychosis.

Descriptive statistics were employed to characterize findings. Percentages were presented for all categorical variables and continuous variables were presented using means ( $M$ ) and standard deviations ( $SD$ ). Sample sizes are presented. All analyses were performed with SPSS, version 28 (IBM SPSS Software 2021).

## RESULTS

In 2019, there were a total of 732 youth comprised of 215 children ( $M_{age}=8.97$ ,  $SD=2.02$ ) and 517 adolescents

( $M_{age}=14.61$ ,  $SD=1.67$ ) referred to and evaluated by LPBHES pre-pandemic. In 2020, a total of 470 youth were referred to and evaluated by LPBHES during the COVID-19 lockdown: 97 children ( $M_{age}=8.93$ ,  $SD=1.99$ ) and 373 adolescents ( $M_{age}=14.73$ ,  $SD=1.67$ ). Year 2020 had 36% fewer youth evaluated by LPBHES than the prior year. In 2021, during the same four months, a substantial increase upwards of 50% was observed from 2020 to 2021, where 157 children ( $M_{age}=9.13$ ,  $SD=1.84$ ) and 775 adolescents ( $M_{age}=14.56$ ,  $SD=1.64$ ) were referred to and evaluated by LPBHES. Over all three years, children who presented to the ED were primarily males, and the adolescents who presented to the ED were primarily females. On race and ethnicity, medical records indicated that children and adolescents were predominately White and minority representation included Black/African American (8–13%), Asian (1–2%), more than one race (2% to 3%), Hispanic/Latinx (16–26%), and Unknown/Refused/Other (20–25%). These findings are consistent with the Rhode Island state census pattern of race and ethnicity percentages.<sup>18</sup> Moreover, children in this study were documented as using public insurance/lower SES, about 4% to 8% more than private insurance from 2019 to 2021. However, in 2020 the majority of child patients were privately insured (50.5%). The adolescent samples before and during the pandemic were almost evenly split in their use of public and private insurance. Also, 2020 showed an increase in publicly insured/lower SES adolescent patients, with 55% documented publicly insured versus 45% documented privately insured.

Youth referred to LPBHES and living in the RI urban core represented 34% to 46% of this study's sample. Adolescents presenting from the urban core catchment area were particularly high in 2020 compared to the other years. However, for children, 2020 had the lowest number of children from the urban core.

In addition, the prevalence of primary presenting diagnosis that were identified in the administrative database were relatively the same over the three years for both the child and the adolescent samples. That is, LPBHES consistently evaluated children presenting predominantly with adjustment disorders and adolescents predominately with depressive disorders. Adolescents, however, presented with an increase in depressive disorders from 2019 to 2021, whereas children showed an increase in adjustment disorders in 2020 compared to 2019 and 2021.

To add, symptom acuity for both the child and the adolescent samples were determined by the LPBHES team and presented in this data as the Disposition Determination. For those youth presenting with acute and emergent symptoms, and unable to ensure and plan for safety to self and others, inpatient hospitalization or acute residential admission was determined. All others were discharged home and referred to a lower level of outpatient services including, but not limited to, partial hospitalization, in-home family services, and

outpatient therapy services. Children and adolescents evaluated by LPBHES during the lockdown showed an increase in acuity, where 11% more children and 12% more adolescents met criteria for an inpatient and residential admission compared to years 2019 to 2021. This increase was observed despite fewer overall LPBHES evaluations. This upward trend in acuity did not cease, because from 2019 pre-pandemic to 2021 post-pandemic lockdown, percentages went up 6% in the child sample and 3% in the adolescent sample. As

presented in **Table 1**, the total number of youth evaluations completed by the LPBHES was greater for adolescents than children. Likewise, adolescent inpatient hospitalizations and acute residential placements were substantially greater for adolescents than children over all three years. See **Table 1** for a complete list of child and adolescent characteristics.

The CSSR-S scores were collected during the HED triage process for the youth evaluated by LPBHES. As mentioned, these scores were used by HED as a screener to gauge youth

**Table 1.** Child & Adolescent Characteristics 2019 (N =732), 2020 (N =470), 2021 (N =932)

	Child 2019 Ages 3-11 n = 215	Child 2020 Ages 4 -11 n = 97	Child 2021 Ages 3-11 n = 157	Adolescent 2019 Ages 12-18 n = 517	Adolescent 2020 Ages 12-18 n = 373	Adolescent 2021 Ages 12-18 n = 775
<b>Youth Sex n(%)</b>						
Female	68 (31.6)	31 (32.0)	59 (37.6)	322 (62.3)	207 (55.5)	528 (68.1)
<b>Youth Age M(SD)</b>	8.97 (2.02)	8.93 (1.99)	9.13 (1.84)	14.61 (1.67)	14.73 (1.68)	14.56 (1.64)
<b>Youth Race n(%)</b>						
White	135 (62.8)	63 (64.9)	101 (64.3)	334 (64.6)	239 (64.1)	502 (64.8)
Black/African American	28 (13.0)	9 (9.3)	13 (8.3)	53 (10.3)	42 (11.3)	64 (8.3)
Asian/Alaskan Native/ Other Pacific Islander	—	2 (2.1)	—	8 (1.5)	1 (0.3)	7 (0.9)
More than one race	2 (0.9)	3 (3.1)	3 (1.9)	5 (1.0)	3 (0.8)	15 (1.9)
Unknown/Other	50 (23.3)	20 (20.6)	39 (24.8)	117 (22.6)	83 (22.3)	187 (24.1)
<b>Youth Ethnicity n(%)</b>						
Hispanic	49 (22.8)	15 (15.5)	38 (24.2)	124 (24.0)	92 (24.7)	199 (25.7)
<b>Insurance Type n(%)</b>						
Public	112 (52.1)	47 (48.5)	82 (52.2)	252 (48.7)	195 (52.3)	372 (48.0)
Private	103 (47.9)	49 (50.5)	72 (45.9)	256 (49.5)	169 (45.3)	395 (51.0)
Missing/None	—	1 (1.0)	3 (1.9)	9 (1.7)	9 (2.4)	8 (1.0)
<b>Presenting Problem*n(%)</b>						
Adjustment	105 (48.9)	55 (56.7)	70 (44.6)	130 (25.1)	108 (29.0)	161 (20.6)
Anxiety	34 (15.9)	11 (11.3)	22 (14.0)	63 (12.2)	37 (9.9)	70 (9.1)
Depression	24 (11.2)	9 (9.3)	30 (19.1)	223 (43.1)	141 (37.8)	419 (54.1)
Disruptive Mood	23 (10.7)	12 (12.4)	17 (10.8)	37 (7.2)	28 (7.5)	40 (5.2)
Traumatic Stress/PTSD	22 (10.3)	9 (9.3)	18 (11.5)	46 (8.9)	41 (11)	60 (7.7)
OCD	1 (0.4)	—	—	3 (0.6)	1 (0.3)	3 (0.4)
Bipolar	2 (0.9)	—	—	9 (1.7)	13 (3.5)	10 (1.3)
Oppositional/Conduct	1 (0.4)	—	—	3 (0.6)	2 (0.5)	6 (0.8)
ADHD	3 (1.3)	1 (1.0)	—	—	—	2 (0.3)
Schizophrenia/ Other Psychosis	—	—	—	3 (0.6)	2 (0.5)	3 (0.4)
Conversion	—	—	—	—	—	1 (0.1)
<b>RI Urban Core n(%)</b>						
Yes	83 (38.8)	33 (34.4)	63 (40.1)	196 (38.0)	169 (45.6)	286 (36.9)
<b>Disposition Determination n(%)</b>						
Inpatient/Resident.	81 (37.7)	47 (48.5)	68 (43.3)	240 (46.4)	217 (57.9)	382 (49.3)
Home/Outpatient	134 (62.3)	50 (51.5)	89 (56.7)	277 (53.6)	156 (41.8)	393 (50.7)

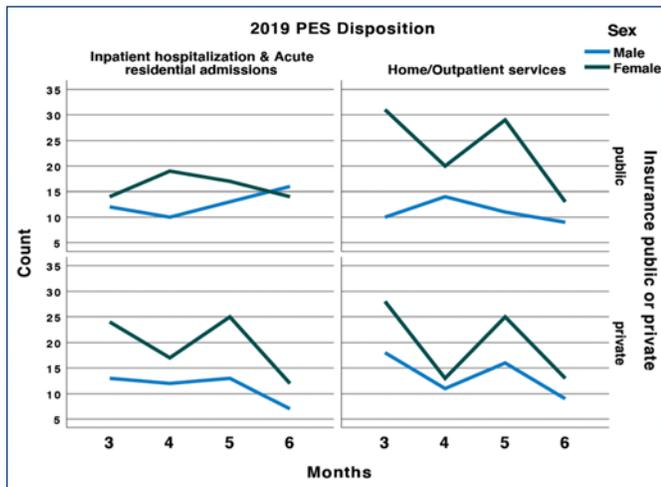
\*Presenting problem diagnosis represent a single problem noted in the administrative dataset; therefore, each patient encounter only has one problem identified.

**Table 2.** C-SSRS: Using new definitions of HIGH Score ranges for youth 11- to 18-years-old

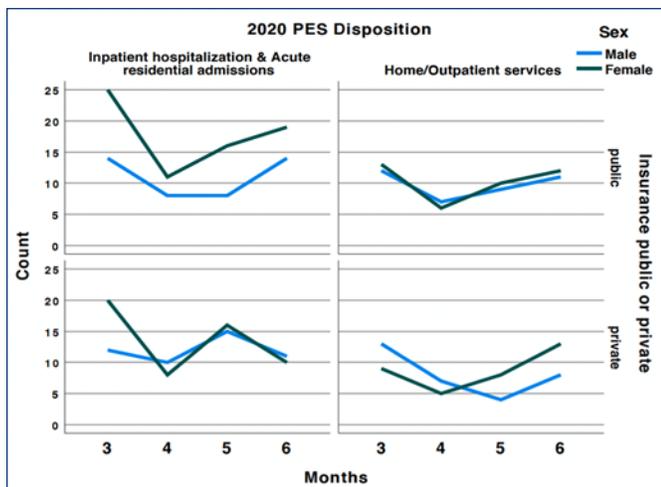
	2020		2021	
	11yrs	12 to 18yrs	11yrs	12 to 18yrs
<b>Number of C-SSRS Scores N</b>	23	325	40	726
0: Score=0	7 (30.4)	82 (25.2)	10 (25.0)	134 (18.5)
1: Low Risk (0.5–1.5)	5 (21.7)	37 (11.4)	6 (15.0)	78 (10.7)
2: Moderate Risk (2.0–4.5)	3 (13.1)	33 (10.2)	3 (7.5)	78 (10.7)
<b>High Risk Stratified (5+)</b>	8 (34.8)	173 (53.2)	21 (52.5)	436 (60.1)
4: High Score1 (5.0–8.0)	0 (0.0)	43 (13.2)	12 (30.0)	117 (16.2)
5: High Score2 (8.5–12.0)	3 (13.1)	51 (15.7)	6 (15.0)	143 (19.7)
6: High Score3 (12.5–15.5)	5 (21.7)	79 (24.3)	3 (7.5)	176 (24.2)

Note: C-SSRS = Columbia-Suicide Severity Rating Scale; Year 2019 C-SSRS scores were not available, as that was the year when the screener was implemented into the HER.

**Figure 1.** 2019 Adolescent inpatient hospitalization & Acute residential admission status versus Outpatient service referrals from March through June by sex and by public/private insurance type.



**Figure 2.** 2020 Adolescent inpatient hospitalization & Acute residential admission status versus Outpatient service referrals from March through June by sex and by public/private insurance type.

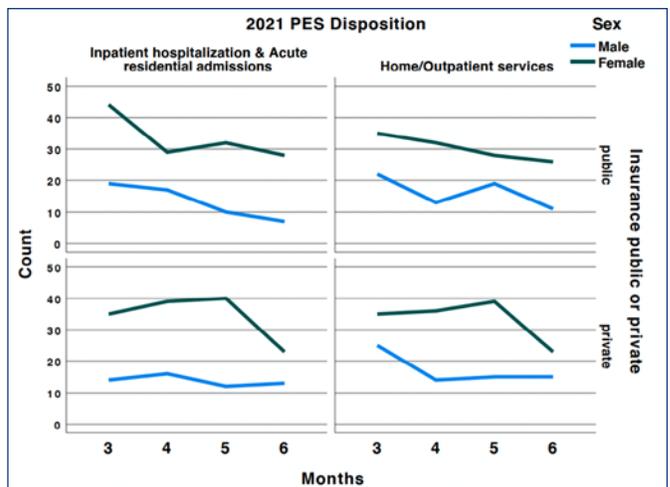


suicide risk. The CSSR-S for both children and adolescents indicated higher percentages of Low to Moderate suicide risk but not High Risk during the 2020 pandemic lockdown compared to 2021. However, when the High Risk scores were stratified into three ranges, the High Score3 scores (the highest range of acuity; 12.5–15.5) revealed higher suicide risk and acuity for both children and adolescents during the 2020 pandemic lockdown compared to the following year, 2021. (See **Table 2.**)

Lastly, to better understand the distribution of adolescents' inpatient and acute residential services, three figures were constructed to illustrate adolescent inpatient and acute residential admission status versus adolescent outpatient service referrals from March through June by sex and by public/private insurance type (i.e., SES). **Figure 1** depicts adolescent data from 2019 and shows a prevalence of female adolescents' inpatient and acute residential admission status across all four months, no matter the insurance type. However, in June of 2019, males utilizing public insurance/low SES demonstrated an increase in inpatient and acute residential admissions while females had a decrease in admissions.

In 2020, during the pandemic lockdown, **Figure 2** presents a pattern of female public insurance/low SES with higher inpatient and residential admissions than males across all four months. Privately insured female users in March appeared to experience greater inpatient and acute residential admissions but then decreased and followed a similar pattern as the adolescent male admissions. Interestingly, publicly insured/lower SES females and males admitted to

**Figure 3.** 2021 Adolescent inpatient hospitalization & Acute residential admission status versus Outpatient service referrals from March through June by sex and by public/private insurance type.



inpatient and acute residential services increased from April to June 2020, while privately insured adolescents admitted to inpatient and acute residential services were variable as they increased from April to May but decreased in June.

Finally, **Figure 3** depicts year 2021, with prevalence rates from March through June about equally distributed between inpatient and acute residential admissions and outpatient programming. Females, however, made up the majority of inpatient and acute residential admissions and outpatient service referrals across insurance types. More specifically, females with public insurance/low SES maintained a higher usage of services compared to those with private insurance.

## DISCUSSION

With EDs often utilized as the first point of entry for youth into the mental health system, this study aimed to understand how the COVID-19 pandemic affected youth presentations to HED's psychiatric service. It also looked to determine during that same time frame how many youth warranted an inpatient and acute residential admission.

Consistent with the literature and other EDs, findings revealed that HED and LPBHES observed a noticeable decline in ED admissions and LPBHES evaluation during the 2020 pandemic lockdown compared to other years. However, while there were fewer youth who presented to the ED and referred to LPBHES, the acuity of those who presented to HED during March to June 2020 had an increased percentage of inpatient and acute residential admissions compared to youth evaluated pre-pandemic 2019 and post-lockdown 2021. Similar findings were observed in other studies and may be due to the increased stressors many youth experienced during the national stay-at-home measures put into place for the onset of COVID-19 in the US, including school closures, limited peer interactions, and the isolation created by having to stay home.<sup>7,8</sup> Interestingly, the 2020 increase in acuity was seen prior to the 2021 post-lockdown increase in referrals to LPBHES of approximately 21% youth from 2019 ( $N=732$ ) to 2021 ( $N=932$ ). This increase of LPBHES referrals indicates that more youth have been presenting to HED and that these youth have been experiencing greater mental health symptomatology and increases in acuity. Yet the cause for this increase is unknown. It is likely, however, that youth mental health symptoms, overall, were exacerbated by what we might consider a disaster in the US, where some youth may have experienced traumatic-like stressors after extended isolation and possible limited degrees of support (e.g., friends, family, therapist, etc.).<sup>7</sup> Our findings suggest that the distress from the pandemic may have translated into increased acute service use (i.e., inpatient and acute residential admissions) for youth mental health. However, the children and adolescents in this study may represent a high-risk group that has been particularly affected by the 2020 COVID-19 mitigation measures, including physical

distancing (including a lack of connectedness to schools, teachers, and peers), barriers to mental health treatment, and anxiety about family health and economic problems, which are all risk factors for acute psychiatric crises, e.g., suicide thoughts and/or behaviors (STB). Similar to this study's findings, past research, prior to the COVID-19 pandemic, has been compiling information on adolescent females showing this subset of youth as having both higher and increased rates of ED visits for acute mental health concerns (i.e., STB) compared to males.<sup>19,20</sup> This reinforces a general need for increased attention to, and prevention for, this female population, particularly during acute stressors that may exacerbate symptoms. In addition, recent research has shown that suspected child abuse and neglect also increased in 2020 compared to 2019, thus potentially contributing to increases in youth acuity.<sup>21</sup> Nonetheless, by having more time at home during the 2020 lockdown, caregivers may also have had more attention toward youth mental health symptoms and needs and been able to better intervene to seek services.<sup>22</sup>

## LIMITATIONS

While this study assists in our understanding of youth presenting to the ED in psychiatric crisis, it is not without limitations. 1) This study utilized an administrative dataset; therefore, chart review variable options were limited as it was a predetermined set of variables. Further, variation in provider reporting and coding practices can influence the procedures of data collection. However, data were taken from patient electronic health records and representative of the clinical samples seen by LPBHES. 2) This study was unable to confirm whether the data on race, ethnicity, and sex identified in this sample was provided by the patient or if it was collected during the patient triage process without patient consultation. The inability to validate and confirm clinical data is a limitation. Future directions should include a prospective study gathering data that support sensitive measures inquiring about youth identity and asserted gender. 3) This study's sample of adolescents included few 18-year-old youth and is not representative of the 18-year-old population of youth who may have sought ED services during the same time frame, because youth this age often transition to adult services. Thus, some 18-year-old youth may have sought similar services within the adult ED. 4) These data are not representative of the national sample and thus are not generalizable to a broader population of youth. 5) The CSSR-S is a well-documented screening tool utilized by EDs (and elsewhere) to assess youth suicide risk in the 11- to 18-year-old age group and were not collected as a part of the psychiatric evaluation. As such, its purpose is to identify youth at risk so that they can be receive further evaluation. This screener was presented to provide information about the presentation of the HED sample.

## CONCLUSION

This study looked to understand how the COVID-19 pandemic affected youth presentations to HED's psychiatric service, including how many youth warranted an inpatient and acute residential admission. Results revealed that while fewer youth sought ED services during the pandemic lockdown compared to other years, the youth who presented to HED and were referred to LPBHES were observed to have increased acuity and needed higher levels of care. While unprecedented times, these findings suggest the need for youth mental health services to be available and accessible to intervene and decrease the acuity of youth mental health symptoms before higher levels of care are warranted. As such, more information and education on youth mental health literacy and mental health services are needed so that families and youth are able to identify and utilize appropriate levels of mental health care. Future directions include prospective studies that explore mental health literacy and the barriers to youth receiving the appropriate level of mental health services to prevent acute mental health crises.

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## Authors

Mary Kathryn Cancilliere, PhD, Rhode Island Hospital, Department of Psychiatry and Human Behavior, Warren Alpert Medical School of Brown University, Providence, RI.

Kathleen Donise, MD, Rhode Island Hospital, Department of Psychiatry and Human Behavior, Warren Alpert Medical School of Brown University, Providence, RI; Emma Pendleton Bradley Hospital, East Providence, RI.

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### Correspondence

Mary Kathryn Cancelliere, PhD  
Pediatric Postdoctoral Research Fellow  
Department of Psychiatry  
Bradley-Hasbro Children's Research Center  
The CORO Center  
One Hoppin Street, Suite 2-169  
Providence, RI 02903  
401-444-7443  
Fax 401-444-8742  
[Mary\\_Kathryn\\_Cancelliere@brown.edu](mailto:Mary_Kathryn_Cancelliere@brown.edu)

## Single- vs. Multi-Item Assessment of Suicidal Ideation Among Adolescents

ILANA GRATCH, BA; KATHERINE M. TEZANOS, MS; SARA N. FERNADES, MA; KERRI-ANNE BELL, MA; OLIVIA H. POLLAK, BS; CHRISTINE B. CHA, PhD

### ABSTRACT

Several barriers exist to routine assessment of suicidal ideation (SI) in adolescents across settings, including insufficient time, tools, and training. Such barriers often result in the use of brief or even single-item assessments of SI, which may result in misclassification. The present study sought to compare single- and multi-item assessment of SI in adolescents, and to examine factors associated with different response profiles. Adolescents ( $n=206$ ) were recruited from the community and completed a lab visit including a single and multi-item assessment for SI. Results suggest that two thirds of adolescents with passive SI go undetected when relying solely on a single-item screener, yet they present a similar clinical profile to those with passive SI who endorse the screener question. The present study provides support for the notion that multi-item assessment paints a more accurate, nuanced picture of SI among adolescents and may be an important component of routine screening.

**KEYWORDS:** suicidal ideation, single-item assessment, adolescents

### INTRODUCTION

Previous research suggests 20–24% of people experience suicidal ideation (SI) at some point during adolescence.<sup>1</sup> Suicidal behavior is typically preceded by thoughts of suicide. Assessment and identification of suicidal thinking during adolescence thus promises to be an important step towards preventing suicide. Given the drastic increase in the incidence of SI during adolescence, it is a particularly important developmental period to begin screening.<sup>1-3</sup>

Implementing accurate routine screening of suicidal thoughts and behaviors (STBs) in educational, primary, and/or emergency care settings affords the opportunity to detect youth at risk.<sup>4</sup> A range of clinical assessments have been validated for use with adolescents, including clinical retrospective interviews assessing history of STBs,<sup>5,6</sup> retrospective self-report measures,<sup>7</sup> and screeners assessing current risk.<sup>8</sup> The lack of universal routine assessment may be due, in part, to barriers associated with implementation

of such measures. Indeed, pediatric emergency department staff report that barriers to suicide risk screening include not having sufficient time, tools, and training.<sup>9</sup>

Such barriers often result in the use of brief assessments, particularly in non-clinical settings. For example, the *Patient Health Questionnaire (PHQ-9)*, a brief, self-report measure that assesses depression and includes a single-item assessing SI, has been widely used in general hospitals.<sup>10,11</sup> Similarly, some Veterans Affairs Medical Centers introduced single-item assessments of mental health for use in primary care settings.<sup>12,13,14</sup> Single-item assessment of STBs is common practice in research as well.<sup>15-17</sup>

While single-item assessments are minimally burdensome and help overcome a key barrier to implementing screenings, their potential limitations warrant investigation. Prior research suggests that single-item assessments of STBs are more likely to result in misclassification, including under- and over-reporting.<sup>16</sup> For instance, one study found that, among college students reporting suicide attempt history on a single-item prescreen survey, only two-thirds endorsed having made a suicide attempt on a multi-item follow-up survey.<sup>18</sup> In contrast, Millner and colleagues found that among adults who denied lifetime SI when asked using a single-item approach, more than 10% went on to endorse having thought “maybe I should kill myself” in a multi-item assessment, and more than one third went on to report passive SI such as “I wish I was dead.”<sup>16</sup> In keeping with these discoveries highlighting misclassification resulting from single-item assessments, a recent online study by Ammerman and colleagues found that adults responded differently to single-item assessments of SI, planning, and attempt depending on the wording of the question.<sup>15</sup> Taken together, these studies suggest that single-item assessment may be especially likely to lead to misclassified STBs.

In the present study, we sought to compare single- and multi-item assessments including both active and passive SI in a sample of adolescents to examine the extent to which single-item assessment results in misclassification in this population (Aim 1). We then examined whether those whose single-item response corresponds to their multi-item responses differ significantly on any baseline demographic and clinical characteristics from those whose reports are discrepant (Aim 2).

## METHODS

### Sample and Procedures

Adolescent participants were recruited from the community via flyers, advertisements, and street fairs for two lab-based studies examining cognitive mechanisms in suicidal and nonsuicidal adolescents (there were no significant differences in lifetime presence of SITBs between the two samples and just two demographic differences: one sample was 1.43 years older on average ( $p < .001$ ), and had a greater proportion of White and Asian adolescents ( $p < .01$ )). During an initial phone screen, adolescents must have either endorsed past year SI or indicated no lifetime history of STBs. Additional inclusion criteria were: 12–19 years, English fluency, and ability to complete an in-person interview. Study exclusion criteria were: presence of any factor impairing the adolescent's ability to effectively participate in the study, including high/imminent risk of suicide. Each encounter (phone screen, lab visit) with suicidal adolescents concluded with a risk assessment, safety planning (if applicable), and a reminder of local/national resources to hotlines/textlines, as well as treatment centers and hospitals.

The sample featured 218 adolescents between 12 and 19 years of age ( $M = 16.86$ ,  $SD = 1.97$ ), the majority of whom identified as female (70%). One-third (33%) identified as White, 22% Black/African American, 25% Asian, and 18% multiracial/other. Nearly one-quarter (24%) reported Hispanic ethnicity. Almost one-third (32%) identified as a sexual orientation minority (i.e., not heterosexual).

Adolescents completed an in-person lab visit and completed a battery of self-report measures and interviews, for which they were compensated with a gift card and a subway pass. All study procedures were approved by the Teachers College, Columbia University Institutional Review Board.

## MEASURES

### Single- vs. Multi-Item Assessment of Suicidal Ideation.

Adolescents were administered the *Self-Injurious Thoughts and Behaviors Interview-Revised (SITBI-R)*<sup>19</sup> by research staff who had been trained and supervised by an experienced clinical psychologist. A range of self-injurious thoughts and behaviors were assessed during the interview and have been described elsewhere along with the SITBI's psychometric properties.<sup>5</sup> The present study focused on two questions from the SITBI-R: (1) Have you ever thought about killing yourself? (i.e., single-item screener) and (2) Which of the following thoughts have you had (i.e., multi-item follow-up): *I wish I could disappear or not exist [Passive]*; *I wish I were never born [Passive]*; *Life is not worth living [Passive]*; *I wish I could go to sleep and never wake up [Passive]*; *I wish I were dead [Passive]*; *Maybe I should kill myself [Active]*; *I should kill myself [Active]*; *I am going to kill myself [Active]*; *I have never had any of these thoughts [Negative]*. The single-item screener is the first question in the SI

module of the SITBI and most frequently used in research to distinguish individuals with and without a history of SI, and thus was selected as the single-item screener in the present study. All adolescents were asked both sets of questions regardless of their answer to the single-item screener. In line with widely used definitions in the field, passive SI refers to a desire to be dead, whereas active SI refers to the desire to kill oneself.<sup>20</sup> A response of "yes" to the screener question was considered a "positive" response, and a response of "no" was considered a "negative" response."

The groups were thus defined as follows: *Pos/Active* (i.e., responded 'yes' to the screener and subsequently endorsed at least one active suicidal thought); *Pos/Passive* (i.e., responded 'yes' to the screener and subsequently endorsed at least one passive (but no active) suicidal thought); *Pos/None* (i.e., responded 'yes' to the screener, but subsequently did not endorse any active or passive suicidal thoughts); *Neg/Active* (i.e., responded 'no' to the screener and subsequently endorsed at least one active suicidal thought); *Neg/Passive* (i.e., responded 'no' to the screener and subsequently endorsed at least one passive (but no active) suicidal thought); and *Neg/None* (i.e., responded 'no' to the screener and subsequently did not endorse any active or passive suicidal thoughts).

**Clinical and Demographic Characteristics.** To assess severity of recent (past month) SI severity, adolescents completed the *Suicidal Ideation Questionnaire (SIQ)*,<sup>7</sup> a self-report measure rated on a 6-point scale. The SIQ has high internal consistency and average test-retest reliability and construct validity.<sup>7</sup> In the present study, it demonstrated excellent internal consistency ( $\alpha = .98$ ). Adolescents also completed the *Hopelessness Scale for Children (HSC)*,<sup>21</sup> a 20-item measure of hopelessness which has demonstrated adequate reliability in youth samples.<sup>21</sup> The HSC demonstrated good internal consistency in the present sample ( $\alpha = .80$ ). To assess depression severity, adolescents completed the 16-item self-report version of the *Quick Inventory of Depressive Symptomatology (QIDS)*.<sup>22</sup> The QIDS has strong construct validity,<sup>22</sup> and showed good internal consistency in the present study ( $\alpha = .86$ ). Finally, adolescents completed the *Screen for Child Anxiety Related Emotional Disorders (SCARED)*,<sup>23</sup> a 38-item self-report measure that assesses anxiety in children over the past three months using a 3-point scale. The SCARED has good internal consistency and discriminant validity,<sup>23,24</sup> and yielded excellent internal consistency in the present study ( $\alpha = .94$ ).

## RESULTS

### Response Patterns

**SI Groups.** Adolescents were classified into six distinct groups based on their responses to the screener question and their subsequent endorsement of specific thoughts. Among those adolescents who endorsed the screener question, most

reported active SI ( $n=78$ , 75.7%; *Pos/Active*), though 20.4% endorsed passive SI ( $n=21$ ; *Pos/Passive*), and 3.9% endorsed none of the SI items ( $n=4$ ; *Pos/None*). Of those adolescents who denied the screener question, most denied any subsequent suicidal thought ( $n=73$ , 63.5%; *Neg/None*); however, surprisingly, 35.6% endorsed a subsequent passive suicidal thought ( $n=41$ ; *Neg/Passive*) and one individual endorsed active SI (0.5%; *Neg/Active*). Due to their small sample sizes, *Pos/None* and the *Neg/Active* groups were excluded from further analyses.

**Demographics**

We examined whether demographic characteristics differentiated the four SI groups. Sample demographics, organized by SI group, are presented in **Table 1**. There were statistically significant differences in age among SI groups (**Table 1**). Post hoc analyses (**Table 2**) revealed that individuals in the *Pos/Active* group were significantly older than those in the other three groups. There were no significant differences in age among the *Pos/Passive*, *Neg/Passive*, and *Neg/None* groups.

Among the SI groups there were no significant differences in terms of race, sex at birth, and ethnicity (**Table 1**). There were statistically significant differences in gender identity and sexual orientation among SI groups (**Table 1**). Of the 13 individuals who identified their gender as different from male or female, 11 were in the *Pos/Active* group, one each in the *Pos/Passive* and *Neg/Passive* group. Due to low cell counts across the groups, these individuals were excluded from multivariate analysis.

Post hoc analyses regarding gender identity and sexual orientation were conducted (**Table 2**), revealing statistically significant differences in gender identity between the *Pos/Active* and *Neg/None* groups. There were statistically significant differences in sexual orientation between

**Table 1.** Demographic and Clinical Characteristics of Suicide Ideation Groups ( $N = 206$ ).

Variable	Pos/Active	Pos/Passive	Neg/Passive	Neg/None	Test
Age, M(SD)	17.86 (1.36)	16.76 (1.56)	16.62 (1.96)	16.64 (2.09)	20.98 <sup>a***</sup>
Sex at Birth (%)					4.97 <sup>b</sup>
Male	12 (24)	2 (18)	4 (19)	17 (40)	
Female	38 (76)	9 (82)	17 (81)	25 (60)	
Gender (%)					21.67 <sup>b**</sup>
Male	14 (23)	6 (33)	5 (14)	21 (35)	
Female	35 (58)	12 (67)	31 (84)	38 (63)	
Transgender Male	3 (5)	0 (0)	1 (3)	0 (0)	
Non-Binary	4 (7)	0 (0)	0 (0)	1 (2)	
Other	3 (5)	0 (0)	0 (0)	0 (0)	
Prefer Not to Answer	1 (2)	0 (0)	0 (0)	0 (0)	
Race (%)					3.72 <sup>b</sup>
White	25 (33)	5 (26)	11 (27)	31 (42)	
Black	12 (16)	5 (26)	6 (15)	18 (25)	
Asian	22 (29)	6 (32)	10 (24)	15 (21)	
Other	14 (19)	3 (16)	12 (29)	9 (12)	
Unknown	2 (3)	0 (0)	2 (5)	0 (0)	
Ethnicity (%)					5.19 <sup>b</sup>
Hispanic	23 (31)	3 (16)	14 (34)	14 (19)	
Sexual Orientation (%)					34.96 <sup>b***</sup>
Heterosexual	27 (36)	9 (47)	31 (76)	58 (79)	
Homosexual	11 (15)	3 (16)	0 (0)	4 (5)	
Bisexual	25 (33)	4 (21)	6 (15)	6 (8)	
Questioning	3 (4)	2 (11)	1 (2)	2 (3)	
Other	7 (9)	0 (0)	2 (5)	2 (3)	
Unknown	2 (3)	1 (5)	1 (2)	1 (1)	
QIDS	19.99 (5.05)	16.90 (2.97)	16.54 (3.98)	13.35 (2.86)	71.40 <sup>a***</sup>
SIQ	45.00 (31.27)	17.95 (14.91)	12.85 (13.71)	2.99 (3.88)	132.57 <sup>a***</sup>
HSC	5.66 (3.74)	4.05 (3.82)	3.76 (2.92)	2.22 (1.71)	36.83 <sup>a***</sup>
SCARED	36.04 (14.05)	28.00 (12.29)	30.15 (13.47)	16.95 (10.67)	57.79 <sup>a***</sup>

Note. All means and standard deviations were calculated based on only those who responded in each category. <sup>a</sup>Kruskal-Wallis, <sup>b</sup>Chi Square, \* $p<.05$ , \*\* $p<.01$ , \*\*\* $p<.001$

**Table 2.** Multiple Comparisons Between the Suicide Ideation Groups ( $N =206$ ).

	PA vs PP	PA vs NP	PA vs NN	PP vs NP	PP vs NN	NP vs NN
Age <sup>a</sup>	2.69*	3.54**	3.83**	0.08	0.31	0.31
Gender <sup>b</sup>	4.00	7.83	9.86***	3.32	0.34	5.41
Sexual Orientation <sup>b</sup>	0.83	16.64***	28.57***	4.66	7.84**	0.23
QIDS <sup>a</sup>	1.81	3.09*	8.39***	0.53	3.68**	4.01**
SIQ <sup>a</sup>	3.16***	5.61***	11.46***	1.10	4.39***	4.15***
HSC <sup>a</sup>	2.13	2.61	6.07***	0.10	1.86	2.55
SCARED <sup>a</sup>	1.97	1.82	7.47***	-0.56	2.86*	4.55***

Note. PA=Pos/Active; PP=Pos/Passive; NP= Neg/Passive; NN= Neg/None. Bonferroni corrections were applied for all multiple comparisons. Only significant values are noted in bold type font. SIQ = Suicide Ideation Questionnaire. QIDS = Quick Inventory of Depressive Symptomatology. HSC = Hopelessness Scale for Children. SCARED = Screen for Child Anxiety Related Emotional Disorders.

<sup>a</sup>Dunn's Multiple Comparisons; <sup>b</sup>Chi Square with corrected  $p$ -value; \* $p<.05$ , \*\* $p<.01$ , \*\*\* $p<.001$

the *Pos/Active* and *Neg/Passive* groups, the *Pos/Active* and *Neg/None* groups, and between the *Pos/Passive* and *Neg/None* groups.

**Clinical Characteristics**

We examined whether clinical characteristics differentiated the four SI groups (Table 1). Results demonstrated significant differences across the SI groups in terms of SI severity, hopelessness (HSC), depressive symptomatology (QIDS), and anxiety severity (SCARED; Table 2). Post hoc analyses revealed those in the *Pos/Active* group reported significantly higher SI severity and were older compared to all other groups. Individuals in the *Neg/Passive* group reported significantly higher SI severity than those in the *Neg/None* group. Individuals in the *Neg/Passive* group reported significantly lower SI severity and depressive symptomatology than the *Pos/Active* group. There were no significant differences between the *Pos/Passive* and the *Neg/Passive* group in terms of any of the clinical characteristics. There were no significant differences between the *Neg/Passive*, *Pos/Active* and *Pos/Passive* groups along hopelessness, and anxiety sensitivity.

A multinomial logistic regression with all significant characteristics (i.e., SI severity, hopelessness, anxiety, depression, age, and sexual orientation) distinguished group membership with statistical significance (Table 3). Age and SI severity significantly differentiated the SI groups, such that adolescents with higher SI severity scores were at increased odds of belonging to any group other than the *Neg/None* group, and younger adolescents were at increased odds of belonging to the *Neg/None* group compared to the *Pos/Active* group. Sexual orientation significantly differentiated between the *Pos/Active* group and the *Neg/Passive* group such that adolescents who identified as a sexual orientation minority were at greater odds of belonging to the *Pos/Active* group compared to the *Neg/Passive* group. Sexual orientation did not differentiate the other SI groups.

**DISCUSSION**

The present study is the first to assess single- vs. multi-item assessment of SI in a face-to-face interview with adolescents. Our findings suggest that when relying solely on a single screening question, more than two thirds of adolescents reporting passive SI will go completely undetected. These adolescents with passive SI who go undetected with a single screening question present as clinically similar to those who endorse SI originally. Therefore, they represent a vulnerable and hidden subgroup. Regarding other between-group differences, consistent with previous research, those endorsing active SI were more likely to be older than those reporting no suicidal thoughts or passive SI, and those identifying as a sexual minority were more likely to report active than passive SI.<sup>20,25,26</sup>

High rates of undetected passive SI in a setting akin to that of a routine screening is alarming; previous research suggests that more than two thirds of individuals reporting a passive wish to be dead ultimately progress to experience thoughts of killing themselves.<sup>27</sup> Moreover, a recent meta-analysis suggests that passive SI is strongly associated with both suicide attempt and suicide death, and trivial differences between other psychological correlates of active and passive SI led the authors to suggest that they are essentially equivalent with regards to clinical implications and suicide risk.<sup>20</sup> Detecting SI when it is passive thus presents both an opportunity for preventing thoughts from escalating further and an opportunity for intervention in and of itself.

These findings should be interpreted in light of several limitations. First, the sample was relatively small and thus not fully representative of all suicidal adolescents. This is seen in the small cell counts for gender minority youth. Second, the present study is a cross-sectional and descriptive study and as such does not speak to clinical and prospective implications of misclassification. Future studies are needed to determine clinical significance of differentiating ideation based on multi-item assessment.

Our findings are consistent with previous research highlighting the limitations of single-item assessment for the accurate classification of STBs in adults,<sup>16,28</sup> and more broadly with research demonstrating discrepancies between assessment methods of STBs.<sup>5,29,30</sup> Moreover, results from the present study suggest that misclassification and undetected risk resulting from single-item assessment extends to adolescent populations as well. The present study underscores the importance of implementing accurate and scalable assessments of SI in adolescents.

**Table 3.** Multinomial logistic regression analyses (Reference category = *Neg/None*)

	Pos/Active		Pos/Passive		Neg/Passive	
	OR	CI	OR	CI	OR	CI
SIQ	1.34***	1.21–1.49	1.25***	1.12–1.39	1.19***	1.08–1.32
QIDS	1.16	0.94–1.43	1.06	0.85–1.33	1.12	0.93–1.35
HSC	1.01	0.76–1.35	1.13	0.84–1.53	1.02	0.79–1.32
SCARED	1.01	0.95–1.07	1.04	0.97–1.11	1.05	0.99–1.10
Age	1.95**	1.29–2.97	1.20	0.82–1.75	1.09	0.82–1.47
Sexual Orientation	0.30	0.08–1.14	0.49	0.12–2.05	1.13	0.34–3.74

Note. SIQ = Suicide Ideation Questionnaire. QIDS = Quick Inventory of Depressive Symptomatology. HSC = Hopelessness Scale for Children. SCARED = Screen for Child Anxiety Related Emotional Disorders. \*p<.05, \*\*p<.01, \*\*\*p<.001

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**Authors**

Ilana Gratch, BA, Department of Counseling and Clinical Psychology, Teachers College, Columbia University, New York, NY.

Katherine M. Tezanos, MS, Department of Counseling and Clinical Psychology, Teachers College, Columbia University, New York, NY; Department of Psychiatry and Human Behavior, Alpert Medical School of Brown University, Providence, RI.

Sara N. Fernades, MA, Department of Psychology, Hofstra University, Hempstead, NY.

Kerri-Anne Bell, MA, Department of Psychology, University of Notre Dame, Notre Dame, IN.

Olivia H. Pollak, BS, Department of Psychology, University of North Carolina at Chapel Hill, Chapel Hill, NC.

Christine B. Cha, PhD, Department of Counseling and Clinical Psychology, Teachers College, Columbia University, New York, NY.

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Co-first authorship listed in alphabetical order.

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**Correspondence**

Christine B. Cha, PhD

Department of Counseling and Clinical Psychology

Teachers College, Columbia University

525 West 120th Street, New York, NY 10027

# Assessing the Quality of Patient Responses to a Psychosocial Intervention Implemented on an Adolescent Psychiatric Inpatient Unit: Devising the Safety Plan Quality Metric

PAULINE H. L. BAGATELAS, MD<sup>22</sup> ScM<sup>22</sup>; JEFFREY I. HUNT, MD; JENNIFER C. WOLFF, PhD

## ABSTRACT

The Safety Planning Intervention (SPI) helps patients use coping strategies when in a suicidal crisis. This project aimed to characterize SPI quality and determine if it is associated with reduced risk of readmission to psychiatric hospitals. The sample included 145 participants hospitalized on an adolescent psychiatric unit from May to December 2018 who met suicidal criteria per items 18 and 91 on the Youth Self Report. The Safety Plan Quality Metric was created to rate SPI quality. A significant association between higher-quality SPI and fewer instances of readmission was identified ( $X^2(1, N = 94) = 4.32, p = .038$ ). A logistic regression conducted to determine the impact of other patient factors on readmission did not yield a statistically significant model, ( $X^2(5, N = 94) = 8.43, p = 0.13$ ). The results suggest that patients with higher quality SPIs were less likely to be rehospitalized.

**KEYWORDS:** Safety Planning Intervention, suicide prevention, adolescent, inpatient psychiatric hospitalizations

## INTRODUCTION

The rate of suicide among adolescents has markedly increased in the last decade.<sup>1</sup> While there are inpatient treatments for suicidality, patients admitted for mental health conditions are frequently readmitted, with readmission rates as high as 8% within the first month post-discharge.<sup>2</sup> Moreover, the lengths of hospitalizations are shorter – making the imperative for effective yet brief interventions more urgent.<sup>3</sup> Such interventions do now exist – including the SPI which was first conceived of with adolescent populations in the context of Cognitive Behavioral Therapy. The SPI allows patients to identify their coping strategies, sources of support, and methods of means restriction in a time of suicidal crisis.<sup>4</sup> Subsequently, the SPI was adopted as a brief Emergency Department intervention with veteran populations and has since been officially termed the SPI.<sup>5</sup>

Since its inception, the SPI has been adopted by hundreds of healthcare organizations and has been deemed comparable to other standardized brief health interventions such as counseling on smoking cessation.<sup>6</sup> Although the pervasive

adoption of the SPI is encouraging, few studies assess the quality of the SPI the patient completes. One study conducted in the Veterans Health Administration (VHA) with adults noted that there was significant variability in the quality of the SPI amongst a cohort of veterans.<sup>7</sup> Therefore, there is a need for an assessment of this variation in the quality of the SPI on patient outcomes. The goals of this study were two-fold – to devise a standardized quality metric that objectively rates the quality of the SPI completed by the patient, and to use this metric to determine the impact of the SPI quality on the clinical outcome of readmission to the psychiatric hospital within 6 months from discharge from the hospital stay during which the SPI was completed. We hypothesized that higher quality SPI was associated with fewer readmissions to the psychiatric hospital.

## METHODS

This study was conducted using data from the adolescent inpatient unit of a pediatric psychiatric hospital in the Northeast as part of a broader study that was approved by the hospital IRB. The patients from the dataset were hospitalized at Bradley Hospital from May to December 2018. A total of 145 patients met suicidal criteria per item 18 and 91 on the Youth Self Report.<sup>8</sup>

### Participants

Within this larger dataset, patient demographics and variables such as sex assigned at birth, age at hospitalization, and total score on the Suicidal Ideation Questionnaire (SIQ)<sup>9</sup> upon admission were included. A chart review was conducted to identify the race and ethnicity of each of the patients. These patient demographics and SIQ scores were included to control for patient factors that could impact readmission to the hospital other than the quality of the SPI given that the severity of suicidal thoughts and patient demographics may influence readmission.<sup>10-12</sup> The majority of participants were assigned female at birth (72.22%) with a mean age of 14.67 (standard deviation [SD] = 1.76). Of note, 70.14% of the participants were listed as “White or Caucasian,” 6.94% as “Black or African American,” 1.39% as “Asian,” and the remainder as either “Other,” “Other, White or Caucasian,” “Unknown,” or “Patient refused,” in the EHR. In terms of ethnicity, 19.44% were listed as “Hispanic or Latino,” in the

EHR. For subsequent analyses, the patient's race and ethnicity was dichotomized into a minoritized variable whereby 1 signified either that patient's race was anything but "White or Caucasian," or that their ethnicity was listed as "Hispanic or Latino", and 0 signified both that the patient's race was listed as "White or Caucasian," and that their ethnicity was listed as "Not Hispanic or Latino," in the chart. In terms of severity of suicidal ideation, 63.19% of participants had a score of 41 or higher on the SIQ, a commonly utilized clinical cutoff for severity of suicidal ideation.<sup>13</sup>

### Safety Planning Intervention

The SPI completed during hospitalizations from May 2018 to December 2018 was retrieved from each patient's EHR (see [Appendix A](#) for a blank safety plan). At the point of this study, the SPI was completed by the patient in collaboration with the milieu staff or nurse. The psychiatrist or psychologist would review the SPI and help the patient to finalize it. All medical staff (psychiatrists and psychologists), milieu staff and nurses who assist with SPI are specifically trained in SPI before implementing. The training has been integrated into on-line training modules and into on-the-unit training with observation and feedback by senior staff. Which medical provider/staff member helped a patient fill out an SPI was not indicated in the chart. If an SPI was located for a patient, it was printed, and any Protected Health Information (PHI) was redacted. If an SPI could not be found for a patient's hospitalization in the EHR, this was assumed to imply that the patient did not fill out an SPI during that hospital stay and it was noted that there was no SPI completed for that patient.

### Safety Plan Quality Metric

Subsequently, a metric (Safety Plan Quality Metric, see [Appendix B](#)) was created to measure the quality of the SPI for each patient. The metric was based on the Safety Plan Intervention Rating Scale and the Cognitive Therapy Rating Scale.<sup>14,15</sup> The metric was revised a total of four times before it was used to code the SPI. In order to test each revision of the metric, a total of nine safety plans that were not included in the dataset of 145 participants were used as "pilot" safety plans to test the metric. These nine safety plans were from the larger dataset the 145-patient sample originally came from but were outside the date range. In summary, the Safety Plan Quality Metric functioned to rate the quality of each SPI based on completeness, specificity, and relevance. Additionally, a coding manual (see [Appendix C](#)) was iteratively revised twice based on feedback from a panel of psychology residents in training on the unit.

In the final version of the Safety Plan Quality Metric, each section of the SPI could receive a score of either 0,1,2,3 or 4. The SPIs that were coded had a total of 6 sections but only Sections 1,2,3,4 and 5 were coded. Section 6 (reason to live section) was not coded because this section invites more

"free-form" responses, and we chose not to examine these as part of this initial project. Therefore, each SPI could receive a maximum total score of 20 (since each of the 5 sections were coded and each section could receive a maximum score of 4). For each SPI, the coders both gave each section of the SPI a score as well as a total score which reflected the sum of scores across the five sections of the SPI.

### Scoring of SPI Quality

Once the Safety Plan Quality Metric was finalized, two coders scored each section of each SPI according to the Safety Plan Quality Metric, using the Coding Manual as a guide. After scoring was complete, the Individual Interclass Correlation Coefficient (ICC) was calculated for a two-way random-effects model using the statistical software STATA version 15.1 (StataCorp, College Station, Texas). Following the ICC calculation, the mean score for each section of each SPI across both coders was calculated creating a composite score reflective of the score given by both coders. Consequently, the mean composite score across all sections was calculated for each SPI. This mean composite score across sections was used in the subsequent data analyses.

Prior to conducting statistical analyses, the mean composite score across sections for each SPI was dichotomized into a high-quality (score of 1) or low-quality (score of 0) variable on STATA. For each SPI, a score of 3 or higher was categorized as high-quality and a score of 2 or below was categorized as low-quality. This cut-off was informed by clinical reasoning. Given that a score of 4 on the Safety Plan Quality Metric was defined as the "gold standard," while a score of 3 signified that the content of that filled out section both met the rationale and had at least 2 specific items, it seemed appropriate to designate scores of 3 or higher as high-quality.

In order to assess the effect of higher quality SPI on patient outcome, we examined re-hospitalization as a measure of patient outcome. During the initial chart review, for each participant, this writer identified any re-hospitalization to the inpatient psychiatric hospital within six months of the date the patient was discharged.

## RESULTS

We first calculated the ICC amongst the two coders who scored each SPI. The ICC was 0.83, which indicates good reliability between the two coders.<sup>16</sup> Of the 145 patients that met suicidal criteria on the Youth Self Report, the data from two patients could not be used. One, because the medical record number for the patient was incorrectly listed in the database, and the other, because the SPI was illegible. A total of 65.97% (N=95) of the patients had completed an SPI. The next step in our analysis was to determine how many of the completed and legible SPI could be classified as a high- or low-quality SPI according to the quality variable explained previously. 57.45% (N=54) of SPIs were classified

**TABLE 1.** Summary of Logistic Regression Model Predicting Readmission to Bradley Hospital Within 6 Months of Discharge

Predictor	OR	P> z	95% CI		Prob > $\chi^2$
					0.1343
Minoritized status	1.064011	0.906	.3792161	2.98541	
Sex assigned at birth	0.8921205	0.424	.6742401	1.180409	
Age	0.683082	0.476	.239351	1.949442	
Total SIQ score	0.9847021	0.114	.9660465	1.003718	
Quality	0.3886062	0.049*	.1514929	.9968436	

as high-quality SPIs. Ultimately, we investigated the relationship between higher quality SPIs and re-hospitalization. Indeed, a chi-square analysis revealed a significant association between high-quality SPI and readmission  $\chi^2(1)=4.32$ ,  $p = .038$ ). Of adolescents who had high-quality SPIs (rated for completeness, specificity, and relevance), 20.37% (N=11) were readmitted compared to 40.00% (N=16) of patients with SPIs of low quality. A logistic regression was conducted to determine the impact of age, sex assigned at birth, minoritized status per chart review, and severity of suicidal ideation (using total score on SIQ as a marker) in addition to high-quality SPI on readmission. The results of the logistic regression model were such that the model was not statistically significant,  $\chi^2(5, N = 94) = 8.43$ ,  $p = 0.13$  (see **Table 1**).

**DISCUSSION**

Previous literature has emphasized the importance of the SPI, resulting in the adoption of SPI as a gold standard for treatment for those presenting with suicidal ideation. Importantly, this study reiterates the feasibility of the SPI as a brief psychiatric inpatient intervention for the treatment of suicidality in adolescent inpatients. However, literature relating to the way in which the SPI is filled out by the patient, and how to rate the quality of the SPI each patient comes up with, is lacking. This study indicates that although there was variability in the quality of the SPI among patients, over half of the SPIs were of high quality. Additionally, our results suggest that the patients with higher-quality SPIs were less likely to be readmitted to an inpatient psychiatric facility within six months. The effect of high-quality SPIs on readmission rates illustrates the importance of the investment in the SPI. The findings of this study also suggest that there is merit to having a clinical team member vet the quality of the SPI with the patient before discharge, given the relationship of the SPI to the probability of re-admission. Thus, this study serves to encourage psychiatric organizations to continue using the SPI and also to ensure that the SPI is of high quality, for doing so can have a positive impact on the health of patient populations experiencing suicidality.

The lack of statistical significance of the model could be accounted for by myriad factors. Firstly, due to the limited

research available in this area, there is a lack of effect size estimates in the existing literature. Therefore, we were unable to conduct a proper power analysis to identify if there was adequate statistical power for a logistic regression model. Secondly, as will be discussed below, if some of the patient variables included represented more nuanced demographics, perhaps the model would have been significant. Given the complexity of factors influencing re-hospitalization, it is likely that other factors that are not included in the model are more robust predictors, such as adverse childhood events.<sup>17</sup>

**Limitations**

This study was limited by its statistical power and the fact that the only measure of patient outcome was re-hospitalization to an inpatient psychiatric facility. Additionally, patients who may have been readmitted to a facility not using the same EHR of the study hospital’s healthcare network are not accounted for. While this is a minority of patients given that the study hospital serves the majority of patients in this age range, the number of patients that were readmitted may be underestimated.

Moreover, given that at the time of data collection the SPI was still hand-written and subsequently had to be uploaded onto the chart, it is certainly possible that some patients did indeed complete an SPI, but it was never uploaded into the chart. Therefore, the number of completed SPIs could be higher than the 65.97% calculated in this study.

Additionally, the fact that there is variability in terms of which medical provider/staff aided the patient in filling out the SPI is not something this study could account for. It is certainly possible that the providers/staff members who help with the completion of SPI could influence SPI quality even though there was a clearly defined protocol for training and implementation of the SPI.

There are notable limitations to how patient demographics were included in this study. The sex assigned at birth does not in any way reflect the complexity and diversity of gender that patients can express. Moreover, given that sexual minority youths are at higher risk of attempting suicide,<sup>18</sup> having access to more nuanced gender and sexual identity variables would have been helpful. Had more nuanced gender and sexual identity variables been included in the logistic regression – a relationship between such variables, SPI quality and likelihood of readmission could have been captured. Race and ethnicity are other patient demographic variables in this study that didn’t accurately reflect the diversity and nuance these variables inherently have. In this study these variables were limited to the way race and ethnicity are recorded in the EHR. In future studies, it would be more appropriate to have patients self-identify their race from a more diverse and nuanced list of categories.

## CONCLUSIONS

The preliminary results presented here suggest that high-quality SPI can be protective against readmission to an inpatient psychiatric hospital. However, further assessment of how other patient variables such as race, gender expression, and diagnoses may impact SPI quality is warranted.

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## Authors

Pauline H.L. Bagatelas, MD'22, ScM'22, The Warren Alpert Medical School of Brown University, Providence, RI.

Jeffrey I. Hunt, MD, Department of Psychiatry & Human Behavior, Division of Clinical Psychology, Brown University, Providence, Rhode Island; Bradley/Hasbro Research Center, Rhode Island Hospital, Providence, Rhode Island.

Jennifer C. Wolff, PhD, Department of Psychiatry & Human Behavior, Division of Clinical Psychology, Brown University, Providence, Rhode Island; Bradley/Hasbro Research Center, Rhode Island Hospital, Providence, Rhode Island.

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## Correspondence

Jennifer Wolff, PhD

Bradley/Hasbro Research Center Coro West, Suite 204  
One Hoppin St.

Providence, RI 02903

540-921-7574

Fax 401-444-4645

Jennifer\_Wolff@brown.edu

# Suicide Risk and Psychotic Experiences: Considerations for Safety Planning with Adolescents

ELIZABETH C. THOMPSON, PhD; MARGARET NAIL, BS; SHIRLEY YEN, PhD

## ABSTRACT

Individuals with psychosis-spectrum conditions have strikingly high rates of suicidal thoughts and behaviors, especially in the early stages of illness. Given increasing rates of suicide among adolescents, and given that psychosis symptoms often emerge during this developmental period, it is important that practitioners working with adolescents are attuned to the intersection of psychotic experiences and suicide risk. Furthermore, youth with emerging signs of psychosis often struggle with other mental health concerns that are linked to suicidal thoughts and behaviors, including depression, anxiety, mania, trauma, and substance use. Taken together, these factors indicate that identifying early signs of psychosis can be critical for addressing suicide risk, and psychosis-spectrum symptoms are important experiences to include in safety planning for youth. Herein we discuss considerations for safety planning for adolescents experiencing psychosis-spectrum symptoms, drawn from clinical observations and pilot data collected from adolescents in a psychiatric inpatient unit and their families.

**KEYWORDS:** adolescence, psychosis, suicidality, safety planning

## INTRODUCTION

Suicide is a major public health concern for youth, as it is the second leading cause of death for those aged 10–24 years.<sup>1</sup> Individuals with psychosis-spectrum conditions have a markedly elevated risk for suicide in the early stage of illness, with even higher risk for those under the age of 18 and in the months before and after first presentation for psychiatric care.<sup>2,3</sup> The time surrounding an individual's first episode of psychosis, typically occurring in late adolescence or young adulthood, is linked to increased suicidal ideation, attempts, and death by suicide.<sup>3,4</sup> Suicide risk is also elevated during the clinical high risk (CHR) phase of illness,<sup>5</sup> when individuals begin to experience lower-intensity psychosis-spectrum experiences that put them at high risk for developing full-threshold psychosis. The CHR phase of psychosis often emerges in adolescence and is characterized by the persistence of distressing and/or impairing positive

symptoms (e.g., hallucinations or delusions) which are attenuated or below the threshold for a psychotic-disorder diagnosis (e.g., experiences are less intense, more fleeting, and lacking full conviction).<sup>6</sup> Examples of attenuated experiences include hearing indistinct whispers or intermittent voices that are recognized as not being real, or recurrent thoughts of being targeted by others, accompanied by doubt as to whether this is truly occurring. Approximately two-thirds of individuals at CHR endorse suicidal ideation, and an estimated 18% of people at CHR attempt suicide.<sup>5</sup> Given that suicide risk may be particularly high for those with untreated psychosis-spectrum symptoms, under the age of 18, and within the first year of psychosis onset,<sup>4,5,7</sup> health professionals working with adolescents need to be attuned to psychosis-spectrum symptoms and the intersection of psychosis and suicidal thoughts and behaviors (STBs).

## PSYCHOSIS-SPECTRUM CONDITIONS

Although psychotic disorders are relatively rare, with less than 1% estimated prevalence of psychotic diagnoses among adults, psychotic experiences are far more common, especially among adolescents. Research indicates that 10–25% of adolescents report some level of psychosis-spectrum experiences; however, the clinical significance of these experiences varies greatly across individuals.<sup>8</sup> Notably, among adults with psychotic disorders, 20% report symptom onset prior to the age of 18, and distressing symptoms, compared to benign experiences, are linked to higher risk for future psychosis and comorbid concerns, including suicidality. Taken together, these findings indicate that psychosis-spectrum experiences are relatively common and individuals' reactions to these experiences may influence their clinical relevance and associated risk.

Individuals with full-threshold psychosis are often identified by providers due to observable disorganized and/or alarming thoughts, behavior, and communication. For those at CHR, however, attenuated psychosis symptoms may not be readily disclosed and/or perceived by providers due to lower-level symptom presentation (e.g., less severe, distressing, and impairing symptoms) that may be masked because of stigma, embarrassment, confusion, lack of insight, or relational factors that impede disclosure (e.g., lack of trust, rapport, or supportive environment to open up about

experiences). Thus, providers may not be aware of important psychosis-spectrum symptoms associated with suicide risk without screening for them specifically and probing the impact of these experiences on STBs and other risk factors for STBs (e.g., stress, hopelessness, etc.). Notably, adolescents at CHR commonly experience comorbid mental health concerns including depression, anxiety, PTSD, mania, and substance abuse.<sup>9,10</sup> These comorbid difficulties often motivate help-seeking behavior and may predominate over attenuated psychosis, and they are also associated with increased suicide risk. While co-occurring mental health concerns such as depression may account for some STBs for youth with psychosis-spectrum conditions, research indicates that positive symptoms of psychosis such as hallucinations and delusions may be uniquely associated with STBs (beyond the effects of other mental health diagnoses and symptoms).<sup>11-15</sup>

### PSYCHOSIS-SPECTRUM EXPERIENCES AND SUICIDALITY

Although more research is needed to better understand the co-occurrence of psychosis and STBs, it is evident that identifying early signs of psychosis can be critical for reducing suicide risk for some youth, and psychosis-spectrum symptoms can be important factors to include in safety planning for these individuals. Pilot data collected by the authors from hospitalized adolescents in a psychiatric inpatient setting suggest that for some youth with psychosis-spectrum symptoms, unsafe behaviors labelled as “suicidal” are a function of positive symptoms (e.g., hallucinations or delusions), and subsequent life-threatening behaviors may lack intent or desire to die.<sup>16</sup> For example, unsafe behaviors may stem from experiences such as command hallucinations (e.g., voices encouraging suicide), delusions of grandeur (e.g., believing oneself is invincible), impaired reality testing (e.g., believing that the world, oneself, or threats are not real), or other psychotic processes (e.g., injuring oneself to stop or silence voices or thoughts perceived to be externally controlled). These experiences are distinct from symptoms that typically drive suicidal intent (e.g., hopelessness, a desire to escape), and strategies to mitigate risks related to intent to die may not be helpful for these types of psychosis-driven experiences. As such, these contributing factors have important treatment implications and require unique consideration in the context of safety planning.

### SAFETY-PLANNING CONSIDERATIONS

The goal of safety planning is to mitigate future risk by helping youth identify vulnerabilities, triggers, and warning signs, and find solutions for future occurrences of suicidal ideation by planning coping skills, help-seeking strategies, and ways to keep one’s environment safe (e.g., by limited access to lethal means).<sup>17</sup> Although safety planning has been

shown to reduce occurrences of suicidal behaviors, some evidence suggests that safety planning may not be as effective for individuals with severe mental illness.<sup>18</sup> This may be particularly true for certain psychiatric conditions, such as psychotic disorders, that impede insight and distort perceptions of reality, necessary faculties for effective problem solving. Furthermore, elements of traditional safety planning that focus on hopelessness and intent to die may not be as applicable to unsafe behaviors linked to hallucinations, delusions, and distorted reality. For these reasons, safety planning for youth with psychosis-spectrum conditions warrants special considerations aimed at improving the applicability and helpfulness for these adolescents and their caregivers. Outlined below are several steps that providers can take to help reduce safety-related risk for this population.

#### 1. Screen for psychosis-spectrum experiences in mental-health settings serving adolescents

There are several validated screening tools that can be used across settings to screen for potential psychosis-spectrum experiences in youth.<sup>19</sup> Screening tools that are designed to measure attenuated psychosis are helpful tools to capture the full spectrum of experiences, rather than focusing on full-threshold psychotic experiences. These measures include broader, tentative, and perhaps gentler language (e.g., “Do you ever think that you may hear voices or other sounds that others don’t seem to hear?”). This approach allows for endorsement of lower-level experiences, as compared to probing overt psychotic experiences that may be met with trepidation or symptom denial due to perceived connotation of saying “yes” to the experience (e.g., “Do you hear voices that are not really there?”). Some validated, open-source options for screening include the PRIME Screen-Revised,<sup>20</sup> the Prodromal Questionnaire-Brief (PQ-B),<sup>21</sup> and the Youth Psychosis At-Risk Questionnaire (YPARQ).<sup>22</sup>

#### 2. Explore the clinical characteristics of potential psychosis-spectrum experiences

Follow up on screening questions to explore why adolescents have endorsed specific items. If adolescents are not asked explicitly about symptoms, they may be less likely to spontaneously disclose or open up about their experiences. Ask follow-up questions in an open and non-judgmental manner, remaining calm and supportive throughout the conversation. Empathize with the individual’s emotional experiences in reaction to symptoms, and refrain from challenging the veracity of experiences such as hallucinations or delusions, as this may impede rapport and/or rupture trust. As you seek to understand the adolescent’s experience, it may be helpful to probe specific characteristics that influence the intensity or severity of symptoms: duration (how long the experience lasts), frequency (how often it happens), conviction (how real it feels versus self-generated doubt), distress (how it makes them feel), impairment (how it interferes with functioning),

meaning (how does the adolescent understand the experience and what it means), reactions (how the adolescent behaves in response to symptoms), and patterns (co-occurrence with other mental health or behavioral experiences; are symptoms linked to specific triggers or contexts).<sup>23</sup> Having a full understanding of the adolescent's experiences will help you to probe how psychosis-spectrum symptoms may intersect with STBs. Keep in mind that for some individuals, psychosis-spectrum experiences may not be considered clinically significant (i.e., they do not cause significant distress or impairment), and they may not need to be included in a safety plan, underscoring the need for conversation around the impact of these experiences.

### 3. Discuss safety in relation to psychosis-spectrum experiences

Once you have a better understanding of an individual's psychosis-spectrum experiences, ask about how these experiences might impact safety, mood, anxiety, stress, substance use, and other mental-health experiences that may influence STBs. Psychosis symptoms may directly impact safety and/or indirectly influence STBs via other factors (e.g., depression or hopelessness).<sup>24</sup> Alternatively, psychosis-spectrum experiences and STBs may not be related for some individuals. Attend to how psychosis-spectrum experiences may exacerbate stress and coincide with other risk factors that are relevant for the individual. Try to avoid making assumptions about the nature and impact of symptoms by using Socratic questioning (e.g., clear, neutral, and focused questions asked with genuine curiosity) and open-ended prompts to explore how the individual understands their experiences (e.g., "What do you mean when you say X?" "How does that make you feel?"). Another important thing to keep in mind is that among individuals with early psychosis, higher levels of insight and beliefs about negative outcomes for psychosis have been uniquely linked to suicidality, beyond the effects of depression.<sup>25</sup> Insight and negative beliefs may also directly impact depression.<sup>3,26</sup> These findings indicate that a person's understanding of their illness and their beliefs about what psychosis might mean for their future may play an important role in their experience of STBs. Although more research is needed to better understand how to address psychosis-related stigma in youth,<sup>27</sup> normalizing adolescents' experiences, instilling hope, and taking a recovery-based approach to care may help individuals to be more future-oriented in their goals and perspectives.<sup>28</sup>

### 4. Tailor the safety plan components specifically to psychosis-spectrum experiences

As you start to create a safety plan, include as many psychosis-spectrum experiences related to safety as possible. It may even be helpful to generate a separate safety plan for psychosis-specific experiences, in addition to one created for general mood-related suicidality. Discuss ways to reduce

exposure to triggers for hallucinations or delusions, identifying early warning signs of these experiences, listing unique coping or grounding skills effective for psychotic experiences, and naming trusted people to go to for distraction or adults to go to for help when specific experiences occur. It is particularly important to discuss ways to cope with each psychosis experience, and it could be helpful to provide a battery of coping options, including a variety of ideas for what someone can do on their own and what others may be able to do to offer support or direction when they notice signs of distress. For example, some coping skills for hearing voices might include listening to music, wearing an earplug in one ear, practicing vocal activities (singing, humming, reading or counting aloud, talking, or whispering), or using general grounding skills to orient oneself to the present reality. Remember that finding the right coping skills may be a process of trial and error, and more options will increase the likelihood of finding something that works.

### 5. Include caregivers in the process of safety planning

It is important to include caregivers in safety planning as much as possible, as they may be able to offer unique insight into the adolescent's behavior patterns, especially in situations where the individual may have limited insight. Caregivers may also benefit from hearing about and understanding their adolescents' experiences, as this insight may help them support the individual in different ways. Caregivers may need support in coping with their adolescent's mental-health struggles, and they will likely benefit from efforts to enhance their own self-efficacy in coping with a crisis. It may be helpful to ask the caregiver to create a safety plan for the adolescent from their perspective, outlining their observations of triggers and warning signs, ways that they can support coping, ways that they can avoid contributing to distress and minimize triggers, considerations for keeping the environment safe (e.g., locking up sharps and medications), and options for help to utilize in times of crisis. The method of safety planning alone with the adolescent, alone with the parent, and then together in a joint session has been shown to be helpful and well received by families coping with adolescent suicidality.<sup>29</sup> It may also be helpful to tailor safety plans to various contexts such as school or multiple households to help support the adolescent across settings. It might take some additional time to discuss the adolescent's willingness to share their plan with supportive adults and find solutions for barriers that may get in the way of discussing or using their plan in different contexts.

### 6. Incorporate a crisis plan

Include in the safety plan signs of mental-health deterioration and stress that may indicate a need for hospitalization (for psychosis or safety concerns). This might include increasing signs of disorganization, such as difficulty communicating one's thoughts, expressing bizarre ideas or not

making sense, believing ideas that may influence unsafe behaviors, having difficulty participating in daily routines such as hygiene or work/school responsibilities, or demonstrating odd behaviors or changes in appearance that may indicate disconnection from reality. Other signs of crisis might include an individual skipping or refusing medication, social withdrawal or isolation, impulsive or risky behaviors, and expressing a desire or plan to end one's life or leave the world. Collaborative crisis planning should include a discussion of the adolescent's preferences for care in crisis situations, and a clear plan for seeking appropriate treatment in the event of crisis (who to include in the conversation and where to go for help). Crisis planning has been shown to reduce involuntary admissions among adults with psychosis,<sup>30</sup> and this type of planning may reduce the likelihood of the adolescent experiencing traumatic psychiatric admissions.

### 7. Discuss strategies to maintain a healthy lifestyle and manage stress

While some individuals may report a direct influence of psychotic experience on STBs (e.g., command hallucination encouraging suicide), other individuals with psychosis-spectrum experiences report that STBs seem to be driven primarily by other mental health concerns such as depression and anxiety. For these youth, psychosis-spectrum symptoms may indirectly influence STBs by exacerbating stress, mood, anxiety, and other risk factors. In either case, it is important to discuss the impact of lifestyle choices and stress on mood, psychosis, STBs, and other risk factors relevant for the individual. Early psychosis is linked to high rates of substance misuse,<sup>31</sup> and misuse of substances, particularly marijuana, is linked to higher suicide risk among those experiencing their first episode of psychosis.<sup>2</sup> Youth with psychosis symptoms may be especially vulnerable to negative effects from marijuana use,<sup>32</sup> including exacerbation of mental health distress, so it is important to discuss this openly and brainstorm alternatives to using.

### 8. Consider and frame safety planning as an ongoing, iterative process

Lastly, take your time with safety planning. It may take several sessions to complete a comprehensive draft and ensure that the individual and caregiver(s) understand all of the components and are willing and able to use it effectively. As families try to implement their safety plans, they may face barriers to address via problem solving and role playing.<sup>19</sup> Consider the safety plan a living document that may need to evolve over time and with experience. It is helpful to complete a safety plan in a format that is editable (e.g., via an app, word doc, cloud or Google drive, etc.) and accessible across settings (e.g., on an app or saved as a picture on one's phone or other devices). Families should be encouraged to add to and edit their safety plan as needed, or create a new

one altogether, especially as strategies are determined to be helpful (or not). Remember that an individual's safety-planning needs may change over the course of treatment, and it is helpful to check in periodically to ensure that the safety plan stays relevant.

## CONCLUSION

Assessing suicide risk and safety planning are important components of treatment for many adolescents experiencing mental health difficulties. Given the high risk for suicide associated with psychosis, practitioners working with adolescents may benefit from implementing procedures to screen for psychosis-spectrum symptoms and assess how these experiences may influence STBs. Helpful safety planning considerations for youth at CHR or with early psychosis might include reducing exposure to triggers for hallucinations or delusions, identifying early warning signs of these experiences, listing unique coping or grounding skills effective for psychotic experiences, and incorporating parent input to provide insight that may be unrecognized by the teen. A careful process of safety planning may be a critical preventative measure for the unique population of adolescents experiencing psychosis-spectrum symptoms who are at markedly high risk for suicide.

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**Authors**

Elizabeth C. Thompson, PhD, Rhode Island Hospital and the Alpert Medical School of Brown University, Providence, RI.  
 Margaret Nail, BS, Rhode Island Hospital and the Alpert Medical School of Brown University, Providence, RI.  
 Shirley Yen, PhD, Massachusetts Mental Health Center (MMHC)/ Harvard Medical School, Boston, MA; the Alpert Medical School of Brown University, Providence, RI.

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**Correspondence**

Elizabeth Thompson, PhD  
 Research Scientist  
 Rhode Island Hospital  
 Child and Adolescent Psychiatry  
 1 Hoppin Street  
 Providence, RI, 02903  
 401-432-1617  
[Elizabeth.Thompson@Lifespan.org](mailto:Elizabeth.Thompson@Lifespan.org)

# Raising Children in Different Cultures: Working with Latinx Youth with Suicidal Behaviors and Their Families

GISELA JIMENEZ-COLON, PhD; YOVANSKA DUARTE-VELEZ, PhD

## ABSTRACT

In the United States suicide is the third leading cause of death among Hispanic youth ages 10 to 14 and the second leading cause for those ages 15 to 24. Given that Rhode Island's Latinx/Hispanic (L/H) population is growing, and L/H youth are more likely to attempt suicide compared to their White peers, culturally relevant interventions are needed. The objective of this case presentation is to illustrate the application of a cultural approach when working with L/H families using the Socio-Cognitive Behavioral Therapy for Suicidal Behaviors (SCBT-SB).

**KEYWORDS:** Latinx/Hispanic families, suicidal behaviors, cultural approach, evidence-based intervention

## INTRODUCTION

In Rhode Island (RI), the Latinx/Hispanic (L/H) population constitutes 16% of the total population, and has increased by approximately 39% in the last 10 years.<sup>1,2</sup> In the United States (US), suicide is the third leading cause of death among L/H youth between the ages of 10 and 14 and the second for L/H youth ages 15 to 24.<sup>3</sup> According to the 2017 and 2019 Youth Risk Behavioral Surveys in RI, L/H youth are more likely to attempt suicide in comparison with their White peers.<sup>4,5</sup>

The aim of this case report is to illustrate the application of a cultural approach when working with L/H families using the Socio-Cognitive Behavioral Therapy for Suicidal Behaviors (SCBT-SB), particularly regarding the strategies used with adolescent's caregivers. Integrating L/H caregivers into the treatment of adolescents with suicidal thoughts and/or behaviors (STB) is crucial for various reasons including assessing protective and risk factors at home, having caregivers as allies monitoring teen's symptoms, and putting in place a realistic safety plan with the family.<sup>6</sup> Additionally, families have their own struggles and having a child with STB increases their stress and can lead to feeling worried, anxious, or overwhelmed.<sup>7</sup>

L/H immigrant families face multiple challenges, including the acculturation process/stress, which includes adjusting to and adopting a new culture and language.<sup>8,9</sup> At the same time, families sometimes face the difficult task of

keeping their own traditions and values (enculturation process). In this context, many immigrant caregivers stay close to their culture, while their children get more acculturated to the American culture. In many instances, adolescents become bicultural (identifying and valuing both cultures), which allows them to navigate both cultures fluently.<sup>9</sup>

## TREATMENT APPROACH

The SCBT-SB is a treatment protocol that was developed in Puerto Rico with Puerto Rican youth.<sup>10</sup> Subsequently, it was expanded to L/H youth and their families living in the US through a pilot randomized clinical trial (RCT).<sup>11,12</sup> An RCT is currently in place testing the efficacy and effectiveness of the SCBT-SB (1R01MD013907, PI: Duarte-Velez). The SCBT-SB takes into consideration cultural, contextual, and social circumstances that influence STB in L/H adolescents. The SCBT-SB Core Module focuses on stabilization and providing basic skills to manage STB and includes individual, family, and caregiver sessions throughout nine visits. After finishing the Core Module, a participant can choose based on their needs which other modules they would like to complete next.<sup>10</sup> Each participant can select from nine different modules: Thoughts, Emotional regulation, Family communication, Activities, Social interaction, Trauma, Identity affirmation, and Substance use. Workbook manuals are supplied to teens and caregivers in their preferred language, English or Spanish, as part of the SCBT-SB. Treatment is provided through intense home-based services, which includes three to five hours of direct contact per week.

This article presents the case of one L/H youth with STB who participated in the RCT. The objective is to illustrate the process of addressing cultural considerations in SCBT-SB when working with L/H caregivers. Specifically, four of the core sessions conducted with the caregivers will be discussed: *Understanding the suicidal crisis*, *Raising children in different cultures*, *Parenting skills*, and *Family Communication*.

The first core session, *Understanding the suicidal crisis*, is a family intervention focused on getting to know the family, identifying possible barriers to treatment, learning the family story regarding the suicidal crisis, identifying social and contextual risk factors that need to be addressed, identifying family strengths and resources, and providing psychoeducation regarding the SCBT-SB conceptual approach to the

suicidal crisis and the teen’s mental health. The clinician also reviews safety measures, prevention agreements, and develops a family emergency plan.

The session *Raising children in different cultures* was developed to foster empathy and rapport with L/H caregivers while trying to understand their personal stories. This session has the following objectives: assess the caregivers’ values and expectations regarding child rearing during the adolescent phase; for immigrant caregivers, explore and discuss cultural differences between their country of origin and the US, including the caregiver’s experiences growing up in a different country or with a different language; for non-immigrant families, explore and discuss the differences between the time in which they grew up and the present.

The *Parenting skills* session is aimed at exploring the caregiver’s parenting styles and discussing effective parenting strategies. During the parenting skills session, the protocol’s cultural and societal premises are discussed, as well as differences in parenting strategies by country (US vs. Country of Origin) or time period. The *Communication* session targets exploring communication patterns in the family and teaching basic communication skills with the purpose of increasing positive interactions between family members.

**CASE PRESENTATION**

Ana (pseudonym) is a 16-year-old cis-gender woman, from a second-generation family (caregivers were born in a Latin American country and Ana in the US). Ana lived with both biological parents (Spanish-speaking only). Ana was fluent in both languages, but reported her preferred language as English. Her self-report questionnaires indicated a moderate to high identification with both cultures. For example, Ana highly identified with and valued the L/H culture and customs and felt proud of being Latina. She also reported that American values are part of her life and that she enjoys the language. Her mother reported higher connection with the L/H culture; however, she reported that she values the American culture as well and that it is very important for her to raise her children with both American and L/H culture and values. These reports highlight some differences in acculturation between Ana and her parents, particularly in their preferred languages. In addition, differences between Ana and her mother were found in the religious faith questionnaire. The mother had a high score while the teen had the lowest score on this scale. Self-report questionnaires (See **Table 2**) showed that Ana’s mother at baseline had a more positive view of their communication compared to Ana. Similarly, in their self-report for the general family functioning, the mother reported a more positive view than Ana.

Ana had a history of one previous psychiatric hospitalization, STB, anxiety, depression, and post-traumatic stress disorder (PTSD) related to exposures to multiple traumatic events. Ana presented to the emergency department (ED)

**Table 1.** Outcome variables teen report

Variables	Baseline	3 months	6 months
Suicide Attempts <sup>13</sup>	2	0	0
Suicide Ideation Questionnaire-JR <sup>14, 15</sup>	52	17	19
Children Depression Inventory CDI-2 <sup>16</sup>	27	19	19

Note: SIQ-JR cut off point = severe suicidal ideation ≥ 31; CDI cut off point = severe depressive symptoms ≥ 19

**Table 2.** Family variables: teen and caregiver report

Variables	Teen		Mother	
	Baseline	6M	Baseline	6M
Open Communication Scale (OCS) <sup>17</sup>	21	32	41	46
General Family Functioning (GFF) <sup>18</sup>	79	71	57	34
Family Critic (FC) <sup>19</sup>	18	14	--	--

Note: OCS teen= (x̄=29.80, SD= 10.08); OCS caregiver = (x̄=36.38, SD=9.15); GFF = is a subscale of the Family Assessment Device and higher scores implies worst functioning; GFF teen= (x̄=65.83, SD=10.50); GFF caregiver= (x̄=59.76, SD=11.89); FC = (x̄=20.21, SD=4.5)

after a suicide attempt (SA) via overdose. The lethality of the SA required medical intervention, stabilization, and psychiatric inpatient hospitalization for two weeks. Ana presented with suicidal ideation and depressive symptoms in the severe range (See **Table 1**). Ana and her parents consented to participate in the study for their aftercare. Ana’s clinical presentation was assessed at baseline, 3- and 6-month follow-up.

The parents demonstrated engagement in treatment, developed a positive rapport with the clinician, and showed willingness to learn how to support their teen throughout the therapy. Ana’s parents participated in a total of 11 sessions after the intake, which included 7 caregiver sessions and 4 family sessions that included Ana and sometimes her siblings. Ana completed the Core and Thought Modules. Therapy was provided by a bilingual master’s level mental health counselor trained in the SCBT-SB and supervised by the second author. Sessions with the parents were performed in Spanish. Joint sessions including the teen and siblings were conducted utilizing both languages; while the parents communicated in Spanish, the teen did so in English. Sometimes the teen was able to speak directly to her parents in Spanish, while other times she needed the clinician to translate for her.

**CONTEXTUAL FACTORS**

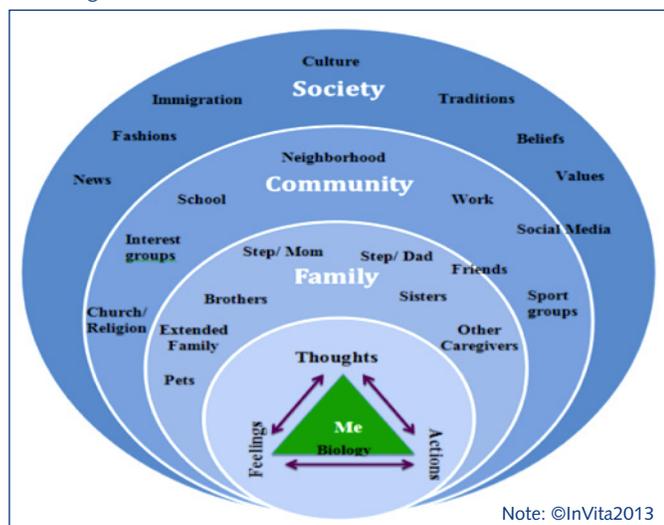
The patient experienced different stressful situations that included multiples exposures to community violence. Trauma symptoms contributed to maintaining the patient’s avoidance of certain places, including school, and further complicated her depression. Consequently, Ana was struggling with academic performance and school attendance.

Directly working with the school was an additional part of the clinician’s work. Another stressor that impacted Ana was that her religious beliefs were different from those of her parents. For example, Ana’s parents used Biblical verses seemingly with the intention of encouraging her to do better and provide emotional support. However, this was seen by Ana as her parents trying to force their beliefs on her, which at times made her feel worse.

**Family Session: Understanding the suicidal crisis**

All family members (Ana, both parents, and siblings) participated in the first therapy session. This session provided an opportunity to explore how each family member experienced the patient’s crisis, to promote a safe space for communication, and to generate a family safety plan. Therapy was discussed as a collaborative process in which everyone has a role and works together to support the teen. The psychoeducation around the SA as a crisis helped Ana’s parents be more understanding. The SCBT-SB conceptual model (see **Figure 1**) was introduced by explaining the positive and negative factors in each level (individual, contextual, societal/cultural level) that may have had an impact on the teen, as well as on the family as a whole. For example, the stress around immigration, societal expectations and norms, violent events at school, and relationship issues, among others, were discussed.

**Figure 1.** Understanding the suicidal crisis: Socio-cognitive behavioral model



**Caregiver Session: Raising children in different cultures**

Motivations and barriers to engaging in treatment were initially explored with each caregiver with the purpose of addressing any resistances. Both parents were motivated, no significant barriers were identified, and they both actively participated in the session. They provided examples about themselves growing up in another country and commented

on the differences in comparison to the US. The clinician built trust and rapport with Ana’s caregivers by paying attention to their life experiences and showing appreciation for their culture. The exercise “walking in my teen’s shoes” allowed Ana’s parents to empathize with their teen’s reality of being an adolescent in two different cultures and have a conversation with the clinician about realistic expectations for her. One of the differences they mentioned was the freedom and access to connect with neighbors and others, for example, “in our country, kids go outside and play and here that does not happen that often”. Additionally, they recognized aspects of their culture they wanted to continue promoting in their family and started to contemplate areas that needed to change. Ana’s parents decided that they wanted to ask more questions to allow her emotional expression, have more open conversations, and listen more.

**Caregiver session: Parenting skills**

During this session both parents participated and multiple topics were discussed, including parenting styles, examples of parenting skills, and popular ideas regarding gender roles. Both parents were very receptive and showed a willingness to learn more. They were able to identify that they work as a team and recognize how the way they grew up influences some aspects of their parenting. Both parents acknowledged that they could increase the way they provide warmth and support. This included identifying positive things about their teen to help their child’s wellbeing. The SCBT-SB protocol includes a worksheet in which examples about parenting strategies are discussed. Ana’s mother found this discussion very helpful, and both parents wanted to continue implementing these strategies at home.

**Family Session: Communication**

All family members (Ana, both parents, and siblings) participated. A perspective-taking exercise was done which helped in two different ways, the first being as an icebreaker activity which allowed everyone to participate in a creative way and alleviated some of the tension inherent in starting treatment. They all laughed and collaborated while completing the activity. Secondly, the exercise provided the opportunity to talk about having different perspectives and the importance of understanding the other person’s point of view. During this session, family members identified their communication styles and practiced some assertive statements to share with each other while maintaining consideration for family values such as *respect* (the L/H value of showing special regard to adults).

**Closing session: Exploring gains received from therapy**

At the end of treatment, gains/progress made with therapy were assessed with both Ana and her parents. Caregivers reported feeling satisfied with the progress they made. They highlighted some improvements in Ana and as a family.

They mentioned that Ana was more involved in family activities and that she had begun to look happier and more hopeful. Parents reported that she was expressing more of her thoughts and points of view at home. Additionally, they reported how the family sessions had also helped Ana's siblings become more patient and understanding with the family. The mother expressed, *"you educated us and helped the whole family and we all learned"*, expressing that, for example, they learned how to identify the appropriate moment to talk and communicate with each other. Another aspect of the treatment that the mother reported as helpful was having a therapy manual for them, *"Having things written down helped me to review it on my own time and if I forgot something, I could go back and read what was in there"*. During the closing session, therapists encouraged the parents to continue validating Ana, understanding her perspective even though they may have different opinions. The therapist reviewed the safety plan and provided resources to the family, including an outpatient referral to continue working with Ana's depressive symptoms and trauma.

#### Follow-up assessment

At the follow-up assessment, Ana did not report any SA and showed significant improvement in her suicidal ideation in comparison to her baseline (See **Table 1**). In terms of depressive symptoms, there was some decrease, but at 6 months still fell under the severe range. Regarding family variables at the 6-month follow-up, a noticeable improvement in general family functioning (two standard deviation difference) was observed, according to the mother's report, and a slight improvement was reported from the teen's perspective. Likewise, mother-daughter open communication increased significantly, according to Ana's report, and according to the mother, it remained around the same, which was seen as positive. In the Family Critic Scale, Ana reported a decrease of nearly one standard deviation, which translates to less perceived family criticism at the 6-month follow-up.

#### DISCUSSION

Ana represented a complicated case due to her comorbidity, multiple traumatic experiences, history of STB, the severity of her depressive symptoms, and her academic difficulties. One of the strengths of this family was their parental involvement and willingness to provide support, which eventually translated into more participation in therapy and increased communication at home. Both the teen and the mother reported improvements in family variables, which may have been related to Ana's substantial reduction in suicidal ideation, and no further suicidal crisis. However, her multiple diagnoses, including her trauma impacting her academic performance, were still affecting her mood (depressive symptoms), requiring further treatment.

Psychoeducation with this family regarding trauma and

depression was fundamental. This permitted the parents to be more understanding of Ana's situation and more engaged in providing support. This case illustrated how family willingness to learn more about how to support their child is important. The use of motivational interviewing at the beginning of the treatment with parents can help the therapist better understand their positionality regarding therapy. Paying attention to psychoeducation and motivation for treatment may help parents become more invested in their teen's treatment. Additionally, the family interventions with a cultural approach helped this family increase mutual understanding and communication at home.

#### CONCLUSION

Cultural considerations when working with immigrant families are essential for treatment success. This case provides an example of exploring the level of acculturation of both patient and caregivers. One way to explore acculturation in therapy is having a conversation about the differences and similarities they observe between the American and L/H culture and their values. Clinicians can directly explore with caregivers how connected they feel, or not, to the American culture and how this may be different between them and the way they see their teen. Exploring these cultural factors with L/H families can make some caregivers feel seen and heard and be a crucial part of establishing rapport. In addition, this case depicts the use of a specific treatment to address a suicide attempt. The treatment, developed in Puerto Rico and expanded to be used with L/H families in the US, employs a modular approach that allows the clinician to address core components initially and then can be tailored to the needs of the family and the patient. Use of this culturally relevant treatment holds promise for addressing the specific needs of L/H adolescents, a population at high risk for suicidal behavior.

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### Authors

Gisela Jimenez-Colon, PhD, Department of Psychiatry and Human Behavior, Emma Pendleton Bradley Hospital and Brown University.

Yovanska Duarté-Vélez, PhD, Department of Psychiatry and Human Behavior, Emma Pendleton Bradley Hospital and Brown University.

### Correspondence

Yovanska Duarte-Velez, PhD  
[Yovanska.Duart-Velez@Lifespan.org](mailto:Yovanska.Duart-Velez@Lifespan.org)  
[Yovanska\\_Duarte-Velez@Brown.edu](mailto:Yovanska_Duarte-Velez@Brown.edu)

Gisela Jimenez-Colon, PhD  
[gjimenezcolon@lifespan.org](mailto:gjimenezcolon@lifespan.org)  
[gisela\\_jimenez-colon@brown.edu](mailto:gisela_jimenez-colon@brown.edu)

## Recognizing Suicidal Risk in Very Young Children

ELIZABETH WAGNER, MD, MPH; ANJALI GOTTIPATY, BA; JEFFREY I. HUNT, MD; JOHN R. BOEKAMP, PhD

### ABSTRACT

Suicidal thought and behavior (STB) in preschool and kindergarten-age children is an alarming event. Until recently, these young children's experiences have been under recognized, in part due to an under appreciation for their awareness of the finality of death. Although rare, serious suicide attempts and death by suicide among preschool and kindergarten-age children are well documented. There is limited research on the risk factors that contribute to STB in very young children. We present de-identified case descriptions of very young children seen for psychiatric treatment at a day hospital program who presented with self-injurious behavior and suicidal ideation (SI). The patients described have common risk factors, including exposure to trauma, family conflict and family history of suicidal behavior. It is critical that children presenting with STB be assessed and offered services to mitigate these risks.

**KEYWORDS:** suicide, suicidal ideation, suicidal attempt, early childhood school-age children

### INTRODUCTION

Over the past few decades, there is growing recognition that preadolescent children experience suicidal thoughts, engage in suicidal behavior, and die by suicide at alarming rates. In 2018, suicide was the fifth leading cause of death among children aged 5–12, resulting in 185 deaths.<sup>1</sup> Although the overall rate of suicide in school-age children over a 20-year period from 1993–2012 was stable, the rate increased significantly among Black children.<sup>2,3</sup> In 1993, the suicide rate was comparable between White and Black children, but by 2012 the suicide rate among Black children was 2.6 times as high as the rate among White children. Moreover, the age-adjusted suicide rate for adolescents and young adults has increased substantially over the past two decades.<sup>4</sup> School-age children are also presenting more often to emergency departments (ED) with suicidal ideation and suicidal attempts. For example, in a large recent study of inpatient admissions across 14 states, 12% of children under age 12 reported a past suicide attempt.<sup>5</sup> Moreover, 43% of ED visits for suicidal ideation

and attempts involved children under the age of 12.<sup>6</sup> There is also emerging recognition that very young children may experience suicidal thoughts and engage in suicidal behavior. One recent study, recruited through pediatric practices, reported that 11% of study participants between ages 3–7 years expressed suicidal ideation to their parents.<sup>7</sup>

Despite the emerging recognition that some school-age children, and even preschool-age children, may experience STB, including attempts, the clinical literature on risk factors for STB in school-age and younger children is limited. Depression, anxiety, disruptive behavior disorders including impulsivity, and exposure to trauma have all been associated with STB in adolescents.<sup>8</sup> Evidence is emerging that this wide range of psychiatric disorders as well as family conflict and low parental monitoring is also associated with STB in preschool and school-age children.<sup>9,10</sup> Moreover, early STB predicts psychiatric impairment including risk for psychiatric day hospital readmission<sup>11</sup> and school-age SI.<sup>7</sup>

Early identification of children at risk for suicide is a critically important step. For the youngest children, who are unable to report on their level of distress and psychiatric symptoms, clinicians must rely on parental report. However, caregivers may not recognize the distress as reflecting suicidal ideation due to beliefs that young children have limited awareness of the finality and irreversibility of death. And yet, studies have consistently found that children as young as 4-years-old grasp the biological finality of death, and that most children have a mature understanding of death by ages 6–7.<sup>12,13,14</sup>

### METHODS

To illustrate how these young children exhibit suicidal thoughts and behaviors, the current paper provides several de-identified composite case descriptions (with fictional first names) of preschool and young school-aged children who presented to an early childhood psychiatric day hospital with concerns about behavioral and emotional dysregulation, self-injurious behavior, and STB. All children received the standard clinical assessment protocol and the case presentations reflect information gathered as part of the standard clinical protocol.

## CASE DESCRIPTIONS

**Child #1:** Lee-Anne is a 4-year-old girl admitted for psychiatric day hospitalization to address escalating self-injurious and aggressive behavior, depressed mood with irritability, death and negative self-statements including suicidal ideation. Lee-Anne lived with her mother, step-father, and two older siblings. Parents noted that Lee-Anne started to exhibit seizures in early infancy. Her parents separated following several episodes of domestic violence in later infancy. Lee-Anne reportedly exhibited frequent temper loss dating back to just after her second birthday. Parents described her as not only “headstrong,” easily frustrated, and often non-compliant, but also “loving” and “a good girl who worries too much about her family.” Mother reported extended family health issues with several hospitalizations over the past year, which has resulted in significant family stress.

Prior to admission, parents noticed that Lee-Anne scratched herself on multiple occasions and tried to hide them afterward. She also banged her head more frequently during temper-loss episodes, while saying that she wanted to hurt herself. Parents started to routinely check for scratches every day, which Lee-Anne frequently resisted. Lee-Anne also started talking more about death, expressed more worries about her parents’ health, and resisted separations more in the months prior to her day hospitalization.

Upon day hospital admission, Lee-Anne started to say that she wanted to die, both at home and in the program. Lee-Anne protested separations upon morning arrival, appeared more often sad and tearful, and reacted with aggression to staff and family members. In response to supportive interventions by staff, Lee-Anne exhibited irritability, self-injurious behavior, and intensifying aggression which required physical interventions for safety. During these episodes of self-directed aggressions, which involved pinching, scratching, and banging her head forcefully against the wall, Lee-Anne also stated that “I want to die,” “I want to kill myself,” and “God should kill me in an accident.” Her parents expressed the belief that these suicidal statements reflected Lee-Anne’s intention to die. These episodes of behavioral dysregulation and SI appeared to be associated with separation distress, and worries about the health and well-being of immediate family members.

**Child #2:** Joey, a 5-year, 4-month-old boy, was admitted for psychiatric day hospitalization to address escalating aggression towards family members, self-injurious behavior, anxiety, and constipation with overflow and fecal smearing. Joey lived with his adoptive parents and sibling. He did not see his two older biological siblings who were adopted by another family. He also lost contact with his younger biological sibling who was reunified with the biological parents. Joey’s maltreatment or neglect history prior to foster care was unknown. He was placed in two foster homes prior to placement with his then pre-adoptive parents. Within the

first year of placement, his biological parents’ rights were terminated and his adoption was finalized. Joey’s adoptive parents cited the loss of contact with his younger sister as particularly distressing, and reported that he often mentioned missing his sister.

At day hospital admission, Joey’s parents reported multiple episodes of losing his temper per week, which included throwing himself to the floor with force, face and arm scratching, headbanging on floor, walls, and door edges, throwing objects at family members, and prolonged screaming and crying. These episodes lasted 30–45 minutes and occurred several times per week, up to several times per day. During one temper-loss episode before admission, Joey’s parents reported that he stated that he wanted to be dead, but they were unable to recall additional details about the statement.

At the day hospital program, Joey exhibited several high-intensity temper-loss episodes, with self-directed aggression that included scratching and headbanging with force, and screaming. During episodes of dysregulation, which lasted between 15–20 minutes, Joey received 1:1 care but did not require safety interventions. Joey responded impulsively to comments from staff to help him orient and prepare for upcoming transitions among activities. Following these prompts, Joey often displayed rapid-onset hyperactivity and increased frustration. He also avoided eye contact, screamed, but no self-harming statements were noted.

His mother reported that she tried to manage self-directed aggression at home by offering choices. She noted that when she prompted him to consider a different choice following continued dysregulation, he often stated “but it’s okay to hurt myself.” Mother also noted that Joey occasionally expressed concerns that others might come to some harm, including dying, after prolonged separations. He also wondered if his biological father had died.

As part of his day hospital program evaluation, Joey was administered a brief, structured interview measuring his understanding of key biological concepts of death.<sup>15</sup> Joey’s answers indicated a good grasp of the concepts of finality and irreversibility, emerging understanding of non-functionality, and limited awareness of internal causes of death.

**Child #3:** Frank is a 6-year, 11-month-old boy who was admitted for day hospitalization for self-injurious behavior and suicidal statements, including “I want to kill myself” and attempted self-choking. Frank lived with his mother and younger sister during the week and visited with his father and stepmother on most weekends and one afternoon every other week. Frank had expressed the wish to die and kill himself on multiple occasions at home and school. He had also displayed oppositional and defiant behavior, and often refused to comply with directives from adult caregivers. Frank attended a regular first-grade classroom, and the school team was in the process of evaluating him for special education eligibility.

Frank's history was noteworthy for prenatal complications, developmental delays in motor coordination and planning, attention deficit hyperactivity disorder (ADHD), anxiety, exposure to significant family conflict, and parental divorce. Frank had a long history of inserting objects in his mouth. Extended family history was significant for suicide. In addition, Frank's mother reported that he had a long history of expressing grief for a family member who died when he was an infant.

Frank expressed numerous suicidal statements during the course of his day hospitalization. Several of these statements were violent, including wanting to cut off his head with a knife and putting a gun in his mouth to reunify with a lost relative. He also disclosed a past attempted suicide that was not witnessed. Specifically, he reported during an interview assessing his understanding of death that "I attempted to cut myself with a knife to sacrifice yourself – if someone else dies and you feel sad." Frank was also able to explain the difference between a general death and "killing oneself." On several occasions he attempted to sit on a window sill while stating, "I will fall off and break my neck." In addition to multiple SI and non-suicidal statements, Frank exhibited prominent aggressive behavior towards staff when distressed or appearing agitated.

**Child #4:** Sandy is a 5-year, 6-month-old girl admitted for day hospitalization to address increasing aggression, self-injurious behavior, sexualized behavior, impulsivity, negative self-statements, and property damage. Additional concerns included gagging on non-preferred foods, and sleep difficulties, including delays in sleep onset and night waking. Sandy lived with her mother and father. History was noteworthy for exposure to domestic violence and physical abuse. First-degree family history was significant for SI and past suicide attempts (SA).

Upon program admission, Sandy displayed intermittent temper loss with moderate intensity to staff. She also displayed brief headbanging and wall kicking when frustrated with staff prompts and redirections. Sandy expressed the following suicidal ideation at home and in the program: "I wish I wasn't here," and "I want to go to sleep but I don't want to wake up."

Sandy's mother did not believe that Sandy intended to harm or kill herself when she expressed SI and engaged in self-injurious behavior. Mother stated, "She is too young; she doesn't know what she is saying." Mother also reported that "she acts this way for attention." Sandy was administered an interview measuring her understanding of key biological concepts of death<sup>15</sup> as part of her program evaluation. Sandy's answers indicated an emerging understanding of the concepts of finality, irreversibility, and non-functionality, but limited awareness of internal causes of death.

## TREATMENT

The focus of treatment for very young children presenting with STB is initially focused on crisis stabilization and helping parents to identify and manage safety concerns. Clinical support following initial stabilization includes facilitating problem identification, communication of distress, promoting the child's experience of feeling understood, and helping the child and parents share activities that increase positive and decrease negative experiences or interactions. For children admitted to psychiatric day hospitalization, intensive parent-child guidance is a core element of the treatment plan. Treatment is optimally provided by a multi-disciplinary team including pediatrics, psychiatry, psychology, occupational therapy, speech therapy, nursing, and behavioral health staff. Upon discharge from the higher level of care, families can expect to continue in outpatient treatment, which may include a home-based component with the support of psychiatry, pediatrics and psychological services, and collaboration with their school teams.

## DISCUSSION

These cases illustrate the recently established finding that young children can exhibit suicidal thinking and behavior<sup>16</sup> by introducing children ages 4-, 5-, and 6-years-old who were observed by clinicians and reported by parents to make suicidal and death-related statements and physical aggression towards themselves and others. This is consistent with research that shows that preschool-onset depression occurs in children as young as age 3,<sup>17</sup> with multiple documented cases of preschool children having serious suicide attempts and death by suicide.<sup>18</sup> It is important to keep in mind that depressed children present differently than adults; the more common presentation seen in adults of withdrawal and neuro-vegetative symptoms is much less likely in early developmental levels. Although most young children with SI present with heightened irritability or distress, and impulsive and disruptive behavior, we do recommend routine suicide screening for young child with significant withdrawal, depression and anxiety. Children with internalizing presentations may be more difficult to identify for suicide screening and support because they are quiet and not disrupting others. It is critical that young children exhibiting symptoms of depression receive a full behavioral-health assessment and be offered interventions to prevent negative outcomes in the context of later risk. Researchers are continuing to investigate effective interventions for this population,<sup>19</sup> with the hope that provision of services to this population and their families at an early stage will prevent further development of depression and its sequelae in later years. Very young children's self-injurious behavior and suicidal statements represent real distress and psychiatric impairment, which is deserving of further assessment and referral for treatment.

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Authors

Elizabeth Wagner, MD, MPH, Department of Psychiatry and Human Behavior, Bradley Hospital; Warren Alpert Medical School of Brown University, Providence, RI.  
 Anjali Gottipaty, BA, Department of Psychiatry and Human Behavior, Bradley Hospital; Warren Alpert Medical School of Brown University, Providence, RI.  
 Jeffrey I. Hunt, MD, Department of Psychiatry and Human Behavior, Bradley Hospital; Warren Alpert Medical School of Brown University, Providence, RI.  
 John R. Boekamp, PhD, Department of Psychiatry and Human Behavior, Bradley Hospital; Warren Alpert Medical School of Brown University, Providence, RI.

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Correspondence

Elizabeth Wagner, MD, MPH  
 Bradley Hospital  
 1011 Veterans Memorial Parkway  
 East Providence, RI 02915  
 401-432-1000  
 Fax 401-432-1187  
[Elizabeth.Wagner@lifespan.org](mailto:Elizabeth.Wagner@lifespan.org)