

Are we Doing Enough? Risk Factors, Assessment Methods and Treatment for Adolescent Suicide.

Presented to the S. Daniel Abraham Honors Program in Partial Fulfillment of the
Requirements for Completion of the Program

Stern College for Women

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April 27, 2023

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Table of Contents:

ABSTRACT.....	3
INTRODUCTION.....	4
Statistics on Suicidality.....	4
Defining Adolescence.....	5
Defining Suicidal Ideation.....	8
CLINICAL BACKGROUND.....	9
Risk Factors.....	9
Protective Factors.....	13
ASSESSMENT METHODS.....	15
Personal Interview Conducted with Dr. Halana Rothbort.....	18
TREATMENT.....	21
CONCLUSION.....	27
ACKNOWLEDGEMENTS.....	29
REFERENCES.....	30

Abstract

Suicide is defined as “a fatal self-injurious act with some evidence of intent to die” (Turecki, 2016). This definition, although true, is only part of the story. Suicide is the second leading cause of death in children aged 10-14, and is the third leading cause of death in adolescents aged 15-19 (CDC, n.d.). These statistics, although heartbreaking, are not surprising. According to the CDC, suicidal ideation has been on the rise in teens and adolescents aged 10-24, with a 57.4% increase from 2007 to 2018 (Curtin, 2020). Identifying common risk factors and early signs of suicidal ideation can be crucial in slowing this trend. These factors include comorbid mental illnesses, past suicide attempts, substance abuse, loss of loved ones, and unhealthy or violent relationships. Additionally, many doctors and other mental health specialists use common assessments such as the Ask Suicide-screening Questions (ASQ) or the Columbia Suicide Severity Rating Scale (C-SSRS) to assess suicidal ideation in adolescents. However, these screening tools were created for specific settings and are, therefore, not generalizable to other populations. Therefore, after interviewing a mental health professional, this paper will present a clear understanding of a suicidal assessment for young adults. Additionally, common treatment methods for suicide, such as inpatient hospitalization and outpatient settings will be compared to attempt to identify the most effective method of treating suicidality in children and adolescents. This paper aims to develop an understanding of the stage of adolescence, the risk factors associated with suicide, the proper assessment methods, and ultimately focus on developing the most effective treatment plan for suicidal adolescence.

Introduction

Statistics on Suicidality

The stigma surrounding mental illness has seeped its way into our culture, communities, and individual families. Whether or not you have experienced mental health struggles, be assured that most likely your neighbor, friend, or even a family member has been struggling right in front of your eyes. This can range from mild anxiety and depression to more severe bipolar and personality disorders. One of the most unspoken-about and taboo mental illnesses is suicide behavior disorder. According to the Center for Disease Control, “suicide rates have increased 37% between 2000-2018 and decreased 5% between 2018-2020. However, these rates nearly returned to their peak in 2021” (CDC, n.d.).

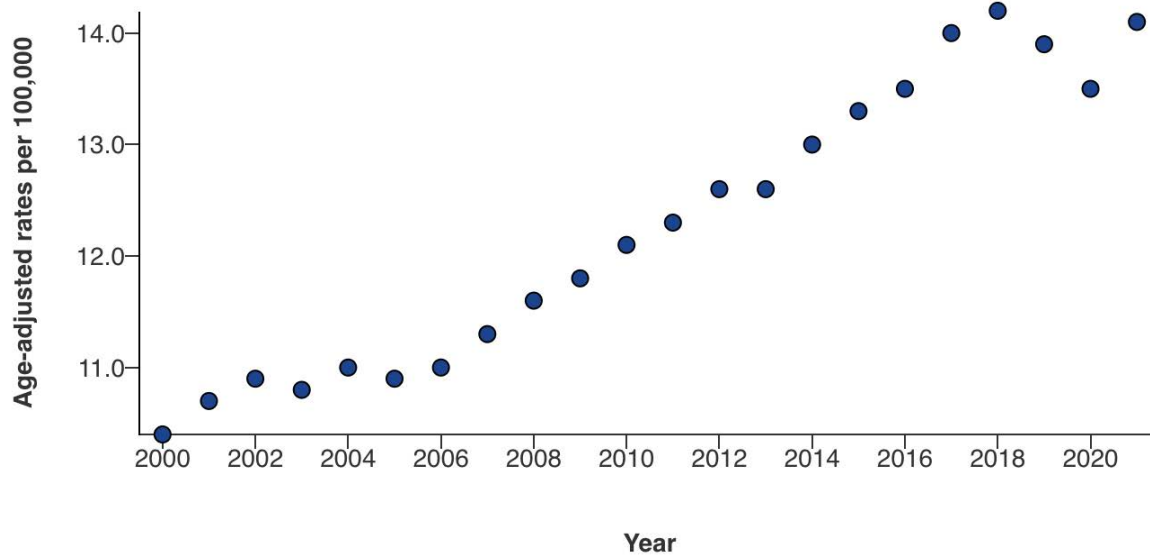


Figure 1: Graph representing an overall increase in suicidal rates from 2000-2021 (CDC, n.d.)

Specifically, “Youth and young adults ages 10–24 years account for 15% of all suicides. The suicide rate for this age group (11.0 per 100,000) is lower than other age groups. However,

suicide is the second leading cause of death for this age group, accounting for 7,126 deaths (in 2021 alone). Additionally, suicide rates for this age group increased 52.2% between 2000-2021". There was also an estimated 224,341 emergency department visits for self-harm among young adults in 2020. In particular, young women are at high risk of self-harm and the rate of ED visits in 2020 was 514.4 per 100,000. This rate of ED visits was approximately double the rate as compared to 2001 which was 244.3 per 100,000 (CDC, n.d.). These statistics indicate the increasing severity of suicide and self-harm among the adolescent population and the importance of bringing awareness and working to prevent this fatal mental illness.

Defining Adolescence

In order to discuss the risks of suicidality in adolescents, the developmental stage of adolescence must be defined. In a broad sense, adolescence refers to the transition from childhood to adulthood. This time period is filled with much biological and emotional change and development. The time frame of adolescence is traditionally characterized as the ages between 12 and 18, usually beginning with the onset of puberty and ending with legal independence (Jaworska, 2015). Puberty, which marks the beginning of adolescence, is a biological process that is driven by the increase in adrenal and gonadal hormones such as gonadotropin-releasing hormone (GnRH), luteinizing hormone (LH), and follicular stimulating hormone (FSH). This results in the development of many secondary sex characteristics and changes in muscle and fat distribution. In females, these physical changes include breast development, hip widening, and pubic hair growth. Similarly, in males, the physical changes associated with puberty are pubic and facial hair growth, enlargement of the genitalia, voice deepening, and muscle growth.

Another significant change that occurs during adolescence is the developing hormonal stress response and the impact it has on the adolescent brain. When an individual is in a stressful situation, there are two types of stress responses that work to help the person cope. The first is a rapid response where the sympathetic nervous system releases norepinephrine and stimulates the adrenal medulla to release epinephrine into the bloodstream. This results in the immediate response to stressors known as the “fight or flight” response. The second is a slower response known as the hypothalamic-pituitary-adrenal (HPA) axis. This occurs when the hypothalamus secretes corticotropin-releasing hormone (CRH) to signal the pituitary gland to release adrenocorticotropic hormone (ACTH). ACTH, in turn, stimulates the adrenal glands to secrete glucocorticoids, specifically cortisol which is released in response to stress in humans. Importantly, once the stressor has ended, the glucocorticoids act through negative feedback on the pituitary gland and the hypothalamus to stop the secretion of these hormones and end the stress response (Romeo, 2013).

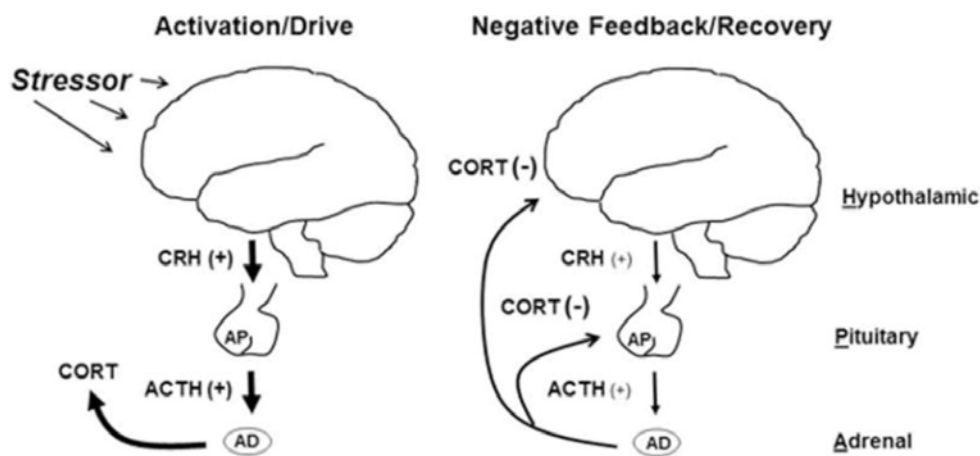


Figure 2: A simplification of the hypothalamic-pituitary-adrenal (HPA) axis (Romeo, 2013)

Although data from developmental neuroscience is still emerging, it appears that changes in the HPA axis during adolescence result in increased cortisol activity in response to acute stressors and a longer recovery time as compared to prepubescent children and adults. Therefore,

it is possible that during adolescence individuals can experience a heightened acute stress response that can cause increased stress reactivity and prolonged stress responses. This would result in more dramatic and intense reactions to stress, in addition to the stress response lasting longer than the average adult. It is possible that the vulnerability of the pubertal transition, in addition to preexisting risk factors, exacerbates the biological stress response in adolescents and causes them to be unable to cope with the increase in interpersonal stressors that occur during this developmental period. (Miller, 2019).

In addition to the biological transformation, emotional and social changes are also typical during adolescence. Most commonly seen in this time period is an increase in risk-taking activity and emotional reactivity. Compared to individuals of other ages, adolescents exhibit a disproportionate amount of reckless behavior, sensation-seeking, and risk-taking. Unfortunately, risk-taking is often associated with negative consequences. According to the National Center for Health Statistics, there are over 13,000 adolescent deaths each year and the top three leading causes of death in this age range are unintentional accidents, homicide, and suicide (CDC, n.d.). Additionally, according to the results of the Youth Risk Behavior Survey from 2019 approximately 43.1% of U.S. high school students did not always wear a seat belt, 16.7% rode with a drinking driver, 5.4% had driven after drinking alcohol and 39.0% had texted or e-mailed while driving. (Yellman, 2019). Other negative outcomes of adolescent risk-taking include AIDS infection, unwanted pregnancy, and alcohol or drug dependence (Spear, 2000). These statistics indicate that adolescence is a period of risk-taking that is often accompanied by unintentional harm.

Furthermore, an increase in emotional reactivity during this time is often consistent with changes in a young adult's social and school environment. For example, as adolescents are

transitioning from middle school to high school, they often spend less time with family and more time with friends and have increased conflicts with their parents. These social changes can bring about strong reactions and can often induce an acute-stress response among teens as they learn to navigate the challenges of young adulthood. Because of these changes, during adolescence, teenagers have heightened emotions and are more likely to engage in potentially harmful behavior that puts themselves and those around them at risk.

Defining Suicidal Ideation

Adolescents are in a developmentally sensitive time period and are, therefore, at a heightened risk for suicidal ideation. Suicidal ideation, although difficult to define, is crucial to understand in working to prevent suicide among adolescents. Suicidal ideation is clinically significant because those who will commit suicide experience suicidal ideation. Therefore, if clinicians can identify signs of suicidal ideation in their patients they can better predict which patients will go on to self-harm and which will not. In general, suicidal ideation involves self-deprecating feelings that may range from “life is not worth living” to the more serious consideration of a thought-out plan for suicide. However, there is a debate as to whether the definition of suicidal ideation consists of thoughts of self-harm in which suicidal intent is present or thoughts in the absence of suicidal intent. Sometimes, suicidal ideation is used exclusively to describe thoughts directed at self-harm, such as elaborate plans to kill oneself. While at other times it includes passive death wishes with no intent such as ‘I wish I wasn’t here.’ (McAuliffe, 2002). Either way, it’s clear that defining suicidal ideation is crucial to help predict those who are at risk for self-harm.

Another common way to define suicidal ideation is to distinguish between active and passive suicidal ideation. Active suicidal ideation is defined as “thoughts about taking action to

end one's life, including identifying a method, having a plan, or having the intent to act". While passive suicidal ideation is "thoughts about death or wanting to be dead without any plan or intent" (Turecki, 2016). It is extremely important to understand the wide range of the use of suicidal ideation and to be specific when using the term, especially in a clinical assessment. Regardless, both active and passive suicidal ideation are effective predictors of suicide and should be taken into consideration when assessing a patient's risk of suicide and self-harm.

This paper attempts to focus on suicidal risk factors and assessment methods for suicidal adolescents. The above information indicates that adolescence is a time of much biological and emotional change that is often associated with risky behavior and additional stressors. Therefore, identifying risk factors and protective factors can be crucial in assessing suicide risk among young adults. Having the most effective screening assessments for suicidal adolescence is the first step in preventing suicide and slowing the trend. Furthermore, a discussion of the current treatment methods and an analysis of the success of inpatient vs. outpatient treatment will be compared in order to shed light on the best way to help a child struggling with suicidal behaviors.

Clinical Background

Risk Factors

There are numerous risk factors for adolescent suicide that can be divided into four different categories. These consist of individual risk factors, relationship risk factors, community risk factors, and societal risk factors. Additionally, risk factors can be characterized by high-risk and low-risk factors. The additive effect of multiple risk factors and lack of protective factors can be significant indicators when attempting to predict a child's risk of suicide.

Individual risk factors consist of previous suicide attempts, a history of mental illness, financial problems, substance use, childhood trauma, and a sense of hopelessness (CDC, n.d.). Mental illness is one of the top risk factors for suicide as 90% of people who have committed suicide have suffered from at least one mental disorder. Mental illnesses were found to contribute to between 47-74% of suicide risk. Depression was found in 50-65% of suicide cases and personality disorders such as borderline and antisocial personality disorders were found in 30-40% of people who died by suicide. Eating disorders and anxiety are also comorbid with suicide. Regardless of the exact diagnosis, the comorbidity of mental illnesses substantially increases the risk of suicide (Bilsen, 2018).

Additionally, previous suicide attempts and self-harm can be significant individual risk factors. About 25–33% of all cases of completed suicide were preceded by an earlier suicide attempt (Bilsen, 2018). A prior suicide attempt was also found to increase the chances of a future attempt by 18-fold (Spirito, 2006). Another study found that suicide risk was highest in the first six months after self-harm (Cooper, 2005). These statistics show that both suicide attempts and self-harm can be significant risk factors for suicide.

Another risk factor contributing to suicidality is substance abuse, specifically alcohol usage. A case-controlled study of patients admitted to a hospital in Oxford found that “adolescents who completed suicide were almost four times more likely to report misuse of alcohol, drugs, or both than were adolescents who made only nonfatal attempts” (Spirito, 2006). Other behavioral issues such as getting into trouble, having disciplinary problems, and engaging in many high-risk behaviors can also be adolescence-specific risk factors for suicide.

Specific cognitive factors such as a general sense of hopelessness, low self-esteem, and poor problem-solving skills can also be personal factors that contribute to suicide among

adolescents. Feelings of hopelessness often accompany depression and consist of a loss of motivation and the mindset that the future will have a negative outcome. Hopelessness was reported by those who attempted suicide although it does not consistently predict suicidal behavior once depression is controlled. Ineffective problem-solving skills can be another risk factor for suicidal behavior. Specifically, research conducted on problem-solving skills and suicidality found that many adolescents reported attempting suicide because it would solve their problems by leading to death or giving temporary relief from their problems. 38% reported they attempted suicide because they could not think of any other solutions to their problem (Spirito, 2006). School problems and academic stress were found in 14% of suicide cases and might also be related to poor problem-solving skills (Bilsen, 2018).

Relationship risk factors are harmful experiences involving relationships. They can include bullying, loss of relationships, and violent relationships (CDC, n.d.). 20-30% of children are involved in bullying as the perpetrators and/or the victims. These children are at higher risk of suicide before the age of 25 (Klomek, 2009). As adolescence is a time for building identity and establishing self-confidence, most teenagers value their friend group and need to develop relationships to build up their confidence. Therefore, interpersonal loss such as a breakup, the death of a friend, or peer rejection can have a significant impact on adolescence. Death of a parent and early parental loss also increases the risk of attempted and completed suicide (Bilsen, 2018). This can also extend to the loss of a pet, the divorce of parents, or the loss felt by a parent losing a job or home. A complete lack of social support and network can also be a risk factor for suicide. Children who don't feel support from their family and peers can self-isolate and become depressed and feel that suicide is a potential solution to their social struggles. Specifically, direct conflict with parents and neglect of a child's communication needs can also have an impact. In

fact, conflicts with parental figures precede 40% of suicide cases. Furthermore, violence in the home, not specifically against the child but in general as a way of dealing with problems, has been linked to young suicide cases (Bilsen, 2018).

Additionally, a family history of suicide and a history of abuse can be other significant relationship factors. Both physical and sexual abuse can increase an individual's risk of suicide. A history of physical abuse places adolescents at a 5-times more likely to make a noninjurious attempt and a 12-times more likely to make an injurious suicide attempt. While adolescents with a history of sexual abuse were found to be 12 times more likely to make a noninjurious suicide attempt and 47 times more likely to make an injurious suicide attempt than adolescents without a sexual abuse history (Spirito, 2006). These different factors demonstrate that the lack of healthy and stable relationships can lead to an increased risk of suicide.

There are also many community risk factors which are challenges within a person's community that can lead to an increased risk of suicide. These factors can include lack of access to healthcare, community violence, and discrimination (CDC, n.d.).

Lastly, societal risk factors for suicide are cultural and environmental factors within the larger society. They include stigmas associated with seeking help for mental illness, easy access to lethal means of suicide among people at risk, and unsafe media portrayals of suicide (CDC,n.d.). Young children usually commit suicide by hanging, jumping from a high place, running into traffic, or poisoning with prescription drugs they have saved up. Adolescents use more varied methods and young men especially also use firearms. Access to lethal drugs or firearms can increase the risk of completed suicide among adolescents (Bilsen, 2018).

The media's portrayal of suicide is also a significant risk factor in the modern technological world today. For example, the Netflix show "13 Reasons Why" was associated

with an increase in the overall suicide rate of young adults aged 10-17 in the months following the show's release (Bridge, 2019).

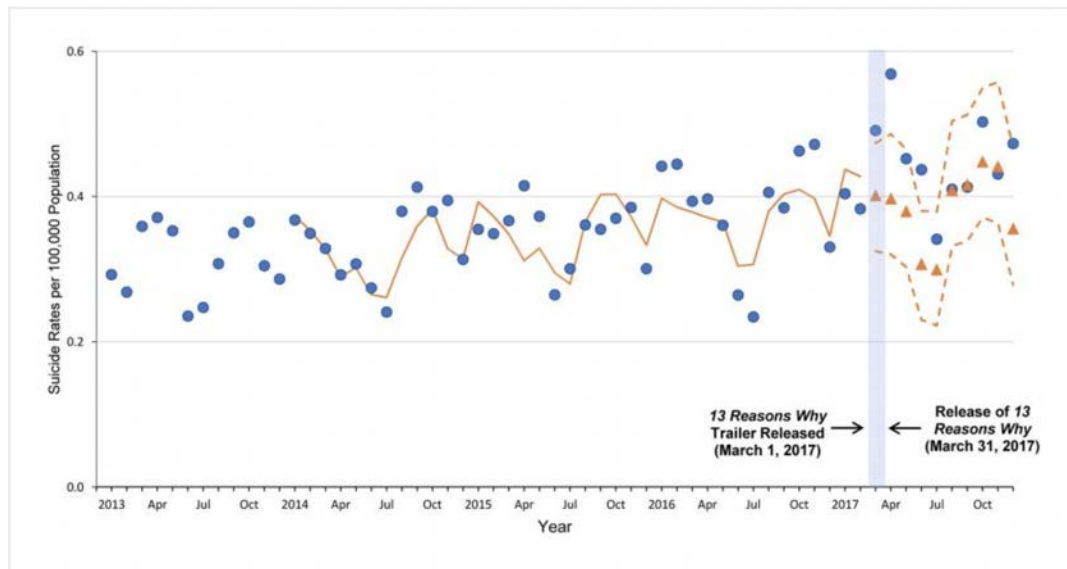


Figure 3: Graph showing the predicted (orange triangles) vs. observed suicide rates (blue circles) from January 2013 to December 31, 2017. The observed suicide rates after the release of “13 Reasons Why” was significantly higher than the predicted rates (Bridge, 2019).

Protective Factors

Protective factors can mitigate the risk of suicidal ideation and keep adolescence from progressing to suicidal behavior. According to the CDC, individual protective factors include effective coping and problem-solving skills and having reasons for living such as family, friends, or pets. Additionally, support from partners, friends, and family and feeling a sense of connection to others are other important protective factors. Feeling connected to school, community, and other social institutions, in addition to the availability of high-quality healthcare are also protective factors for suicide. Data from the 2010 Minnesota survey found that the protective factors that were associated with reduced suicidal ideation for males and females were sport participation, parent connectedness, connectedness to other adults, caring friends, academic

achievement, and a fondness for school. Significantly, parent connectedness provided the largest effects (Taliaferro, 2014). It's clear that the stronger connections children have to their family, friends, or other supportive adults, the less likely they are to harm themselves.

Lastly, societal protective factors include cultural and religious objections to suicide and reduced access to lethal means. Interestingly, suicide rates among Jews in the United States and in Israel have been found to be historically low and the overall suicide rates of Jewish people in Israel are among the lowest in the world. Specifically, among Jewish adolescents in the United States, the level of religiosity has been found to be inversely associated with self-injurious thoughts and behaviors, decreasing the likelihood of occurrence by 55% (Gearing, 2018).

Additionally, specific programs such as Counseling on Access to Lethal Means in Emergency Departments (CALM-ED) were developed to give clinicians and nurses the tools to speak with patients and parents about safe storage for lethal means. In a study evaluating the effectiveness of CALM-ED, they found that 51% of patients had access to various lethal means. The table below summarized the most common forms of lethal means that patients reported. However, after receiving the CALM-ED protocol, 75% of patients reported a specific storage plan for their lethal means after discharge. These results indicate that CALM-ED could be an effective program for reducing access to lethal means and thus helping to alleviate this dangerous risk factor (Mueller, 2020).

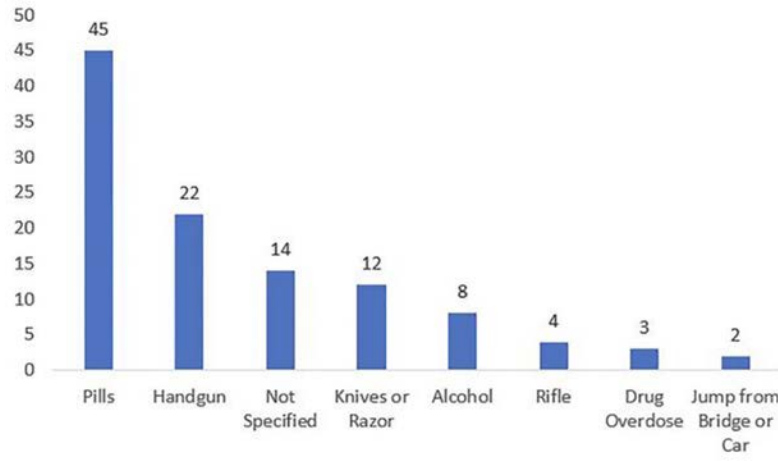


Figure 4: Reported access to various types of lethal means ((Mueller, 2020)


Assessment Methods

One of the biggest obstacles in treating suicidal adolescents is how to effectively assess the problem in its early stages. Often teenagers are difficult to work with and not completely honest with providers, which increases the difficulty in obtaining a proper diagnosis.

Additionally, the numerous risk factors stated above and the difficult stage of adolescence makes assessing the risk for suicidality a great challenge. Clinicians are faced with the important role of correctly diagnosing the patient and ensuring that they are not a harm to themselves or others. That being said, the assessment methods are crucial to the treatment and prevention of suicide among all age groups but specifically the adolescent time period provides a unique challenge in this area.

One of the most common screening assessments for suicidality among adolescents is called the Ask Suicide-Screening Questions (ASQ). The ASQ is a screening tool used to assess suicide risk in children and young adults evaluated in emergency rooms for medical or surgical reasons. The ASQ was developed in three pediatric emergency departments; Children’s National Medical Center in Washington DC, Boston Children’s Hospital, and Nationwide Children’s

Hospital in Columbus Ohio. The ASQ consists of four yes/no questions and takes approximately less than two minutes to administer. These 4 questions ask if the individual has current thoughts of being better off dead, current wish to die, current suicidal ideation, and past suicide attempts. If the patient answered “No” to all 4 questions, then screening is complete. However, if a patient answered “Yes” to any of the first 4 questions or refused to answer, they were considered a positive screen. The fifth question, “Are you having thoughts of killing yourself right now?”, was used to assess intensity and urgency. The benefits of this screening tool are that it is an easy-to-use, quick assessment and can be used effectively under time pressure or in emergency situations. However, there is a major limitation to the ASQ, which is that it has only been validated in specific populations of children and adolescents in an emergency room setting presenting with non-behavioral medical complaints. That being said, the ASQ is not specifically developed for psychiatric or behavioral settings and it would be unwise to generalize this assessment tool to other populations (Thom, 2020).



Ask the patient:

1. In the past few weeks, have you wished you were dead?	Yes	No
2. In the past few weeks, have you felt that you or your family would be better off if you were dead?	Yes	No
3. In the past week, have you been having thoughts about killing yourself?	Yes	No
4. Have you ever tried to kill yourself?	Yes	No

If yes, how? _____ When? _____

If the patient answers yes to any of the above, ask the following question:

5. Are you having thoughts of killing yourself right now?	Yes	No
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If yes, please describe: _____




Figure 5: The Ask Suicide Screening Questions (National Institute of Mental Health, n.d.)

Another commonly used suicide risk assessment tool is the Columbia-Suicide Severity Rating Scale (C-SSRS). The C-SSRS was created by a group from Columbia University, the University of Pennsylvania, and the University of Pittsburgh to create a single tool that could be used to assess the severity of and track changes in both suicidal ideation and behavior. The C-SSRS was originally created in 2007 for the Food and Drug Administration (FDA) to use to evaluate suicide risk in clinical trials. In fact, in 2012 the FDA endorsed the C-SSRS as the gold standard for measuring suicidal ideation and suicidal behavior in clinical trials (Thom, 2020). However, since then there has been much debate as to whether the C-SSRS really lives up to the gold standard. Issues with the C-SSRS scale include that it does not effectively cover all possible combinations of suicidal ideation. Additionally, the categories are not defined properly and the instructions are ambiguous and unclear. For example, it is not clear what to do if the answer to question one is “yes” but the answer to question two is “no” (Giddens, 2014).

Always ask questions 1 and 2.	Past Month	
1) Have you wished you were dead or wished you could go to sleep and not wake up?		
2) Have you actually had any thoughts about killing yourself?		
If YES to 2, ask questions 3, 4, 5 and 6. If NO to 2, skip to question 6.		
3) Have you been thinking about how you might do this?		
4) Have you had these thoughts and had some intention of acting on them?	High Risk	
5) Have you started to work out or worked out the details of how to kill yourself? Did you intend to carry out this plan?	High Risk	
Always Ask Question 6	Life-time	Past 3 Months
6) Have you done anything, started to do anything, or prepared to do anything to end your life? <i>Examples: Took pills, tried to shoot yourself, cut yourself, tried to hang yourself, or collected pills, obtained a gun, gave away valuables, wrote a will or suicide note, took out pills but didn't swallow any, held a gun but changed your mind or it was grabbed from your hand, went to the roof but didn't jump, etc.</i> If yes, was this within the past 3 months?		High Risk

Figure 6: Columbia-Suicide Severity Rating Scale (C-SSRS) (The Columbia Light House Project, n.d.)

Personal Interview Conducted with Dr. Halana Rothbort

To further understand assessments for suicidal adolescents, I conducted an interview with Dr. Halana Rothbort, MD who is a board-certified child and adolescent psychiatrist. Dr. Rothbort graduated from the University of Rochester School of Medicine, completed her adult psychiatry residency at Long Island Jewish Hospital, and then a fellowship in child and adolescent psychiatry at North Shore Hospital. Dr. Rothbort has been practicing medicine for almost 20 years, and in that time she's seen thousands of child and adolescent patients. Specifically, she treats patients with suicidal ideation and estimates that around 20% of her patients present with suicidal thoughts and behaviors. Dr. Rothbort does not use any formal screening methods when assessing for suicidal ideation. She explained that through her training in residency and fellowship, she learned how to accurately assess adolescents for suicidal ideation, behavior, intent, and plan (Rothbort, 2023).

Dr. Rothbort explained her approach to a suicidal assessment for young adults. She began by explaining that every child or adolescent she sees is screened for the major psychiatric disorders that present themselves in children and adolescents. The main psychiatric illnesses she initially screens for are depression, mania, psychosis, generalized anxiety disorder, OCD, panic disorder, PTSD, ODD, conduct disorder, ADHD, eating disorders, substance abuse, separation anxiety disorder, social anxiety, and autism spectrum disorder. If she notices symptoms of depression such as low mood, irritability, isolation, crying, tiredness, trouble sleeping (too much or little), or change in appetite, she will include depression in her differential diagnosis and ask questions related to suicide. There are many questions that Dr. Rothbort asks when doing a

suicide assessment to ensure that the assessment is thorough and that the correct diagnosis and treatment can be provided. The suicidal assessment includes multiple questions to assess suicidal ideation, intent, plan, current safety, and future safety. Some of the questions will be highlighted here. The first question asked to the child or young adult is “Do you have thoughts that maybe it would be better if you weren't around or if you weren't alive?” If the answer to this question is no, there is usually no need to proceed. However, if the answer is yes, the screening continues. The next series of questions are related to the timing of the suicidal thoughts. For example, Dr. Rothbort will ask, “When did you have these thoughts- sometime today, this week, over the past month?”, “How often do you have these thoughts?” and “When did you first start having these thoughts?” Then, to assess possible self-harm Dr. Rothbort asks, “Do u have thoughts of wanting to hurt yourself?” If the answer to that question is yes, the next question would be “Have you ever tried to hurt yourself, and if so how did you try (cut, burn, bang your head)?” Then she asks, “Have you ever tried to kill yourself, and if so when was it, and how many times did you try?”. If the patient said that they have tried to kill themselves, she then would ask if the suicide attempt was planned. This allows her to get a sense of if this was impulsive or a well-thought-out action. Then she asks how they felt after the attempt to determine if the patient was upset that the attempt failed or if they felt guilty for the attempt. If the patient felt upset that the attempt had failed, they would be more likely to attempt again. However, if they felt guilty, they were less likely to repeat the attempt. Additionally, to determine current suicidal thoughts and risk, she asks if they currently want to kill themselves, and, if so, if they have a plan to do it. Dr. Rothbort noted that most of the time people don't have a plan, but if they do, it is crucial to determine how lethal the plan is. Lastly, Dr. Rothbort assesses many common risk factors and protective factors.

She asks if they have access to a firearm, if they have a family history of suicide, and how strong their support system is (Rothbort, 2023).

Dr. Rothbort explained this overview of her suicidal assessment and noted that the goal of her assessment is not to screen for suicidality but rather to diagnose and treat the patient. She explained the discrepancy between her methodology and the screening tools such as the ASQ and C-SSRS by saying that the ASQ and C-SSRS are most likely used in emergency settings or to quickly assess risk and direct the patient as to how to get help. Dr. Rothbort's assessment method is not just assessing the risk; rather, her goal is to treat the underlying illness and ensure the safety of these patients. This type of screening for adolescent suicide is more thorough and beneficial as it also assesses major risk factors that help predict the risk of suicidality in adolescence (Rothbort, 2023).

After reflecting on the interview with Dr. Rothbort, I had a few additional questions that would be interesting to research or pose to other mental health professionals. Firstly, after doing extensive research on risk factors and protective factors, it still remains unclear why the risk factors mentioned in the screening with Dr. Rothbort, in addition to other risk factors, are not more prevalent in the major suicidal screening assessment. For example, if parent connectedness is so crucial and lack of parental support is so detrimental, why aren't these specifically asked when doing a suicidal assessment? Additionally, it seemed to me that the high-risk factors such as past suicide attempts, other mental health comorbidities, and access to lethal means, are assessed in a very thorough manner. However, the less severe risk factors, such as poor problem-solving skills and media usage, seemed to be overlooked completely. After this interview and my research on risk factors and assessments, I would be interested in researching how these risk factors play a role in assessing suicidal ideation on a clinical level.

Treatment

Although assessment is the first step in diagnosing suicidal adolescence, ensuring the correct treatment plan is in place is also crucial to the safety and well-being of the patient. One of the most common treatment approaches for children with suicidal ideation and behaviors is inpatient hospitalization. The most common reason for adolescents to be admitted to an inpatient psychiatric unit is the presence of suicidal thoughts and/or suicide attempts. In-patient psychiatric hospitalization is usually deemed necessary when the individual exhibits thoughts or behaviors that appear to be unstable, unpredictable, and pose an imminent risk to themselves. The goal of hospitalization is to provide a safe, and controlled setting, to evaluate and change medication, and to arrange follow-up care (O'Brien, 2014). While hospitalization can be helpful for these reasons, there is much evidence that adolescents are at a heightened risk for suicide post-discharge from a psychiatric inpatient unit. In fact, an analysis of the National Confidential Inquiry into Suicide by People with Mental Illness found that 43% of suicides occur within the first month of discharge from an inpatient unit (Hunt, 2009). Research also shows that the majority of adolescents who attempt suicide receive limited follow-up care (approximately six outpatient visits on average) with rates of nonadherence to such follow-up care between 40% and 70% (Kennard, 2019). Additionally, interviews with youth and young adults (aged 16-27) demonstrated that involuntary psychiatric hospitalization has been associated with negative consequences. 70% of the participants reported negative impacts on their ability to trust others, most frequently mental health providers, but in some cases extending to broader authority figures such as parents, teachers, and peers. Many of these participants described the hospitalization as “traumatic” or “damaging” and compared it to jail. Lastly, many reported learning to lie or manipulate staff to be discharged (Jones, 2021). Furthermore, Dr. Rothbort described a few other

negative effects of hospitalization such as feeling scared, losing your civil rights, being unable to leave at your own will, and possibly being negatively influenced by the behaviors of other patients. This being said hospitalization does have its place for extremely sick and at-risk patients. However, these statistics indicate that due to the many negative consequences of hospitalization it might not be the best choice of treatment for many suicidal patients.

The other main treatment option consists of outpatient care and risk management. This includes psychopharmacological interventions and therapeutic interventions. Specific research on medications targeted for suicidal adolescents is limited. However, the use of SSRIs appears to be common among teenagers who have been referred for suicidal ideation or behaviors (Gould, 2003). Additionally, it has been shown that medication usage, specifically for depression, is most effective in conjunction with ongoing therapy (O'Brien, 2014).

Common therapy programs for suicidal adolescents include cognitive behavioral therapy for suicide prevention (CBT-SP), DBT, and family-based therapies. CBT-SP consists of an “acute” phase for 12-16 weeks which includes individual therapy sessions and family sessions and a “continuation” phase which consists of less frequent sessions for a total of 6 months. This treatment uses standard CBT techniques such as cognitive restructuring, problem-solving, and behavioral activation in conjunction with working with the family (O'Brien, 2014). Some studies have demonstrated the effectiveness of CBT in decreasing nonsuicidal self-injury when it is comorbid with suicidal thoughts and behaviors. In a randomized controlled trial 82 adolescents and adults (ages 15-35) were randomly assigned to either 12 sessions of CBT in addition to treatment as usual (TAU) or TAU only. The results of this study demonstrated that participants in the CBT and TAU group had significantly greater decreases in self-harming behavior over time than the TAU-only group. In addition, participants receiving CBT and TAU had greater

decreases over time in depression, anxiety, and suicidal thoughts, as well as greater increases over time in self-esteem and problem-solving abilities (Slee, 2008).

Another well-known therapy for suicidal adolescents is dialectical behavioral therapy (DBT). Dialectical behavioral therapy is another form of cognitive-behavioral treatment that aims to reduce self-harm and suicide attempts. DBT specifically focuses on teaching skills for emotion regulation, distress tolerance, and building a life worth living. The DBT program consists of weekly individual psychotherapy, multifamily group skills training, youth, and parent telephone coaching, and weekly therapist-team consultations. One specific randomized control trial analyzed 173 suicidal adolescents and allocated them to a DBT group or an IGST (individual and group supportive therapy) group. They found that from baseline to 6 months, 7 of 72 youths (9.7%) in the DBT group vs 14 of 65 youths (21.5%) in the IGST group reported suicide attempts. Importantly, these changes were significant at the end of active treatment at 6 months but not through follow-up at 12 months. DBT was also associated with significantly higher rates of clinically significant change, defined as the absence of any self-harm. At 6 months, in the DBT group, 40 of 86 (46.5%) showed no self-harm vs 24 of 87 (27.6%) in the IGST group. These results were statistically significant at 12 months, with almost half of the youths in the DBT group reporting no self-harm vs about one-third of youths in the IGST group. Stronger family connectedness has been associated with treatment benefits for suicidal adolescents. Therefore, it is possible that since DBT included more family involvement, it may have contributed to stronger treatment effects (McCauley, 2018).

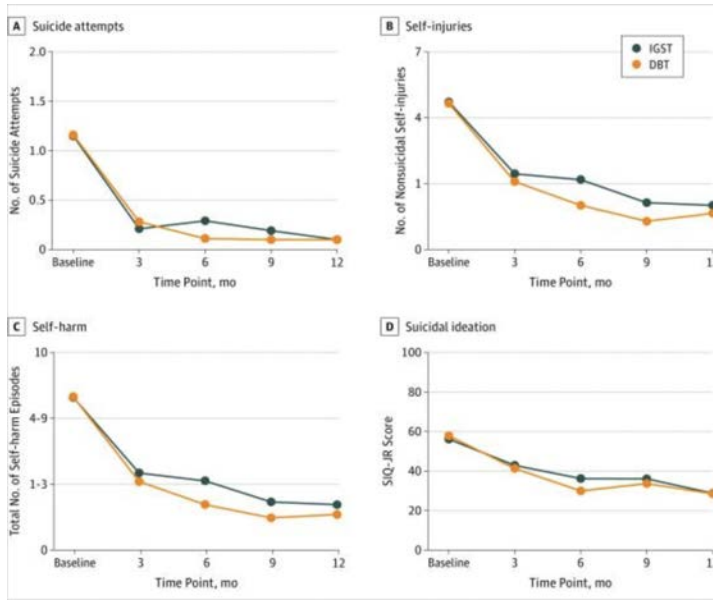


Figure 7: Changes in Suicide Attempts, Nonsuicidal Self-injury, Self-harm, and Suicidal Ideation in DBT (orange) vs. IGST (blue) (McCauley, 2018)

One of the most effective types of treatment for suicidal youth are those that involve a family component. This is most likely due to the fact that most youth live with their parents and therefore rely on them financially, for transportation and for treatment consent. Family therapies such as Attachment-Based Family Therapy (ABFT) have also shown great success with suicidal adolescents. As mentioned previously it is well known that adolescence who lack a support system and those that have increased conflict with their parents can be at a higher risk for suicide. On the other hand, a big protective factor for suicide among youth is having strong family relationships, specifically being connected to their parents. Attachment-Based Family Therapy (ABFT) is one type of family-based psychotherapy that aims to reduce suicidal ideation by building the parent-child relationship. ABFT assumes that improving interpersonal relationships is the key component in reducing suicide risk (O'Brien, 2014). A randomized controlled trial (RCT) compared a group of 66 suicidal adolescents who either received ABFT or an enhanced usual care condition. This trial found that twice as many youths who received

ABFT (70% vs 34%) reported clinically significant reductions in suicidal ideation at 24 weeks (Diamond, 2010).

This past summer, I did research in Northwell Health in Glen Oaks New York under the guidance of Dr. Victor Fornari who is the director of Child & Adolescent Psychiatry at Long Island Jewish Medical Center. I participated in an ongoing study called ‘Suicide Treatment Alternatives for Teens (START)’. This study was a randomized trial (although patients could select the other treatment option) that aimed to determine whether inpatient hospitalization or an outpatient crisis intervention clinic (OCIC) is the best treatment option for suicidal adolescents. An OCIC is a psychiatric clinic that provides immediate crisis intervention to treat and stabilize suicidal thoughts and behavior. The crisis clinic also coordinates further care with an outpatient doctor and/or therapist. Part of my experience in the summer involved shadowing in Cohen’s Children’s Pediatric Behavioral Health Urgent Care. The behavioral health urgent care is an innovative treatment center for suicidal children and adolescents that helps ensure that imminent psychiatric care can be received that day without waiting weeks, or possibly months, for an outpatient appointment. There I saw firsthand how a suicide risk assessment was performed and safety planning was done. Additionally, the behavioral health clinic not only diagnoses psychiatric illnesses but also develops a safety plan, begins medication, and sets up further care with an outpatient doctor, therapist, or other specialists if necessary.

The two main treatment arms for this study were an inpatient psychiatric unit and the outpatient crisis intervention clinic. They hypothesized that “assignment with randomization to OCIC from the ED will lead to a longer time to the first recurrence of a suicidal event compared to inpatient treatment after 90 days and 180 days from the baseline ED visit for suicidality.” Additionally, they hypothesized that “assignment with randomization to OCIC will lead to a

lower number suicidal events over 90 days and 180 days when compared to inpatient treatment.”. Another important hypothesis was that, “overall, patients and legal guardians/parents in the OCIC group will have higher treatment satisfaction (determined by using the Client Satisfaction Questionnaire-Adapted (CSQ)) at the completion of their treatment and better satisfaction with life than the inpatient treatment group over 90 and 180 days” (Clinical Trials, n.d.).

Based on my own research on treatment options for suicidal adolescents and my interview with Dr. Rothbort, I agree with these hypotheses. Inpatient hospitalization has been shown to have many negative outcomes that can very possibly overshadow the benefits. For example, the high occurrence of a suicidal event close to the discharge from an inpatient unit seems to indicate that hospitalization may not be effective once the patient is discharged. Based on the pre-start study which was conducted in advance of START, the results showed that there was no statistically significant difference in outcome between the inpatient treatment and OCIC. This indicates that outpatient treatment options are most likely just as effective, and likely more effective, than inpatient treatments. Dr. Rothbort also agreed with this conclusion, and she strongly believes that outpatient treatment of suicidal adolescents can be more beneficial than inpatient hospitalization. She noted that despite hospitalization being a safe environment for the patient, there are many disadvantages to hospitalization, such as negative experiences, no control over the care, and possible detrimental influences from other patients. This is supported by the literature on hospitalization that explains many negatives of inpatient psychiatric care.

A similar study evaluated the efficacy of an intensive outpatient program (IOP) as compared to the more traditional inpatient hospitalization for suicidal youth. Intensive outpatient programs can be a possible treatment option after inpatient hospitalization, as well as for patients who do not need hospitalization but would benefit from a more intensive care setting. The focus

of an IOP is to identify risk factors related to suicidal behavior and to develop treatment strategies to mitigate these risk factors. This IOP program included 3 hours of group therapy twice a week for 4–6 weeks, individual and family therapy, medication management as needed, and a one-hour weekly skills-based parent psychoeducation group. The clinical outcomes of this intensive outpatient program are promising as patients reported fewer depressive symptoms, suicidal ideation, and behavior. Additionally, reattempt rates at 6 months were at 8.7%, with almost half of these occurring within 1 month after discharge. Despite the fact that this was an open treatment study, it appears that an intensive outpatient program could be an acceptable form of treatment for suicidal adolescence. (Kennard, 2019).

This study is similar to START in that it investigated the success of an outpatient program. START specifically aimed to compare the inpatient setting to an outpatient intervention crisis clinic, which is a unique treatment plan that involves immediate crisis intervention to treat and stabilize suicidal thoughts and behaviors. However, the other study observed the efficacy of an IOP program which consisted of different types of therapy and medication management. Although similar, the outpatient interventions of these two studies vary. Specifically, the OCIC aims to treat acute signs and symptoms of suicidality while the IOP appears to be a more long term outpatient program. The START study has the additive effect of being a randomized control trial which allowed for comparison with the inpatient hospitalization group. This is valuable information, as a comparison of inpatient and outpatient treatment for suicidal adolescents is crucial in developing the most effective treatment plan for suicidal adolescents.

Conclusion

Due to the severity of suicidal behavior, there is a pressing need to institute preventative measures and ensure that effective treatment exists for suicidal adolescents. It is of utmost

importance to perfect the assessment methods and treatment plans in order to reduce the risk of suicidal events among adolescents and ensure that those at risk have the best possible outcomes. It is clear that eliminating risk factors and developing more protective factors can help lower the risk of suicide among adolescents. Therefore, carefully assessing risk factors and protective factors can help clinicians determine who is at a heightened risk for suicide. Additionally, an effective suicidal assessment can help ensure the patient is correctly diagnosed, and that all factors are taken into consideration. Specifically, after analyzing risk factors and screening assessments, it appears that additional research is needed on the effectiveness of identifying risk factors and protective factors in a suicidal assessment.

Assessing suicidal risk is only the first step, and once a risk of suicide is identified, it is crucial to determine the best treatment option. The research indicates that hospitalization might not be the most effective treatment, as there are multiple negative consequences and the risk of reattempt is very high. That being said, different outpatient options such as CBT, DBT, and ABFT are available and have proven to be effective. Additionally, research such as the START study attempts to identify if an outpatient crisis clinic is just as effective, if not more effective, than an inpatient setting. Further research on treatment methods for suicidal adolescents is needed to prove if any of the other outpatient treatments are effective when compared to an inpatient setting. Due to the negative effects of hospitalization and the high risk of suicide attempts post-discharge, it would be beneficial to analyze other forms of outpatient treatment as compared to inpatient hospitalization. The ultimate goal is to determine the most effective treatment plan for suicidal adolescents and work to prevent this fatal mental illness from taking the lives of any more young adults.

Acknowledgments

The clinical study “START” discussed in this paper is currently active at Northwell Health in Glen Oaks New York, Cincinnati Children’s Hospital and Medical Center in Cincinnati Ohio, Nationwide Children’s Hospital in Columbus Ohio, and UT Southwestern Medical Center/Children’s Health in Dallas Texas. Over the summer, I participated in this research study under the guidance of Dr. Victor Fornari, MD. I would like to thank him for allowing me to be a part of this innovative research and for everything he taught me along the way. In addition, I would like to thank the Behavioral Health Urgent Care at Cohens Children's Hospital for allowing me to shadow there over the summer.

I would also like to thank Dr. Halana Rothbort, MD for allowing me to interview her for this paper. Her experience as a child and adolescent psychiatrist and wealth of knowledge on this topic was invaluable to writing this paper.

Additionally, I would also like to express my gratitude to Dr. Richard Weiss, M.D. who was my thesis mentor. Thank you for your guidance, mentorship, and insight throughout this process. I also would like to express my appreciation to the S. Daniel Abraham Honors Program at Stern College for Women. I am so grateful that I had the opportunity to come to Stern College for Women through this program and receive an incredible education here. I specifically want to thank Dr. Cynthia Wachtel, Ph.D., the director of the program, for her dedication to the program as well as her mentorship and guidance throughout my thesis writing process.

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