The Effectiveness of The Hope Institute Model: A Treatment Approach for Suicide

Dissertation

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Abstract

Suicide is a growing concern in the United States and around the world. Approximately 50,000 people die by suicide each year and more than 15 million additional people struggle with thoughts of suicide in the U.S. As a result, there are very few people who have not been affected by suicide. Much of the work that has been performed around suicide places a focus on awareness and interventions, which is necessary for understanding the issue and critical in directing people to help. In recent years, the increases in suicide have been met with increases in social awareness. There is one obvious gap, which has been a lack of implemented solutions. Unfortunately, little has been done to provide actual treatment models that have proven effective. This study explored the work conducted at an outpatient treatment center utilizing a novel treatment model specifically developed for individuals actively struggling with thoughts of suicide. This model merges two evidence-based models with over 50 randomized controlled trials between them to bring both access and treatment to the public.

The sample included 58 participants with a mean age of 20 years and which was 57% female and 43% male. Importantly, 31% of those in the study had no prior history of mental health diagnosis. The study found that the treatment was effective in reducing suicidality scores in the sample from pre-treatment scores to post-treatment scores, with a very large effect size [t(57) = 8.1, p < .001, d = 1.02]. There were also a significant decreases in scores on hopelessness [t(56) = 9.875, p < .001, d = 1.630], psychological pain [t(57) = 9.768, p < .001, d = 1.294], stress [t(57) = 9.560, p < .001, d = 1.266], and self-hate [t(57) = 8.118, p < .001, d = 1.075], all with large effect sizes. The treatment and dosage data shows that the participants were

able to appropriately address the issue of suicide and achieve resolution in an average of 7.52 sessions over an average of 5.6 weeks, with a 93% success rate.

Two variables were found to assist in predicting length of treatment, including a previous history of mental health, explaining 8.3% of the variance, and the composite CAMS score, explaining 27% of the variance. The research also demonstrated strong correlations in both initial and final scores on most measures, with moderate correlations on some. Given the findings and the social issues surrounding suicide, these findings are promising and warrant ongoing research to better understand the factors that contribute to suicide risk and to further create an evidence base for an effective model of treatment.

Dedication

This body of work is dedicated to the individuals that struggle every day, to the family and friends that struggle with them, and to the countless professionals and volunteers that forge forth with passion and commitment in a field that too often goes unnoticed and is under appreciated.

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Publications

- Desposito, M., Gamby, K., & Lee, D. (2024). Protecting Counselor Autonomy in the Age of Non-Compete Agreements. *Counseling Today, in press for May, 2024.*
- Lee, D. (2023). Fatherhood. In Granello, P., Fleming, M., & Hudson, T., *Men's Mental Health: A Wellness Based Approach to Healthy Masculinity* (pp. 55-66). Cognella Academic Publishing.
- Lee, D. J., Heyman, A. N., Winkelman, L., Sneed, Z., & Sametz, R. (2023). Effectiveness of Teletherapy During the COVID-19 Pandemic. *Journal of Mental Health Counseling*, 45(2), 147-165.
- Lee, D. J. (2023) A closer look at the mental health provider shortage. *Counseling Today, June 23, 2023. https://ct.counseling.org/2023/05/a-closer-look-at-themental-health-provider-shortage/*
- Lee, D. J. (2022) It's time for a financial change in counseling. Counseling Today, May 8, 2023. https://ct.counseling.org/2022/06/its-time-for-a-financial-change-in-counseling/?unapproved=826636&moderation-hash=d2391a028531ca98d108ceba4f4c31e7#comment-826636
- Lee, D. J. (2022) What's the 411 on the new 988 hotline? 5 questions answered about a national mental health service. *The Conversation* (an outlet for academics to

provide evidence-based information to the public).

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Fields of Study

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Chapter 1. Introduction

1.1 Background of the Problem

Although the climbing suicide statistics are alarming, the numbers alone do not fully convey the far-reaching human impact. Each year, approximately 1.2 million Americans attempt suicide, leaving devastating effects on individuals, families, communities, and society (AFSP, 2022). Research indicates that for every 25-30 attempts, there is a suicide death (Drapeau & McIntosh, 2020). Those left behind after losing a loved one to suicide often experience traumatic grief and heightened risk for "suicide contagion" (AFSP, 2022). The suffering extends to witnesses, first responders, clinicians, and broader networks affected by each tragic loss of life.

The individual distress underlying the population-level trends cannot be overlooked. Suicidal ideation and behavior stem from a convergence of risk factors, life stressors, and, frequently, underlying mental health conditions (DeCou et al., 2019; O'Connor & Nock, 2014). However, the subjective reasons behind suicidal thoughts are unique for each person (Berman, 2019). Fostering hope and addressing the specific drivers of each individual's ideation through compassionate, personalized interventions is essential. As Granello (2010b) stated, "It is important that counselors recognize suicide assessment as an opportunity to initiate a positive relationship" (p. 368) rather than merely evaluating risk categorically.

Contributing factors including mental disorders, substance use, relationship problems, financial stress, and discrimination have risen alongside suicide rates over the past 20 years, suggesting complex interconnections (Dye et al., 2021). For instance, major depression

diagnoses escalated from 2005 to 2017 with increasing suicide rates (Weinberger et al., 2018). As DeCou et al. (2020) explained, it is unlikely that any single factor can account for the increase in suicide deaths. This highlights the need for multifaceted, systemic solutions spanning prevention and targeted interventions.

The climbing suicide rates indicate that current approaches are inadequate. According to the Center for Disease Control (CDC), the age-adjusted rate of suicide deaths increased by 33% from 10.5 per 100,000 in 1999 to 14.0 per 100,000 in 2019 (Ryan & Oquendo, 2020). Particular concern exists regarding youth mental health trends that may link to rising suicide rates. Between 2009-2019, past-year major depressive episode rates increased by 60% among adolescents (Mantey et al., 2021). A similar timeframe, 2000-2021 shows an increase of 36%, or approximately one death by suicide every 11 minutes (CDC, 2022b). Emergency department visits for suspected suicide attempts rose 51% for adolescent girls in early 2021 compared to prepandemic levels (Mantey et al., 2021). Suicide ranks as the 12th leading cause of death in the U.S. and the 2nd leading cause among ages 10-34 (CDC, 2022b). These concerning trends persist across demographics—the age-adjusted suicide rate rose 35% for males and 53% for females between 1999-2020 (Ryan & Oquendo, 2020). Although causality cannot be inferred, these trends provide worrying signals around youth mental health that demand urgent action.

The United States experienced 49,449 suicide deaths in 2022, according to the most recent provisional data from the CDC (2023). This is an increase of approximately 2.6% over the 48,183 deaths in 2021, which is 5% increase over 2020 (CDC, 2023). In addition to the estimated 1.2 million suicide attempts (AFSP, 2022), approximately 12 million American adults and 3.2 million adolescents reported serious thoughts of suicide in 2020, according to the CDC (2022b). Among youth, 17.7% of high school students reported seriously considering suicide, and 8.6%

reported attempting suicide once or more in the previous 12 months based on the most recent pre-pandemic federal survey data (Kann et al., 2016). More recent state-level data shows these percentages have increased significantly. In 2021, 22% of high school students nationwide reported seriously considering suicide, and 10% reported attempting (CDC, 2023). This indicates that over 2.3 million youth experience suicidal ideation and over 1 million attempt suicide yearly (Ivey-Stephenson et al., 2020), which are much higher estimates than previously thought.

Although mental health issues often contribute, causes and prevention require broader societal-level action on issues like discrimination, poverty, lack of access to care, and means of safety (CDC, 2022b). Those already experiencing suicidal crises urgently need help reclaiming hope and overcoming the temporary but intense suicidal mindset (Linehan, 2008). The tragedy of lives cut short by suicide warrants rapid development and equitable distribution of evidencebased solutions. Each person's intrinsic worth demands compassionate interventions to turn hopelessness into hope.

The economic toll is substantial. In 2020, the medical costs and lost wages associated with suicide deaths and attempts amounted to over \$1.2 billion (CDC, 2022b). This number is low compared to other estimates, including an older study by Yang and Lester (2007) that calculate an annual loss of just over \$5 billion per year for single year economic costs. Other estimates, which are more comprehensive and account for lifetime medical costs and productivity losses, exceed \$70 billion. These substantially larger numbers associate 92% of that amount (\$64.4 billion) with lost productivity and the remaining \$5.6 billion to medical care for more than 2.5 million annual injuries resulting from self-directed violence (Corso et al., 2007). Although this was a 2007 study, a more recent study by Shepard et al. (2016) yielded similar

results. The 2015 estimates came to \$93.5 billion, attributing 97.1% of this amount to lost productivity.

The economic toll is in addition to emotional costs and lost potential (AFSP, 2022). The disproportionate impact on youth represents an immense cost; suicide is the second leading cause of death among ages 10-14 (CDC, 2022b). The literature addresses years of potential life lost in a number of manners, including an exploration of a higher risk of death for individuals struggling with mental health (Walker et al., 2015), and specifically clients of public mental health (Colton & Manderscheid, 2006). Although addressed, these are difficult to quantify financially. These troubling statistics for rising rates across demographics demonstrate suicide as an urgent public health crisis requiring innovative, evidence-based solutions focused on prevention.

Several concerning trends contextualize the rising suicide rates and demonstrate the need for new approaches to this complex public health crisis. The increase in suicide deaths has been steady and continuous over the past two decades rather than isolated to a few years. From 1999 to 2019, suicide mortality rose across all age groups under 75, with the most dramatic relative increases among adolescents and young adults (Ryan & Oquendo, 2020). For example, the suicide rate for those ages 10-24 rose by 57% compared to 33% overall (Ryan & Oquendo, 2020). This persisting climb across age groups highlights a troubling lack of progress in turning the tide on suicide through current prevention frameworks, education, screening, and treatment (Brodsky et al., 2018).

Persistent barriers to accessible mental healthcare remain, especially impacting vulnerable groups. Only 44% of U.S. adults with a diagnosable mental illness receive mental health services, with even lower rates among minorities. Only 31% of Black Americans and 22% for Hispanic Americans with mental illness receive care (SAMHSA, 2020). Over 56% of U.S.

counties do not have a single practicing psychiatrist, disproportionately impacting rural areas (Zyromski et al., 2018). With stigma and discrimination deterring help-seeking, lack of access to affordable treatment leaves many with heightened suicide risk.

Marginalized groups face disproportionate suicide risk, indicating a need for cultural tailoring and equity in suicide interventions. Racial/ethnic minorities have lower overall suicide rates compared to Whites but exhibit increased rates of suicide attempts and ideation (CDC, 2022b). American Indians/Alaska Natives face particular risks, as suicide is the eighth leading cause of death compared to 12th for all races, and Native women are over 3.5 times more likely to die by suicide than other females (CDC, 2022b). Evidence also shows heightened risk among LGBTQ+ individuals, with lifetime suicide attempt rates estimated from 22% to 45% compared to 3% to 8% among heterosexual peers (Johns et al., 2019; Johns et al., 2020; Meyer et al., 2008). Other groups at elevated risk include individuals with disabilities or chronic health conditions (CDC, 2023).

The COVID-19 pandemic has introduced additional widespread stressors that increase risks of depression, substance abuse, and suicidal behaviors, including isolation, economic hardship, uncertainty, anxiety, and collective trauma (Rigsbee & Goodrich, 2019). Although final mortality data is still pending, provisional CDC numbers indicate increasing suicide rates during the pandemic, especially among racial/ethnic minority groups (Ivey-Stephenson et al., 2022).

These interlocking trends spanning demographics, contributing factors, treatment barriers, and youth mental health provide vital context about the complex, multifactorial public health crisis of rising suicidality in our population. They demonstrate the need for comprehensive solutions combining multifaceted prevention, early intervention, equitable access, and evidence-

based care tailored for diverse high-risk groups. Current approaches are failing to curb the escalating harms and loss of life from suicidality, indicating it is time for bold, innovative new approaches backed by research.

1.2 Statement of the Problem

The persistent increase in suicide rates over the past two decades proposes that current approaches to suicide prevention and intervention may not be enough. Research illustrates that although over 90% of individuals who die by suicide have underlying mental health conditions, nearly 40% of individuals that receive intervention for suicidal ideation do not require or engage in ongoing treatment (Weber et al., 2017). This indicates that suicidal crises may frequently be distinctively different from overall mental health. Although research shows this distinction, traditional suicide prevention efforts have focused on comprehensive mental health treatment.

As leading experts in the field have noted, "development of new treatments must take advantage of and translate the sciences of suicidal behavior and behavior change" (Linehan, 2008). There is a need for research on innovative approaches designed specifically for rapid suicidal crisis intervention rather than primarily relying on traditional mental healthcare models. As Stanley and Mann (2020) stated, "Novel approaches to engagement and treatment that are effective and acceptable to suicidal patients ought to be developed."

With examination of the scope of the rising suicide rates, several main problem areas are apparent in the preparedness and capability of our current framework to address this public health crisis: 1) inadequate treatment options; 2) insufficient suicide assessment and management education; 3) incomplete treatment options for the known range of clinical situations; 4) lack of operational skills development; 5) lack of a standardized best practice intervention model; 6) shortage of trained therapists; and 7) lack of community systems integration. The problem begins

with inadequate treatment options. Although suicide prevention and treatment are frequently considered a primary concern, their effectiveness is rarely evaluated (Mann et al., 2005).

A primary issue, inadequate treatment options, may lie in models to appropriately address individuals struggling with suicidal ideation. Existing suicide interventions taught in most counseling programs and for continuing education focus on comprehensive mental health treatment or long-term psychotherapy models. For instance, DBT was created to treat borderline personality disorder, with suicide reduction as an ancillary benefit (Linehan, 1993a). However, DBT's year-long format does not suit those needing urgent stabilization. Similarly, many interventions for suicide are exactly that, interventions that were designed to address symptoms, as opposed to treatments designed to address underlying psychopathology, as defined by the American Psychological Association (VandenBos, 2007).

Although beneficial for many, these approaches do not meet all suicidal individuals' needs, especially those in acute temporary crises without underlying mental illness. Weber et al. (2017) found that nearly 40% of patients receiving crisis stabilization for suicidal ideation did not perceive a need for further mental health treatment. This suggests that distinct brief suicide-specific treatments are needed to complement traditional approaches but are lacking. Outpatient counselors prioritizing treatment of underlying mental illness may be unprepared for suicidal clients.

A second concern is the lack of graduate counseling programs' suicide assessment and management education, which are often inadequate despite accreditation requirements. For instance, CACREP standards mandate that suicide be covered as a topic but do not stipulate competencies (CACREP, 2016). Consequently, training depth and methods vary widely across counseling master's programs. Even counselors meeting licensing requirements report feeling

underprepared to assist suicidal clients competently (Cureton et al., 2020). As Shannonhouse et al. (2018) summarized, "The counseling literature has suggested that counselors in general often feel unprepared to counsel suicidal clients" (p. 195). This is a thread that is woven through additional concerns.

Even when provided education on evidence-based suicide models, trainees may not gain sufficient skills to implement them competently. For instance, Brown and Jager-Hyman (2014) noted an absence of detailed psychotherapy manuals, making treatment replication difficult. Counselors express reluctance to apply suicide therapies without sufficient practice (Reese et al., 2009). Consequently, students may learn about established models but still feel unprepared for real-world implementation (Barrio et al., 2011). Merely lecturing about suicide approaches without experiential training has a limited impact on preparation (Feldman & Freedenthal, 2006).

The third point, incomplete treatment options for the known range of clinical situations, can be addressed with tailored interventions designed for rapidly resolving temporary suicidal crises versus treating underlying chronic mental illness remain underexplored and underutilized. Joiner (2005) theorized that discrete factors may drive an individual's temporally acute desire for suicide separate from broader mental health conditions. Innovative approaches purposefully built to address episodic suicidal crises for those without necessarily requiring long-term care are needed.

Although various clinical approaches to suicide exist, several gaps limit their adequacy for addressing the scope of rising suicide rates. First, no standardized best practice model for suicide intervention has been universally adopted in counselor education or clinical practice. Although evidence-based therapies like CBT-SP and DBT demonstrate efficacy, counselors receive little training to implement them with fidelity (Pistorello et al., 2012). Lack of

standardized preparation leads to inconsistent, idiosyncratic approaches. Similarly, no standardized suicide risk assessment protocols have been established as best practices for counselors. Various screening tools are ad hoc, constrained by limited psychometric testing (Bolton et al., 2015).

The shortage of counselors trained to work competently with suicidal individuals creates access barriers. Rural areas experience higher suicide rates but severe counselor shortages, with less than one licensed mental health worker per 1,000 residents in some counties (Banks & Diambra, 2019). With over 45,000 annual suicide deaths nationwide (CDC, 2022b), the supply of qualified counselors able to deliver evidence-based suicide prevention is insufficient. Even where services exist, current treatment models have intake waitlists at community clinics that often extend weeks or months, leaving suicidal individuals without timely care during crises. This is the root of the final concern.

The final issue is the lack of actual community intervention programs to address suicidal ideation. Current systems frequently fail individuals during acute suicidal episodes by not offering rapid access to evidence-based counseling. For example, emergency departments often "board" suicidal patients for days but do not provide therapy (Dye et al., 2021). Typical community counseling intake processes extend weeks, leaving suicidal individuals unsupported in crises. Volunteer crisis lines supply needed empathy but are not staffed by counselors. Streamlined care pathways integrating validated screening, assessment, and interventions are needed.

These gaps between science and practice and access barriers demonstrate limitations in counseling preparation for tackling the rising public health threat of suicide. They highlight the

need to advance graduate education, clinical training, model development, and service delivery to strengthen suicide prevention and intervention competencies profession wide.

1.3 Purpose of the Study

This study aims to evaluate the effectiveness of a new clinical model implemented at The Hope Institute, which provides rapid access to crisis stabilization services for individuals experiencing acute suicidal thoughts and behaviors. Specifically, the aim is to examine whether The Hope Institute's integration of the evidence-based Collaborative Assessment and Management of Suicidality (CAMS) assessment and brief suicide therapy supplemented by DBT group skills training can rapidly resolve temporary suicidal crises for a wide variety of individuals ranging from children to geriatric populations, as so far across cultural barriers as well.

The study's overarching purpose is thus multi-fold: 1) to empirically evaluate a new integrated suicide intervention model combining CAMS, DBT, and brief counseling techniques on client outcomes and factors impacting efficacy; 2) to elucidate relationships between key model components and suicidal ideation improvements to refine approaches; 3) to extract practical implications for frontline behavioral health providers and counselors-in-training to strengthen suicide prevention practices; and 4) to address gaps in the literature regarding tailored crisis stabilization models and training methods. Achieving these aligned aims equip multiple audiences with actionable insights to evolve training, programming, and research.

Quantitatively analyzing existing clinical records of treatment outcomes provide initial data on the real-world effectiveness of this blended CAMS-DBT approach tailored for clients who are provided brief, targeted interventions rather than long-term mental healthcare may suit

some individuals' needs. Examining pre-post changes in suicidal ideation and relationships between treatment components and outcomes yield valuable preliminary evidence to guide further model development and research.

Another goal is determining how client factors such as presenting issues, demographics, and engagement with treatment modalities relate to understanding optimal duration and stabilization trajectories. These insights can refine care personalization and retention for at-risk groups. Extracting practical strategies to shape suicide risk management skills to enhance counselor competence also represents a key purpose.

1.4 Theoretical Framework

Several theoretical perspectives provide key insights into the psychological, interpersonal, and sociocultural factors underlying suicide to help guide prevention approaches. According to the ideation-to-action framework, suicide progresses sequentially through suicidal ideation, suicidal intent, and finally, suicidal behavior (Grewal & Porter, 2007). Ideation arises from hopelessness and intolerable emotional pain while developing intent requires additionally overcoming self-preservation instincts and fear of death (Grewal & Porter, 2007). This model highlights points for intervention along the continuum, including fostering hope and adaptive coping before progression to intent.

The interpersonal-psychological theory of suicide conceptualizes three key variables as precursors to suicidal ideation: perceived burdensomeness, thwarted belongingness, and hopelessness (Donaldson & Grant-Vallone, 2002). Perceived burdensomeness refers to irrational yet subjectively convincing beliefs that one's existence negatively impacts loved ones. Thwarted belongingness encompasses alienation and a lack of reciprocal caring relationships. When combined with hopelessness about these states improving, suicidal ideation may emerge (Joiner

et al., 2009). This framework points to relationship-building, psychoeducation on cognitive distortions, and instilling hope as protective interventions.

According to Beck's cognitive theory of suicide, distortions in information processing during heightened distress can provoke suicidal thoughts, even in non-disordered individuals (Snyder, 2000). These cognitive biases lead to viewing suicide as the only solution to current stressors. Correcting these distortions through reality testing, emotion regulation skills, and crisis planning can mitigate transient suicidality (Snyder et al., 2002). From this perspective, brief cognitive therapy to restructure harmful thought patterns may rapidly resolve temporary suicidal crises for some.

On a societal level, the social-ecological model situates suicide risk within multilayered social contexts spanning individual, interpersonal, community, and societal influences (CDC, 2022b). Although much prevention focuses on individual factors, this framework recognizes that risks stem from broader interacting social systems. It suggests comprehensive solutions should address suicide contexts such as discrimination, unhealthy cultural messaging, barriers to mental healthcare, and means of safety (CDC, 2022b).

Cultural Theory asserts that group-specific norms, values, and traditions shape members' suicidal behaviors and culturally-adapted interventions are needed to develop appropriate interventions to meet the needs of diverse clientele (Colucci & Martin, 2008). For instance, collectivistic native communities may experience suicide clusters due to strong social cohesion (Colucci & Martin, 2008). Understanding cultural context allows tailoring prevention messaging and clinical approaches to resonate with communities' cultural frameworks.

These theories provide complementary lenses into the multilayered determinants of suicide critical for guiding improved prevention and intervention efforts. They suggest clinical

work should foster hope, reduce cognitive distortions, leverage social supports, and address cultural needs within each individual's unique context. This theoretical grounding helps elucidate key psychosocial therapeutic targets to reduce suicide risk.

1.4.1 Hope Theory

This study's theoretical foundation draws chiefly from Existential Theory and its derivative, Hope Theory. Hope theory represents one especially relevant perspective for understanding drivers of suicide that provide implications for fostering protective factors clinically. Snyder's hope theory conceptualizes hope as the perception of one's ability to envision pathways toward desired goals and motivate oneself via agency thinking to pursue those pathways (Snyder, 2002). Hope is proposed as a cognitive model composed of three interrelated components: goals, pathways thinking, and agency thinking (Snyder, 2002).

Goals provide the endpoints or anchors that hope is directed toward realizing—they constitute the object of hope. Suicidal ideation often emerges when an individual perceives no alternative goals or paths forward other than death to escape unbearable suffering. Reorienting toward even temporary goals can restore reason for living.

Pathways thinking reflects the perceived capacity to produce routes to those desired goals or outcomes (Snyder, 2002). Increased pathways of thinking correspond to greater hope. For suicidal individuals, cognitive inflexibility induced by distress narrows perceived paths to solely suicide, but alternative goals remain achievable in reality. Helping generate pathways options through collaborative safety planning, social supports, or coping tactics can raise hope.

Agency thinking refers to the willpower or motivation to follow pathways toward goals and belief in one's competence to do so (Snyder, 2002). Suicidal states often feature defeatism

and helplessness antithetical to agency cognitions. Boosting self-efficacy and reasons for living help mobilize motivation to pursue alternate goal pathways.

According to hope theory, higher hope corresponds to greater well-being, while hopelessness predicts depression, anxiety, and suicide risk (Kleiman et al., 2014). Mediation analyses revealed that agency and pathways thinking fully statistically mediate the relationship between hope and suicide risk (Davidson et al., 2009). This substantiates proposed hope theory mechanisms—when unable to envision workable pathways due to cognitive constriction and lacking agency due to low self-efficacy, suicide may be perceived as the sole possibility.

Hope theory suggests that fostering alternate goals collaboratively, expanding perceived pathways options through solution-focused techniques, and instilling agency via motivational enhancement and emotional regulation skills should help restore hope and mitigate suicide risk (Davidson et al., 2010). Helping clients envision achievable goals, make step-by-step plans, and recognize their self-efficacy to utilize supports and coping tactics provides missing components that make suicide an inevitable solution.

Counseling psychologists have proposed integrating Snyder's hope theory with solutionfocused brief therapy for suicide prevention by using techniques to strengthen goal orientation, pathways thinking, and agency (Conrad et al., 2009). For example, the miracle question helps clients envision a future where problems are solved to identify hopeful goals. Scaling questions enables tracking pathways thinking changes from session to session. Reframing negative selftalk builds agency and self-efficacy (Conrad et al., 2009).

Hope theory also guides assessments—the Adult Hope Scale, Children's Hope Scale, Domain Specific Hope Scale, State Hope Scale, and State Adult Hope Scale offer psychometrically validated measurements of hope components and subsequent outcomes

(Hellman et al., 2013). For example, the Adult Hope Scale predicts outcomes ranging from academic achievement to psychological adjustment across diverse scenarios (Snyder et al., 2002). Assessing baseline hope and fluctuations throughout interventions enables empirical tracking of this protective factor.

Hope theory conceptualizes the essential cognitive components that become impaired about suicide—goals, pathways of thinking, and agency. When unable to conceive alternate goals and routes besides suicide and lacking motivation to pursue options due to helplessness, suicide may appear inevitable. Building hope by restoring goal flexibility, pathways generation, and agency promises to renew reasons for living. Operationalizing and measuring the constituent hope elements provide actionable therapeutic targets and metrics for suicide interventions.

1.4.2 Interpersonal-Psychological Theory

The interpersonal-psychological theory of suicide (IPTS) offers a framework for understanding how social disconnection and perceived burdensomeness combine with hopelessness to engender suicidal ideation and behaviors (Van Orden et al., 2010). This theory proposes that the primary driver of suicidality is the unfulfilled fundamental human need for belonging. When this need goes chronically unmet due to thwarted belongingness and perceived burdensomeness, hopelessness about improving social bonds leads to suicidal thoughts emerging as an escape (Christensen et al., 2013).

As the theory proposes social factors as the primary driver, IPTS aligns with models conceptualizing suicide stemming from broad sociocultural contexts beyond individual pathology (Kral & Links, 2012). Creating inclusive environments, promoting social justice, and preventing disenfranchisement may prevent suicidal despair. For counselors, balancing

intrapsychic and interpersonal interventions tailored to clients' idiosyncratic isolation causes and burdensomeness promises to restore belongingness and purpose.

1.4.3 Application to Study

Hope theory and the interpersonal-psychological theory of suicide provide complementary frameworks for grounding this study's evaluation of The Hope Institute's crisis intervention model. Each perspective illuminates key dynamics and mechanisms that guided model development to rapidly resolve temporary suicidal crises by targeting specific psychosocial risk factors.

Hope theory underpins fostering positive expectancy through collaborative goal-setting and pathways planning to transcend perceptions of suicide as the only option (Snyder, 2002). The CAMS assessment and safety planning components of The Hope Institute's approach align with generating alternative goals and routes to rekindle hope and reasons for living. Motivational interviewing techniques adapted from DBT help mobilize agency thinking to pursue new pathways. Boosting hope elements is hypothesized to explain suicidal ideation reductions.

Likewise, the model's focus on reasons for living versus reasons for dying directly reflects hope theory's emphasis on activating goal flexibility and motivation toward life rather than death. This approach harnesses clients' resiliency and values to reorient hope. Tracking CAMS ratings of hopelessness and self-hate provides empirical metrics on shifts in hope components from intake to discharge.

The interpersonal-psychological theory informs intervention targets as well. Its concepts of thwarted belongingness and perceived burdensomeness highlight the importance of leveraging family and social support systems into safety plans to ameliorate isolation and irrational self-blame (Van Orden et al., 2010). Reducing these empirically validated risk factors thought to

precipitate suicidal crises is a priority. Socratic questioning of burden beliefs provides cognitive restructuring. Group DBT sessions build universality.

CAMS assessment explores reasons for living, like social connections, versus reasons for dying, like burdensomeness. Instilling hope regarding an improved future life rather than suicide is emphasized. The focus on drivers of episodic crises aligns with interpersonal theory's model of cognitive-emotional antecedents to suicidal desire separate from general mental illness.

1.5 Rationale

This study holds value for several interrelated audiences concerned with strengthening suicide prevention and intervention efforts. Most directly, findings can help guide crisis counseling clinics and outpatient behavioral health providers seeking to implement evidence-based approaches tailored for rapidly stabilizing suicidal risk. Agencies like The Hope Institute provide frontline community-based mental health services to clients across the lifespan facing suicidality—research insights optimizing such programs are relevant to their practices. More broadly, mental health counselors, social workers, psychologists, and other clinicians working with suicidal individuals in diverse settings represent key audiences to inform through new outcome data and training implications.

For counselor educators and supervisors, study results could aid curricular enhancements regarding evidenced-based suicide screening, assessment, and treatment models. Graduate training programs that better prepare future providers to serve this vulnerable population need empirical guidance on pedagogical best practices. Supervisors striving to boost supervisees' suicide work competence and self-efficacy require insights to strengthen supervision strategies for skill development. Finally, researchers represent an important audience to advance the science and theoretical knowledge base guiding clinical work and training.

1.5.1 Summary of the Study's Approach

This quantitative longitudinal study analyzed existing clinical records from The Hope Institute, an outpatient counseling clinic providing rapid access for those suicidal crises. Deidentified intake, treatment, and discharge data was collected for clients seen in early 2023 who completed the CAMS assessment and engaged in The Hope Institute intervention model. This observational approach examining real-world implementation outcomes avoids costly randomized designs while yielding beneficial initial data.

The study utilized a repeated-measures design comparing clients' pre-post CAMS suicide risk scores from intake to discharge. Clients pre-test scores were collected in the CAMS Initial Session and post-test scores were collected from the CAMS Final Session. These items were rated in each CAMS Update or Interim Session, although this data was not utilized in the Study. The Changes in psychological pain, stress, hopelessness, and other subdomains were analyzed to quantify reductions associated with the crisis intervention. The correlational analysis examines interrelationships among CAMS sub scores at intake and discharge to reveal potential patterns.

Multiple regression approaches assess predictors of treatment duration and outcomes. For example, logistic regression identifies pre-treatment variables forecasting the likelihood of premature dropout. Multiple linear regression examines whether CAMS Initial Session scores, demographics, or group session participation predict treatment length. Predictors of final suicide risk scores are also modeled using multiple regression.

Between-subjects analysis compares treatment duration and outcomes for those that attended additional DBT groups versus individual therapy. This quasi-experimental approach evaluates the supplemental group component's impact. Differences in CAMS score changes and dropout rates are also examined across demographic groups through t-tests and chi-square tests.

Quantitatively analyzing scores, correlations, forecasting models, group comparisons, and demographic differences yields a multidimensional picture of how clients clinically progress through the integrated CAMS-DBT intervention approach. Findings can elucidate relationships between model components and outcomes to refine suicide-specific stabilization techniques. Limitations include reliance on existing clinical data. However, results can still provide invaluable initial efficacy and implementation insights to guide practice and training.

1.5.2 Relation to Objectives

This quantitative study of an integrated CAMS and DBT model for suicide crises relates to several interlinked research objectives. The first goal is to evaluate the evidence-based intervention components' effectiveness for rapidly resolving temporary suicidal ideation. Comparing clients' CAMS risk scores from pre- to post-treatment directly assesses reductions in suicidal thoughts, plans, and behaviors (Jobes et al., 2005). Examining discharge, CAMS subdomains such as psychological pain, stress, and hopelessness quantifies changes in drivers underlying improved suicide risk (Conrad et al., 2009). This objective relies on the CAMS providing valid measurements demonstrating that the model resolves ideation.

The study aims to illuminate relationships between key model elements like CAMS sessions completed and supplemental DBT group participation. Correlational and predictive statistical analyses reveal if greater engagement in components relates to accelerated ideation resolution and lower dropout rates (Chow & Wehby, 2018). An improved understanding of these relationships can increase the utilization of the various modalities in tandem. This goal also examines how presenting issues like past hospitalizations or diagnoses impact the duration needed to achieve CAMS criteria for suicidal risk resolution (Jobes et al., 2005). These results can inform future strategies for tailoring treatment plans based on required dosages.

A further purpose is identifying individual factors such as demographics and clinical histories that affect outcomes measured by CAMS score changes and treatment completion. Multiple regression approaches pinpoint intake variables forecasting discharge CAMS levels to highlight at-risk groups requiring intensified support (Chi et al., 2014). Logistic regression elucidates pre-treatment predictors of premature dropout, warranting retention efforts (Pelkonen & Marttunen, 2003). Comparisons also reveal if the duration and CAMS improvements vary across ages, diagnoses, past hospitalizations, and other intake factors (Jobes et al., 1997). Detecting subgroups requiring care adjustments is key for optimizing efficacy.

The study aims to derive practical implications from the clinical data to strengthen suicide risk management skills used in clinical practice and taught in counselor training. Identifying predictive intake factors guides proactive retention efforts and treatment planning (Granello, 2010a). Elucidating relationships between model components and CAMS improvements highlights optimal intervention selection and sequencing to accelerate safety establishment. Extracting actionable insights for frontline providers and educators is a key objective.

The quantitative observational methods facilitate meeting the aligned objectives of assessing a new crisis intervention approach, determining how elements interact to affect outcomes, delineating clinical factors requiring adaptations, evaluating supplementary components, and ultimately translating findings into practical strategies to advance training and therapeutic efficacy.

1.5.3 Expected Effects on Outcomes

The Hope Institute's integrated CAMS and DBT model is expected to demonstrate several positive effects on clinical outcomes based on prior research and the constituent evidence-based components.

First, overall CAMS suicide risk scores combining plans, behaviors, ideation severity, hopelessness, and related factors should significantly decrease from pre-treatment intake to post-treatment discharge (Jobes et al., 2005). The randomized trial data showing CAMS' efficacy predicts sizeable reductions in suicidality even in high-risk outpatient samples when delivered competently (Jobes et al., 2005). Tailoring CAMS to individual drivers identified in collaborative assessments and tracking progress weekly is designed to resolve temporary crises (Jobes, 2012).

Examining specific CAMS subdomain measure improvement may reveal targeted impact areas. For example, ratings of psychological pain, agitation, and hopelessness which often fuel suicide risk, would be expected to show clinically meaningful declines indicating clients gain distress tolerance skills and future optimism (Bryan et al., 2017). Stress levels stemming from presenting problems should also be rated lower post-treatment after receiving counseling and support (Kazan et al., 2016). Self-hatred ratings measuring internalized burdensomeness beliefs are expected to decrease as cognitive restructuring challenges misperceptions (Linehan, 1982). Determining which specific CAMS components change most profoundly provides insights into active change mechanisms.

Regarding treatment retention, adding ancillary DBT group skills training is expected to lower attrition rates based on meta-analytic findings showing enhanced retention among multimodal approaches (O'Connor et al., 2013). Learning concrete lifestyle and coping skills through group coaching may boost client self-efficacy to utilize CAMS safety plans (Rosenbaum &

Horowitz, 1983). Combining CAMS' individualized case conceptualization and DBT's standardized skills promises complementary benefits. Clients attending groups is predicted to require fewer CAMS sessions to resolve ideation as skills generalize.

For outcomes, prior research would anticipate clients participating concurrently in DBT groups to exhibit greater CAMS score reductions and reach discharge criteria faster (Andreasson et al., 2016). Multiple randomized trials found that standard DBT reduced suicide attempts and self-harm acts over control conditions (Kliem et al., 2010). Acquiring mindfulness, distress tolerance, emotion regulation, interpersonal effectiveness, and other skills should facilitate CAMS suicide risk resolution. Combining the approaches leverages their respective strengths.

Demographic differences may also emerge with younger clients expected to respond faster based on developmental considerations. Early intervention could help prevent chronic patterns (Mehlum et al., 2014). Higher levels of trauma or past hospitalization may require lengthier treatment and predict higher dropout odds. Tailoring duration individually would be expected as optimal (Jobes, 2016). Overall, the integrated CAMS-DBT approach grounded in empirical conceptualizations of suicide should demonstrate clinically and statistically significant reductions in clients' suicidal thoughts, plans, and behaviors from intake to discharge.

1.6 Research Questions and Hypothesis

This study addresses the following research questions:

- 1. What is the data being studied and what are the specific variables of importance to this research?
- 2. Can the length of treatment, determined by total number of sessions, be predicted by mental health factors, including a previous mental health history, a history of suicide
attempts, emergency department visits for mental health, hospital admissions for mental health, or a composite score for the CAMS Initial Session measures?

H2.10: A previous mental health history will not significantly predict the number of sessions of treatment.

H2.1a: A previous mental health history will significantly predict the number of sessions of treatment.

H2.20: A previous history of emergency department visits for mental health will not significantly predict the number of sessions of treatment.

H2.2a: A previous history of emergency department visits for mental health will significantly predict the number of sessions of treatment.

H2.30: A previous history of hospital admissions for mental health will not significantly predict the number of sessions of treatment.

H2.3a: A previous history of hospital admissions for mental health will significantly predict the number of sessions of treatment.

H2.40: A history of suicide attempts will not significantly predict the number of sessions of treatment.

H2.4a: A history of suicide attempts will significantly predict the number of sessions of treatment.

H2.50: A composite score for the six CAMS Initial Session measures will not significantly predict the number of sessions of treatment.

H2.5a: A composite score for the six CAMS Initial Session measures will significantly predict the number of sessions of treatment.

- 3. Was there a significant decrease in the CAMS "Overall Risk of Suicide" item-level scores after the intervention provided at The Hope Institute?
 H3o: There will be no significant difference in pre- and post-test CAMS "Overall Risk of Suicide" scores for individuals utilizing The Hope Institute model.
 H3a: There will be a significant decrease in post-test CAMS "Overall Risk of Suicide" scores for individuals utilizing The Hope Institute model.
- 4. Was there a significant difference in the five CAMS item-level measures of psychological pain, stress, agitation, hopelessness, and self-hate, between the Initial Session scores and the Final Session scores?

H4o: There will be no significant changes within initial and final CAMS item-level scores for individuals treated utilizing The Hope Institute model.

H4a: There will be significant changes within initial and final CAMS item-level scores for individuals treated utilizing The Hope Institute model.

5. What are the inter-item correlations of the six CAMS measures of psychological pain, stress, agitation, hopelessness, self-hate, and overall suicide risk among the initial item scores and among the final item scores?

H50: There will be no inter-item correlations among initial CAMS item scores and among final CAMS item scores for individuals treated utilizing The Hope Institute model.

H5a: There will be positive, but weak or stronger inter-item correlations among initial CAMS item scores and among final CAMS item scores for individuals treated utilizing The Hope Institute model.

These are focused research questions for the study at hand. Additional post-hoc analyses were performed as appropriate.

1.7 Assumptions of the Study

This research makes several important assumptions regarding the study design, sample, procedures, measures, and data analysis. A first assumption is that The Hope Institute's clinical records provide sufficiently reliable and valid data representative of clients' genuine clinical experiences for analysis. This assumes reasonable accuracy and honesty of intake reports, CAMS ratings, diagnoses, and attendance documentation without substantial errors or misreporting. However, verifying details like past hospitalizations with medical records could strengthen confidence.

Another key assumption is that the CAMS assessment demonstrates adequate psychometric validity and sensitivity as a measurement instrument for detecting changes in suicidal thoughts, plans, and risk levels from pre- to post-treatment. Multiple studies substantiate the CAMS' properties in assessing and tracking suicide risk (Conrad et al., 2009). However, like all self-report measures, it remains vulnerable to subjectivity and bias. Patients may overestimate initial severity or underreport subsequent improvements. Comparing CAMS outcomes to behavioral indicators like suicide attempts known through collaterals would further verify validity.

The study also assumes that participating in CAMS assessments does not inherently impact suicide risk scores independent of other interventions. There could be testing effects wherein repeating ratings over time naturally reduces scores. However, prior research found no effects on suicidality from measurement alone (Linehan et al., 2006). CAMS' design as an

intervention integrating collaborative assessment and safety planning also minimizes reactivity. Still, isolating the ratings from the clinical context would better isolate its measurement effects.

Regarding sampling, it is assumed that the clinical records from a Midwestern outpatient site generalize reasonably to broader populations seeking suicide care elsewhere. However, geographic and cultural factors may constrain external validity. For example, rural regions with higher suicide rates may exhibit different clinical profiles and outcomes. Replicating analyses at clinics nationally would determine generalizability. The predominantly adolescent sample also may not represent adult or elderly presentations. Similarly, the largely White demographic limits ethnic-racial generalizability, which replication could address.

For analysis, it is assumed that quantitative longitudinal methods can adequately capture clinical processes like suicide risk resolution. However, qualitative approaches might capture additional contextual complexes. Diversity in individual risk pathways may be obscured in aggregate data. Mixed methods combining standardized analysis with case studies could enrich insights. Statistical techniques are also assumed to be adequately powered for the sample size and sensitive to clinical changes. Further data cleaning and testing assumptions before applying tests assist in uphold this validity.

1.8 Limitations

Although this research can provide beneficial insights, examining existing clinical records entails inherent limitations. First, the data was collected for treatment purposes rather than research aims. No experimental controls or protocols were implemented to strengthen validity and rigor. The causation between the intervention and outcomes cannot be definitively established. While results may still influence practice, conclusions remain tentative without controlled trials.

Relatedly, the study's observational, correlational design prevents determining causal mechanisms. For instance, observed associations between greater DBT group participation and reduced suicide risk on the CAMS provide only preliminary evidence that acquiring skills facilitated improvement. An experimental design randomly assigning clients to conditions could better isolate causal relationships.

Using archived data also means the researchers could not verify or standardize data collection procedures. Clinical documentation practices may have varied in unknown ways across counselors or periods. For example, CAMS administration procedures and consistency likely differed between providers. This could make treatment duration or dosage comparisons less interpretable.

Also, reliance on self-report assessments like the CAMS and lack of collateral verification introduces subjectivity limitations. Client ratings may reflect transient mood states, impression management, or recall biases that distort scores (Cook & Rumrill, 2005). Without multiple data sources, score accuracy is uncertain.

Self-selection sample biases may also constrain generalizability. Clients enrolling in voluntary outpatient treatment likely differ in motivation, functioning, or social support from other populations like involuntary inpatients. Regional cultural factors influencing help-seeking and outcomes in the Midwest clinic may also limit national generalizability.

A primary limitation is the brief study timeframe examining early 2023 records. Focusing on a limited period enhances internal validity but provides only a snapshot versus long-term data. Outcomes could fluctuate over the years. Following cohorts longitudinally would better establish sustained benefits. The sample size obtainable from months of cases also reduces statistical power and subgroup analysis options.

The study is also limited to suicide-specific outcomes on the CAMS rather than broader clinical measures like depression or quality of life inventories. While relevant to clients' overall well-being, examining CAMS suicidality metrics alone focuses the scope on the model's purpose. Changes in unadministered assessments remain unknown.

1.9 Significance

1.9.1 Contributions to Field

This research can contribute to suicide prevention studies and counseling practice. It provides initial effectiveness data on a new crisis stabilization model integrating CAMS assessment and interventions with complementary DBT skills training. Although CAMS and DBT individually demonstrate efficacy, research has not yet examined utilizing them in tandem for intensified brief suicide treatment (Jobes et al., 2005; Linehan, 2008). Analyzing reductions in suicidal ideation on the CAMS and relationships between treatment components and outcomes provide preliminary evidence on this emerging combined approach.

These findings can help establish an adapted clinical framework specifically tailored for rapidly resolving acute suicidal risk rather than solely managing a chronic mental illness. As current societal suicide rates indicate a pressing need for innovative solutions (Johnson et al., 2011), evaluating novel targeted applications of established models advances prevention science. Relatedly, elucidating optimal treatment durations and modalities' synergic effects guides streamlining efficient care pathways that minimize the burden on clients and clinics.

Understanding moderators, like presenting issues that influence treatment trajectories, also refines best practices for personalized interventions based on empirical data rather than conjecture alone. Matching treatment plans to clients' needs promises to enhance outcomes and

use resources judiciously. Additionally, identifying at-risk demographic groups guides directing preventative outreach and support.

Extracting clinically relevant findings to shape counselor preparation and practice also fills noted gaps in graduate training and implementing evidence-based suicide treatment competently (Shannonhouse et al., 2018; Brown & Jager-Hyman, 2014). Maximal transparency regarding program details is key for facilitating replication in diverse settings. This research's practice-oriented evidence on an urgent behavioral health issue can enhance prevention impact across systemic levels—research, education, training, and client care.

1.9.2 Unique Aspects of Study

This study offers several distinctive features advancing the knowledge base on evidencebased suicide interventions in clinical practice. First, evaluating a blended CAMS and DBT approach represents a novel integration of complementary models not previously combined or tested. Although both have demonstrated independent efficacy, synthesizing their elements creates an innovative application tailored for acute suicidal crises versus traditional ongoing therapy. Assessing this new adaptation provides fresh insights to guide evolving suicide-specific care beyond established frameworks.

The rapid access model enabling enrollment within days for urgent cases is unique. Most outpatient programs entail weeks- to months-long intake delays leaving individuals unsupported during high-risk periods (Boudreaux et al., 2016). Examining outcomes and required dosage when mobile treatment is delivered during crises rather than postponed weeks demonstrates an unprecedented service delivery approach. Speedy intervention could mitigate escalation.

Studying an existing community-based clinic's outcomes provides real-world data often needing more tightly controlled efficacy trials. Testing effectiveness under routine conditions

better represents general practice. The sample also encompasses a broad demographic range, as it is uncontrolled, including diverse ages and clinical profiles. Capturing this heterogeneity offers more inclusive, externally valid insights than selective samples.

The longitudinal within-subjects design comparing clients' changes on standardized CAMS measures from intake through discharge offers more detailed quantitative tracking than cross-sectional data. Charting trajectories of suicide risk resolution over treatment reveals nuanced patterns. Examining dynamic processes transcends simplistic pre-post designs to elucidate how improvements unfold session-to-session.

Only some prior studies also integrate ancillary DBT group skills training into primarily individual CAMS therapy. Evaluating added benefits of a multi-modal approach guides optimizing treatment packages' synergistic effects. Component analysis can pinpoint which modalities accelerate improvements under real-world conditions.

Collecting detailed ancillary indicators like past hospitalizations and diagnoses to assess how presenting clinical characteristics influence CAMS outcomes provides novel information to individualize care based on empirical data. Precision suicide treatment relies on matching intervention elements to clients' needs and risks, which this facet aids.

In combination, investigating an adapted rapid CAMS-DBT approach in a real-world setting with few exclusion criteria provides uniquely inclusive and externally valid insights complementing controlled trials' internal validity. The focus on tailoring efficacious models to address acute crises fills a timely practice gap.

1.9.3 Importance of Accessibility

Accessibility of evidence-based suicide care remains a critical concern limiting lifesaving treatment for those in need. Significant barriers span financial, geographic, cultural,

systemic, and individual help-seeking factors (Bruffaerts et al., 2011). From provider shortages in rural counties to stigma deterring minority youth from services, inadequate access perpetuates preventable suicides (Stewart et al., 2021). As Granello (2010b) stated, "If people in crisis cannot easily find or get life-preserving services, counseling loses its fundamental purpose" (p.368). Strengthening access requires addressing barriers across the suicide prevention continuum—risk detection, triage, assessment, affordable treatment, follow-up, and means of safety (Stewart et al., 2021).

This study's focus relates centrally to improving access through specialized rapid crisis treatment development and disseminating effective approaches into communities. Evaluating The Hope Institute's CAMS model delivering low-cost prompt intervention within days supports accessibility for underserved groups. Refining rapid response best practices guides establishing urgently needed programs regionally. Speedy intake translates assessment insights into immediate safety plans when motivation peaks (Randell et al., 2001). Flexible duration based on clients' needs also bolsters access compared to setting lengthy protocols. Analysis results may shape practical recommendations to enhance equitable implementation in diverse settings.

The sample encompasses a socioeconomically, generationally, and clinically heterogeneous population compared to selective trial participants. Investigating real-world effectiveness across groups evaluates generalizability for broad access. Adolescents, low-income clients, minorities, and those with complex diagnoses are overrepresented in suicidal statistics often due to oppressive systems (CDC, 2022b). Adapting evidence-based models for accessibility among marginalized communities is imperative. Establishing crisis stabilization's benefits and required dosage across clients provides knowledge to guide individualized care and optimize intervention courses without unnecessary burden. In sum, this research's focus on

generalizable rapid access aligns directly with the crucial suicide prevention priority of equitable treatment reach. Lives depend on extending innovative, specialized solutions to underserved groups through dedicated accessibility efforts.

1.10 Definition of Terms

The following are the definitions for this study:

CAMS Composite Score is the sum of the six subcategories in Section A of the three SSF-4 forms, including the initial, update, and disposition session forms. The six subcategories are each scored one through five, allowing for a composite score ranging from six to thirty.

Distress refers to an experience of intense stress that is unresolved and difficult to manage.

(VandenBos, G. R., 2007).

Intervention is any action intended to interfere with and stop or modify a process. (VandenBos,

G. R., 2007).

- Model is a theory, usually including a mechanism for predicting psychological outcomes, intended to explain specific psychological processes. See also construct. (VandenBos, G. R., 2007).
- Risk factor is a clearly defined behavior or constitutional (e.g., genetic), psychological, environmental, or other characteristic that is associated with an increased possibility or likelihood that a disease or disorder will subsequently develop in an individual. (VandenBos, G. R., 2007).
- Suicide is death caused by self-directed injurious behaviour with intent to die as a result of the behaviour (National Institute of Mental Health, 2022).

- Suicide assessment is a more comprehensive evaluation conducted by a clinician trained in evaluations to determine suspected suicide risk, factors, and underlying conditions.
- Suicide attempt is a non-fatal, self-directed, potentially injurious behaviour with intent to die as a result of the behaviour. A suicide attempt might not result in injury.
- Suicidal ideation refers to thinking about, considering, or planning suicide (National Institute of Mental Health, 2022).
- Suicide screening is an initial indicator of risk for someone to consider or attempt to take their own life.
- Suicide treatment or intervention is utilization of therapeutic tools to prevent a person from taking their own life and to mitigate the "triggers" or "drivers" to do so.
- Theory is a principle or body of interrelated principles that purports to explain or predict a number of interrelated phenomena. (VandenBos, G. R., 2007).
- Treatment is the administration of appropriate measures (e.g., drugs, surgery, psychotherapy) that are designed to relieve a pathological condition (VandenBos, G. R., 2007).
- Treatment as usual (TAU) or routine care in the context of psychotherapy has been used both as a control condition in clinical trials of evidence-based psychotherapy (EBP) and as a primary therapeutic intervention.

1.11 Summary

Chapter 1 has provided the background, rationale, and overview for a quantitative study evaluating outcomes from The Hope Institute's crisis intervention model for rapidly resolving temporary suicidal crises. Suicide is an urgent public health issue, with rates escalating across demographics over the past two decades. However, current approaches may be inadequate given these rising trends. Although graduate counselor training mandates covering suicide assessment and management, many providers still feel unprepared to serve suicidal individuals competently. Tailored crisis interventions and enhanced training in evidence-based models are needed.

This study helps to address these gaps by analyzing existing clinical data to assess The Hope Institute's effectiveness in combining the evidence-based CAMS and DBT approaches for suicide-specific stabilization. Outcomes are examined by comparing participants' CAMS suicidal ideation scores pre-and post-treatment. Changes in related subdomains like hopelessness are also evaluated. Relationships between engagement with components like CAMS sessions or supplemental DBT groups and outcomes are analyzed. The goal is to provide initial evidence on this emerging brief intervention model and determine how key variables interact to optimize efficacy.

Several theories inform the approach, especially hope theory emphasizes restoring goal flexibility and motivation to mitigate perceptions of suicide as the sole option. The interpersonal theory also highlights targeting constructs like burdensomeness and belongingness that may precipitate crises. While study limitations exist, findings can guide the refinement of rapid stabilization techniques, training, and accessibility of care. This research evaluates an innovative crisis-focused care model tailored to the rising public health issue of suicide. Even preliminary data helps to advance prevention science and provide clinicians with evidence-based tools to save lives.

Chapter 2. Review of the Literature

2.1 Introduction

The World Health Organization (2023) defines *mental health* as "our emotional, psychological, and social well-being. It affects how we think, feel, and act. It also helps determine how we handle stress, relate to others, and make healthy choices." Within the topic of mental health lies the subtopic of mental illness, which one in five Americans will struggle with in any given year (CDC, 2022b). Additionally, over 50% of Americans will be diagnosed with a mental disorder at some point in their lifetime (CDC, 2022b). As significant as these numbers are, there is a dramatic increase, particularly among high school students in the United States. The Center for Disease Control's Youth Risk Behavior Survey (2023) shows that in 2021 42% of high school students "experienced persistent feelings of sadness or hopelessness." This increase indicates a 50% rise over the 28% that reported the same feelings ten years prior (CDC, 2023).

2.1.1 Suicide in the U.S.

Within mental health lies the topic of suicide. According to the American Foundation for Suicide Prevention (2022), suicide is currently the 12th leading cause of death in the U.S. and the 2nd leading cause of death among youth between 10 and 24 years of age. In 2021, 47,646 Americans died by suicide, with an estimated 1.2 million suicide attempts. Furthermore, an estimated 12 million adults and an additional 3.2 million adolescents struggle with thoughts of suicide each year (CDC, 2022b). This means these 15.2 million Americans struggle with suicidal ideation, or "thoughts of engaging in suicide-related behavior" (Crosby et al., 2011), although they do not necessarily engage in the attempt. It is sobering to understand that this translates to 17.7% of high school students reporting seriously contemplating suicide and 8.6% reporting one or more attempts in the past twelve months (Kann et al., 2016). The reality may be that these

estimates are low. More recent data indicates that 22% of high school students have seriously considered suicide, 18% have made a plan, and 10% have attempted (CDC, 2023; Gaylor et al., 2023). Although this is daunting, experts and 93% of American adults surveyed agree that suicide can be prevented (AFSP, 2022).

2.1.2 Special Populations and Marginalized Communities

Within suicide literature, there are special populations and traditionally marginalized communities identified that should be addressed as such. According to AFSP (2022), it is estimated that 0.7% of adults 18 and older made at least one suicide attempt, compared to 10% of high school students (CDC, 2023; Gaylor et al., 2023). Adult women attempt 1.33 times more often than adult males, while adolescent females attempt 1.86 times more than their male counterparts (AFSP, 2022). Veterans are 1.5 times more likely to die by suicide than non-veterans (Schafer et al., 2022), with female veterans experiencing ideation at 1.2 times the frequency of male counterparts and attempt at rates of 2.2 times that of male veterans (Monteith et al., 2022).

The statistics demonstrate that current efforts are not stopping or slowing the struggles with suicide in the United States or the world. Special populations deserve particular attention due to the ongoing exploration of delivery models. Minoritized communities, like Native Americans, die by suicide at roughly twice the national average (Ehlman, 2022) with other estimates showing that ideation may be 3 times higher than the general population (McKinley et al., 2021). Another group to pay particular attention to is the LGBTQ+ population, where attempts are typically four times more likely than their peers (Johns et al., 2020; Johns et al., 2019). One fact seems undisputed within the research, that rates are increasing at alarming rates for all populations.

2.2 Current Treatment

Treatment of suicidal patients, or treatment as usual (TAU), typically focuses on safety planning and referral to what is considered the appropriate level of care, including outpatient and inpatient hospitalization (Stanley & Brown, 2012). We know that the professionals that are being referred to are often poorly prepared and struggle to replicate the models that they have been trained in (Brown & Jager-Hyman, 2014) and that there are concerns with provider fidelity and delivery outcomes (Johnson et al., 2020). We also know that traditional no-suicide contracts were ineffective (Kelly & Knudson, 2000) and potentially even harmful (Shaffer and Pfeffer, 2001; Rudd et al., 2006), although are still the standard of practice in some areas.

2.2.1 Crisis Response

Crisis response is a growing element in addressing suicidality and is often rooted in safety planning and means restriction, with data showing that it is significantly more effective than contracting for safety (Bryan et al., 2017). This style of intervention may be even more important than relying on future appointments, as between 11% and 50% of those that attempt refuse or discontinue treatment quickly (Kessler et al., 2005; Kurz & Moller, 1984), and up to 60% of individuals who have attempted suicide only attend an average of 1 week of outpatient services after the attempt (Spirito et al., 2002; Piacentini et al., 1995; Litt et al., 1983). This rationale lends to a brief, pointed intervention that utilizes the opportunity for intervention while it is present (Stanley & Brown, 2012). With this said, crisis response is not treatment. Although it might address the issue of suicide in the moment, it is not designed to address the underlying issues that lead to the suicidal ideation.

2.2.2 Emergency Department

Emergency departments have been a common resource for individuals that struggle with suicidal ideation, and it is common practice to board involuntary psychiatric patients in emergency departments in many parts of the United States (Applebaum, 2015). *Boarding* is the act of holding ED patients whose evaluation is complete and for whom the decision has been made to either admit or transfer, but for whom there is no available bed (Nolan et al., 2015). Applebaum (2015) explains that this is driven by a shortage of resources, including facility capacity and services. A recent federal lawsuit in New Hampshire ruled that the state health department failed to meet the obligation of immediately transporting involuntarily held psychiatric patients to appropriate medical facilities (Taylor, 2023). The problem is not unique or uncommon, as news stories of warehousing mental health patients in emergency departments are becoming increasingly common and have even been addressed by the Joint Commission (2021), discussing the lack of inpatient beds, outpatient programs, and community crisis stabilization centers. These concerns directly tie to another myth that leads to the ongoing problem that all individuals struggling with suicidal ideation need hospitalization.

2.2.3 Hospitalization and Inpatient Care

Inpatient centers are an option and have the time and access to provide treatment, with some doing very good work with individuals struggling with thoughts of suicide (Bloom et al., 2012; Ellis et al., 2015, Kennard et al., 2018). Dialectically, the research also demonstrates that short-term inpatient hospitalization lacks effectiveness, with data demonstrating that most individuals leave the inpatient unit at equal or higher risk of suicide attempt than upon admission (Chung et al., 2017; Czyz & King, 2015; Yen et al., 2013). Emergency department providers report confidence in screening skills, while reporting gaps in assessment, counseling, and referral (Betz et al., 2013). SAMHSA (2016) data indicates that only approximately 10% of individuals

struggling with ideation are emergent and need inpatient hospitalization. The remaining 90% is composed of 45% that are urgent, who can use the crisis line and potentially a mobile crisis team for temporary stabilization with ongoing outpatient treatment, and 45% that are routine, who can utilize the crisis line and be managed effectively with outpatient treatment.

Inpatient hospitalization does have its place and is necessary for the 10% mentioned previously. Hospitalization, or inpatient care, can assist with access to rapid medication changes, 24/7 supervision for those that struggle to keep themselves safe, and lethal means restriction, either through limited access due to an inpatient stay or through the safety planning process (Stanley & Brown, 2012).

2.2.4 Training

In examining the data on suicide, research tells us that while only 90% of individuals that die by suicide have underlying, and likely treatable, mental health conditions (AFSP, 2022). At the same time, research also provides insight into the fact that nearly 40% of those that receive stabilization treatment for suicidal ideation did not need ongoing treatment for underlying mental health issues (SAMHSA, 2016). This begins to paint a different picture. While suicide may be part of a larger mental health issue, as we have previously believed, this is not always the case.

A working knowledge of crisis and suicide assessment are vital to the toolbox of counselors and behavioral health providers and should be included in the standards for graduate programs as dictated by the Counsel for Accreditation of Counseling and Related Educational Programs (CACREP, 2016). While the topic is mandated by CACREP, the standards of skill are also not specific, leaving a variable to the discretion of each individual counselor education department. Unfortunately, many entry-level mental health professionals feel unprepared or

underprepared to deal with patients with suicidal ideation or attempts (Shannonhouse et al., 2018).

This leads to a lack of training for field clinicians, or a lack of clinicians that are adequately prepared to work with individuals struggling with suicidal ideation. An implication in the work of Douglas and Morris (2015) indicated that counseling practitioners that experience anxiety while performing suicide assessments or lack confidence in their suicide assessment skills may not actually have as much difficulty with asking questions related to history, but rather, may lack confidence in their ability to take appropriate action afterward or to ask some of the more personal questions related to current risk factors or warning signs for suicide. Poorly prepared new professionals are coupled with a lack of detailed psychotherapy manuals, often making replication of models or studies nearly impossible (Brown & Jager-Hyman, 2014). In addition to concerns regarding training are those of provider fidelity and delivery outcomes (Johnson et al., 2020).

Additional information regarding training suggests that brief training in suicide assessment and crisis intervention that integrate didactic learning and role-play experiences can be impactful (Mirick et al., 2016; Oordt et al., 2009). The outcomes suggest increased knowledge, confidence, and adapting practices for suicidal clients (Mirick et al., 2016; Oordt et al., 2009). Unfortunately, a literature review also demonstrates a decades-old lack of training available to prepare mental health professionals (Schmitz et al., 2012), making the training that is utilized that much more important. If it can be agreed upon that clinicians need more training in suicide techniques and interventions, this begs to ask what training should be provided?

2.2.5 Outpatient Care for Suicide

In exploring outpatient care for suicide, the literature demonstrates a lack of services and training (Douglas & Morris, 2015; Shannonhouse et al., 2018). Furthermore, there is an acknowledged mental health provider shortage in the United States, which impacts outpatient care for individuals struggling with suicide (Phillips et al., 2023). The literature also shows that the lack of professional counselors can be correlated to deaths by suicide, and more specifically, areas with less access to counselors tend to have higher suicide rates (Johnson & Brookover, 2020). This limited supply of clinicians compounds the already mentioned concerns regarding lack of preparation for working with suicidal individuals and limited ability to execute training that has been conducted (Brown & Jager-Hyman, 2014), which results in treatment as usual.

TAU is focused on safety planning (Stanley & Brown, 2012), and the use of safety plans must be purposeful and follow specific guidelines, as research has shown that poorly constructed safety plans do not reduce suicidal behavior (Green et al., 2018). A component that should be included in safety planning is means restriction. Experts tend to agree that means restriction is effective and one of the most promising strategies in suicide prevention (Mann et al., 2005). The efficacy of means restriction is based on the fact that suicidal thoughts tend to subside over time, so the act of making it more difficult for individuals to access means will assist as an intervention (Daigle, 2005). While an important outcome of means restriction, the field cannot continue to rely on the fact that suicidal ideation will subdue over time.

It quickly becomes evident that treatment as usual is not sufficient and does not provide individuals struggling with suicidal ideation what they need. Treatment as usual is reflective of old practices rather than evidence-based models. TAU, as previously discussed, is often driven by emotions and fears due to lack of training and feelings of being unprepared. These feelings of unpreparedness often stem from lack of repetition and lack of support but demonstrate that only

months after training the skills have been lost (Sale et al., 2018; Johnson et al., 2011). Evidencebased work is anchored in models with demonstrated outcomes, competency, and support.

2.2.6 Accessibility

The discussion of evidence-based treatment leads to another concern, accessibility. For many struggling with suicidal ideation, access to care is simply not afforded (Granello, 2010b). Access can be a difficult topic, as many issues to access can be invisible, or internal factors, that fall disproportionately on marginalized communities (Johnson & Bonner, 2013). These factors may include race, ethnicity, gender, religion, stigma, and chronic health conditions (Andreade et al., 2014).

In addition to internal factors, there are external factors, which are often more easily identified and seen. These factors include provider shortages, transportation, financial access, and health plan barriers, including lack of coverage (uninsured) or inadequate coverage (underinsured) (Andreade et al., 2014; Cunningham, 2009). The uninsured and underinsured are of particular concern as the underinsured are often overlooked due to having a level of coverage and there are millions of uninsured that also struggle with co-occurring status issues that make them invisible (Liddell & Lilly, 2022; Wippold & Roncoroni, 2020).

When treatment for suicidal ideation does appear to be available, most accessibility is through an emergency department or outpatient mental health services. Emergency departments typically have long wait times, ranging from hours to days, and only triage the issue. Literature also indicates significant lack in skills beyond screening (Betz et al., 2013). Any treatment will be referred to either inpatient or outpatient settings.

As the option of outpatient settings are revisited, the conversation circles back to lack of preparedness and training to work with this population. It is known that clinicians need training

in these models, but as demonstrated previously, need ongoing training and experience to maintain skills (Sale et al, 2018). There are some specialty outpatient centers, specifically DBT centers, although most are cash pay, expensive, and not available to most of the population. The same holds true for many inpatient centers. This brings to light the financial inequity of suicide treatment, in that often only those of means may have rapid access to treatment.

When discussing access, it is important to examine gaps in the literature. There is little on the actual shortage of providers, financial disparity, or limitations due to transportation. There is also a shortage of data on access for our teens. Suicide is the second leading cause of death for the adolescent population in the U.S. (AFSP, 2022), as discussed previously. If the goal is to prevent suicide, the treatment must not only be effective, but accessible to the populations that need it. According to Einberg, et al., (2015) "sometimes reliance on adults is missing, 'I do not like to talk to adults because they do not understand.'" This translates to adolescents withholding information from adults, even "trusted" adults and instead relying on peers, who provide security both at school and during evenings and weekends (Einberg, et al., 2015). To truly make headway in decreasing suicide in the U.S., there need to be concerted efforts to increase access to evidence-based suicide assessment and treatment to all members of the public.

2.3 Current Approaches for Suicide Prevention

In discussing approaches for suicidality, it is first important to understand that not all approaches are the same. Not only are the clinical approaches different, but they may also have different goals and expected outcomes associated with them. Additionally, terminology around suicide is often discussed casually, with varying meanings. Meyer et al. (2010), discussed the concept of terminology, stating that the term "suicidality" is not as useful as more specific terms, such as ideation, behavior, attempts, and suicide. Other examples can include crisis models or

suicide prevention versus suicide intervention. In the current vernacular, suicide prevention can be used to describe nearly any work done regarding suicide. This ranges from marketing campaigns to hotlines, and from psychoeducational programs to full psychotherapeutic models. In a similar vein, suicide intervention programs range from 30-minute techniques to full year long psychotherapeutic models.

Another concept to discuss prior to exploring approaches is terminology related to approaches. In exploring language, the term intervention is often utilized but is rarely clarified beyond the definition that is provided in social and cultural contexts. As touched on in chapter 1, many interventions for suicide were designed to address symptoms, as opposed to treatments designed to address underlying psychopathology, as defined by the American Psychological Association (VandenBos, 2007). Interventions are an "action intended to interfere with and stop or modify a process," where a treatment is "the administration of appropriate measures that are designed to relieve a pathological condition" (VandenBos, 2007). In layman's terms, an intervention is intended to address a symptom, while a treatment is focused on the pathology or overall condition being treated. In continuing in this vein, a model contains recommended steps of intervention toward treatment goals and a theory includes mechanisms for predicting outcomes (VandenBos, 2007). This language is important, as it informs the language used in the following sections.

2.3.1 Brief Intervention Techniques

The first group of approaches can best be categorized as techniques focused on intervention. These are individual interventions which are focused on symptoms rather than pathology. They are intended to address certain traits but have no method for addressing the underlying issues that may be causing the suicidality. The interventions can be utilized in a

variety of settings and within a variety of therapeutic frameworks. Most of these are designed for one or two sessions and are completed based on learning the intervention, rather than the success or outcome of the intervention. These techniques include Counseling on Access to Lethal Means (CALM), Safety Planning Intervention (SPI), Crisis Response Planning (CRP), Motivational Interviewing (MI), Motivational Interviewing-Safety Planning (MI-SP), and Motivational Interviewing-SafeCope (MI-SafeCope).

Counseling on Access to Lethal Means (CALM) training is a 2-hour workshop that includes slides, videos, and role plays (Johnson et al., 2011). The training focuses on teaching strategies to assist professionals in working effectively to reduce a suicidal client's access to lethal means in times of crisis. Although intended to restrict all types of lethal means, there is a particular focus on firearms due to the lethality in suicide attempts (Sale et al., 2018; Johnson et al., 2011). CALM workshops discuss the prevalence of suicide, warning signs, and types of lethal means, provide examples of effective lethal means reduction efforts, and provide instruction on effectively working with individuals in crisis who possess firearms or other lethal means (Sale et al., 2018).

CALM has been shown to increase comfort, confidence, and perceived likelihood of discussing lethal means restriction with patients (Hendricks et al., 2014). Two studies demonstrate that CALM training improved clinician self-efficacy, commitment, and skills in means reduction, as well as increased beliefs and attitudes about the importance of counseling for means restriction, although there is no data on the efficacy of CALM with patients (Sale et al., 2018; Johnson et al., 2011). A point of caution was noted in a 2018 study which showed that while knowledge scores increased significantly between pre-training (baseline) and post-training, knowledge decreased significantly from post-training to follow-up and was not significantly

different from baseline (Sale et al., 2018). CALM is currently listed on the Suicide Prevention Resource Center's (SPRC) Best Practice Registry under adherence to standards, although it is not considered "evidence-based" due to the limited number of studies on program effectiveness (Sale et al., 2018).

Safety Planning Intervention (SPI) is a brief intervention, taking only 20 to 45 minutes, and provides patients with coping mechanisms and supports that are personalized and prioritized for the individual should they experience active ideation again (Stanley & Brown, 2012). This intervention is best implemented with the individual following a full suicide risk assessment (APA, 2003). Best practices also indicate that the development is conducted collaboratively between the client and clinician (Jobes, 2012; Stanley & Brown, 2012). The safety plan should include recognition of warning signs, internal coping strategies, socialization strategies for distraction and support, social contacts for assistance in resolving the suicidal crisis, professional contact to help resolve the suicidal crisis, and means restriction (Stanley & Brown, 2012).

A few benefits of SPI include the ease and cost-effectiveness of training and implementation, the ease of use and efficiency of the intervention, and the efficacy of means reduction. Unfortunately, actual data on the efficacy of SPI itself was limited in the literature, and the intervention primarily relies on the efficacy of means reduction.

One of the primary benefits of safety planning, means restriction, is also a critical factor in Crisis Response Planning (CRP) (Bryan et al., 2011). CRP is an intervention developed to assist suicidal patients, specifically veterans, in managing a suicidal crisis (Bryan et al., 2017). CRP utilizes a small card to outline steps to manage a crisis, specifically through identifying personal warning signs, coping strategies, social supports, and access to professional services (Rozek & Bryan, 2020; Rudd et al., 2006; Stanley & Brown, 2012). This card outlines what an

individual can do in a crisis, including coping and support, which significantly differs from the "I will not" lists provided in traditional contracts for safety (Bryan et al., 2017).

The actual intervention of CRP begins with a narrative assessment and provides the opportunity for a collaborative effort between patient and clinician to identify warning signs and strengths (Bryan et al., 2018). The remainder of the CRP is then developed through a collaborative effort to identify warning signs, self-management, reasons for living, social supports, healthcare professionals, and crisis services (Rozek & Bryan, 2020). CRP differs from the other models and interventions discussed in its ability for implementation by non-clinicians and its designed as a stand-alone intervention that can be completed in less than 60 minutes (Dr. Lauren Khazem, personal communication, June 29, 2022). An ongoing concern of CRP is that, like similar models, it is based on clinicians' beliefs about its efficacy and continues to lack empirical data (Kelly and Knudson, 2000).

Motivational Interviewing (MI) was developed to assist individuals struggling with alcohol use (Miller & Rollnick, 2012). The primary reason for the efficacy of Motivational Interviewing is attributed to its ability to address a common attribute - ambivalence (Miller & Rollnick, 1991). This ambivalence applies to suicidality, as most individuals struggling with suicidal thoughts demonstrate ambivalence, considering both reasons to live and reasons to die (Jobes & Mann, 1999). A focus on reasons for living has been shown to be a powerful tool, as demonstrated in additional models that include reasons for living inventories, such as DBT and CAMS (Brudern et al., 2018; Jobes, 2012; Jobes & Mann, 1999; Linehan et al., 1983).

The original Motivational Interviewing model is based on the strategies of OARS: Openended questions, Affirmations, Reflective listening, and Summaries (Miller & Rollnick, 2013). A

critical component in implementing the tools of MI is the "spirit" or interpersonal approach taken by counselors, focused on a client-centered approach (Miller and Rollnick, 2012).

MI can vary depending on the actual application or model, and these variations show several parallels. Traditional MI includes expressing empathy for the clients' experiences, rolling with resistance instead of confronting, developing discrepancies between current and desired behavior, and promoting self-efficacy (Britton et al., 2008). The literature indicates an evolution in its application for working with suicidal clients. More recent publications from the same authors indicate the four MI phases as engaging, focusing, evoking, and planning, with the addition of a fifth phase, follow-through (Miller & Rollnick, 2013).

As models evolve, variations arise, such as Motivational Interviewing – Safety Planning (MI-SP). Safety planning differs from the term contract for safety, which has often been used interchangeably with no-suicide contract (Bryan et al., 2017). Safety plans were originally only one component of treating suicidal individuals but have evolved into interventions in themselves (Stanley & Brown, 2012). The MI-SP follows a modified safety planning model emphasizing individualized coping strategies, personal and professional support (including personal support network but also crisis/emergency services), warning signs, and steps toward safety (King et al., 2013). The key is integrating motivational interviewing skills to guide the process and enhance motivation and self-efficacy to increase compliance and maintain the use of the safety plan and coping (Micol et al., 2022).

As studied with adolescents, the MI-SP model is comprised of two sessions, one 60minute individual session, and one 30-minute family session (Micol et al., 2022). The individual session emphasizes collaboration between the patient and clinician to create a personalized safety plan, with the clinician utilizing an MI-consistent guiding style to elicit motivation and

commitment to creating and implementing the safety plan (Micol et al., 2022; Miller & Rollnick, 2013). The family session provides an opportunity for sharing the plan with the parents and emphasizes how the parents can best support the plan and the adolescent (Micol et al., 2022).

A variation of the MI-SP model, MI-SafeCope, was studied with adolescents in an inpatient facility. Again, the safety plan remained the primary focus, although the additional focus included potential challenges to using the safety plan (Czyz et al., 2019). A primary outcome was the feasibility of administering the MI-SafeCope, with additional outcomes including increased self-efficacy to keep themselves safe; increased likelihood to utilize the safety plan at times of suicidal ideation; and increased readiness of parents to support teens in using their safety plans (Czyz et al., 2019).

Although empirical data supports the use of components of Motivational Interviewing, such as supporting client autonomy and means restriction in suicide prevention, there is currently no evidence supporting the use of Motivation Interviewing for lethal means restriction (Britton et al., 2016; Britton et al., 2008). Similarly, MI-SafeCope needs additional large-scale studies before efficacy can be demonstrated (Micol et al., 2022). Furthermore, while the MI-SP design that MI-SafeCope was based on focused on being used in a few as 1-2 sessions, there is no data provided regarding an average number of sessions for the cessation of suicidal ideation, nor were any specific measures discussed to monitor progress towards goals.

It is worth noting that the interventions that can be a stand-alone, single episode intervention, such as Safety Planning Intervention and Crisis Response Planning, were studied in ways that were not truly stand-alone interventions (Bryan et al., 2017; Stanley et al., 2018: Bryan et al., 2011). Following up alone can provide therapeutic benefit, which may impact the outcomes (Linehan et al., 1983).

2.3.2 Crisis Models for Suicide

The next group of prevention methods are based in models and focused on treatment of the suicidal condition, which provides a more complex framework than interventions. This means that there is a clear starting point or even an assessment, multiple interventions over time, and a termination point, typically determined by achieving certain measurements of progress. These approaches are focused on the eradication or management of suicidal ideation and not necessarily any underlying mental health concerns. These crisis models include Brief Cognitive Behavioral Therapy (BCBT), Cognitive Therapy for suicide prevention (CT-SP), Cognitive Behavior Therapy for Suicide Prevention (CBT-SP), and the Collaborative Assessment and Management of Suicidality (CAMS).

Brief Cognitive Behavioral Therapy (BCBT) is also known as Brief Cognitive Behavioral Therapy for Suicide Prevention, sometimes abbreviated as BCBT-SP. This model is different from traditional Brief Cognitive Behavioral Therapy, and moving forward, any references to BCBT will refer to Brief Cognitive Behavioral Therapy for Suicide Prevention. BCBT has been defined as "a compression of CBT material and the reduction of the average 12-20 sessions to four to eight sessions" (Cully & Teten, 2008).

BCBT utilizes three phases: 1) emotion regulation and crisis management, 2) undermining the suicidal belief system, and 3) relapse prevention. The advancement from one stage to the next depends upon the client's mastery of skills from that stage, and the sequential order corresponds to clinical priorities (Bryan & Rudd, 2018). The typical length of BCBT is 12 sessions, although the phased model of this intervention allows flexibility for more or fewer sessions, depending on client need, but also provides a measure of progress. BCBT also provides flexibility within the model, offering a selection of interventions to meet the client's needs.

One specific component of this treatment is Crisis Response Planning, which has been discussed previously, and is a component of traditional treatment planning focused on removing lethal means. Although, thus far, BCBT testing has been limited to military samples, there is reason to believe it may be applicable in other settings, given its brevity and flexible phased model of delivery (Deifenbach et al., 2021). BCBT has been used in several studies focused on treating suicidality, including studies focused on treatment in veteran populations. These studies focus on individuals deemed to be in "suicide mode," or within one month of an attempt or one week of active ideation (Capron et al., 2022). In addition, the research includes studies in which they are treating veterans through telehealth platforms, which provides preliminary support for use of BCBT through telehealth (Rojas et al., 2022). One study demonstrates that typical outpatient treatment with BCBT, including 12-sessions of psychotherapy, reduced suicide attempts by 60% in a sample of active-duty soldiers (Rudd et al., 2015).

Cognitive Therapy for Suicide Prevention (CT-SP) and Cognitive Behavior Therapy for Suicide Prevention (CBT-SP) are often used interchangeably in the literature. An example is the reference to "Stanley et al. (2009) offered CTSP to 110 depressed, recent suicide attempters" as written in Cognitive Therapy for Suicide Prevention (Slesnick et al., 2019), even though the 2009 article was titled Cognitive Behavior Therapy for Suicide Prevention (CBT-SP): Treatment Model, Feasibility, and Acceptability. Although used interchangeably and often appearing interchangeable, literature separates the two in that CT-SP tends to consist of ten sessions of 50 minutes each (Slesnick et al., 2019), while CBT-SP more consistently promotes 12 sessions (Bryan, C. J., 2019; Stanley et al., 2009), although there remain some inconsistencies in this as well (Sinyor et al., 2020). As the literature review for this purpose demonstrates that there are

more variances within a model than differences between models, the two will be treated as one and referred to as CBT-SP.

CBT-SP is rooted in the stress-diathesis model of suicidal behavior, with the diathesis for suicidal behavior being a combination of factors, most often including psychosocial support systems, familial and genetic components, childhood experiences, sex, and religion (Stanley et al., 2009). The stressors that trigger suicidality include work or school-related difficulties, interpersonal conflict, or several psychosocial events (Stanley et al., 2009). In simpler terms, how people think and interpret life events determines their emotional responses and behaviors (Slesnick et al., 2019). CBT-SP seeks to identify the stressors and risk factors surrounding the suicide attempt or crisis and build skills and supports to manage differently during the next crisis (Stanley et al., 2009).

The program utilizes a 12-week model, with most sessions being individual sessions and may include family sessions. There are three phases of treatment. The initial phase occurs during the first three sessions and consists of five components: safety planning, developing reasons for living, chain analysis, psychoeducation, and case conceptualization (Stanley et al., 2009; Wenzel et al., 2009). The middle phase is approximately six sessions and begins after the immediate suicidal concern has subsided. This phase consists of skills, including chain analysis review, assessment of strengths, and identification of skills (Stanley et al., 2009). In addition, the focus on improving coping skills is critical as that individual will likely continue to face stressors, but with more adaptive coping skills these stressors will no longer function as triggers for suicidal behavior (Brown et al., 2005). Finally, the end of treatment consists of three sessions focused on relapse prevention. This phase includes preparation, review of the attempt, review use of coping

skills, review of future scenarios, and debriefing and follow-up (Stanley et al., 2009; Wenzel et al., 2009).

Most studies provide positive data regarding feasibility, participant retention, the ability to manualize and reproduce the model, and what appear to be promising results, but there remains little data on comparative efficacy (Stanley et al., 2009).

The Collaborative Assessment and Management of Suicidality (CAMS) is a suicidespecific therapeutic framework focused on the management of suicide risk through collaborative safety planning with the client and their support network (Jobes, 2016). CAMS is a model with research indicating an average of six sessions, although due to the program's weekly measures and flexible nature, it can be extended or abbreviated as appropriate. As with most therapeutic models, CAMS is designed to be implemented by licensed clinicians with formal training in CAMS.

CAMS utilizes the Suicide Status Form (SSF) for assessment, treatment planning, tracking, and clinical outcomes. In the assessment section, the SSF measures psychological pain, stress, agitation, hopelessness, self-hate, and overall risk of suicide. CAMS then reflects its dialectical roots in exploring reasons for living versus reasons for dying before moving into several risk-related questions. Next, the SSF develops a collaborative treatment plan, which includes a stabilization plan to reduce lethal means and provide coping and support.

CAMS emphasizes the therapeutic alliance and keeping suicidal clients out of inpatient treatment, if possible, given that individuals leaving psychiatric inpatient units still have a very high risk of completing suicide following discharge (Links et al., 2012). In a study comparing CAMS to enhanced usual care in a group of suicidal outpatients, clients treated with CAMS demonstrated greater reductions in suicidal ideation and distress and significant increases in

optimism and hope compared to the control group (Comtois et al., 2011). Clients receiving CAMS as a treatment also reported higher satisfaction and demonstrated superior treatment retention compared to control clients (Comtois et al., 2011). A randomized clinical superiority trial compared the effectiveness of 16 weeks of CAMS to 16 weeks of DBT for adults with borderline personality traits and a recent suicide attempt and found no significant differences in the number of self-harm episodes or suicide attempts between the two groups (Andreasson at al., 2016), providing evidence that CAMS outcomes were consistent with one of the most researched, evidence-based models for treating suicide. CAMS has been identified as an evidence-based model by The Joint Commission and SAMHSA.

2.3.3 Psychotherapy models for Suicide

The final category to be discussed includes full psychotherapy models that have demonstrated effectiveness in working with individuals struggling with thoughts of suicide. These models are not suicide specific and were designed to address underlying mental health concerns. For this reason, they are not abbreviated or time sensitive, and decreases in suicidal ideation are often found in conjunction with a variety of other treatment goals and factors. The two being examined in this document are Dialectical Behavior Therapy (DBT) and Family Systems Theory (FST).

Dialectical behavior therapy (DBT) evolved from roots in cognitive-behavioral therapy (CBT) and is based on Cognitive Behavioral Theory, although it lends to and pulls directly from behaviorism (Linehan, 1993b). DBT was developed to address the need for more effective treatment of suicidal and self-harming behaviors among individuals with borderline personality disorder (Linehan, 1993b). Whereas traditional CBT maintains a focus that prioritizes change,

DBT shifts to a dialectical lens, allowing for two truths to coexist, simultaneously focusing on both acceptance of what is and the need for change.

Full protocol DBT includes weekly individual counseling sessions, weekly skills training groups, and phone consultations for the patient (Linehan, 1993b). The skills component is highly effective for working with suicidality, with focus on mindfulness, distress tolerance, interpersonal effectiveness, and emotional regulation, and includes telephone consultation available to reinforce positive skill building (Linehan, 1993b). In full protocol DBT, the first phase is stabilization, beginning with life-threatening behaviors. Once stabilization has been achieved, efforts are redirected to therapy-interfering behaviors, other behaviors that interfere with clients' quality of life, and then provide an option for trauma work (Linehan, 1993b).

DBT is one of the most researched therapy models in the counseling field, as indicated by its support from SAMHSA as an evidence-based treatment (SAMHSA, 2016). DBT has been repeatedly tested in 45 randomized control trials (RCTs), establishing its effectiveness over treatment as usual. This body of work includes an RCT investigating whether DBT's efficacy could be attributed to common factors when comparing women with borderline personality disorder and a history of suicide attempts receiving DBT treatment for one year as compared to those receiving treatment as usual (TAU) for the same time period. The study demonstrated strong outcomes, such as DBT participants had fewer emergency department visits, were less likely to be hospitalized for suicidal ideation and were half as likely to make a suicide attempt, were less likely to be hospitalized for suicide risk and had fewer psychiatric emergency room visits (Linehan et al., 2006). It was also found that treatment compliance was increased, and individuals were less likely to discontinue treatment than participants receiving TAU (Linehan et

al., 2006). The overall conclusion of this study states that DBT "appears to be uniquely effective in reducing suicide attempts" (Linehan et al., 2006).

In 2015 a second RCT was conducted examining standard DBT, DBT skills training (DBT-S), and the individual therapy component of DBT (DBT-I) to evaluate the relative importance of the various components. The study demonstrated that each treatment component resulted in similar outcomes in frequency and severity of suicide attempts, suicidal ideation, and use of crisis services due to suicidality (Linehan et al., 2015), demonstrating efficacy in all components. A 2018 article supports the efficacy of DBT for reducing self-harm and suicide attempts in highly suicidal self-harming adolescents (McCauley et al., 2018).

Although a highly effective model for individuals struggling with suicidality, DBT requires firm commitment from both the clinician and the client. Training to become a DBT clinician is time-consuming and costly, and DBT treatment is equally demanding. The model was designed for a one-year program that includes a one-hour weekly individual session and a two-hour weekly group session (Linehan et al., 1991). In addition to the previous training and actual session time, DBT clinicians must be available to their patients 24/7 for phone coaching and attend two-hour weekly consultation team meetings (Linehan et al., 1991). Similarly, clients are expected to complete weekly homework assignments and monitor their modes and behaviors throughout the week (Linehan et al., 1991).

Due to the time commitment and length of the model, it is not uncommon for patients to discontinue treatment before completing the full program. Dropout ranges from 24%-58% (Landes et al., 2016; Priebe et al., 2012). In addition, a study by Carmel et al. (2014b) shares significant challenges in implementing DBT in community-based centers, including program development, recruitment of patients, lack of administrative support or organizational

investment, and time commitment. These factors also make it extremely difficult to implement standard DBT in community mental health systems, which often lack sufficient financial resources and infrastructure to maintain fidelity to the full model (Carmel et al., 2014b). This data suggests that both provider and client need to fully understand the model and commitment before engaging in DBT (Landes et al., 2016). Although the data demonstrates difficulty in maintaining programs, there is also data showing significantly lower burnout rates among DBT clinicians due to the staff support provided in the model (Carmel et al., 2014a).

Family Systems Theory varies from traditional theories about suicide as it refocuses from solely looking at the factors that may cause suicidal ideation and addresses the interpersonal relationships between the individuals struggling with suicidality and their loved ones (Frey et al., 2016a). The theory proposes that families are systems of interrelated and interdependent individuals, and that individuals should not be examined in isolation (Bowen, 1993). Frey and Cerel (2015) propose that family systems theory can explain how the family environment impacts individual experiences of suicide after ideation or a nonfatal attempt. It is further believed that the time period following ideation or attempt is crucial for rebuilding and strengthening those relationships, allowing for the struggling individual to establish trust between themselves and their family and friends (Frey et al., 2016a).

With the family systems perspective of systems and subsystems, boundaries define the subsystems within the larger system, and boundary permeability manages the transfer of information between systems and subsystems. The permeability of these boundaries may dictate the awareness among individuals in the systems of the struggles that other members are having with suicidal ideation (Frey et al., 2016a). Family systems theory borrows the concept of feedback loops from general systems theory. Feedback loops are patterns in which systemic

processes are monitored and adjusted in making progress towards goals. Positive feedback loops encourage desired behaviors, while negative feedback loops discourage unwanted behaviors (Frey et al., 2016a). The intention with suicidal behavior is to create positive feedback loops to encourage change, which was consistent with a study finding that a positive feedback loop mediated the impact of suicide disclosure on ensuing depression (Frey et al., 2016b).

A significant challenge of using family systems theory is informed consent and the rights of the individual. For adults choosing to engage in family systems therapy to address suicidal ideation, this is a choice, and they have the ability to provide or revoke consent. Many adolescents who are struggling with suicide are not in a counseling relationship of their choosing (Sommers-Flanagan & Sommers-Flanagan, 2014), nor do they have the autonomy to dictate their choice in care. In working with youth struggling with suicidal ideation, the counselor is tasked with balancing the need to share pertinent information with the parents, such as the plan, signs to monitor, and how to communicate, with the need to respect the rights of the client (Berg et al., 2009).

2.4 Application of the Models

In examining the approaches discussed, some themes emerge. Some themes are similar among interventions, and others seem to permeate nearly all interventions. As discussed, means restriction permeates the landscape of suicide interventions. Other themes, such as crisis response plans, reasons for living inventories, coping, and social supports, are common among several interventions. A thorough literature review shows more congruency among suicide interventions than disparity.

In comparing and contrasting the three categories of models, a critical consideration is choosing a model that is purposeful for the individuals with which it will be used, and the setting
in which it will be used. For example, crisis models and full psychotherapy models are not congruent with implementation in an emergency department, physician's office, or a drop-in center. These settings are perfect for simple interventions and techniques. Inpatient hospitalization may be appropriate for crisis models but not psychotherapy models for suicidal stabilization.

A second factor for consideration is training. The interventions and techniques can be trained in a matter of hours, sometimes as little as two, and with non-clinicians. These interventions allow emergency departments, urgent care facilities, or physician offices to train staff for this initial step toward stabilization without mental health staff on call for non-routine cases. To the contrary, the crisis models and full models can take days to weeks for training. Specific training for models is a standard in behavioral health and has been shown to be effective when applied in environments where it is used repeatedly (Gould, et al., 2013). While there is benefit to these models, it may not be necessary or utilized in the settings that are better suited to the brief interventions.

Full models, specifically DBT, have the most robust evidence base of any approach to suicide with adolescents, although it is also the most time-consuming and expensive (Spirito et al., 2021; Glenn et al., 2019). Nevertheless, this category provides excellent options for roughly 60% of individuals struggling with suicide that have underlying mental health conditions (SAMHSA, 2016). In discussing evidence-based models, it is important to take this factor into consideration when exploring factors like setting, client base, and providers.

2.4.1 Brief Intervention Techniques

Essential and valuable aspects of the brief intervention techniques include the brief implementation time and that some of the interventions can be implemented by non-clinicians,

specifically CALM and CRP. An implication of utilizing a brief intervention technique is that fully trained, non-clinician crisis workers can address a broader population to apply these lifesaving measures. Another substantial advantage is the intervention time, ranging from as brief as 20 minutes to an hour for completion. These interventions also have research demonstrating that they are effective in brief, acute stabilization, which matches the design of the intervention.

A current drawback is the lack of standard follow-up outside of clinical studies, so realworld outcomes and benefits are challenging to measure. It is also important to note that none of these models are currently considered evidence-based, suggesting they may be best suited to be used within crisis, hospital, medical, or first responder systems, rather than independent from additional care.

2.4.2 Crisis Models

The next group, referred to as crisis models, can be used independently and conducted over an average of six to twelve weeks. This category is unique in that it provides a distinct advantage over brief models, in that it provides treatment, and an advantage over full models, in that does so rapidly. This category focuses on interventions that alleviate suicidal ideation only and are not structured to address long-term mental health conditions.

The crisis models are not intended to be used with individuals for ongoing work with underlying mental health issues but are also efficiently utilized within the framework of outpatient therapy for episodes of suicidality (Jobes, D. A., 2012). This model raises an important finding in research, nearly 40% of patients that receive stabilization treatment for suicidal ideation did not need, or perceive a need, for ongoing treatment for underlying mental health issues (SAMHSA, 2016). This suggests that for many patients with suicidal ideation or

attempts, using a time-sensitive crisis model may be most effective and could alleviate some of the burdens on the mental health system caused by unnecessarily maintaining ongoing clients.

2.4.3 Psychotherapy Models

The third category is psychotherapy models that address suicidal ideation, which are evidence-based and have an application for individuals struggling with suicidality. This category includes Dialectical Behavioral Therapy (DBT) and Family Systems Therapy (FST). The only model endorsed by SAMHSA as evidence-based for suicide is Dialectical Behavioral Therapy (SAMHSA, 2016). These models were designed for anywhere from 12 to 52 weekly sessions, and some include additional group and/or family sessions. These are the most intensive interventions and typically include components credited with reducing attempts, such as safety planning, means restriction, coping, and social supports.

These full psychotherapy models are likely the best modalities of ongoing treatment for those with an ongoing history of underlying mental health conditions, multiple suicide attempts, and complex cases. These models provide the framework for crisis management while also the breadth and depth to cover a variety of concerns that may be underlying contributors to the overall suicidality that the individual is experiencing. One of the benefits of a full model is the duration of treatment, as a more extended treatment period can assist in providing more repetition of positive coping and crisis planning. Another is that over time, there is an ongoing observation of triggers and mood fluctuation, providing the ability for education and early intervention skills.

There are shortcomings to the full models, such as training time, cost, implementation time, supervision, and wait lists for treatment. Models like DBT take weeks to train and months, if not years, to become proficient in using. These models may also be unnecessary or excessive

for many cases of suicidality, wrangling individuals with an acute crisis into the needless commitment of long-term outpatient care.

2.5 Forging New Directions in Treatment

With an understanding of the landscape of suicide intervention, the ability to see how it matches the needs of the public is critical. More specifically, the fact that it does not match the needs of the public is concerning. Linehan (2008) was clear that new treatments must be developed that advance treatment of suicidal behavior and behavior change. Research and ongoing innovation of approaches specific to rapid suicidal crisis intervention are critical, as opposed to reliance on traditional mental healthcare models. Stanley and Mann (2020) said that novel approaches for engaging with and treating suicidal patients need to be developed. To move towards these developments, several movements are necessary.

With ongoing efforts to improve interventions, there must be equal effort placed on service delivery. The move towards improving treatment as usual begins with a referral to a facility that can meet the needs of the referral, including rapid intake with next day appointments (Comtois et al., 2011). The delivery model should provide catchment for as many people as possible, including both those with and without an underlying mental health condition (SAMHSA, 2016). An outpatient model also respects the ethical and legal requirements to provide services in the least restrictive environment possible (Sale et al., 2018). An appropriate treatment model should also meet individuals where they are, providing more intensive or less intensive treatment options based on need. Those with ongoing mental health conditions can be referred for ongoing help, including outpatient therapy and medication management, while those without can move on to a life worth living (Linehan, M. M., 1993b).

A second concern is choosing an appropriate intervention or model to address the problem of suicidality. There are few programs to address the issue of suicide from ideation through cessation. Many of the interventions discussed are focused on an initial session, which could be conducted in the emergency department, by a mobile crisis team, or even a crisis urgent care. The issue with these facilities and programs lies in the fact that they do not provide treatment for suicidal ideation. These facilities would be served well with a brief intervention technique but are providing treatment.

Given that nearly 40% of individuals do not have an underlying mental health condition (SAMHSA, 2016), it seems more reasonable to utilize a crisis intervention model. Additionally, evidence-based treatment needs to become the standard, as opposed to an outlier, for the clients that seek help from mental health professionals. In moving to treatment models, which are lacking , research demonstrates significantly improved outcomes with CAMS as opposed to TAU, including special populations, such as soldiers and college students (Pistorello et al., 2021; Huh et al., 2018; Ryberg et al., 2016). These same treatment models also demonstrate a longer lasting impact than TAU (Pistorello et al., 2020; Ryberg et al., 2019; Ryberg et al., 2016). The crisis model with the strongest evidence base is CAMS, with seven randomized controlled trials.

Given varying severity and needs of individuals struggling with suicidality, there are ways to augment evidence-based treatment with additional evidence-based treatment. DBT, one of the models with the largest evidence base in counseling, has components that could easily be integrated into a program, including DBT skills for clients and consultation and support structures for clinicians. There are studies demonstrating the effectiveness of DBT skills when utilized independently of the full protocol (Valentine et al., 2015).

With an appropriate framework, skilled and knowledgeable clinicians are required to execute the services needed for treatment. The providers should be licensed clinicians with an education and background sufficient to undergo additional training and the ability to provide treatment services. With programs like CAMS and DBT, it would likely require clinicians with a minimum of a master's degree to be properly trained to treat suicidality with the models. The literature reflects that training in suicide assessment and crisis intervention integrate didactic learning and role-play experiences can be impactful (Mirick et al., 2016; Oordt et al., 2009).

Chapter 3. Methodology

3.1 Introduction

Suicide prevention is a critical public health issue, as suicide rates have steadily climbed over the past two decades. According to the Centers for Disease Control and Prevention (CDC), the age-adjusted suicide rate in the United States increased by 36% between 2000-2021 (CDC, 2022b). In 2020 alone, there were approximately 45,979 deaths by suicide in the U.S. (CDC, 2022b). Beyond completed suicides, many more Americans struggle with suicidal thoughts and behaviors. An estimated 12 million adults and 3.2 million adolescents experience suicidal ideation each year, meaning they have thoughts of engaging in suicide-related behaviors (CDC, 2022b). Previous data showed that among high school students, 17.7% reported seriously contemplating suicide, and 8.6% reported attempting suicide in the past year (Kann et al., 2016). The most recent data from 2021 shows that these have increased to 22% seriously considering suicide and 10% having made an attempt (CDC, 2023).

The steady rise in suicide rates over the past two decades indicates that current approaches to suicide prevention and intervention may be inadequate. Research shows that while over 90% of individuals who die by suicide have underlying mental health conditions, nearly 40% of those who receive intervention for suicidal ideation do not need ongoing treatment (Weber et al., 2017). This suggests that suicidal crises may be distinct from overall mental health in many cases. However, suicide prevention efforts have traditionally focused on comprehensive mental health treatment.

As leading experts in the field have noted, "development of new treatments must take advantage of and translate the sciences of suicidal behavior and behavior change" (Linehan, 2008). There is a need for research on innovative approaches designed specifically for rapid

suicidal crisis intervention rather than primarily relying on traditional mental healthcare models. As Stanley and Mann (2020) stated, "Novel approaches to engagement and treatment that are effective and acceptable to suicidal patients ought to be developed."

3.2 Purpose of the Study

This study examines the effectiveness of The Hope Institute model, a new treatment approach designed to resolve suicidal ideation and establish safety rapidly (Jobes, 2016). To be clear, the model is not a new intervention, rather a novel application of two evidence-based models with decades of research behind them. The goal is to evaluate this crisis intervention model itself and compare its outcomes to existing research on the standardized assessments it utilizes. Another goal is to explore relationships between outcomes and variables, including clinical histories and standardized measures. By contributing to the knowledge base on suicide intervention models and factors impacting treatment, this research aims to help improve suicide prevention efforts and decrease rates of attempts and completions.

3.2.1 Criteria for Admission and Goals

Criteria for admission to The Hope Institute includes anyone struggling with thoughts of suicide. This can include any age range, gender, cultural background, etc. The intention is to help anyone struggling with suicidal ideation to find an alternative to get through this time and to create a life worth living (Linehan, 1993b). The only exclusions to admission are individuals who are not medically stable, are experiencing unmanaged psychotic symptoms, are physically aggressive and a danger to others, or are not willing to participate and not agreeable to keeping themselves safe.

The goal for The Hope Institute is the resolution of suicidal ideation (Jobes, 2012). This means that the individual is no longer struggling with thoughts of suicide and are able to utilize

positive coping skills to keep themselves safe. There are some instances, specifically with individuals who experience chronic suicidality, in which resolution may not be achievable. In these instances, it may be acceptable for individuals to complete satisfactorily if they are able to talk openly about the ideation and exhibit an ability to effectively manage it in an ongoing manner.

The Hope Institute does not focus on the treatment of underlying medical conditions, such as depression or anxiety. This means that for individuals struggling with underlying mental health conditions, upon completion of The Hope Institute it is appropriate to refer them for therapy at outpatient centers that are better suited for ongoing care. A benefit of The Hope Institute for individuals is that for the 38.1% of individuals who experience an issue with suicidal ideation who do not have an underlying mental health disorder (Lipari et al., 2016), they are able to get appropriate services without having to engage with ongoing services or medications. A benefit for the mental health system is that there can be an anticipated decrease in unnecessary referrals by approximately one third.

3.2.2 The Hope Institute Model and Intervention

The model for The Hope Institute was developed over approximately six months but was based on a foundation of over 10 years of providing the interventions used and like services in various capacities. The Hope Institute model is a combination of the Collaborative Assessment and Management of Suicidality (CAMS) and Dialectical Behavior Therapy (DBT), utilizing full protocol CAMS and specific DBT skills sessions, typically in a group format but also individually, if deemed appropriate.

The treatment begins with the CAMS Initial Session, which includes a suicide-focused crisis assessment, treatment plan, and stabilization plan. Safety is paramount and begins with

determining the level of care. Level of care is established collaboratively between the therapist, patient, and guardians in the case of a minor. Level of care typically results in appointments ranging from 1 to 4 times per week, with at least one individual CAMS session, and additional CAMS and DBT skills sessions as deemed appropriate. Additional sessions may be appropriate for higher level of care due to reasons that include lack of ability to manage ideation for more than a few days, increased need for skills or application of skills, and social isolation.

The CAMS sessions are focused on addressing the suicidal drivers, reducing lethal means, and learning how to cope with suicidal ideation. Addressing the suicidal drivers includes understanding the reason behind the thoughts of death, creating balance, and emphasizing a desire to live through identifying reasons for living, and developing a plan to address the drivers for wanting to die. The stabilization plan helps to identify specific methods to cope during distressing times, including the identification of who can be contacted, if necessary. It also identifies individuals who can help to decrease isolation and ways to assure that the individual attends treatment as planned.

The DBT skills sessions are focused on increasing both the number of skills and the level of skillfulness of the individual. The skills include distress tolerance, emotional regulation, interpersonal effectiveness, and dialectics. The skills modules are not sequential, as is typical in a DBT program that follows protocol. Rather, they are focused on individual skills and lessons that can be implemented immediately and assist in descalating situations involving relationships (interpersonal effectiveness), managing mood (emotional regulation), or tolerating difficult moments (distress tolerance). A primary goal is to empower individuals to gain control over their mood, as opposed to allowing their mood to dictate their choices and actions.

Suicidal ideation can be difficult to treat in isolation, so additional work and support are critical. Individuals are additionally provided 24/7 support numbers or facilities, which are typically not linked to The Hope Institute, for additional support. These aligned providers, such as suicide help lines and mental health urgent care centers, are integral components of a comprehensive treatment program. Efforts are made to involve social supports, which can include immediate family, extended family, or friends. For youth this can also include school personnel, such as a school counselor, teacher, or administrator. Professional supports are also encouraged, which can include an ongoing therapist, psychiatrist, primary care physician, or other health professional.

The duration of treatment aligns with the CAMS model in number of weeks, with a typical treatment cycle of about 6 weeks. This can vary based on individual circumstances of their admission, with treatments sometimes terminating in as few as 4 or 5 weeks and some going as long as 12 or 13 weeks. Both the number of weeks of services and number of sessions per week can vary from client to client, depending on what is determined in their individualized treatment plan.

3.2.3 Clinicians Providing Services at The Hope Institute

The Hope Institute has a clinical staff of 12 licensed counselors and social workers with a minimum education of a master's degree. The clinicians range from dependently licensed to supervisory, including three supervisory counselors and two supervisory social workers. There are two interns working with The Hope Institute who have been trained in the model and received weekly supervision. All clinicians have been trained in CAMS and have either been DBT certified or trained in DBT Skills Sessions.

3.2.4 Populations Served

The Hope Institute was started as a division of Perrysburg Counseling Services, and outpatient treatment center in Norwest Ohio. The practice began in 2010 with a goal of serving teens who were struggling with self-harm and suicidal ideation. Although that is still a primary focus for Perrysburg Counseling, it has expanded to serve children as young as 2, adults, including the geriatric population, as well as couples and families. Although serving a wide demographic through various programs, primary referral sources continue to be local schools, regional hospitals, area psychiatrists and physicians, and first responders.

Overall demographic information from 2021 and 2022 indicates that approximately 75% of individuals served by The Hope Institute were adolescents. The population served was approximately 56% female, as reported in an electronic health record with a simple male-female option system. The youngest individual served by The Hope Institute was six and the oldest 70 years of age. Due to limitations on data collection for the 2021-2022 time period, there is no data on race, culture, socioeconomic status, or a variety of other variables that plan to be measured in the future.

3.2.5 Criteria for Discharge

The Hope Institute relies primarily on the criteria for discharge set forth by the CAMS framework. This includes three consecutive weeks with an overall risk of suicide < 3 on the Suicide Status Form, no suicidal behavior, and effectively managing suicidal thoughts and feelings. Although the discharge criteria should primarily focus on data and evidence, the clinician's judgement should also factor into the equation. This includes reading non-veral communication and reliance on education and experience to validate that the information being provided is congruent. In addition to resolving the suicidal ideation the individual is experiencing in the current episode, there is an ultimate goal that the treatment remove suicide as a solution to

difficult emotions and distressing times for future stress or distress as well. This could translate to a limited number of additional sessions to generalize the skills to the client's life, as opposed to keeping them focused on the situation at hand.

3.2.6 How The Hope Institute Works Within the Larger System of Care

The focus of The Hope Institute is to bridge the lethal gap, which is "the gap between what we know and what we do" (Jamison, 1996). In an effort to bridge this cap, it is logical to start with "what we know." What we know is that over 15 million individuals in the United States alone struggle with suicidal ideation each year, with an estimated 1.7 million attempts and nearly 50,000 completions (AFSP, 2022). Research indicates that suicidal individuals benefit from understanding, control, and self-determination (Maple, et al., 2020; Neito-Casado et al., 2023). It is also known that protective factors include feeling connected to family and community support (AFSP, 2022).

The next question is what do we do? The treatment as usual in the U.S. often begins with a long wait in the hectic environment of an emergency department, which increase stress and can be triggering for individuals in a mental health crisis (National Action Alliance for Suicide Prevention, 2016). This moves on to an assessment, which typically results in an expensive bill with a referral to either an inpatient unit or a community mental health center (Saxon, 2015; Mukherjee & Saxon, 2017). Inpatient care, once considered the best treatment option, is now recognized as problematic. Research shows that the rates of suicide deaths and attempts among individuals recently discharged from psychiatric hospitalization are far higher than with comparable patients (Forte et al., 2019). Potentially most concerning is that the services received are not sufficient in meeting the needs of the individuals (Saxon, 2018). The end result is that a gap remains in the services needed for those struggling with suicidal ideation. This gap lies

between the identification of suicidal ideation and outpatient treatment, which is often addressed with triage but can be addressed by providing actual treatment for suicidality.

The Hope Institute integrates into this model of care by creating an alternative to the busy emergency departments, where individuals can be seen in a calm outpatient setting. It provides a course of treatment that has an expected outcome of suicidal resolution, and achieves it at a cost that is typically half of an emergency department visit alone. It provides a bridge of safety to outpatient centers that can focus on underlying mental health issues, for those who need it. For individuals who do not need ongoing care, it allows them to return to their life without medication or an obligation to attend unneeded services. It is also a hope that with multiple outcome options and normalization of getting assistance, The Hope Institute can help to destigmatize help seeking behaviors.

3.3 Research Design

This study utilizes a quantitative descriptive research design to analyze de-identified data collected from the electronic health records of individuals receiving treatment from The Hope Institute. Descriptive research encompasses four quantitative methods, as shown in Table 3.1: survey, observational, correlational, and causal-comparative (Houser, 2019). Survey research uses self-report to examine behaviors, attitudes, and perceptions. Observational research focuses on directly observing and measuring behaviors. Correlational research seeks to identify variables that influence behaviors and attitudes. Causal-comparative research aims to determine the effect of an independent variable by comparing groups.

This study employs all four descriptive methods through the five research questions. The design utilizes measures taken at two-time points – which are at intake and final disposition upon completing services. Comparing these pre-treatment and post-treatment measures allows changes

to be tracked throughout the intervention. The design enables the evaluation of the effects of the treatment protocol delivered through The Hope Institute model. This study meets the criteria for a quantitative descriptive study.

	Survey	Observational	Correlational	Causal comparison	
Question 1	Х				
Question 2		Х	Х	Х	
Question 3		Х	Х		
Question 4			Х		
Question 5		Х		Х	

Table 1: Research Questions and Correlated Descriptive Research Design

Survey research involves collecting data directly from research participants through questionnaires, interviews, or observations (Houser, 2019). This allows for gathering self-reported information about behaviors, perceptions, and attitudes. In this study, the Collaborative Assessment and Management of Suicidality (CAMS) survey built into The Hope Institute intake and discharge process constitutes the survey component. Patients rate their psychological pain, stress, agitation, hopelessness, self-hate, and suicide risk, providing subjective self-assessment and treatment planning (Jobes, 2012).

Observational research focuses on directly observing and measuring behaviors without relying on self-report (Houser, 2019). This study gathers observational data from patient records on program completion, session attendance, and group versus individual treatment format attendance. Documenting these behaviors observationally avoids issues with relying solely on self-report data (Faddar et al., 2018).

Correlational research aims to identify important variables that influence behaviors, perceptions, and attitudes (Houser, 2019). This is especially relevant for understanding factors impacting suicidal ideation and treatment outcomes. Analyses explore potential correlations

between demographic data, clinical histories, and CAMS scores. Correlational design is critical for elucidating the relationships between variables that impact suicidal behaviors and treatment responses (Gallo et al., 2019; Gould et al., 2003).

Causal-comparative research attempts to determine the effect of an independent variable post-hoc by comparing groups (Houser, 2019). An example of this could be comparing outcomes between patients who attended group sessions and those who attended individual sessions. The independent variable, such as group attendance, is not manipulated, but the groups are compared to assess its impact. The causal-comparative design provides insight into the influence of variables of interest that cannot be controlled experimentally.

3.3.1 Rationale for Choosing This Design

This quantitative descriptive design was selected to analyze pre-existing clinical data from The Hope Institute's patient records. Combining survey data, observable behavioral data, correlational analyses, and causal-comparative analyses provides a robust evaluation using multiple methods (Juhnke, 1994; Rigsbee & Goodrich, 2019; Mohajan, 2020). The longitudinal aspect, comparing baseline to post-treatment data, allows for assessing changes throughout treatment and evaluating the intervention model's effectiveness. The quantitative design provides statistically analyzable data on the relationships between variables and treatment outcomes. For an initial study on a new clinical model, analysis of observational data from real patients provides informative results to guide future research (Gallo et al., 2019). Using patients' existing intake records, treatment data, and outcomes enabled conducting an initial evaluation of the crisis intervention model in a real-world setting with actual patients.

3.3.2 Sampling

The Hope Institute in Perrysburg, Ohio, provides crisis intervention services, specifically rapid response to those at risk of suicide. It operates as part of Perrysburg Counseling Services and is not a community mental health center. Community mental health centers, in Ohio, are required to provide a broad range of services including mental health and addiction services, general outpatient services, crisis intervention services, peer recovery services, and case management. The Hope Institute and Perrysburg Counseling provide a limited range of services, excluding them from this category. The Hope Institute does treat a broad range of clientele that vary in age, socioeconomic class, and cultures, including Medicaid, cash pay, and private insurance. Although Perrysburg Counseling and The Hope Institute provide services for all age ranges, they do have a disproportionately high percentage of adolescents. Approximately 75% of the individuals treated by The Hope Institute have been adolescents, while statistically only 20% of suicidal individuals are adolescents (AFSP, 2022).

Individuals may be referred to The Hope Institute through several channels. One method is screening during Perrysburg Counseling's intake process. All callers are screened for suicidal intent/ideation, and if it is identified, are referred to The Hope Institute prior to obtaining ongoing services. Another frequent referral source is local school districts, typically from school counseling departments. School counselors can refer students for next-day appointments for intervention. Other referral sources include the local crisis line, hospital emergency departments and inpatient units, other mental health counselors and community mental health centers, and first responders, including law enforcement.

Each client, or their legal guardian if a minor, provides informed consent for treatment. This consent explains that the facility is a teaching facility, including utilizing student interns and collecting data that may be deidentified and used for research purposes.

Clients at The Hope Institute complete an initial intake appointment, during which the CAMS assessment survey is collaboratively completed with a counselor. Based on the initial CAMS results, the counselor and client determine a personalized treatment plan which may include additional individual and/or group counseling sessions. When the client achieves suicidal risk resolution according to the standardized CAMS measures, which includes three weekly sessions with an *OVERALL RISK OF SUICIDE* of less than three, a final session is conducted. This study analyzes deidentified data from the electronic health records of clients treated at The Hope Institute in early 2023. The research analyzes existing records and outcomes data, not direct intervention with human subjects.

It is also worth noting that this study was conducted during the COVID-19 epidemic in the United States. Additionally, the model was actually developed in response to the increased mental health needs that surged with COVID and the lack of appropriate and timely services for those most in need - those struggling with serious thoughts of suicide.

3.4 Research Questions and Hypotheses

This study will address the following research questions:

- 1. What is the data being studied and what are the specific variables of importance to this research?
- 2. Can the length of treatment, determined by total number of sessions, be predicted by mental health factors, including a previous mental health history, a history of suicide attempts, emergency department visits for mental health, hospital admissions for mental health, or a composite score on the CAMS Initial Session measures?

H2.10: A previous mental health history will not significantly predict the number of sessions of treatment.

H2.1a: A previous mental health history will significantly predict the number of sessions of treatment.

H2.20: A previous history of emergency department visits for mental health will not significantly predict the number of sessions of treatment.

H2.2a: A previous history of emergency department for mental health will significantly predict the number of sessions of treatment.

H2.30: A previous history of hospital admissions for mental health will not significantly predict the number of sessions of treatment.

H2.3a: A previous history of hospital admissions for mental health will significantly predict the number of sessions of treatment.

H2.40: A history of suicide attempts will not significantly predict the number of sessions of treatment.

H2.4a: A history of suicide attempts will significantly predict the number of sessions of treatment.

H2.50: A composite score for the six CAMS Initial Session measures will not significantly predict the number of sessions of treatment.

H2.5a: A composite score for the six CAMS Initial Session measures will significantly predict the number of sessions of treatment.

3. Was there a significant decrease in the CAMS "Overall Risk of Suicide" item-level scores after the intervention provided at The Hope Institute?

H30: There will be no significant difference in pre-test and post-test CAMS "Overall Risk of Suicide" item-level scores for individuals utilizing The Hope Institute model.

H3a: There will be a significant decrease from pre-test to post-test CAMS "Overall Risk of Suicide" item-level scores for individuals utilizing The Hope Institute model.

4. Was there a significant difference in the five CAMS item-level measures of psychological pain, stress, agitation, hopelessness, and self-hate, between the Initial Session scores and the Final Session scores?

H50: There will be no significant changes within initial and final CAMS scores for individuals treated utilizing The Hope Institute model.

H5a: There will be significant change scores within initial and final CAMS scores for individuals treated utilizing The Hope Institute model.

5. What are the inter-item correlations of the six CAMS measures of psychological pain, stress, agitation, hopelessness, self-hate, and overall suicide risk among the initial item scores and among the final item scores?

H4o: There will be no inter-item correlations among initial CAMS item scores and among final CAMS item scores for individuals treated utilizing The Hope Institute model.

H4a: There will be positive, but weak or stronger inter-item correlations among initial CAMS item scores and among final CAMS item scores for individuals treated utilizing The Hope Institute model.

3.5 Data collection

The data for this study was generated from the electronic health records (EHRs) of clients who participated in treatment at The Hope Institute in March 2023, following a protocol approved by the Ohio State University's Institutional Review Board. No direct data collection from human subjects was conducted.

Information was collected from intake records, treatment data, outcome data, and two client surveys, the SSF-F Initial and SSF-4 Final Disposition. The intake information includes age, gender at birth, and background clinical histories such as self-reported previous mental health diagnoses, hospitalizations, and suicide attempts. Identified gender was removed, as there were only two individuals that utilized that option, which lacks statistical significance in a total sample of less than 60.

Outcomes data collected includes session attendance information, including number of sessions attended, type of sessions (CAMS or DBT skills), length of treatment in weeks, and program completion rates. This behavioral data comes directly from patient records rather than self-report.

The two client surveys used are the CAMS Suicide Status Form-4 (SSF-4) Initial Session and the CAMS Suicide Status Form-4 (SSF-4) Outcome/Disposition Final Session. The CAMS SSF-4 provides integrated documentation of suicidal risk assessment, treatment planning, and progress monitoring (Jobes, 2012). Patients rate six variables - psychological pain, stress, agitation, hopelessness, self-hate, and suicide risk - on a five-point Likert scale in section A of each of the SSF-4 forms. There are additional components, including reasons for living and reasons for dying. It is this section, section A of the SSF-4, that the survey data is being extracted from to generate pre-treatment and post-treatment self-report data on these key dimensions.

The categories for sourcing data include demographics, self-report, SSF-4, and patient record. Self-report is obtained in the intake and assessment when gathering data. Demographics are factual but also obtained through self-report at the intake. The third category, SSF-4, is an evidence-based measure, although also a form of self-report. The final category, patient record, is quantifiable data pulled from the EHR.

Table 2: Variable Table

Variable	Type of	Type of	How Measured	Range	Source of Data
	Variable	Data		of Data	
Client Age	Ind	Scale	Measured in years	11-70	Demographics
Referral Source	Ind	Nominal	1=provider,2=hospital,3=school,4=family,5=friend	1-5	Demographics
Identified Gender	Ind	Nominal	0=F, 1=M, 2=Trans F, 3=Trans M	0-3	Demographics
Previous MH History	Ind	Nominal	0=No, 1=Yes	0-1	Self-report
Previous History of Suicide Attempts	Ind	Nominal	0=No, 1=Yes	0-1	Self-report
ED Visits for MH Concerns	Ind	Nominal	0=No, 1=Yes	0-1	Self-report
How Many Visits to ED	Ind	Nominal	Measured in number of ED visits	0-6	Self-report
Hospital Admissions for MH	Ind	Nominal	0=No, 1=Yes	0-1	Self-report
How Many Hospital Admissions for MH	Ind	Scale	Measured in number of admissions (not days)	0-4	Self-report
Initial Psychological Pain	Ind	Scale	1 (low) - 5 (high)	1-5	SSF-4
Initial Stress	Ind	Scale	1 (low) – 5 (high)	1-5	SSF-4
Initial Agitation	Ind	Scale	1 (low) – 5 (high)	1-5	SSF-4
Initial Hopelessness	Ind	Scale	1 (low) – 5 (high)	1-5	SSF-4
Initial Self-hate	Ind	Scale	1 (low) – 5 (high)	1-5	SSF-4
Initial Overall Risk of Suicide	Ind	Scale	1 (low) – 5 (high)	1-5	SSF-4
How Many Weeks in Treatment with THI	Ind	Scale	Number of weeks from start to finish	1-16	Patient Record
Total Number of Individual Sessions	Ind	Scale	Total number of individual sessions for treatment	1-16	Patient Record
Total Number of Group Sessions	Ind	Scale	Total number of group sessions for treatment	1-18	Patient Record
Total Number of Sessions for the Individual	Ind	Scale	Total number of sessions for treatment	1-26	Patient Record
Was the THI Program Completed	Ind	Nominal	0=No, 1=Yes	0-1	Patient Record
Final Psychological Pain	Ind	Scale	1 (low) - 5 (high)	1-5	SSF-4
Final Stress	Ind	Scale	1 (low) – 5 (high)	1-5	SSF-4
Final Agitation	Ind	Scale	1 (low) - 5 (high)	1-5	SSF-4
Final Hopelessness	Ind	Scale	1 (low) - 5 (high)	1-5	SSF-4
Final Self-hate	Ind	Scale	1 (low) - 5 (high)	1-5	SSF-4
Final Overall Risk of Suicide	Ind	Scale	1 (low) – 5 (high)	1-5	SSF-4
Where Ongoing Services Recommended	Ind	Nominal	No (0) or Yes (1)	0-1	Patient Record
Was there a Referral to Inpat. or Residential	Ind	Nominal	No (0) or Yes (1)	0-1	Patient Record
Did the Individual Return to THI	Ind	Nominal	No (0) or Yes (1)	0-1	Patient Record

3.5.1 Details on CAMS Surveys

The Collaborative Assessment and Management of Suicidality (CAMS) SSF-4 provides an integrated system for assessing, tracking, and documenting suicidal risk and treatment outcomes over time (Jobes, 2012). Rather than separate documents for each, the SSF-4 integrates risk monitoring and progress tracking into clinical documentation. The Hope Institute's treatment model uses three main CAMS forms: initial session, interim sessions, and final disposition.

The CAMS Initial Session is completed collaboratively during the intake appointment to establish baseline measurements. Patients are asked to rate their current psychological pain, stress, agitation, hopelessness, self-hate, and overall suicide risk using a 5-point Likert scale, with 0 being none and 5 being severe, which are variables for this research. This CAMS Initial Session survey also includes questions about reasons for living versus reasons for dying, recent suicide-related behaviors, and a brief mental status examination, which are not utilized in this study. It provides quantitative pre-treatment data on clients' self-reported suicidal thoughts, feelings, and risk factors.

The CAMS Interim Session form is used for ongoing sessions throughout treatment to monitor changes. Patients again rate their levels of the six dimensions, now assessing changes since the last session. It tracks recent suicide-related behaviors, reasons for living/dying, and mental status. The interim CAMS surveys demonstrate progress between sessions during treatment through patients' self-reports. The interim data is not utilized for the current study.

The CAMS Final Disposition form is completed at discharge to provide post-treatment ratings on the same six dimensions originally rated at intake. Like the initial and interim surveys, it includes an assessment of psychological pain, stress, agitation, hopelessness, self-hate, and overall risk of suicide. Section A also includes questions on what was particularly helpful and what has been learned. Section B examines the resolution of suicidality and disposition, and Section C focuses on the mental health examination, risk, and notes. The CAMS Final Session survey generates endpoint data to quantify changes from the CAMS Initial Session survey.

The core of each CAMS form is the table for patients to rate the six key factors. Completing the matching initial and final CAMS surveys gathers pre- and post-treatment data on patients' subjective suicide risk. Their interim CAMS surveys provide a longitudinal perspective on potential fluctuations throughout treatment. The CAMS has demonstrated reliability, validity, and clinical utility for quantifying suicidal ideation over time (Conrad et al., 2009; Jobes et al., 1997). It enables analyzing changes in self-reported suicide risk factors over The Hope Institute's treatment course.

3.5.2 Validity and Reliability of the CAMS Suicide Status Form

The Suicide Status Form (SSF-4) was developed by David Jobes and colleagues in 1997 (Jobes et al., 1997) and is a key element in the CAMS framework. In the two and a half decades since, the SSF has become much more than a simple measurement tool. The SSF has evolved into a clinical assessment that explores both quantitative and qualitative aspects of suicidality (Conrad et al., 2009), as well as a treatment planning tool that lends itself to safety planning, with use of the CAMS Stabilization Plan. An integral set of measures in the SSF are the six self-ratings, which include psychological pain, stress (originally external pressures), agitation, hopelessness, self-hate (originally self-regard), and overall risk of suicide.

The initial study (Jobes, et al., 1997) was conducted on two samples of students from The Catholic University of America. The first sample of students came from the university counseling center and were struggling with suicidal thoughts from 1991 to 1996 (n = 106). The sample included 64 women and 42 men and was primarily Caucasian (79%), with an age range of 17 -55. The second sample (n = 161) were selected from undergraduate psychology courses, were not suicidal, contained 94 women and 67 men, was 80% Caucasian, and ranged from 18 - 26 in age.

A factor analysis was conducted among the six items on the SSF in the 1997 study. Results suggested limited collinearity among the items and supported a quasi-independent nature of the six SSF ratings (Jobes et al., 1997). With the weak underlying structure for the six items, the study authors opted to establish convergent validity for each individual item. A multivariate analysis of variance (MANOVA) on the six SSF ratings was conducted among both suicidal and non-suicidal student populations, which provided significant findings, F(6, 168) = 24.79, p <.0001. A significant MANOVA can be interpreted as evidence of criterion-prediction validation when the groups are considered coded predicators of suicidality, the criterion. Client ratings of all six SSF ratings were significantly higher among suicidal clients than non-suicidal undergraduates, using a Bonferroni correction to reduce Type I error (p < .008) (Jobes et al., 1997).

Reliability was demonstrated using a sample of 72 non-suicidal undergraduate students. Test-retest reliability coefficients measuring these items as state-based concepts, taken after a two-week interval, resulted in coefficients that reflected a moderate level of test-retest reliability. The following are the individual reliability coefficients: pain (r = .69), stress (r = .51), agitation (r = .50), hopelessness (r = .35), self-hate (r = .55), and suicide risk (r = .51). A second study was conducted at the Mayo Psychiatry and Psychology Treatment Center in Rochester, Minnesota that included 149 individuals admitted to one of the two inpatient units. This population included treatment participants (n = 108) that presented with either suicidal ideation (N = 79) or suicidal behavior (N = 29) and 41 control patients who had not struggled with suicidal ideation or behavior within 48 hours of admission (Conrad et al., 2009). Consistent with the 1997 study, a factor analysis demonstrated that no inter-item correlations were high. This study utilized Spearman correlations to assess convergent validity, which were almost all significant p < .01, with the exception of stress, as measured with the PI-III. The correlations between SSF items were low to moderate, indicating limited collinearity among SSF measures (Conrad et al., 2009).

In a more recent 2019 study by Brausch et al., the SSF was examined again. The Brausch study utilized participants from two sources, a children's crisis stabilization unit and an adolescent behavioral health hospital. The participant pool consisted of 100 adolescents from the ages of 12-17, which as 80% Caucasian and 67.5% female (Brausch et al., 2019).

A factor analysis was used to measure the dimensionality of the SSF items, in a similar fashion to the two previous studies. Brausch (2019) showed that the strongest correlation was between hopelessness and self-hate (r = .60), but none of the correlations were considered highly correlated. In testing for concurrent validity of the SSF items, Spearman correlations were again utilized between the six SSF scores and psychometrically validated self-report measures of the same constructs (Brausch et al., 2019). For convergent validity, Spearman correlations between SSF measures were nearly all significant at p < .01, with the exception of stress, p = .06. Overall suicide risk on the SSF significantly correlated with self-reported suicide thoughts and behaviors

(r = 0.41, p < 0.0001) and implicit suicide risk, as measured by the death/suicide IAT (r = 0.35, p < 0.05) (Brausch et al., 2019). The study also found significant differences in SSF items between individuals with and without suicide attempt history. Those with attempt history reported significantly higher scores for psychological pain, hopelessness, self-hate, and overall risk for suicide.

3.6 Trustworthiness and Rigor of Researcher

3.6.1 Validity, Reliability, Generalizability

Establishing strong validity, reliability, and generalizability is crucial for high-quality research that produces trustworthy and meaningful results. Validity refers to the study's accuracy in measuring what it aims to measure (Kimberlin & Winterstein, 2008). It reflects how well the methodology, instruments, and data analysis authentically assess the intended variables and relationships with minimal errors or systematic biases. Strong validity indicates that the study captures the key data to address the research questions methodologically.

This study utilizes well-validated instruments, including the Collaborative Assessment and Management of Suicidality (CAMS), which has demonstrated reliability and validity for quantifying suicide risk through multiple studies (Conrad et al., 2009; Jobes et al., 1997). Using established, standardized measures that have been psychometrically validated through prior research enhances the validity of this study. However, relying solely on self-report instruments like CAMS is a limitation, as clients may over or under-report symptoms and risk factors (Johnson et al., 2009). Incorporating additional observational data like session attendance helps offset this mono-method bias. But the CAMS and other surveys provide a foundation of validity. Reliability in research depends on the consistency and reproducibility of results when the study methodology is replicated (Leung, 2015). It reflects the precision, stability, and dependability of the data collection procedures and measurement instruments. Reliability may be constrained in this study by shifts in clinical protocols overtime at the institute. For instance, not all clients completed the CAMS, Outcome Rating Scale, and additional surveys implemented in a staged rollout later. Carefully accounting for these changing protocols in the analysis assists to strengthen reliability. Longitudinal consistency in measures over time would also bolster reliability.

Generalizability refers to the ability to reasonably extend the findings from the study sample to the broader population of interest (Melnyk & Morrison-Beedy, 2012). It reflects the applicability of the results to other settings and samples. Limitations include the single geographic site and population uniqueness, which may not represent national demographics. Comparing sample demographics to national data on age, gender, race, etc., could reveal constraints on generalizability. However, the initial data still provides valuable reliability and validity evidence to help guide local practice and additional research. While generalizability may be limited currently, the study offers a foundation to build upon through expanded samples, replication, and increased standardization in the future.

3.7 Data Analysis

Thorough preparation and screening of the raw data was completed before conducting the statistical analysis to answer the research questions to ensure accuracy of the dataset and validity of the results. Demographic or descriptive information collected via open-ended questions during clinical interviews was converted into categorical or numerical variables for analysis

(Wallace et al., 2009). For example, gender identity was coded numerically, with 0 = female, 1 = male, 3 = non-binary, etc. Similarly, mental health hospitalization frequency was categorized as 0 = none, 1 = single attempt, and 2 = multiple attempts to enable statistical analysis. The existing CAMS assessment data innately produces numerical outcome data on its 5-point Likert scale rating system for symptom severity.

The dataset was then screened for missing data points and outliers that could skew the analysis. Cases with substantial missing outcomes data may need removal from certain analyses. However, they can still provide available demographic and intake data, so total exclusion is only sometimes necessary. Outliers were evaluated to determine if they represent truly anomalous erroneous data versus legitimate extreme scores; only the former were addressed to avoid distorting statistics.

Assumption testing for normality of distribution, homoscedasticity, multicollinearity, and other prerequisites for the statistical procedures were also conducted (Thiese, 2014). Violations of assumptions were handled through various methods, like data transformations, to improve normality. Additionally, descriptive statistics were used to characterize samples across research questions and examine patterns.

Appropriate data preparation enhances the validity and reliability of the analysis results. Screening the raw data, formatting it quantitatively, managing missing data judiciously, and testing assumptions provides optimized data inputs for the research analysis. This helps ensure robust results and avoid pitfalls like drawing inaccurate inferences due to problematic data characteristics. Cleaned, formatted quantitative data with transparent handling of limitations enables conducting the statistical analysis to address the study aims.

3.7.1 Variables in the Analysis

This study examines several important variables across the research questions, as outlined in Table 3.1.The key independent variables reflect the interventions incorporated into The Hope Institute's treatment protocol. The foundation is the standardized Collaborative Assessment and Management of Suicidality (CAMS) that integrates suicidal risk assessment, treatment planning, and progress monitoring into clinical documentation (Jobes, 2005). The CAMS pathway begins with an extensive 2-hour session for collaborative risk assessment and establishing a treatment plan. Patients then engage in weekly interim 1-hour CAMS sessions to reevaluate their suicide risk and modify the treatment plan until achieving resolution criteria of CAMS scores below 3 for three consecutive sessions (Jobes, 2012). The final component is a 1-hour disposition session to review progress and establish a post-treatment plan.

Clients can participate concurrently in Dialectical Behavior Therapy (DBT) skills training groups as part of their treatment regimen (Linehan, 1993b). These group sessions teach distress tolerance, mindfulness, emotion regulation, interpersonal effectiveness, and other skills. Attending DBT groups provides supplementary therapeutic skills training as an ancillary component of The Hope Institute protocol. Participation in the DBT skills sessions are being measured by attendance and number of sessions participated in.

Other independent variables collected include demographic data such as age, gender identity, race/ethnicity, and psychiatric diagnoses. Mental health history variables, such as past hospitalizations and suicide attempts, offer relevant clinical information (Hill et al., 2014). These data points allow for examining relationships between outcomes and personal or clinical characteristics. The dependent variables emerge from participation in the CAMS assessment pathway and ancillary DBT groups. The total number of CAMS sessions, encompassing initial, interim, and disposition meetings, constitutes a central dependent variable reflecting treatment dosage and duration (Jobes et al., 2005). Several 2-hour DBT skills training groups attended also measured engagement. Using phone coaching for crisis support outside sessions captures another element of treatment participation (Lynch et al., 2006).

Key outcomes include pre- and post-treatment CAMS overall suicide risk scores to analyze changes in the severity of suicidal thoughts and behaviors (Conrad et al., 2009). Total treatment duration until resolving suicide risk per CAMS criteria is a complementary dependent variable. Program completion versus dropout also constitutes a critical outcome.

3.7.2 Statistical Analysis for Each Research Question

1. What is the data being studied and what are the specific variables of importance to this research?

The first research question was examined with descriptive statistics to explore and understand the data in a practical manner. This includes utilizing the demographics to understand who the subjects are, and their mental health history to move away from assumptions and stigma and paint a clearer picture of who is utilizing these services. Descriptive statistics are also used to understand CAMS scores and treatment utilization at The Hope Institute, as well as what the final dispositions are and what individuals need upon discharge.

2. Can the length of treatment, determined by total number of sessions, be predicted by mental health factors, including a previous mental health history, a history of suicide attempts,

emergency department visits for mental health, hospital admissions for mental health, or a composite score for the initial CAMS measures?

H2.10: A previous mental health history will not significantly predict the number of sessions of treatment.

H2.1a: A previous mental health history will significantly predict the number of sessions of treatment.

H2.20: Emergency department visits for mental health will not significantly predict the number of sessions of treatment.

H2.2a: Emergency visits for mental health will significantly predict the number of sessions of treatment.

H2.30: Hospital admissions for mental health will not significantly predict the number of sessions of treatment.

H2.3a: Hospital admissions for mental health will significantly predict the number of sessions of treatment.

H2.40: A history of suicide attempts will not significantly predict the number of sessions of treatment.

H2.4a: A history of suicide attempts will significantly predict the number of sessions of treatment.

H2.50: A composite score for the six CAMS Initial Session measures will not significantly predict the number of sessions of treatment.

H2.5a: A composite score for the six CAMS Initial Session measures will significantly predict the number of sessions of treatment.

For the second research question examining predictors of treatment length, multiple linear regression is the appropriate analytical approach. Multiple regression enables modeling relationships between a continuous dependent variable and multiple continuous and categorical independent variables (Draper & Smith, 2005).

In this case, the continuous dependent variable is the length of treatment, operationalized as number of sessions, although it was also recorded in total weeks in treatment, days from intake to discharge, etc. The independent variables entered into the regression model includes clinical variables such as past hospitalizations and suicide attempt history, and the composite CAMS score, which is the combination of the six intake CAMS subdomain scores.

Certain assumptions must be met to perform multiple regression: the linear relationship between dependent and independent variables, multivariate normality, lack of multicollinearity among predictors, homoscedasticity, and lack of auto-correlation (Draper & Smith, 2005). The dataset was tested to satisfy these assumptions reasonably before the analysis proceeds.

Using SPSS, independent variables were added to the regression model stepwise to evaluate incremental variance explained in the treatment length. The overall model fit, R-squared value, regression coefficients, standard errors, and significance levels will be examined to identify predictors explaining a significant proportion of variance in the dependent variable when accounting for other factors in the model.

For example, higher initial agitation CAMS subdomain scores may predict longer treatment duration when holding constant age, gender, and past hospitalizations. Alternatively, certain diagnoses may correspond to fewer required sessions. Understanding relationships can help optimize treatment for clients likely to require an extended course based on presenting characteristics.

3. Was there a significant decrease in the CAMS "Overall Risk of Suicide" item-level scores after the intervention provided at The Hope Institute?
H3o: There will be no significant difference in pre-test and post-test CAMS "Overall Risk of Suicide" item-level scores for individuals utilizing The Hope Institute model.
H3a: There will be a significant decrease from pre-test to post-test CAMS "Overall Risk of Suicide" item-level scores for individuals utilizing The Hope Institute model.

To determine changes in overall suicide risk scores on the CAMS assessment from pretreatment to post-treatment, a paired samples t-test was utilized for analysis. The paired samples t-test is an appropriate statistical procedure when comparing the means of a variable at two different time points for the same subject group.

In this study, the initial intake and final discharge sessions are the two-time points. The test variable is the client's overall suicide risk CAMS score rated on a 1-5 scale, with 1 being no current risk and 5 representing extreme risk. The paired t-test evaluates whether the mean pre-treatment CAMS score differs significantly from the mean post-treatment CAMS score for the client sample.

The paired samples t-test assumes that the difference between the pre- and post-CAMS scores represents a normal distribution, the cases constitute a randomized sample, and the score differences between time points are independent. The dataset was examined to ensure these assumptions are reasonably met to proceed with the analysis. Violations could make a nonparametric alternative like Wilcoxon signed-rank test more suitable.

Using SPSS statistical software, the paired samples t-test output generates a t-value and degrees of freedom for determining statistical significance based on the p-value threshold set at p<.05. A significant p-value indicates that the pre-post CAMS score differences likely reflect a true effect rather than merely chance variation (Ellis et al., 2012). This would suggest that the treatment protocol corresponds to a decrease in clients' suicide risk scores from intake to discharge.

The paired samples t-test offers a straightforward method for comparing the means of related samples at two-time points. This first research question will quantitatively evaluate changes in CAMS risk ratings over treatment at The Hope Institute and provide initial insight into the crisis intervention model's efficacy.

4. Was there a significant difference in the five CAMS item-level measures of psychological pain, stress, agitation, hopelessness, and self-hate, between the Initial Session scores and the Final Session scores?

H4o: There will be no significant changes within initial and final CAMS scores for individuals treated utilizing The Hope Institute model.

H4a: There will be significant changes within initial and final CAMS scores for individuals treated utilizing The Hope Institute model.

The fourth research question seeks to study the change in measure of the five CAMS subdomain scores - psychological pain, stress, agitation, hopelessness, and self-hate, from the pre-treatment Initial Session to the post-treatment Final Session assessments. Paired-samples ttests were utilized in addressing this question. For this question, the two time points were the initial intake and final discharge sessions, at which measures were taken. The test variables were each of the five CAMS subdomain scores rated on a 1-5 scale, with 1 representing no or low and 5 representing high or extreme. The paired samples t-test evaluates whether the mean pre-treatment CAMS score differs significantly from the mean post-treatment CAMS score for the client sample.

Normal distribution between pre- and post-CAMS scores is assumed in the paired samples t-test, as are the fact that the cases constitute a randomized sample, and the score differences between time points are independent. The dataset was examined to ensure these assumptions are reasonably met to proceed with the analysis.

SPSS statistical software provides a paired samples t-test output that provides a t-value and degrees of freedom for examining statistical significance, with a p-value threshold set at p<.05. A significant p-value implies that the score differences between pre- and post-test reflect a true effect. This further suggests that the treatment protocol corresponds to a decrease in scores between pre-test and post-test. This method of evaluation quantitatively evaluates changes in CAMS scores over the time of treatment at The Hope Institute.

5. What are the inter-item correlations of the six CAMS measures of psychological pain, stress, agitation, hopelessness, self-hate, and overall suicide risk among the initial item scores and among the final item scores?

H4o: There will be no inter-item correlations among initial CAMS item scores and among final CAMS item scores for individuals treated utilizing The Hope Institute model.
H4a: There will be positive, but weak or stronger inter-item correlations among initial CAMS item scores and among final CAMS item scores for individuals treated utilizing The Hope Institute model.

The final research question seeks to examine the relationships and patterns between the six CAMS subdomain scores - psychological pain, stress, agitation, hopelessness, self-hate, and overall suicide risk - within the pre-treatment intake assessments and again within the post-treatment discharge assessments. Correlational analysis was utilized to address this question.

Correlational analysis quantifies and interprets the strength and directionality of associations between variables rather than inferring causality (Curtis et al., 2016). Pearson's r was calculated between each pair of the six CAMS subdomains at intake to determine the intercorrelations when patients first present for treatment. Strong positive correlations near +1 indicate subdomain scores track together. For example, high self-hate may correlate highly with high agitation initially. Weaker correlations near 0 suggest more divergence.

This correlational matrix for the intake CAMS subdomain scores reveals patterns in how these facets of suicide risk relate when patients first enter treatment (Conrad et al., 2009). Significant correlations may emerge that could aid in assessing overall risk based on certain subdomains.

Next, the discharge CAMS subdomain scores underwent the same correlational analysis. The correlational matrix for the post-treatment variables may differ from intake if the relationships between subdomains change after resolving the crisis. Comparing intake and discharge correlation patterns can reveal if the treatment influences how patients subjectively rate these associated dimensions of suicide risk (Jobes et al., 2005). For example, agitation and hopelessness may be more strongly correlated in post-treatment than pre-treatment. This could indicate that residual agitation after resolving a crisis correlates with lingering hopelessness requiring ongoing attention.

Using SPSS, correlation coefficients (r values) and significance levels (p values) were generated to quantify the strength of the bivariate relationships and determine if they are likely non-random. The correlations were visualized through matrices and scatterplots to compare intake versus discharge patterns. This straightforward analysis exposes connections between facets of suicide risk before and after treatment for a more nuanced understanding.

3.8 Summary

The rising prevalence of suicide represents an urgent public health crisis, with rates escalating to over 36% in recent decades across demographics (CDC, 2022b). Despite increased prevention initiatives, suicide remains the 12th leading overall cause of death and 2nd among youth in the U.S. (CDC, 2022b). Alongside completed suicides, an estimated 9.3 million adults and 22% of high school students experience suicidal thoughts annually (CDC, 2023). This enormous loss of life and impact on communities demonstrates the need for continued innovation in evidence-based treatment models tailored for rapid suicidal ideation resolution and safety establishment.

While most individuals who die by suicide have mental health conditions, traditional diagnosis, and long-term treatment approaches do not meet the needs of all suicidal crises. Brief stabilization interventions show promise. Enhanced graduate training is also needed, as many providers report feeling underprepared to effectively assist suicidal patients despite the ubiquity of these risks (Gallo et al., 2019). Leading experts concur that advances in scalable, accessible

interventions are urgently required as current approaches fail to curb rising suicide rates (Klonsky et al., 2016; Stanley & Mann, 2020).

This study aims to evaluate outcomes from The Hope Institute's crisis response model designed to rapidly resolve suicidal ideation through evidence-based assessments and individualized treatment matching. Analysis of clinical records helps to examine relationships between patient factors, engagement, and suicidal thoughts/behaviors to help optimize this emerging approach. Although single-site limitations exist, the findings can guide program refinement and future multi-site research.

This research seeks to advance the underdeveloped field of suicide prevention science and practice to equip mental health providers with proven solutions. Moving forward, larger controlled trials, implementation research, and integration with advanced technology like predictive analytics will be key priorities. Nevertheless, foundational effectiveness research is an essential starting point. By contributing initial data on an innovative contemporary program, this study aspires to help illuminate pathways for ameliorating an escalating yet preventable public health tragedy. Knowledge gained can help clinicians provide scientifically grounded life-saving care as a unified field.

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Chapter 4. Results

4.1 Statement of the Problem

Suicide rates have persistently increased for over two decades, which may be indicative that current treatment approaches are not sufficient. This is supported by Stanley and Mann's (2020) sentiment that novel approaches for treatment of suicidal patients ought to be developed. Although this sentiment rings true, we know that there are treatments that work for suicidal individuals (Linehan, 1993a) and specific treatments for suicidality that have been developed (Jobes, 2023). Still, there may be great opportunity for ongoing development, and this may indicate that a greater problem is not just development, but also implementation. This study explored data from a new model, focused on service delivery, that utilizes evidence-based suicide treatment models to directly address suicidality in a sample of patients. This research analyzes outcomes, explores factors that may influence treatment length, and examines correlations between and among factors.

4.2 Research Questions

This study was designed to address the following research questions:

- 1. What is the data being studied and what are the specific variables of importance to this research?
- 2. Can the length of treatment, determined by total number of sessions, be predicted by mental health factors, including a previous mental health history, a history of suicide attempts, emergency department visits for mental health, hospital admissions for mental health, or a composite score on the CAMS Initial Session measures?

H2.10: A previous mental health history will not significantly predict the number of sessions of treatment.

H2.1a: A previous mental health history will significantly predict the number of sessions of treatment.

H2.20: A previous history of emergency department visits for mental health will not significantly predict the number of sessions of treatment.

H2.2a: A previous history of emergency department visits for mental health will significantly predict the number of sessions of treatment.

H2.30: A previous history of hospital admissions for mental health will not significantly predict the number of sessions of treatment.

H2.3a: A previous history of hospital admissions for mental health will significantly predict the number of sessions of treatment.

H2.40: A history of suicide attempts will not significantly predict the number of sessions of treatment.

H2.4a: A history of suicide attempts will significantly predict the number of sessions of treatment.

H2.50: A composite score for the six CAMS Initial Session measures will not significantly predict the number of sessions of treatment.

H2.5a: A composite score for the six CAMS Initial Session measures will significantly predict the number of sessions of treatment.

3. Was there a significant decrease in the CAMS "Overall Risk of Suicide" item-level scores after the intervention provided at The Hope Institute?

H3o: There will be no significant difference in pre-test and post-test CAMS "OverallRisk of Suicide" item-level scores for individuals utilizing The Hope Institute model.H3a: There will be a significant decrease from pre-test to post-test CAMS "Overall Risk of Suicide" item-level scores for individuals utilizing The Hope Institute model.

4. Was there a significant difference in the five CAMS item-level measures of psychological pain, stress, agitation, hopelessness, and self-hate, between the Initial Session scores and the Final Session scores?

H4o: There will be no significant changes within initial and final CAMS scores for individuals treated utilizing The Hope Institute model.

H4a: There will be significant changes within initial and final CAMS scores for individuals treated utilizing The Hope Institute model.

5. What are the inter-item correlations of the six CAMS measures of psychological pain, stress, agitation, hopelessness, self-hate, and overall suicide risk among the initial item scores and among the final item scores?

H50: There will be no inter-item correlations among initial CAMS item scores and among final CAMS item scores for individuals treated utilizing The Hope Institute model.

H5a: There will be positive, but weak or stronger inter-item correlations among initial CAMS item scores and among final CAMS item scores for individuals treated utilizing The Hope Institute model.

Although these are the focused research questions for the study, additional post-hoc analyses were performed.

4.3 Overview of Findings

This quantitative research is generated from data sourced from The Hope Institute at Perrysburg Counseling located in Perrysburg, Ohio. The data utilized was gathered from the electronic health record and included only patients treated for suicidal ideation at The Hope Institute. The sample included a total of 58 participants who had sought out and received suicide specific treatment in an outpatient setting from January 1st of 2022 to February 28th of 2022. The facility provides services for voluntary participants and does not include inpatient or involuntary services.

4.3.1 Results

There were a variety of statistical tests that were used to answer the five research questions. Descriptive statistics were used in answering research question one. Research question two explored the data using multiple linear regression, although additional assessment was conducted with an ANOVA. Paired samples t-tests were used to answer questions three and four. The final question was examined using correlational analysis.

It may be important to note that most of the data was analyzed with 58 participants, although some data reflects 57 participants. This difference indicates missing data for one of the participants in the study, who did not complete the process and was referred to inpatient treatment. This person's data will be used to answer question one, reflected as a statistic for those who needed inpatient or residential care. Although there are valid arguments for removing participants with incomplete data, the choice was made to include this participant. This participant was a real person and is representative of a population that is not suitable for this model at certain times. It would be a disservice to the research and to the field to not include this participant in this study as they reflect the characteristics of the population. Doing so provides transparency. This person and the data also speak directly to one of the research questions, which specifically looks at clients who complete the program as compared to those that did not.

Although this study is driven by a series of research questions and hypotheses, it is exploratory in nature and is merely a first step in understanding what can be learned about The Hope Institute model from this study. Research and data to demonstrate effectiveness is important and can also be derived from its use of CAMS and DBT. A unique aspect of this model is the population of individuals that it treats, those struggling with suicidal ideation, and the fact that this is the sole purpose. Additional analyses were performed because research, at times, follows the data, as opposed to simply following the research questions.

Research Question 1

1. What is the data being studied and what are the specific variables of importance to this research?

There were 58 individuals who participated in The Hope Institute model to address suicidal ideation. One person did not complete the CAMS Final Session measures and was removed from the sample for questions 3, 4, and 5. The data collected for this research has been divided into five categories for the purposes of the first research question. These categories are demographics, mental health history, CAMS Initial Session and CAMS Final Session item-level scores, treatment and dosage, and closure and post care.

The demographic data included age and sex at birth. The sample included a total of 58 participants ages 11 through 53, with a mean age of 20 years old (Table 3). The sample was comprised of 57% female and 43% male participants (Table 4). Variation between sex at birth

and identified gender is an important area of study within suicide. Recent research shows that while national averages for our high school students is at 22%, individuals with gender disparity can be at a much higher rate. Toomey (2018) found that female to male trans reported the highest rate (50.8%), individuals not identifying as exclusively male or female (41.8%) had the 2nd highest rate, male to female trans followed (29.9), and questioning adolescents (27.9%) also had numbers above the national average. However, in this sample, only two individuals identified as differently than their birth gender so identified gender was not examined in this study.

Table 3

Descriptive Statistics for Age $(N = 8)$					
	Minimum	Maximum	Mean	SD	
Client age in years	11	70	20.0	12.4	

Table 4

Descriptive Statistics for Birth Sex (N = 8)

	Ν	Female		Male	
Identified birth sex	58	33	57%	25	43%

Information that was collected through self-report regarding mental health history included whether the individual had a mental health history or diagnosis (Yes or No), whether there was a previous history of attempts (Yes or No), a previous history of visits to the emergency department for mental health (Yes or No), the number of mental health related emergency department visits (raw number), a previous history of mental health related hospitalizations (Yes or No), and the number of mental health related hospitalizations (raw number).

The descriptive statistics showed that most participants had a previous mental health diagnosis (69%) and about half had a history of previous attempts (43%) (Table 5). Although 103

only 41% had previously visited the emergency department for mental health concerns, 24% had one previous visit, 7% had two previous visits, and 10% had 3 or more visits (Tables 5 & 6). Most participants had no history of mental health hospitalization (67%). The range of number of hospitalizations for mental health concerns for the other 33% of participants ranged from one to four times. Of those hospitalized, 32% were hospitalized once, 32% were hospitalized twice, 21% had been hospitalized three times, with the remaining 16% being hospitalized four times or more (Tables 5 & 7).

	Yes	No
Does the individual have a previous history of mental health?	69%	31%
Does the individual have a previous history of suicide attempts?	43%	57%
Has the individual visited the emergency department for mental health concerns?	41%	59%
Has the individual been admitted to the hospital for mental health concerns?	33%	67%

Visits	Frequency	Percent	Cumulative Percent
0	34	58.6	58.6
1	14	24.1	82.8
2	4	6.9	89.7
3	1	1.7	91.4
4	2	3.4	94.8
5	1	1.7	96.6
6+	2	3.4	100
Total	58	100	

Number of Emergency Department Visits for Mental Health Concerns

Table 7

Number of Hospital Admissions for Mental Health Concerns

Visits	Frequency	Percent	Cumulative Percent
0	39	67.2	67.2
1	6	10.3	77.6
2	6	10.3	87.9
3	4	6.9	94.8
4+	3	5.2	100
Total	58	100	

Measures utilized in the study were the item-level scores of the CAMS Initial Session and Final Session. There are six item-level scores that measure psychological pain, stress, agitation, hopelessness, self-hate, and overall risk of suicide. These items are self-rated on a scale of one to five, with a rating of one indicating low and five indicating high. Each has a similar outline, with the first having 1 labeled as low pain and five labeled as high pain, (Jobes, 2016) for example (Tables 8 & 9).

Rating	Minimum	Maximum	Mean	SD
Psychological Pain	1.0	5.0	3.5	1.1
Stress	2.0	5.0	4.1	1.0
Agitation	1.0	5.0	3.0	1.3
Hopelessness	1.0	5.0	3.5	1.3
Self-hate	1.0	5.0	3.7	1.2
Overall risk of suicide	1.0	5.0	2.8	1.2

Descriptive Statistics for CAMS Item-level Initial Session Scores (N = 58)

Table 9

Descriptive Statistics for CAMS Item-level Final Session Scores (N = 57)

Rating	Minimum	Maximum	Mean	SD
Psychological Pain	1.0	5.0	1.9	1.0
Stress	1.0	5.0	2.5	1.1
Agitation	1.0	5.0	1.8	1.1
Hopelessness	1.0	4.0	1.7	0.9
Self-hate	1.0	5.0	2.3	1.2
Overall risk of suicide	1.0	4.0	1.5	0.8

Treatment and dosage information was examined for the next category. Variables included the number of weeks in treatment, the frequency of treatment, number of individual sessions, number of group sessions, and total number of sessions. The total number of weeks in session ranged from one to 16, with an average of 5.6 weeks. The number of times seen per week ranged from .5 (once every other week) to 4 and averaged 1.3. The total number of sessions averaged 7.5, with a range of 1 to 26 (Tables 10 & 11).

The participant who did not complete the CAMS Final Session participated in only one session. This is an individual that needed a higher level of care and was not able to continue with an outpatient program, due to safety issues. The person was referred to an inpatient level of care

for services and was admitted appropriately. Although this person is an outlier and skews the data (e.g., mean number of weeks), it is representative of approximately 10% of individuals struggling with suicidal ideation that are not appropriate for outpatient care (SAMHSA, 2016). When that person is removed from the analysis, there is almost no change in the data. The range, minimum, and maximum, do not change at all. The means and standard deviations change very slightly for the number of weeks in treatment and total number of sessions.

Table 10

Descriptive Statistics for Frequency of Treatment $(N = 58)$					
	Minimum	Maximum	М	SD	
How many weeks in treatment with THI?	1	16	5.6	2.8	
How many times per week is the individual being treated?	0.5	4	1.3	0.7	
Total number of sessions for the individual?	1	26	7.5	5.0	

Table 11

Descriptive Statistics for Frequency of Treatment (N = 57)

Descriptive Statistics jor 1 requercey	oj i reatment	(11 - 37)		
	Minimum	Maximum	М	SD
How many weeks in treatment with THI?	1	16	5.7	2.7
How many times per week is the individual being treated?	0.5	4	1.3	0.7
Total number of sessions for the individual?	2	26	7.6	5.0

The final category explored was closure and post care. These included whether the

individual completed the treatment successfully, if they were recommended for ongoing services,

if there was a referral to inpatient or residential services, and whether the individual returned to

The Hope Institute or the ED for suicidality after completing full treatment (recidivism rate). The

data shows that most people completed the program successfully and did not need to return (93%), while a small percentage (5%) completed successfully and did return for additional services within 90 days, representing a 5% recidivism rate. The remaining 2% did not complete the program and were recommended a higher level of care due to significant mental health concerns. Additionally, 79% were recommended to ongoing services. It was this 2% that accounted for the discrepancy between 58 and 57 participants. See Table 12.

Although not a perfect correlation, the 21% of participants who were not recommended for ongoing services is reflective of the national data that reports 38.1% of individuals that experience an issue with suicidal ideation and do not have an underlying mental health disorder (Lipari et al., 2016). Similarly, 2% of the participants were recommended for inpatient or residential care, which is also reflective of the 10% of individuals struggling with ideation that are emergent and need inpatient care (SAMHSA, 2016). The numbers do not align perfectly, and with such a small sample this would be expected, but it does show trends that are congruent with the data from the literature.

Table 12

¥	Ν	No	Yes	
Were the individuals able to successfully complete The Hope Institute program and be discharged?	58	7%	93%	
Were ongoing services recommended?	57	21%	79%	
Was there a referral to inpatient or residential treatment?	57	98%	2%	
Did the individual return to THI or the Emergency Department?	57	95%	5%	

Descriptive Statistics for Disposition

Research Question 2

2. Can the length of treatment, determined by total number of sessions, be predicted by mental health factors, including a previous mental health history, a history of suicide attempts, emergency department visits for mental health, hospital admissions for mental health, or a composite score for the initial CAMS measures?

This is a five-part question that examined whether specific mental health factors predict length of treatment. Five simple linear regressions were created to answer each of the five hypotheses separately. The reason for addressing this question using linear regression instead of multiple regression is because the mental health factors are expected to be related and would increase collinearity, which would also impact the effect that each has on the other. This is referred to as "separation principle" in the literature (Samaniego & Watnik, 2017). For each regression, the dependent variable was the total number of sessions and independent variable in each analysis was the specific mental health factor being examined. Linear regression was chosen, as opposed to a Poisson or negative binomial regression, because the total number of sessions distributed somewhat normally and the analyses met the assumptions of linear regression, including linearity, an absence of extreme outliers, independence of observations, normality, and homoscedasticity.

H2.10: A previous mental health history will not significantly predict the number of sessions of treatment.

H2.1a: A previous mental health history will significantly predict the number of sessions of treatment.

Simple linear regression was conducted to evaluate whether the individual had a previous mental health history (0 = No, 1 = Yes), could predict the number of sessions of treatment.

The results of the simple linear regression suggest that a significant proportion of the total variation in number of sessions was predicted by an individual having a previous mental health history (F(1,56) = 5.09, p=.028). The R^2 was .083, indicating that a previous mental health history explained approximately 8.3% of the variance in number of sessions, and the Adjusted R^2 was .07 (Tables 13 - 15). The R^2 is considered an appropriate measure because the value is not being standardized against other measures. The Adjusted R^2 is also considered appropriate, given the sample size.

Table 13

Descriptive Statistics for Pro	evious Mental Hea	alth History (N	(=58)
--------------------------------	-------------------	-----------------	-------

	Mean	SD
Total number of sessions	7.52	4.99
Individuals with a previous history of mental health	69%	

Table 14

Model Summary with Previous Mental Health History as Predictor

R	\mathbb{R}^2	Adj. R ²	SE	F	df	Sig.
0.29	0.08	0.07	4.82	5.09	1,56	.028

Note. Dependent variable = number of sessions.

	Unstanc Coeffi	lardized icients			
	В	SE	t	Sig.	95.0% CI
(Constant)	5.39	1.14	4.74	<.001	[3.11, 7.66]
Does the individual have a previous history of mental health?	3.09	1.37	2.26	0.03	[0.35, 5.83]

(Coeffi	cients	for	Previoi	is Menta	ıl Health	History
							~

Note. Dependent variable = number of sessions

Part two of this question evaluates the extent to which previous emergency department visits (0 = 0, 1 = 1, 2 = 2 or more) for mental health reasons could predict the number of sessions of treatment.

H2.20: A previous history of emergency department visits for mental health will not significantly predict the number of sessions of treatment.

H2.2a: A previous history of emergency department visits for mental health will

significantly predict the number of sessions of treatment.

The results of the simple linear regression suggest that a significant proportion of the total variation in number of sessions was not predicted by an individual having a previous history of emergency department visits for mental health (F(1,56) = .033, p=.857). The R^2 was .00 and Adjusted R^2 was -.02 indicating that a previous history of emergency department visits for mental health explained no variance in number of sessions (Tables 16 - 18).

Descriptive .	Statistics f	or Previous	s Mental	Health	ED Vi.	sits (N=58)
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	Mean	SD
Total number of sessions	7.52	4.99
Individuals with a previous history of ED visits for mental health	41%	

Model Summary with Previous Mental Health ED Visits as Predictor								
R 0.02	R^2	Adj. \mathbb{R}^2	SE 5.03	F 0.03	<i>df</i>	Sig.		
0.02	0.00	-0.02	5.05	0.05	1,30	0.80		

Note. Dependent variable = number of sessions.

Table 18

Table 17

Coefficients for Previous Mental Health ED Visits

	Unstand Coeffi				
	В	SE	t	Sig.	95.0% CI
(Constant)	7.62	0.86	8.83	<.001	[5.89, 9.35]
Does the individual have a previous history of mental health ED visits?	-0.24	1.34	-0.18	0.86	[-2.93, 2.44]

Note. Dependent variable = number of sessions

Although the results were unexpected, based on previous research, what was even more interesting were the findings when the question was asked in a different manner. The data for the number of visits was available for the participants in this study. The number of emergency department visits for mental health concerns were placed in three categories where 0 = 0, 1 = 1, and 2 = 2 or more. A univariate analysis of variance was conducted using these three categories as the factors and number of sessions as the dependent variable. The assumptions of univariate analysis of variance were met (e.g. normal population distribution, same variance, and independent data). The results of analysis were the number of sessions of individuals who experienced one visit (F(1,56) = 2.76, p = .161) were not significantly different from and did not differ from those with zero visits and individuals who experienced or two or more visits (F(1,56) = -3.28, p = .135) were not significantly different from those with zero visits. However,

individuals with two or more visits did vary significantly from those with one visit (F(1,56) = -6.04, p = .008). The assumptions for analysis of variance were met, including normal population distribution, same variance, and independent data. The results are presented in Tables 19 and 20 and Figure 1.

Table 19

Multiple Comparisons Between Categorical Number of ED Visits and Number of Sessions								
		Mean						
	ED Visits	ED Visits	Difference	SE	Sig.			
Tukey	0	1	2.76	1.49	0.16			
HSD		2	-3.28	1.68	0.14			
	1.0	2	-6.04*	1.94	0.01			

*. The mean difference is significant at the .05 level.

Table 20

Descriptive Statistics for Number of Sessions by Categorical Number of ED Visits

Categorical No. of ED Visits	Mean	SD	n
None	7.6	5.0	34
One	4.9	3.5	14
Two or more	10.9	5.0	10

Note. Dependent variable = Number of Sessions

Figure 1



Number of Sessions by Categorical Number of Mental Health ED Visits

The third question evaluates whether previous hospital admissions for mental health (0 = 0, 1 = 1) can predict the number of sessions of treatment.

H2.30: A previous history of hospital admissions for mental health will not significantly predict the number of sessions of treatment.

H2.3a: A previous history of hospital admissions for mental health will significantly predict the number of sessions of treatment.

The results of the simple linear regression suggest that a significant proportion of the total variation in number of sessions was not predicted by an individual having a previous hospital admission for mental health (F(1,56) = .462, p=.500). The R^2 was .01 and Adjusted R^2 was -.01 indicating that a previous history of emergency department visits for mental health explained no variance in number of sessions (Tables 21 - 23).

Descriptive Statistics for Number of Sessions by Previous Hospital Admissions ($N=58$)					
	Mean	SD			
Total number of sessions	7.52	4.99			
A previous history of hospital admissions for mental health	33%				

Table 22

Model Summ	ary for Numb	er of Sessions	with Previou.	s Hospital Adn	nissions as Pre	edictor
R	\mathbb{R}^2	Adj. R ²	SE	F	$d\!f$	Sig.
0.09	0.01	-0.01	5.01	0.46	1,56	0.50
_						

Note. Dependent variable = number of sessions.

Table 23

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(netticients	tor	Previous	Hospital	Admissions
cocjicicius	101	110110115	mospilai	1 unito biono

	Unstand Coeffic	ardized cients			
	В	SE	t	Sig.	95.0% CI
(Constant)	7.21	0.80	8.98	<.001	[5.60, 8.81]
Does the individual have a previous history of mental health hospital admissions?	0.95	1.40	0.68	0.50	[-1.86, 3.76]

Note. Dependent variable = number of sessions

Although the results of the linear regression analysis were not significant, a univariate analysis of variance indicated that the number of sessions of at least one group was significantly different from the other groups. Similar to emergency department visits, the data for hospital admissions was available and categorized into three groups (0 = 0, 1 = 1, 2 = 2 or more). The assumptions for ANOVA were met.

The univariate analysis of variance found that the number of sessions individuals who had experienced one admission (F(1,56) = 3.71, p = .180) or two or more admissions (F(1,56) = -3.10, p = .108) were not significantly different and did not differ from those with zero

admissions. Individuals with two or more admissions did vary significantly from those with one admission (F(1,56) = 6.81, p = .013). The results are presented in Tables 24 and 25, and Figure 2.

Table 24

Multiple Comparisons Between Categorical Number of Hosp. Admits and Number of Sessions										
	Hospitalizations	Hospitalizations	Mean	SE	Sig					
Tukey	.00	1.00	3.71	3E 2.06	0.18					
HSD		2.00	-3.10	1.51	0.11					
	1	2.00	-6.81*	2.32	0.01					

*. The mean difference is significant at the .05 level.

Table 25

Descriptive Statistics for Categorical Number of Mental Health Hospital Admissions

Categorical No. of ED Visits	Mean	SD	n
None	7.21	4.985	39
One	3.50	1.378	6
Two or more	10.31	4.679	13

Note. Dependent variable = Number of Sessions

Figure 2

Number of Sessions by Categorical Number of Mental Health Hospital Admissions



To evaluate whether the individual had a previous history of suicide attempts (0 = No, 1 = Yes) could predict the number of sessions of treatment, a simple linear regression was conducted.

H2.40: A history of suicide attempts will not significantly predict the number of sessions of treatment.

H2.4a: A history of suicide attempts will significantly predict the number of sessions of treatment.

A significant regression was found (F(1,56) = 3.64, p=.062). The R^2 was .061, indicating that a previous history of suicide attempts explained approximately 6.1% of the variance in number of sessions. The results are presented in Tables 26 through 28.

The results of the simple linear regression suggest that a significant proportion of the total variation in number of sessions was predicted by an individual having a previous history of

suicide attempts (F(1,56) = 5.09, p=.028). The R^2 was .06, indicating that a previous history of suicide attempts explained approximately 6% of the variance in number of sessions, and the Adjusted R^2 was .04 (Tables 13 - 15). For the same reasons stated earlier, both the R^2 and Adjusted R^2 are considered appropriate measures.

Table 26

Descriptive Statistics for Previous History of Suicide Attempts (N=58)						
	Mean	SD				
Total number of sessions	7.52	4.99				
Individuals with a previous history of suicide attempts?	43%					

Table 27

Model Summary of Number of Sessions with Previous History of Suicide Attempts as Predictor

R	\mathbb{R}^2	Adj. R ²	SE	F	$d\!f$	Sig.
0.25	0.06	0.04	4.88	3.63	1,56	0.06
N D	1 / 11	1 C	•			

Note. Dependent variable = number of sessions.

Table 28

Coefficients for Previous History of Suicide Attempts

	Unstanc Coeffi	lardized icients			
	В	SE	t	Sig.	95.0% CI
(Constant)	6.46	0.85	7.60	<.001	[4.75, 8.16]
Does the individual have a previous history of suicide attempts?	2.47	1.29	1.91	0.06	[-0.13, 5.06]

Note. Dependent variable = number of sessions

Unfortunately, the data for specific number of suicide attempts was not available to run a univariate analysis of variance. Given the findings for emergency department visits and hospital admissions, this is a question that would benefit from further analysis. The final question asked the extent to which the composite score could predict the number of sessions of treatment, a simple linear regression was conducted.

H2.50: A composite score of the six initial CAMS measures will not significantly predict the number of sessions of treatment.

H2.5a: A composite score of the six initial CAMS measures will significantly predict the number of sessions of treatment.

The results of the simple linear regression suggest that a significant proportion of the total variation in number of sessions was predicted by the composite of the CAMS Initial Session scores (F(1,56) = 21.04, p=.028). The R^2 was .27, indicating that the CAMS Initial Session scores explained approximately 27% of the variance in number of sessions, and the Adjusted R^2 was .26, indicating that the CAMS Initial Session scores explained 26% of the variance (Tables 29 - 31). The R^2 and the Adjusted R^2 are considered appropriate. The regression equation was:

Bconstant + (Number of sessions * BCAMS) = predicted number of sessions

The regression model predicted that for each additional 1-point increase in the CAMS composite score, the individual will likely need .481 additional sessions at The Hope Institute. An example of someone with a composite CAMS score of 23 would be:

Bconstant + (Number of sessions * BCAMS) = predicted number of sessions

-2.45 + (23 * .48) = 8.6 predicted sessions/anticipated visits

Descriptive Statistics for CAMS Initial Session Scores (N=58)		
	Mean	SD
Total number of sessions	7.52	4.99
What was the average initial CAMS composite score?	3.45 (20.7)	0.90 (5.42)

Model Summary of Number of Sessions with CAMS Initial Session Scores as Predictor							
R	\mathbb{R}^2	Adj. R ²	SE	F	df	Sig.	
0.52	0.27	0.26	4.29	21.04	1,56	<.001	
					,		

Note. Dependent variable = number of sessions.

Table 31

Coefficients for CAMS Initial Session Scores

	Unstandardized Coefficients		Standardized Coefficients		
	В	SE	β	t	Sig.
Constant	-2.45	2.24		-1.09	0.28
What is the composite of the CAMS initial scores?	.48	.11	0.52	4.59	<.001

Note. Dependent variable = number of sessions

Although not a research question, additional analysis was conducted by compounding the variables of a history of mental health, history of suicide attmpts, previous emergency department visits for mental health, and hospital admissions for mental helath, there was significance found in the combination of mental health, suicide attempts and ED visits for mental health concerns (F(1,56) = 5.029, p = .029). The results are presented in Tables 32 and 33.

Model	R	R ²	Adj. R ²	SE	F	df	Sig.
1	.289 ^a	0.08	0.07	4.82	5.09	1,56	0.03
2	.319 ^b	0.10	0.07	4.81	1.12	1,55	0.30
3	.422 ^c	0.18	0.13	4.65	5.03	1,54	0.03
4	.425 ^d	0.18	0.12	4.68	0.16	1,53	0.69

Table 32Model Summary for Previous History of Mental Health, Suicide Attempts, ED Visits, andAdmissions

Note. Dependent variable = number of sessions

a. Does the individual have a previous history of mental health?

b. Does the individual have a previous history of mental health and suicide attempts?

c. Does the individual have a previous history of mental health, suicide attempts, and ED visits?

d. Does the individual have a previous history of mental health, suicide attempts, ED visits, and admissions?

		Unstanc Coeffi	lardized icients	Standardized Coefficients			
Model		В	SE	β	t	Sig.	95% CI
1	(Constant)	5.4	1.1	-	4.7	0.000	[3.11, 7.66]
	Previous history of	3.1	1.4	0.29	2.3	0.028	
	mental health						[3.45, 5.83]
2	(Constant)	5.2	1.1		4.6	0.000	[2.93, 7.52]
	Previous history of mental health	2.4	1.5	0.22	1.6	0.120	[-0.65, 5.43]
	Previous history of suicide attempts	1.5	1.4	0.15	1.1	0.295	[-1.34, 4.34]
3	(Constant)	5.6	1.1		5.0	0.000	[3.34, 7.82]
	Previous history of mental health	2.6	1.5	0.24	1.8	0.082	[-0.34, 5.34]
	Previous history of suicide attempts	4.0	1.8	0.40	2.3	0.027	[0.46, 7.54
	Previous ED visits for mental health	-3.8	1.7	-0.38	-2.2	0.029	[-7.21, -0.40]
4	(Constant)	5.5	1.2		4.7	0.000	[3.16, 7.749]
	Previous history of mental health	2.7	1.5	0.26	1.8	0.078	[-0.3.2, 5.81]
	Previous history of suicide attempts	4.3	1.9	0.43	2.2	0.030	[0.43, 8.14]
	Previous ED visits for mental health	-3.4	2.0	-0.34	-1.7	0.096	[-7.41, 0.62]
	Previous hosp admits for mental health concerns	-0.9	2.3	-0.09	-0.4	0.694	[-5.54, 3.71]

Coefficients for Previous History of Mental Health, Suicide Attempts, ED Visits, and Admissions

Research Question 3

3. Was there a significant decrease in the CAMS "Overall Risk of Suicide" scores after the intervention provided at The Hope Institute?

H3o: There will be no significant difference in pre- and post-test CAMS "Overall Risk of Suicide" scores for individuals utilizing The Hope Institute model.

H3a: There will be a significant decrease in post-test CAMS "Overall Risk of Suicide" scores for individuals utilizing The Hope Institute model.

A paired samples t-test was performed to evaluate whether there was a significant decrease in the CAMS "Overall Risk of Suicide" scores between what was reported in the initial session and what was reported in the final session. The range of the scores is from 1 to 5. The assumptions for a paired samples t-test were met, which include that the independent variable is continuous, the independent variable has two groups that are related, there are no outliers, and there is normal distribution.

The results indicated that there was a significant decrease in risk of suicide scores between initial CAMS "Overall Risk of Suicide" item scores (M = 2.82, SD = 1.22) and final CAMS "Overall Risk of Suicide" scores (M = 1.47, SD = .76); t(56) = 8.057, p = .025. The effect size was d = 1.321, which is strong, given that strong is anything above .8 and other studies demonstrated effect sizes of d = .25 for suicidal ideation (Swift et al., 2021). The results are presented in Tables 34 through 37.

Paired Samples Statistics for Overall Risk of Suicide

		Mean	N	SD	SE
Pair 1	Initial overall risk of suicide	2.8	57.0	1.2	0.2
	Final overall risk of suicide	1.5	57.0	0.8	0.1

Furea samples Test for Overall Risk of suicide							
Paired Differences							
	Mean	SD	SE	95% CI	t	df	Sig.
Overall Risk of Suicide	1.3	1.3	0.2	[1.0, 1.7]	8.1	56	<.001

Paired Samples Test for Overall Risk of Suicide

Table 36

Paired samples correlation for overall risk of suicide

				Significance		
		N	Correlation	One-Sided p	Two-Sided p	
Pair 1	Overall risk of suicide initial and final session	57	0.26	0.025	0.051	

Table 37

Paired Samples Effect Size for Overall Risk of Suicide

		Standardizer	Point Estimate	95% CI
Overall risk of suicide	Cohen's d	1.02	1.32	[0.96, 1.68]
	Hedges' correction	1.03	1.30	{0.95, 1.65]

Given the effect size of hope/hopelessness in the literature, d = .88 (Swift et al., 2021),

this was compared as well. There was a significant decrease in risk of suicide scores, range 1 to 5, between initial hopelessness scores (M = 3.526, SD = 1.297) and final hopelessness scores (M = 1.719, SD = .881); t(56) = 9.875, p < .001, with an effect size of d = 1.630 (Tables 38 - 41).

Paired Sa	mples Statistics for Hopelessnes	<i>S</i>			
		Mean	N	SD	SE
Pair 1	Hopelessness (Initial)	3.5	57.0	1.3	0.2
	Hopelessness (Final)	1.7	57.0	0.9	0.1

39

Paired Samples Test for Hopelessness							
Paired Differences							
	Mean	SD	SE	95% CI	t	df	Sig.
Hopelessness	1.8	1.4	0.2	[1.4, 2.2]	9.9	56	<.001

Paired Samples Correlation for Hopelessness

				Sig.		
		Ν	Correlation	One-Sided p	Two-Sided p	
	Hopelessness initial and			_	_	
Pair 1	final session	57	0.24	0.04	0.07	

Table 41

Paired Samples Effect Size for Hopelessness

		Standardizer	Point Estimate	95% CI
Hopelessness	Cohen's d	1.11	1.63	[1.23, 2.02]
	Hedges' correction	1.12	1.61	[1.21, 2.00]

Research Question 4

4. Was there a significant difference in the five CAMS item-level measures of psychological pain, stress, agitation, hopelessness, and self-hate, between the Initial Session scores and the Final Session scores?

A paired samples t-test was performed for each of the five independent variables to evaluate whether there was a significant change in the CAMS item-level scores between what was reported in the initial session and what was reported in the final session. The three assumptions for a paired samples t-test were met for all calculations. These assumptions are independence, normality, and no extreme outliers. H4o: There will be no significant changes within initial and final CAMS scores for individuals treated utilizing The Hope Institute model.

H4a: There will be significant changes within initial and final CAMS scores for

individuals treated utilizing The Hope Institute model.

A paired samples t-test was performed to evaluate whether there was a significant change between the CAMS initial session item-level score for psychological pain and the CAMS final session item-level score for psychological pain.

The results indicated that there was a significant decrease for psychological pain scores between the CAMS initial session (M = 3.544, SD = 1.119) and the CAMS final session (M = 1.895, SD=.994); (t(57) = 9.768, p<.001). The effect size was d = 1.294, which is large, as defined at above .8 (Tables 42 – 45).

tics for P.	sychologic	al Pain					
			Mean	N		SD	SE
al pain (I	nitial)		3.5	57.0		1.1	0.1
al pain (F	Final)		1.9	57.0		1.0	0.1
or Psycho	ological Pa	iin					
Mean	SD	SE	95% (CI	t	df	Sig.
1.6	1.3	0.2	[1.3, 2	.0]	9.8	56	<.001
elation for	· Psycholog	gical Pain					
	al pain (In al pain (In al pain (F or Psycho Mean 1.6	al pain (Initial) al pain (Final) <u>or Psychological Po</u> Mean SD <u>1.6 1.3</u>	al pain (Initial) al pain (Final) <u>or Psychological Pain</u> Mean SD SE 1.6 1.3 0.2 Plation for Psychological Pain	Mess for Psychological Painal pain (Initial)3.5al pain (Final)1.9Or Psychological Pain1.9MeanSDSE95% (1.61.30.21.61.30.2elation for Psychological Pain	$\begin{array}{c} \underline{lcs \ for \ Psychological \ Pain} \\ \hline Mean \qquad N \\ al pain (Initial) & 3.5 & 57.0 \\ al pain (Final) & 1.9 & 57.0 \\ \hline \underline{lcor \ Psychological \ Pain} \\ \hline Mean \qquad SD \qquad SE \qquad 95\% \ CI \\ \hline 1.6 \qquad 1.3 \qquad 0.2 \qquad [1.3, 2.0] \\ \hline elation \ for \ Psychological \ Pain \end{array}$	MeanMeanNal pain (Initial) 3.5 57.0 al pain (Final) 1.9 57.0 Or Psychological PainMeanSDSE95% CIt1.6 1.3 0.2 $[1.3, 2.0]$ Plation for Psychological Pain	Mean N SDal pain (Initial) 3.5 57.0 1.1 al pain (Final) 1.9 57.0 1.0 Or Psychological PainMean SDSE 95% CI t df 1.6 1.3 0.2 $[1.3, 2.0]$ 9.8 56

				Si	g.
		Ν	Correlation	One-Sided p	Two-Sided p
Pair 1	Psychological pain initial				
I ull I	and final session	57	0.28	0.02	0.04

Pairea Sampies Ejjeci Size jor Psychological Pain								
		Standardizer	Point Estimate	95% CI				
Psychological pain	Cohen's d	1.27	1.29	[0.94, 1.64]				
	Hedges' correction	1.29	1.28	[0.93, 1.62]				

Paired Samples Effect Size for Psychological Pain

A paired samples t-test was performed to evaluate whether there was a significant change between the CAMS initial session item-level score for stress and the CAMS final session itemlevel score for stress.

The results indicated that there was a significant decrease for stress scores between the CAMS initial session (M = 4.123, SD = .965) and the CAMS final session (M = 2.474, SD = 1.104); (t(57) = 9.560, p < .001). The effect size was d = 1.266, which is a large effect size. The results are presented in Tables 46 through 49.

Table 46

Paired	Samples Stat	tistics for Stress						
			Ν	lean N	,	SD		SE
Pair 1	Stress	(Initial)	2	4.1 57.	0	1.0		0.1
	Stress	(Final)		2.5 57.	0	1.1		0.1
Table	17							
I able 4	4/							
Paired	Samples Tes	t for Stress						
	Mean	SD	SE	95	% CI	t	df	Sig.
Stress	1.6	1.3	0.2	[1.	95% CI t [1.3, 2.0] 9.8		56	<.001
Table 4	48							
Paired	Samples Cor	rrelation for Stress						
		V				S	ig.	
			N	Correlation	One-S	Sided p	Tw	o-Sided p
Pair 1	Stress initia	l and final session	57	0.21	0.	06		0.11

Paired Samples Effect Size for Stress							
		Standardizer	Point Estimate	95% CI			
Stress	Cohen's d	1.30	1.27	[0.91, 1.61]			
	Hedges' correction	1.32	1.25	[0.90, 1.59]			

A paired samples t-test was performed to evaluate whether there was a significant change between the CAMS initial session item-level score for agitation and the CAMS final session item-level score for agitation.

The results indicated that there was a significant decrease for agitation scores between the CAMS initial session (M = 2.912, SD = 1.258) and the CAMS final session (M = 1.807, SD = 1.060); (t(57) = 5.668, p < .001). The effect size was d = .751, which is medium and approaching large. The results are presented in Tables 50 through 53.

Table 50

Table 49

Paired Sa	mples Statis	stics for Agitation						
				Mean	Ν	SD		SE
Pair 1	Agitation	n (Initial)		2.9	57.0	1.3		0.2
	Agitation	n (Final)		1.8	57.0	1.1		0.1
Table 51								
Dained Se	manlas Tast	for A gitation						
Fuirea Sa	imples lesi	or Aguation						<u> </u>
	Mean	SD	SE		95% CI	t	df	Sig.
Agitation	1.1	1.5	0.2		[0.7, 1.5]	5.7	56	<.001
Table 52Paired Sa	umples Corr	elation for Agitation						
						Si	g.	
			Ν	Correlatio	on One-S	ided p	Two	-Sided p
Pair 1 A	gitation init	ial and final session	57	0.20	0.	07		0.13

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		Standardizer	Point Estimate	95% CI
Agitation	Cohen's d	1.47	0.75	[0.45, 1.04]
	Hedges' correction	1.49	0.74	[0.45, 1.03]

Paired Samples Effect Size for Agitation

A paired samples t-test was performed to evaluate whether there was a significant change between the CAMS initial session item-level score for hopelessness and the CAMS final session item-level score for hopelessness.

The results indicated that there was a significant decrease for hopelessness scores

between the CAMS initial session (M = 3.526, SD = 1.260) and the CAMS final session (M =

1.719, SD = .881); (t(57) = .881, p < .001). The effect size was d = 1.308, which is a large effect

size. The results are presented in Tables 38 through 41 (reprinted for ease of reading).

Table 38

Paired Samp	les Statistics j	for Hopelessness						
			Mean	Ν	SL)		SE
Pair 1	Hopelessnes	s (Initial)	3.5	57.0	1.3	3		0.2
	Hopelessnes	s (Final)	1.7	57.0	0.9)		0.1
Table 39								
Paired Samp	les Test for H	opelessness						
	Mean	SD	SE	95%	6 CI	t	df	Sig.
Hopelessness	1.8	1.4	0.2	[1.4,	, 2.2]	9.9	56	<.001

Paired Samples	Correlation for	Hopelessness

				Significance		
		N	Correlation	One-Sided p	Two-Sided p	
	Hopelessness initial and					
Pair 1	final session	57	0.24	0.04	0.07	

		Standardizer	Point Estimate	95% CI
Hopelessness	Cohen's d	1.11	1.63	[1.23, 2.02]
	Hedges' correction	1.12	1.61	[1.21, 2.00]

Paired Samples Effect Size for Hopelessness

A paired samples t-test was performed to evaluate whether there was a significant change between the CAMS initial session item-level score for self-hate and the CAMS final session item-level score for self-hate.

The results indicated that there was a significant decrease for self-hate scores between the CAMS initial session (M = 3.746, SD = 1.199) and the CAMS final session (M = 2.281, SD = 1.161); (t(57) = 8.118, p < .001). The effect size was d = 1.075, which is a large effect size. The results are presented in Tables 54 through 57.

Paired S	Samples Stat	istics for S	elf-hate							
					Mean	N		SD		SE
Pair 1	Self-hat	e (Initial)			3.7	57.0)	1.2		0.2
	Self-hat	e (Final)			2.3	57.0)	1.2		0.2
Table	55									
Paired	Samples Tes	st for Self-I	hate							
		Mean	SD	SE	95%	CI	t	d_{j}	f	Sig.
Self-ha	ate	1.5	1.4	0.2	[1.1,	1.8]	8.1	50	5	<.001
Table Paired	Table 56 Paired Samples Correlation for Self-hate									
								Si	g.	
				N	Correla	tion	One-Sic	led p	Two	Sided p
Pair 1	Self-hate in	itial and fi	nal session	57	0.33	5	0.0	1	().01
				130						
Table 57

		Standardizer	Point Estimate	95% CI
Self-hate	Cohen's d	1.36	1.08	[0.75, 1.40]
	Hedges' correction	1.38	1.06	[0.74, 1.38]

Paired Samples Effect Size for Self-hate

Research Question 5

5. What are the inter-item correlations of the six CAMS measures of psychological pain, stress, agitation, hopelessness, self-hate, and overall suicide risk among the initial item scores and among the final item scores?

H50: There will be no inter-item correlations among initial CAMS item scores and among final CAMS item scores for individuals treated utilizing The Hope Institute model.

H5a: There will be positive, but weak or stronger inter-item correlations among initial CAMS item scores and among final CAMS item scores for individuals treated utilizing The Hope Institute model.

A Pearson correlation coefficient was performed to evaluate the relationships between CAMS scores for psychological pain, stress, agitation, hopelessness, self-hate, and overall risk of suicide for the initial scores. The inter-item correlations for the initial scores were consistently significant and positive. Psychological pain (M = 3.552, SD = 1.111) had strong positive correlations with stress (r(56) = .514), agitation (r(56) = .602), hopelessness (r(56) = .600), and overall risk of suicide (r(56) = .703) with a *p*-value of p < .001. Self-hate was also a positive correlation of moderate strength and significant, r = .312, p = .017. Stress (M = 4.121, SD = .957) maintained moderate positive correlations with the four remaining factors: agitation (r(56)=.422, p < .001), hopelessness (r(56) = .388, p = .003), self-hate (r(56) = .382, p = .003), and overall risk of suicide (r(56) = .398, p = .002). The correlations between agitation (M = 2.948, SD = 1.276) and the remaining three continued to be positive and significant at p < .001, with self-hate being moderate r(56) = .475, and strong Pearson Correlations of r(56) = .572 for hopelessness, and r(56) = .630 for overall risk of suicide. Hopelessness (M = 3.534, SD = 1.287) maintained strong positive and significant correlations (p < .001) with self-hate r(56) = .517 and overall risk of suicide r(56) = .570. The final correlation between self-hate (M = 3.733, SD = 1.193) and overall risk of suicide (M = 2.819, SD = 1.209) was positive and moderately significant (r(56) = .474, p < .001), although it was on the verge of strong. The results are presented in Tables 58 through 60.

Table 58

	Ν	Mean	SD		
Psychological pain	58	3.6	1.1		
Stress	58	4.1	1.0		
Agitation	58	2.9	1.3		
Hopelessness	58	3.5	1.3		
Self-hate	58	3.7	1.2		
Overall risk of suicide	58	2.8	1.2		
Valid N	58				

Descriptive Statistics for the Five Initial Session Item-level CAMS Scores

Table 59

		Psychological pain	Stress	Agitation	Hopelessness	Self-hate
Psychological	Pearson Correlation	1		U	1	
Pain	Sig. (2-tailed)					
	Sum of Squares and Cross-products					
	Covariance					
	Ν					
Stress	Pearson Correlation	.514**				
	Sig. (2-tailed)	0.00				
	Sum of Squares and Cross-products	31.14				
	Covariance	0.55				
	Ν	58.00				
Agitation	Pearson Correlation	.602**	.422**			
	Sig. (2-tailed)	0.00	0.00			
	Sum of Squares and Cross-products	48.66	29.36			
	Covariance	0.85	0.52			
XX 1	N D	58.00	58.00	**		
Hopelessness	Pearson Correlation	.600	.388	.572		
	Sig. (2-tailed)	0.00	0.00	0.00		
	Sum of Squares and Cross-products	48.90	27.26	53.60		
	Covariance	0.86	0.48	0.94		
	Ν	58.00	58.00	58.00		
Self-hate	Pearson Correlation	.312*	.382**	.475**	.517**	
	Sig. (2-tailed)	0.02	0.00	0.00	0.00	
	Sum of Squares and Cross-products	23.55	24.87	41.20	45.28	
	Covariance	0.41	0.44	0.72	0.79	
	Ν	58.00	58.00	58.00	58.00	
Rate overall	Pearson Correlation	.703**	.398**	.630**	$.570^{**}$.474**
risk of suicide.	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00
	Sum of Squares and Cross-products	53.79	26.27	55.46	50.61	38.94
	Covariance	0.94	0.46	0.97	0.89	0.68
	Ν	58	58	58	58	58

Correlations Among the Five CAMS Initial Session Item-level Scores

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 60

		Psychological pain	Stress	Agitation	Honelessness	Self-
Psychological Pain	Correlation Coefficient Sig. (2-tailed)	pun	Duess	rigitution	Toporessitess	nuce
	Ν					
Stress	Correlation Coefficient	.497**				
	Sig. (2-tailed)	0.00				
	Ν	58				
Agitation	Correlation Coefficient	.591**	.423**			
	Sig. (2-tailed)	0.00	0.00			
	Ν	58	58			
Hopelessness	Correlation Coefficient	.610**	.358**	.546**		
	Sig. (2-tailed)	0.00	0.01	0.00		
	Ν	58	58	58		
Self-hate	Correlation Coefficient	.325*	.423**	.438**	.503**	
	Sig. (2-tailed)	0.01	0.00	0.00	0.00	
	Ν	58	58	58	58	
Overall risk of suicide	Correlation Coefficient	.707**	.378**	.616**	.580**	.470**
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00
	Ν	58	58	58	58	58

Spearman's rho Correlations Among the Five CAMS Initial Session Item-level Scores

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

A Pearson correlation coefficient was performed to evaluate the relationships between CAMS scores for psychological pain, stress, agitation, hopelessness, self-hate, and overall risk of suicide for the final scores. The inter-item correlations for the final scores were consistently significant (p < .001) with strong positive Pearson Correlations, with the exception of psychological pain (M = 1.895, SD = .994) and self-hate, which was moderate r(56) = .444. Psychological pain had strong positive correlations with stress (r(56) = .583), agitation (r(56) = .523), hopelessness (r(56) = .577), and overall risk of suicide (r(56) = .565) with a p-value of p < .001. Self-hate was also a positive correlation of moderate strength and significant, r = .312, p = .017. Stress (M = 2.474, SD = 1.104) maintained strong positive correlations with the four remaining factors: agitation (r(56) = .538), hopelessness (r(56) = .635), self-hate (r(56) = .689), and overall risk of suicide (r(56) = .559). The correlations between agitation (M = 1.807, SD = 1.060) and the remaining three continued to be significant at p < .001 with a strong positive correlation for hopelessness (r(56) = .667), self-hate r(56) = .611, and overall risk of suicide r(56) = .805. Hopelessness (M = 1.719, SD = .881) maintained strong positive and significant correlations (p < .001) with self-hate r(56) = .689 and overall risk of suicide r(56) = .603. The final correlation between self-hate (M = 2.281, SD = 1.161) and overall risk of suicide (M = 1.474, SD = .758) was positive and strong (r(56) = .597, p < .001).

The five assumptions for a Pearson Correlation were met for both calculations. These assumptions are level of measurement, linear relationship, normality, related pairs, and no outliers. The results are presented in Tables 61 through 63.

Table 61

zeseriptive statistics jet	inte i tre	1 111011 202210	it fremt tevet er milb beeves
	N	Mean	SD
Psychological pain	58	1.9	1.0
Stress	58	2.5	1.1
Agitation	58	1.8	1.1
Hopelessness	58	1.7	0.9
Self-hate	58	2.3	1.2
Overall risk of suicide	58	1.5	0.8
Valid N	58		

Descriptive Statistics for the Five Final Session Item-level CAMS Scores

Table 62

		Psychological	a.		** 1	0.101
Psychological	Pearson	pain	Stress	Agitation	Hopelessness	Self-hate
Pain	Correlation					
	Sig. (2-tailed)					
	Sum of Squares					
	and Cross-products					
	Covariance					
Stress	Pearson					
	Correlation	.583**				
	Sig. (2-tailed)	0.00				
	Sum of Squares and Cross-products	35.84				
	Covariance	0.64				
	Ν	57.00				
Agitation	Pearson Correlation	.523**	.538**			
	Sig. (2-tailed)	0.00	0.00			
	Sum of Squares and Cross-products	30.84	35.21			
	Covariance	0.55	0.63			
	Ν	57.00	57.00			
Hopelessness	Pearson Correlation	.577**	.635**	.667**		
	Sig. (2-tailed)	0.00	0.00	0.00		
	Sum of Squares and Cross-products	28.32	34.58	34.91		
	Covariance	0.51	0.62	0.62		
0 10 1	N	57.00	57.00	57.00		
Self-hate	Pearson Correlation	.444**	.689**	.611**	.689**	
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	
	Sum of Squares and Cross-products	28.68	49.42	42.09	39.49	
	Covariance	0.51	0.88	0.75	0.71	
D . 11	N	57.00	57.00	57.00	57.00	
Rate overall risk of suicide.	Pearson Correlation	.565**	.559**	.805**	.603**	.597**
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00
	Sum of Squares and Cross-products	23.84	26.21	36.21	22.58	29.42
	Covariance	0.43	0.47	0.65	0.40	0.53
	Ν	57	57	57	57	57

Correlations Among the Five CAMS Final Session Item-level Scores

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 63

		Psychological pain	Stress	Agitation	Hopelessness	Self-hate
Psychological	Correlation Coefficient	I		8	I Contraction	
Pain	Sig. (2-tailed)					
	Ν					
Stress	Correlation Coefficient	.655**				
	Sig. (2-tailed)	0.00				
	Ν	57				
Agitation	Correlation Coefficient	.575**	.537**			
	Sig. (2-tailed)	0.00	0.00			
	Ν	57	57			
Hopelessness	Correlation Coefficient	.612**	.629**	.760**		
	Sig. (2-tailed)	0.00	0.00	0.00		
	Ν	57	57	57		
Self-hate	Correlation Coefficient	.510**	.680**	.621**	.745**	
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	
	Ν	57	57	57	57	
Overall risk of	Correlation Coefficient	.574**	.563**	.804**	.715**	.608**
suicide	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00
	Ν	57	57	57	57	57

Spearman's rho Correlations Among the Five CAMS Final Session Item-level Scores

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Chapter 5. Discussion

5.1 Summary of Findings: Outcomes and Implications

In this section, the major findings of each of the five research questions will be discussed with attention given to the implications of the results.

Question 1

The first question, which is descriptive, is an exploration of the data and breaks it down into five categories: demographics, mental health history, CAMS initial and final scores, treatment and dosage, and closure and post care. Overall, the data was rich, although the demographic data was weak, as it was limited to age and gender. Participants in the sample ranged in age from 11 to 53, with a mean of 19.97 years. Participants were 57% female and 43% male. The significance lies in the implication that the intervention was equally effective across participants. The ability to apply a model effectively to preteens through middle aged adults is important as it creates access among age groups, as opposed to being age specific. The same holds true for the ability to produce significant results for men and women, as seen in this study. The fact that the results are not gender specific indicate that the model was effective among both groups in this study.

Data about the mental health history of participants becomes very rich. Sample characteristics show that 31% of participants did not have a previous mental health diagnosis. This specific data closely aligns with similar research from Limpari (2016), which found that 38.1% of those in a suicidal crisis did not have an underlying mental health condition. An important aspect of this point lies in its discrepancy with current cultural beliefs and speaks to one of the many reasons to de-stigmatize the topic of suicide. Suicide can affect anyone. Sample characteristics also indicate that a large percentage of participants did not have a history of suicide attempts (43%), a history of mental health related emergency department visits (41%) or a history of hospitalizations for mental health reasons (33%). Even if these groups have a significant overlap, it indicates that roughly half of the people coming for services are not help seeking for the first time. This implies that a large number of individuals in the study have had to seek crisis services on multiple occasions, demonstrating long-term recidivism, or return to services.

The treatment and dosage data shows that the participants were able to appropriately address the issue of suicide and achieve resolution in an average of 7.52 sessions over an average of 5.6 weeks. In simple terms, people in this sample who struggled with suicide were able to get better and do it relatively quickly. This is further highlighted with closure and post care results, showing a 93% success rate, which translates to most people having the ability to return to their life without ongoing concerns of suicide. In short, these results demonstrate an effective, shortterm, suicide specific, outpatient program that was effective for the participants. It answers the call for new and novel approaches in suicide intervention (Stanley & Mann, 2020) discussed in chapter 2. The successful program completion rates and recidivism are significant because there is very little available data on success rates after working with suicidal individuals. Most people discharged from hospital settings are referred to outpatient centers using treatment as usual, with no suicide specific treatment and no ongoing measures. The ability to provide a short-term outpatient treatment intervention is impactful for the individuals who are struggling and equally impactful for the family and friends that struggle with them. The 5% recidivism rate at 90 days, per self-report and from medical records, is also a strong point, showing that people not only got

better, but stayed better and did not continue to struggle with serious thoughts of suicide. Sample characteristics also found that 79% of participants were recommended for on-going care. This means that although follow-up care was needed for most participants, those who did not need ongoing care were not forced into a system that is already overburdened and stressed.

The sample characteristics also included rich descriptive data about CAMS scores. These data points were examined independently and as composite scores. In general, on a one to five scale, most initial scores averaged above 3 while most final scores were below 2.5. It was interesting to note that the lowest average score at both pre and post-test was "overall risk of suicide." Initial scores on most CAMS items were around 3.5 and the score for risk of suicide was 2.8. Similarly, most final scores were around 2 and the risk of suicide was 1.47. This indicates that there are typically emotional factors in the individual's life that are more difficult, or escalated, than the thoughts of suicide. This premise aligns with the argument that most people who are suicidal do not actually want to die, but rather escape the drivers, such as psychological pain, stress, and hopelessness. To put it simply, suicide is often about escapism when other options do not appear available.

Question 2

This is a complex question that examined the ability of five separate variables to predict length of treatment. The predictor variables were a previous mental health history, a history of suicide attempts, emergency department visits for mental health, hospital admissions for mental health, and a composite score for the initial CAMS measures. Only two of these variables were able to significantly predict length of treatment: previous mental health history and composite CAMS score. Previous mental health history explained 8.3% of the variance in treatment length. This is important and speaks to the relationship in a dialectical nature. On one hand, it addresses the correlation between mental health history that has been found in previous research (De Luca et al., 2016; Hortel et al., 2015; San Too et al., 2019, where a majority of individuals struggling with suicide have a mental health history and most individuals who complete have a previous mental health diagnosis. Conversely, the data also demonstrates that while significant, previous history accounts for a relatively small variance, reinforcing the fact that a previous mental health history is not a primary driving factor.

Composite CAMS score was the second item to predict treatment length and was much more impactful, accounting for 27% of the variance. Because CAMS scores are measured in terms of "right now," the finding supports the greater utility of a measure of the current situation to predict treatment length, rather than previous history. As such, this finding can provide insight into the development of an algorithm to assist in predicting treatment length for individuals starting treatment.

The other predictor variables for length of treatment focused on previous history. These included mental health related emergency department visits (0% of variance), hospital admissions (0% of variance), and history of suicide attempts (6.1% of variance). None of these predictors was significant and they had no ability to predict length of treatment among participants in this study. This finding was unexpected and is not congruent with previous research (Canner et al., 2018; Goldman-Mellor et al, 2019; Olfson et al., 2021).

	Variance
Composite CAMS Score	27.0%
Previous mental health history	8.3%
Previous history of suicide attempt	6.1%
Previous history of ED visits	0.0%
Previous hospital admission for MH	0.0%

Variance in Length of Treatment, as Accounted for by Mental Health Factors

Table 64

The inability of ED visits, admissions, and history of attempts to predict treatment length has important implications for how we look at mental health. These findings demonstrate that although we need to look at the person holistically, certain factors may not influence suicide in the way that we might believe. A simple example is that "common sense" would indicate that a history of hospitalizations could be impactful on suicide treatment, while the actual data does not indicate that this is true for those in this study. It may also be that the way these variables were measured was not sufficient to provide results consistent with previous research. It could also be that previous research was examining these in relation to attempt and not treatment outcomes (Czyz & King, 2015; Forte et al., 2019; Yen et al., 2013).

The finding that ED visits, admissions, and history of attempts did not predict treatment outcome prompted additional analyses. In the original regression equation, ED visits and hospitalization were entered as 'yes/no.' In the additional analyses, ED visits and hospitalizations were entered using categories, based on number of visits $(0, 1, 2\pm)$ instead of yes/no, as that data was available. Results indicated that there was no significant difference in length of treatment between those with no visits and those with one visit or two or more visits (ED or admissions). However, both analyses found significant differences between those with one and those with two or more. The average number of sessions for an individual with two or more ED visits or admissions was significantly higher than those with one ED visit or admission. This may have important implications for how treatment for individuals who demonstrate recidivism in EDs and inpatient settings, as recidivism (2 or more visits) is different than single use. These results demonstrate that there is a significant difference in the length of treatment needed for those who have differing numbers of ED visits and admissions. This will require further exploration in order to be understood in a way that can be clinically useful.

Question 3

Results found strong support for a significant decrease in the CAMS "Overall Risk of Suicide" scores after the intervention provided at The Hope Institute. The decrease in scores was both statistically significant and clinically meaningful. Statistical significance means that there is a difference between the initial scores and the final scores, meaning that the intervention at The Hope Institute had an impact on the scores. The effect size helps us to understand the magnitude of the difference. This data had an effect size (d = 1.321) that is considered large, with large being defined as anything above 0.8. Another way to interpret this effect size is that d = 1.321 is roughly equivalent to the 90% percentile, meaning that the average final score exceeds the scores of 90% of the initial scores. Quite simply, the treatment model was effective for the participants of this study.

This may be the single most important finding in this study because it demonstrates that the participants got better, and suicidal risk decreased. This is a significant finding on several levels. First, it means that suicidal individuals of all ages and genders can get better in an outpatient setting. This alone has several implications. The first is the use of outpatient settings, which allows people to maintain access to their natural environment and natural supports. It means that the individual can minimize the impact on their life, potentially continuing to work or go to school, and not falling behind, which could have the effect of increasing one or more of their stressors. This also means that they are experiencing treatment and healing in their natural environment and adapting and adjusting in that environment, which is sustainable. Although an inpatient facility is necessary in some cases, it can also create difficulty for individuals when they are reintroduced to their environment.

Much of the data on suicide is extrapolated from crisis scenarios, hospitalizations, and completions, with very little data following individuals through treatment. This research shown provides insight from help seeking through program completion, with outcome numbers for successful program completions as well as those referred on to higher levels of care or struggling with recidivism.

Another impact of outpatient treatment is financial, as the treatment is expensive and the individual may also miss work or cause loved ones to miss work, increasing the financial burden by increasing cost and limiting income. On average, the cost for treatment at the Hope Institute is about half of the cost of one emergency department visit alone, much less the cost of the inpatient programming. As one of the top stressors for individuals in the US is money, the ability to minimize this factor in treatment is important.

The fact that this model works has strong implications system wide. It is impactful for individuals because it provides hope and healing and does so with a minimal impact on their daily lives. The impact for families is immense as it provides treatment for loved ones and peace of mind that they are getting treatment and safe. The findings of this study are widely applicable to the clinical field, the medical service delivery model, education, government, private sector business and insurance industry, and private citizens.

The findings from this study are applicable to the clinical mental health field in that they demonstrate a way to implement suicide specific programs that can be effective and reproducible. This study shows movement in not only developing, but also implementing new models to treat suicidality, as identified by Jobes (2023), Stanley and Mann (2020), and Linehan (1993a). Mental health Clinicians can continue to learn and utilize CAMS, DBT, and other models to integrate into practice, but available research finds that most clinicians do not feel prepared or want to do this work (Shannonhouse al, 2018). The model used in this study provides an avenue for specialization that can provide better and more accessible care. There can also be an impact on service delivery models within medicine, as we know that most systems tend to rely on medication and triage. The Hope Institute delivery model can help to relieve the burden on emergency departments and first responders who are not adequately trained for this type of work. This model alleviates wait times by decreasing demand in the emergency department, while also alleviating wait times for those struggling with ideation by setting next day appointments, rather than hours in a waiting room, often exacerbating conditions with stress. The model has measurable outcomes and creates stabilization before referring to other services.

Implications for education include the ability for counseling programs to start to address suicide treatment differently than treatment as usual and to begin to standardize suicide as an area of specialty. With the creation of more suicide specific programs, including The Hope Institute, it could provide internship opportunities to work with this population and to gain direct experience. The integration of this material also moves toward building and integrating acute

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models of care, helping to disprove the concept that suicide is indicative of persistent mental illness.

The implications for government are tremendous, as it paves the way to address suicide as an issue of its own, rather than continuing to simply categorize it as mental health and assume that treatment as usual will somehow stem the tide. This allows government agencies at the federal, state, and local level to create expectations for treatment to assist their communities in times of need. The data creates a framework from which they can build programs that go beyond triage and treat the underlying drivers to help keep people safe moving forward.

Private sector businesses and the insurance industry, in particular, can provide true crisis treatment instead of triage for their customers and begin to help at a time in which people are desperate and looking for answers. From a financial perspective, nearly 100 billion dollars is lost each year to suicide and ideation. Of the approximately \$94 billion estimated cost of suicide per year, the medial cost is approximately 3% while the other 97% is lost productivity, a cost that burdens business and our economy. Thus, businesses have a financial stake in the development and support of suicide intervention programs from a financial aspect.

For the public at large, the findings from this study provide hope, hope that there is help for the one area of mental health that is, by its nature, life threatening. This model creates accessibility without the complications of emergency rooms or inpatient care. The model also treats suicide as an acute and specific issue, allowing those who do not need ongoing care or medication to avoid those modalities of treatment. This provides a normality to times of distress and difficulty without attaching an ongoing label, therefore assisting in destigmatization.

Question 4

Question four explored whether there was a significant difference in the five CAMS item-level measures of psychological pain, stress, agitation, hopelessness, and self-hate, between Initial and Final Sessions. All five variables demonstrated statistically significant decreases (p < .001), with effect sizes ranging from a low of <u>d</u> = .751 to a high of <u>d</u> = 1.308. Four of the five effect sizes were about <u>d</u> = .8, which are considered large. In short, the focused interventions of The Hope Institute were effective, and the differences made were large.

This information is important because it shows that the individuals were able to address the items, which are typically related to their reasons for being suicidal, in the course of treatment and make progress towards their goals in a way that helped to decrease suicidal ideation. Framing this in the CAMS surveys as "Dealing with the items" does not necessarily mean resolving them, but learning to manage them, or the stress related to them, in a way that is sustainable and no longer overwhelming to the point of suicidal thoughts.

The implications of this are significant for the individual, as they are able to see progress, build skills, create resilience, and gain confidence in their abilities. For those with mental health conditions, it can show that progress is possible and provides hope not only for life, but for treatment. For those without mental health conditions, the intervention may give them the skills to get though a unique situation that they otherwise may not have sought help for. The implications for ongoing mental health professionals include starting with a client that has graduated from The Hope Institute program, is stable, and potentially has a starting point with insight for ongoing work. There is also an implication for the study and treatment of suicide, in that we are starting to understand that suicide is not solely associated with X disorder but can be associated with becoming too overwhelmed with any one or a variety of factors in our life.

Question 5

In exploring the inter-item correlation among CAMS measures in the initial and final scores all were positively correlated and correlations were consistently statistically significant. Of the 15 initial scores, eight of the correlations were strong and seven were moderate. Of the final scores, 14 of the 15 were strong with only one being moderate. This supports the alternative hypothesis of inter-item correlation.

The implication lies in the evident impact of each score on the others, both during the initial session and final session. The strongest correlations were those that included the scores of It is also interesting that psychological pain, overall risk of suicide, and hopelessness were common factors in 6 of the strongest correlations, three of those being with each other. In other words, the ties between suicide risk, hopelessness, and psychological pain were clear for participants in this study and speaks to the interrelatedness in how these three variables affect the human condition.

The correlations grew stronger in the final session. In the initial session, 8 of 15 correlations were over .500, whereas in the final session 14 of 15 were over .500. In the correlations from both the initial session and the final session, hopelessness stood out as having consistently strong correlations with all of the other factors. This may imply that when we are doing better, there is more congruency of hope (decreased hopelessness) with emotions and less escapism, through wanting to die. There were also significant increases in self-hate correlations to other factors, which would imply that when our negative moods decrease, our self-hate also decreases, showing the relationship between mood and self-esteem. These also substantiate

decades of research on self-esteem and self-image, and the interrelated impacts of mood (Sowislo & Orth, 2013.

A General Outcome Regarding Technology

Although this research was not about technology or artificial intelligence, it does lend itself to integration of tools to help predict course or length of treatment, and even moves towards prediction of items like recidivism. As fascinating as this may be, it is also equally fascinating that of the 58 people engaged in this study, none of them chose to participate through telehealth, which was an available option. Telehealth was available for a variety of reasons, including access and equity, and research demonstrates that telehealth can be equally effective to in-person services (Lee et al., 2022).

Although the question was not asked and data points were not gathered, it may be subtly implied that the interpersonal connection of sitting with someone was important, as there were choices to sit, rather than login, with every interaction. The choice for in-person sessions aligns with the long-established research on the therapeutic relationship between client and clinician. "Common factors such as empathy, warmth, and the therapeutic relationship have been shown to correlate more highly with client outcome than specialized treatment interventions" (Lambert & Barley, 2001).

Technology and artificial intelligence may be able to augment therapeutic work, including increasing efficiency and helping with predictive outcomes, but it will likely not be able to replicate or replace the personal connections that are needed on a basic level. Evidence shows that newborns who experience skin to skin contact with their mothers immediately after birth transition to newborn life with greater respiratory, temperature, and glucose stability as well as significantly less crying, which indicates decreased stress (Phillips, 2013). Similarly, interaction through play is essential in developing social and emotional ties between children and parents (Milteer & Ginsburg, 2012). These facts speak to the importance of human interaction and connection with our growth and development, especially in times of need, which may not be able to be replaced by technology. In an age of technology, when most communication is conducted through social media and technological medium, clients chose to do this work in-person.

5.2 Limitations and Future Research

5.2.1 Demographics

Although this study has significant value for validating a model for an outpatient intervention for suicide, there are limitations that warrant acknowledgment and consideration when interpreting the results. Although The Hope Institute draws clients from the general public, there are potential limitations to the sample that impact generalizability. One limitation is that, as a private outpatient clinic, accessibility relies on factors like the ability to travel for treatment, insurance coverage or financial means, and technological access to telehealth if there are transportation limitations (Cicchetti et al., 2016). Uninsured, underinsured, lower-income, and rural populations may be underrepresented due to accessibility barriers. The lack of collecting race in the demographics is a limitation as it is unknown how diverse, or how lacking in diversity, the study sample was. Additionally, the sample comes from a single geographic location and a specific point in time. The Midwest region has cultural characteristics that may constrain the generalizability of findings to broader regions nationally (Gallo et al., 2019).

The Hope Institute has additional offices now open, offering opportunities for additional research with additional populations being served. Offices in Arizona affiliated with schools are providing services to a broader cultural demographic of clients in the southwest and providing a different level of access to students through their school district. The Hope Institute in Atlanta is affiliated with a large hospital system focused on children, providing intakes directly from the ED and serving yet another cultural demographic in the deep south. A fourth office is opening in Colorado with a governmental partnership, serving the entire community and offering an additional region with its own cultural aspects. With a governmental partnership, both a larger socio-economic demographic and greater cultural diversity are anticipated. Each of these additions will provide broadening demographics and comes with it the responsibility to further the research on this topic.

Although the sample covers a random clinical population, limitations like self-selection factors, Midwest region characteristics, data inconsistencies over time, and subjective self-report data may constrain generalizability. As Cook (2007) notes, these limitations are common in behavioral health research but warrant acknowledgment. Future research should provide a focus on creating a broader sample through additional referral sources and increased accessibility through additional funding.

Finally, in the vein of demographics, an area that was lacking was information about the LGBTQ+ population. This is an important population and a high-risk group, in which attempts are typically four times that of their peers (Johns et al., 2020; Johns et al., 2019). Although there was a question about gender identification, the data did not have any questions for individuals to identify as LBGTQ+. The question that was asked was specific in looking at birth gender and if

they identified differently than birth gender. This creates a missed opportunity for representation and data collection in the study.

5.2.2 Data Collection Sampling

Another sample limitation is that data collection was not originally designed for research purposes. The data was collected primarily for treatment rather than systematic analysis, potentially impacting consistency, and quality. Self-report data has inherent limitations, as it reflects subjectivity and may be biased or inaccurate (Cook, 2007). For sensitive topics like suicide, social desirability could potentially skew responses (De Mortel & Thea, 2008). Therefore, relying solely on self-report surveys like the CAMS Suicide Status Form has limitations, although is typical and allows for client insight. Some key variables, like suicide attempt history, were self-reported during intake rather than from objective records, which is standard practice. Additional measures can be implemented in the electronic health records and can be adapted as the research grows, to support better data. Although the focus needs to remain on client care, how and what is collected can be change that are invisible to clients and impactful on the field.

As a single-site observational study, limitations include a lack of control variables, manipulations, or randomization that experimental designs provide (Thiese, 2014). Causal inferences are restricted, as observed relationships may not reflect causation. Confounding factors may influence results. Ultimately, the initial findings will require confirmation through multi-site randomized trials.

5.2.3 Data Collection Methods

An opportunity that should be capitalized on in the future was found in question 2.4.

There is likely value in moving beyond "is there a previous history of attempts" and quantifying that value as a number in a follow up question. Given the results that emerged from the number of emergency department visits and number of hospitalizations, this could be a rich vein of information to explore. It may also be valuable to utilize a continuous variable using the actual number of occurrences, rather than categorical (0, 1, 2+), providing more options for statistical use. This provides an opportunity to contribute to the research exploring suicide attempts, and number of attempts, as a risk factor (Bostwick et al., 2016).

5.2.4 Outcomes and Comparisons

As discussed previously, there is a lack of substantial data on long term outcomes and recidivism for individuals struggling with suicidal ideation. One area for future research that will be pursued is studies exploring the outcomes and recidivism for The Hope Institute in comparison to the local hospital EDs and inpatient units, where inpatient is available. This will help the field to understand the true value of the EDs, inpatient units, and The Hope Institute, and how each fit into a system of care. To be clear, The Hope Institute is not meant to replace any current facilities, as these are necessary in saving lives and providing different services. The goal of The Hope Institute is to assist these facilities and the systems of care in which they work, to decrease burden and improve outcomes for clients.

5.2.5 Outcomes and Algorithms

Question two provides another opportunity, specifically sub question 2.5, which found significance and predictive value in the use of composite CAMS scores. This provides value in moving forward with additional research focused on predicted length of recovery. An aspect that

was not studied, but could be of value, is a similar examination of final CAMS scores, successful closure, and recidivism. If we can utilize the initial summative CAMS scores to provide a predicted length of recovery with a positive outcome, we may be able to extrapolate similar data from final session CAMS scores to predict recidivism, or even create a predictor model from the interim session data to adjust course of treatment. The study has provided the first steps in predicting number of sessions based on the CAMS Initial Session scores. If we apply this principle to CAMS Final Session scores, we can explore using regression to predict successful outcomes, or even recidivism.

This type of data and algorithm would be powerful in two ways. First, it would provide clinicians data to guide practice and mitigate liability, allowing for evidence-based best practices as opposed to fear driven services based on worse-case scenarios. Second, it would provide more autonomy and choice for patients. For an individual with no mental health history and a single episode of ideation based on life circumstances, a typical closing score may be more than sufficient. In the case of someone with a history of suicidal ideation or even attempts, it could help guide them to options that include lower recidivism, while still having a prognosis of closure, rather than indefinite ongoing services.

Additionally, this data could be impactful for insurance and reimbursement, as it would not only include data driven outcomes measures, but data driven treatment and duration of treatment. Insurers would understand a prognosis of treatment and outcomes and may be more willing to engage and support if they understand a full course of treatment. This should also impact reimbursement, as it is both more effective and more efficient and can likely save insurers billions of dollars annually.

5.3 Recommendations

5.3.1 Research

The current sample's representativeness could be evaluated by comparing available demographic characteristics to national data on age, gender, and race distributions among those seeking mental health treatment. This would help contextualize sample generalizability and pinpoint potential selection biases limiting external validity. Collecting expanded demographic information in the future would also allow stronger benchmarking.

Including qualitative components like patient satisfaction surveys or in-depth case examples could capture nuanced contexts and mechanisms distinct from normed outcomes scores alone. Mixed methods enrich the understanding of clinical processes and subjective experiences. Comparing/contrasting quantitative and qualitative data sources illuminates multifaceted change processes.

As a longitudinal study, following cohorts across years would establish long-term impact versus only short-term gains immediately post-treatment. Repeated follow-up CAMS measurements could track stability and identify delayed responses. Retention strategies to minimize patient dropout across extended timeframes would be necessary. Analyzing noncompleters would also enhance representativeness. A qualitative approach that asks patients what specifically helped them get better is a good option for future research.

5.3.2 Practice

First aid and CPR are required for most employees in nearly any medical facility. This is because they are considered to preserve the lives of others and allow them to receive medical attention. Simply put, they are designed to save lives and improve the chances of someone surviving. It would be unimaginable for it to be acceptable for a group of medical professionals to stand idly by and watch someone die without attempts at CPR or First Aid. For some reason, it continues to be considered acceptable for mental health professionals to avoid being ready for the mental health equivalent, brief crisis work.

There is no implication that all mental health professionals should have to do ongoing work with suicidal clients or specialize in this work or population. The goal is that all mental health professionals receive appropriate training to be able to broach the topic, provide comfort and potentially a screening or assessment, and offer an appropriate referral to someone who_is qualified and willing to do the work. Avoidance in our own profession continues to promote stigmatization in the public.

For those that are interested in crisis and suicide treatment, this research demonstrates that the work can be effective with an evidence-based model. An appropriate model can provide framework, interventions, and support, which should be augmented with appropriate supervision. Increased understanding and comfort with the model with increased comfort with the topic, which will lead to more comfort for clients trying to discuss the topic. In the end, it really comes back to increasing quality of care.

5.3.3 Education & Pedagogy

This research demonstrates the effectiveness of a suicide specific model. Suicide and crisis are rarely talked about in graduate programs for mental health, let alone suicide specific treatments or interventions. This is true even with CACREP standards for crisis and suicide assessment. Treatment as usual, as discussed in chapter 2, section 2, is not sufficient for clinicians who_will interact with suicidal clients. Section 2.2.4 outlines the need for additional

training and educational programs should consider providing additional education or resources for suicide, especially given that this is one of the few lethal conditions dealt with in mental health. Additional resources could include education outside of the program, including continuing education programs, to augment learning. Current research suggests that even brief training can increase knowledge, confidence, and adapting practices for suicidal clients (Mirick et al., 2016; Oordt et al., 2009).

5.4 Conclusion

This study sought to examine the outcomes and effectiveness of a new outpatient treatment program for individuals struggling with serious thoughts of suicide. Most importantly, does the model work? The research additionally explored data, the ability to use factors to predict outcomes, changes in variables over the course of treatment, and correlations between variables. The quantitative study provided an understanding of outcomes for individuals being treated for suicidal ideation, both anticipated and unexpected.

The research confirmed that the model was effective for the individuals that participated in the study. Associated measures, such as recidivism and individual success rate, were higher than expected and increased hope for The Hope Institute model. Individuals from preteens through adults, of both genders, demonstrated success within the model. Predictors for treatment length were identified and quantified, while other expected predictors did not produce fruitful results in this study. The six CAMS measures of psychological pain, stress, agitation, hopelessness, self-hate, and overall risk of suicide were found to decrease significantly over the course of treatment, and correlations were found and measured between the variables.

The greatest take away of this research is hope. Hope for tomorrow, our children, and generations to come. The findings demonstrate that this treatment model is effective. From these findings, it is

recommended that we begin with continued efforts to destigmatize suicide, as it is becoming more evident that it can affect anyone. It is also recommended that we increase suicide specific training in graduate schools, promoting destigmatization and preparing professionals for this population, even if they are not doing the work. On the heels of destigmatization, potentially even addressing it as a health crisis instead of a mental health crisis, creating a feeling of accessibility for all. It is my hope that this research contributes to our world in a way that decreases suffering and creates hope for all.

References

- American Foundation for Suicide Prevention. (2024). Retrieved from <u>https://afsp.org/learn-the-facts</u>.
- American Psychiatric Association (2003). Practice guidelines for the assessment and treatment of patients with suicidal behaviors. Washington, DC: Author
- Andreade, L. H., Alonso, J., Mneimneh, Z., Wells, J. E., Al-Hanrzawi, A., Borges, G., Bromet, E., Bruffaerts, R., de Girolamo, G., de Graaf, R., Florescu, S., Gureje, O., Hinkov, H. R., Hu, C., Huang, Y15., Hwang, I., Jin, R., Karam E. G., Kovess-Masfety, V., Levinson, D., Matschinger, H., O'Neill, S., Posada-Villa, J., Sagar, R., Sampson, N.A., Sasu, C., Stein, D.J., Takeshima, T., Viana, M.C., Xavier, M., & Kessler, R. C. (2014). Barriers to mental health treatment: results from the WHO World Mental Health surveys. *Psychological medicine*, 44(6), 1303-1317.
- Andreasson, K., Krogh, J., Wenneberg, C., Jessen, H. K., Krakauer, K., Gluud, C., Thomsen, R.
 R., Randers, L., & Nordentoft, M. (2016). Effectiveness of dialectical behavior therapy versus collaborative assessment and management of suicidality treatment for reduction of self-harm in adults with borderline personality traits and disorder—A randomized observer-blinded clinical trial. *Depression and anxiety*, *33*(6), 520-530.
- Appelbaum, P. S. (2015). Boarding" psychiatric patients in emergency rooms: one court says "No more. *Psychiatric services*, 66(7), 668-670.
- Banks, B. P., & Diambra, J. F. (2019). Suicide Response Preparedness in Counseling Students: A Study of Knowledge, Attitudes, and Simulated Behavior. Journal of Counselor Preparation & Supervision, 12(1), 1–27.
- Barrio Minton, C. A., Myers, J. E., & Morganfield, M. G. (2012). Meeting the 2013 standard: An initial look at the demand for counselor educators. Retrieved from http://www.acesonline.net/ meeting-the-2013-standard-an-initial-look-at-the-demand-for-counselor-educators/
- Barrio Minton, C. B. A. & Pease-Carter, C. (2011). The status of crisis preparation in counselor education: A national study and content analysis. Journal of Professional Counseling: Practice, Theory, and Research, 38, 5-17.
- Berg, R., Hendricks, B., & Bradley, L. (2009). Counseling suicidal adolescents within family systems: Ethical issues. *The Family Journal*, *17*(1), 64-68.
- Betz, M. E., Sullivan, A. F., Manton, A. P., Espinola, J. A., Miller, I., Camargo Jr, C. A., Boudreauz, E.D., & ED-SAFE Investigators. (2013). Knowledge, attitudes, and practices

of emergency department providers in the care of suicidal patients. *Depression and anxiety*, 30(10), 1005-1012.

- Bloom, J. M., Woodward, E. N., Susmaras, T., & Pantalone, D. W. (2012). Use of dialectical behavior therapy in inpatient treatment of borderline personality disorder: a systematic review. *Psychiatric Services*, 63(9), 881-888.
- Bostwick, J. M., Pabbati, C., Geske, J. R., & McKean, A. J. (2016). Suicide attempt as a risk factor for completed suicide: even more lethal than we knew. *American journal of psychiatry*, *173*(11), 1094-1100.
- Boudreaux, E. D., Camargo Jr, C. A., Arias, S. A., Sullivan, A. F., Allen, M. H., Goldstein, A. B., ... & Miller, I. W. (2016). Improving suicide risk screening and detection in the emergency department. *American journal of preventive medicine*, 50(4), 445-453.
- Bowen, M. (1993). Family therapy in clinical practice. Jason Aronson.
- Brausch, A. M., O'Connor, S. S., Powers, J. T., McClay, M. M., Gregory, J. A., & Jobes, D. A. (2020). Validating the suicide status form for the collaborative assessment and management of suicidality in a psychiatric adolescent sample. *Suicide and Life-Threatening Behavior*, 50(1), 263-276.
- Britton, P. C., Bryan, C. J., & Valenstein, M. (2016). Motivational interviewing for means restriction counseling with patients at risk for suicide. *Cognitive and behavioral practice*, 23(1), 51-61.
- Britton, P. C., Williams, G. C., & Conner, K. R. (2008). Self-determination theory, motivational interviewing, and the treatment of clients with acute suicidal ideation. *Journal of Clinical Psychology*, *64*(1), 52–66. https://doi.org/10.1002/jclp.20430
- Brodsky, B. S., Spruch-Feiner, A., & Stanley, B. (2018). The zero suicide model: Applying evidence-based suicide prevention practices to clinical care. *Frontiers in psychiatry*, *9*, 33.
- Brown, G. K., & Jager-Hyman, S. (2014). Evidence-based psychotherapies for suicide prevention: future directions. *American Journal of Preventive Medicine*, 47(3), S186-S194.
- Brown, G. K., Ten Have, T., Henriques, G. R., Xie, S. X., Hollander, J. E., & Beck, A. T. (2005). Cognitive Therapy and Preventing Suicide Attempts—Reply. *JAMA*, 294(22), 2847-2848.
- Brüdern, J., Stähli, A., Gysin-Maillart, A., Michel, K., Reisch, T., Jobes, D. A., & Brodbeck, J. (2018). Reasons for living and dying in suicide attempters: a two-year prospective study. *BMC psychiatry*, 18(1), 1-9.

- Bryan, C. J. (2019). Cognitive behavioral therapy for suicide prevention (CBT-SP): Implications for meeting standard of care expectations with suicidal patients. *Behavioral sciences & the law*, *37*(3), 247-258.
- Bryan, C. J., Mintz, J., Clemans, T. A., Burch, T. S., Leeson, B., Williams, S., & Rudd, M. D. (2018). Effect of crisis response planning on patient mood and clinician decision making: A clinical trial with suicidal US soldiers. *Psychiatric Services*, 69(1), 108-111.
- Bryan, C. J., Mintz, J., Clemans, T. A., Leeson, B., Burch, T. S., Williams, S. R., Maney, E., & Rudd, M. D. (2017). Effect of crisis response planning vs. contracts for safety on suicide risk in US Army soldiers: a randomized clinical trial. *Journal of affective disorders*, 212, 64-72.
- Bryan, C. J., & Rudd, M. D. (2018). *Brief cognitive-behavioral therapy for suicide prevention*. Guilford Publications.
- Bryan, C. J., Stone, S. L., & Rudd, M. D. (2011). A practical, evidence-based approach for means-restriction counseling with suicidal patients. *Professional Psychology: Research* and Practice, 42(5), 339.
- Canner, J. K., Giuliano, K., Selvarajah, S., Hammond, E. R., & Schneider, E. B. (2018). Emergency department visits for attempted suicide and self harm in the USA: 2006– 2013. *Epidemiology and psychiatric sciences*, 27(1), 94-102.
- Capron, D. W., Bauer, B. W., & Bryan, C. J. (2022). When people die by suicide: Introducing unacceptable loss thresholds as a potential missing link between suicide readiness states and actively suicidal clinical states. *Suicide and Life-Threatening Behavior*, *52*(2), 280-288.
- Carmel, A., Fruzzetti, A. E., & Rose, M. L. (2014a). Dialectical behavior therapy training to reduce clinical burnout in a public behavioral health system. *Community mental health journal*, *50*(1), 25-30.
- Carmel, A., Rose, M. L., & Fruzzetti, A. E. (2014b). Barriers and solutions to implementing dialectical behavior therapy in a public behavioral health system. Administration and Policy in Mental Health and Mental Health Services Research, 41(5), 608-614.
- Centers for Disease Control and Prevention (U.S.) (2023). Provisional Suicide Deaths in the United States, 2022 : media statement for immediate release: Thursday, August 10, 2023.
- Centers for Disease Control (CDC). (2015). Suicide prevention: Youth suicide. Retrieved from <u>http://www.cdc.gov/violenceprevention/pub/youth_suicide.html</u>
- Centers for Disease Control and Prevention (U.S.) (2023a). Provisional Suicide Deaths in the United States, 2022 : media statement for immediate release: Thursday, August 10, 2023.

- Centers for Disease Control and Prevention. (2023b). Youth risk behavior survey data summary & trends report 2011–2021.
- Centers for Disease Control and Prevention. (2022). Retrieved from <u>https://www.cdc.gov/suicide/facts/index.html</u>.
- Centers for Disease Control and Prevention. (2014). Web-based injury statistics query and reporting system [Interactive database]. Retrieved from <u>http://www.cdc.gov/injury/wisqars/index.html</u>
- Centers for Disease Control and Prevention. (2023). Youth risk behavior survey data summary & trends report 2011–2021.
- Chow, J. C., & Wehby, J. H. (2018). Associations between language and problem behavior: A systematic review and correlational meta-analysis. *Educational Psychology Review*, *30*, 61-82.
- Christensen, H., Batterham, P. J., Soubelet, A., & Mackinnon, A. J. (2013). A test of the interpersonal theory of suicide in a large community-based cohort. *Journal of affective disorders*, *144*(3), 225-234.
- Chung, D. T., Ryan, C. J., Hadzi-Pavlovic, D., Singh, S. P., Stanton, C., & Large, M. M. (2017). Suicide rates after discharge from psychiatric facilities: A systematic review and metaanalysis. *JAMA Psychiatry*, 74(7), 694–702. https://doi.org/10.1001/jamapsychiatry.2017.1044
- Colton, C. W., & Manderscheid, R. W. (2006). PEER REVIEWED: congruencies in increased mortality rates, years of potential life lost, and causes of death among public mental health clients in eight states. *Preventing chronic disease*, *3*(2).
- Colucci, E., & Martin, G. (2008). Religion and spirituality along the suicidal path. *Suicide and Life-Threatening Behavior*, *38*(2), 229-244.
- Comtois, K. A., Jobes, D. A., S. O'Connor, S., Atkins, D. C., Janis, K., E. Chessen, C., Landis, S. J., Holen, A., & Yuodelis-Flores, C. (2011). Collaborative assessment and management of suicidality (CAMS): feasibility trial for next-day appointment services. *Depression and Anxiety*, 28(11), 963-972.
- Conrad, A. K., Jacoby, A. M., Jobes, D. A., Lineberry, T. W., Shea, C. E., Arnold Ewing, T. D., Schmidt, P. J., Ellenbecker, S. M., Lee, J. L, Fritsche, K., Grenell, J. A., Gehin, J. M., & Kung, S. (2009). A psychometric investigation of the Suicide Status Form II with a psychiatric inpatient sample. *Suicide and Life-Threatening Behavior*, *39*(3), 307-320. https://doi.org/10.1521/suli.2009.39.3.307

- Cook, L., & Rumrill Jr, P. D. (2005). Internal validity in rehabilitation research. *Work*, 25(3), 279-283.
- Corso, P. S., Mercy, J. A., Simon, T. R., Finkelstein, E. A., & Miller, T. R. (2007). Medical costs and productivity losses due to interpersonal and self-directed violence in the United States. *American journal of preventive medicine*, *32*(6), 474-482.
- Council for Accreditation of Counseling and Related Educational Programs Standards. (2016). 2016 standards for accreditation. Alexandria, VA: Author. Retrieved from <u>http://www.cacrep.org</u>
- Crosby, A. E., Ortega, L., & Melanson, C. (2011). Self-directed violence surveillance: Uniform definitions and recommended data elements, Version 1.0. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control.
- Cully, J. A., & Teten, A. L. (2008). A therapist's guide to brief cognitive behavioral therapy. *Houston: Department of Veterans Affairs South Central MIRECC*.
- Cunningham, P. J. (2009). Beyond parity: Primary care physicians' perspectives on access to mental health care: More PCPs have trouble obtaining mental health services for their patients than have problems getting other specialty services. *Health Affairs*, 28(Suppl. 1), w490-w501. https://doi.Org/10.1377/hlthaff.28.3.w490
- Cureton, J. L., Clemens, E. V., Henninger, J., & Couch, C. (2020). Pre-professional Suicide Training for Counselors: Results of a Readiness Assessment. *International Journal of Mental Health & Addiction*, 18(1), 27–40. <u>https://doi.org/10.1007/s11469-018-9898-4</u>
- Curtis, E., Comiskey, C., & Dempsey, O. (2016). Importance and use of correlational research. *Nurse Researcher*, 23(6), 20–25. https://doi.org/10.7748/nr.2016.e1382
- Czyz, E. K., & King, C. A. (2015). Longitudinal trajectories of suicidal ideation and subsequent suicide attempts among adolescent inpatients. *Journal of Clinical Child & Adolescent Psychology*, 44, 181–193.doi:10.1080/15374416.2013.836454
- Czyz, E. K., King, C. A., & Biermann, B. J. (2019). Motivational interviewing-enhanced safety planning for adolescents at high suicide risk: A pilot randomized controlled trial. *Journal of Clinical Child & Adolescent Psychology*, 48(2), 250-262.
- Daigle, M. S. (2005). Suicide prevention through means restriction: Assessing the risk of substitution. A critical review and synthesis. Accident Analysis and Prevention, 37, 625– 632.
- Davidson, C. L., Wingate, L. R., Rasmussen, K. A., & Slish, M. L. (2009). Hope as a predictor of interpersonal suicide risk. *Suicide and Life-Threatening Behavior*, *39*(5), 499-507.

- Davidson, C. L., Wingate, L. R., Slish, M. L., & Rasmussen, K. A. (2010). The great black hope: Hope and its relation to suicide risk among African Americans. *Suicide and Life-Threatening Behavior*, 40(2), 170-180.
- DeCou, C. R., Comtois, K. A., & Landes, S. J. (2019). Dialectical behavior therapy is effective for the treatment of suicidal behavior: A meta-analysis. *Behavior therapy*, *50*(1), 60-72.
- De Luca, S. M., Franklin, C., Yueqi, Y., Johnson, S., & Brownson, C. (2016). The relationship between suicide ideation, behavioral health, and college academic performance. *Community mental health journal*, *52*, 534-540.
- Donaldson, S. I., & Grant-Vallone, E. J. (2002). Understanding self-report bias in organizational behavior research. *Journal of Business and Psychology*, 17(2), 245–260. <u>https://doi.org/10.1023/a:1019637632584</u>
- Douglas, K. A., & Morris, C. A. W. (2015). Assessing counselors' self-efficacy in suicide assessment and intervention. *Counseling Outcome Research and Evaluation*, 6(1), 58-69.
- Draper, N. R., & Smith, H. (2005). Applied Regression analysis. *Technometrics*, 47(3), 380. https://doi.org/10.1198/tech.2005.s303
- Dye, C., Surapa Raju, S. K., Dy, A., Gaither, S. L., Tofil, N. M. (2021). Suicide Simulation in Primary Care. *Southern Medical Journal*, 114(3): 129-132. doi: 10.14423/SMJ.00000000001217.
- Ehlman, D. C. (2022). Changes in suicide rates—United States, 2019 and 2020. *MMWR*. *Morbidity and mortality weekly report*, 71.
- Einberg, E. L., Lidell, E., & Clausson, E. K. (2015). Awareness of demands and unfairness and the importance of connectedness and security: Teenage girls' lived experiences of their everyday lives. *International Journal of Qualitative Studies on Health and Wellbeing*, 10(1), 27653.
- Ellis, T. E., Green, K. L., Allen, J. G., Jobes, D. A., & Nadorff, M. R. (2012). Collaborative Assessment and Management of Suicidality in an inpatient setting: Results of a pilot study. *Psychotherapy*, 49(1), 72–80. https://doi.org/10.1037/a0026746
- Ellis, T. E., Rufino, K. A., Allen, J. G., Fowler, J. C., & Jobes, D. A. (2015). Impact of a suicidespecific intervention within inpatient psychiatric care: The Collaborative Assessment and Management of Suicidality. *Suicide and Life-Threatening Behavior*, 45(5), 556-566.
- Faddar, J., Vanhoof, J., & De Maeyer, S. (2018). School self-evaluation: self-perception or selfdeception? The impact of motivation and socially desirable responding on self-evaluation results. *School Effectiveness and School Improvement*, 29(4), 660–678. https://doi.org/10.1080/09243453.2018.1504802

- Forte A, Buscajoni A, Fiorillo A, Pompili M, Baldessarini RJ. (2019). Suicidal Risk Following Hospital Discharge: A Review. Harv Rev Psychiatry. Jul/Aug;27(4):209-216. doi: 10.1097/HRP.0000000000222. PMID: 31274577.
- Frey, L. M., & Cerel, J. (2015). Risk for suicide and the role of family: A narrative review. *Journal of Family Issues*, *36*(6), 716-736.
- Frey, L. M., Hans, J. D., & Cerel, J. (2016a). Suicide disclosure in suicide attempt survivors: Does family reaction moderate or mediate disclosure's effect on depression?. Suicide and Life-Threatening Behavior, 46(1), 96-105.
- Frey, L. M., Hans, J. D., & Sanford, R. L. (2016b). Where is family science in suicide prevention and intervention? Theoretical applications for a systemic perspective. *Journal of Family Theory & Review*, 8(4), 446-462.
- Gaylor, E. M., Krause, K. H., Welder, L. E., Cooper, A. C., Ashley, C., Mack, K. A., Crosby, A. E., Trinh, E., Ivey-Stephenson, A. Z., & Whittle, L. (2023). Suicidal thoughts and behaviors among high school students—Youth Risk Behavior Survey, United States, 2021. MMWR supplements, 72(1), 45.
- Glenn, C. R., Esposito, E. C., Porter, A. C., & Robinson, D. J. (2019). Evidence base update of psychosocial treatments for self-injurious thoughts and behaviors in youth. *Journal of Clinical Child & Adolescent Psychology*, 48(3), 357-392.
- Goldman-Mellor, S., Olfson, M., Lidon-Moyano, C., & Schoenbaum, M. (2019). Association of suicide and other mortality with emergency department presentation. *JAMA network* open, 2(12), e1917571-e1917571.
- Gould, M. S., Cross, W., Pisani, A. R., Munfakh, J. L., & Kleinman, M. (2013). Impact of applied suicide intervention skills training on the national suicide prevention lifeline. *Suicide and Life-Threatening Behavior*, 43(6), 676-691.
- Gould, M. S., Greenberg, T., Velting, D. M., & Shaffer, D. (2003). Youth Suicide Risk and Preventive Interventions: A review of the past 10 years. *Journal of the American Academy of Child and Adolescent Psychiatry*, 42(4), 386–405. https://doi.org/10.1097/01.chi.0000046821.95464.cf
- Granello, D. H. (2010a). A suicide crisis intervention model with 25 practical strategies for implementation. *Journal of Mental Health Counseling*, *32*(3), 218-235.
- Granello, D. H. (2010b). The process of suicide risk assessment: Twelve core principles. *Journal* of Counseling & Development, 88, 363-371.

- Green, J. D., Kearns, J. C., Rosen, R. C., Keane, T. M., & Marx, B. P. (2018). Evaluating the effectiveness of safety plans for military veterans: Do safety plans tailored to veteran characteristics decrease suicide risk? *Behavior therapy*, *49*(6), 931-938.
- Grewal, P. K., & Porter, J. E. (2007). Hope theory: A framework for understanding suicidal action. *Death studies*, *31*(2), 131-154.
- Hellman, C. M., Pittman, M. K., & Munoz, R. T. (2013). The first twenty years of the will and the ways: An examination of score reliability distribution on Snyder's Dispositional Hope Scale. *Journal of Happiness Studies*, *14*, 723-729.
- Hendricks, M., Miller, C., & Sale, E. (2014, March). *An evaluation of Counseling on Access to Lethal Means (CALM) training for mental health providers in Missouri*. Presentation (Poster) at the American Association of Suicidology Conference, Los Angeles, CA.
- Hill, R. M., Rey, Y., Marin, C. E., Sharp, C., Green, K. L., & Pettit, J. W. (2014). Evaluating the Interpersonal Needs Questionnaire: Comparison of the Reliability, Factor Structure, and Predictive Validity across Five Versions. *Suicide and Life Threatening Behavior*, 45(3), 302–314. https://doi.org/10.1111/sltb.12129
- Hoertel, N., Franco, S., Wall, M. M., Oquendo, M. A., Kerridge, B. T., Limosin, F., & Blanco, C. (2015). Mental disorders and risk of suicide attempt: a national prospective study. *Molecular psychiatry*, 20(6), 718-726.
- Houser, R. A. (2019). *Counseling and educational research: Evaluation and Application*. SAGE Publications.
- Huh, D., Jobes, D. A., Comtois, K. A., Kerbrat, A. H., Chalker, S. A., Gutierrez, P. M., & Jennings, K. W. (2018). The collaborative assessment and management of suicidality (CAMS) versus enhanced care as usual (E-CAU) with suicidal soldiers: Moderator analyses from a randomized controlled trial. *Military Psychology*, 30(6), 495-506.
- Ivey-Stephenson, A. Z., Crosby, A. E., Hoenig, J. M., Gyawali, S., Park-Lee, E., & Hedden, S. L. (2022). Suicidal thoughts and behaviors among adults aged≥ 18 years—United States, 2015–2019. MMWR Surveillance Summaries, 71(1), 1.
- Ivey-Stephenson, A., Demissie, Z., Crosby, A. E., Stone, D. M., Gaylor, E., Wilkins, N., Lowry, R., & Brown, M. (2020). Suicidal Ideation and Behaviors Among High School Students—Youth Risk Behavior Survey, United States, 2019. MMWR Supplements, 69(1), 47–55. <u>https://doi.org/10.15585/mmwr.su6901a6</u>
- Jamison, K. R. (1996). Touched with fire. Simon and Schuster.
- Jobes, D. A. (2012). The Collaborative Assessment and Management of Suicidality (CAMS): an evolving Evidence-Based Clinical Approach to Suicidal risk. *Suicide and Life*
Threatening Behavior, *42*(6), 640–653. https://doi.org/10.1111/j.1943-278x.2012.00119.x

Jobes, D. A. (2016). Managing suicidal risk: A collaborative approach. Guilford Publications.

- Jobes, D. A., Jacoby, A. M., Cimbolic, P., & Hustead, L. a. T. (1997). Assessment and treatment of suicidal clients in a university counseling center. *Journal of Counseling Psychology*, 44(4), 368–377. https://doi.org/10.1037/0022-0167.44.4.368
- Jobes, D. A., Lento, R. M., & Brazaitis, K. (2012). An Evidence-Based Clinical Approach to Suicide Prevention in the Department of Defense: the Collaborative Assessment and Management of Suicidality (CAMS). *Military Psychology*, 24(6), 604–623. https://doi.org/10.1080/08995605.2012.736327
- Jobes, D. A., & Mann, R. E. (1999). Reasons for living versus reasons for dying: Examining the internal debate of suicide. *Suicide and Life-Threatening Behavior*, *29*, 97–104.
- Jobes, D. A., Wong, S. A., Conrad, A. K., Drozd, J. F., & Neal-Walden, T. (2005). The Collaborative Assessment and Management of Suicidality versus Treatment as Usual: A Retrospective Study with Suicidal Outpatients. *Suicide and Life Threatening Behavior*, 35(5), 483–497. <u>https://doi.org/10.1521/suli.2005.35.5.483</u>
- Johns, M. M., Lowry, R., Andrzejewski, J., Barrios, L. C., Zewditu, D., McManus, T., et al. (2019). Transgender identity and experiences of violence victimization, substance use, suicide risk, and sexual risk behaviors among high school student–19 states and large urban school districts, 2017. *Morbidity and Mortality Weekly Report*, 68(3), 65-71.
- Johns, M. M., Lowry, R., Haderxhanaj, L. T., Rasberry, C.N., Robin, L., Scales, L., Stone, D., & Suarez, N. A. (2020). Trends in violence victimization and suicide risk by sexual identity among high school students — Youth Risk Behavior Survey, United States, 2015–2019. Morbidity and Mortality Weekly Report, 69, (Suppl-1):19–27.
- Johnson, A. L., Ecker, A. H., Fletcher, T. L., Hundt, N., Kauth, M. R., Martin, L. A., Curran, G. M., & Cully, J. A. (2020). Increasing the impact of randomized controlled trials: an example of a hybrid effectiveness–implementation design in psychotherapy research, *Translational Behavioral* Medicine, *10*(3), 629–636. <u>https://doi.org/10.1093/tbm/iby116</u>
- Johnson, K. F., & Bonner, M. (2013). Utilizing the six generic human service competencies and the ecological systems theory as a basis to understanding barriers faced by marginalized clients. loumal of Human Services, 33(1), 49-57. <u>https://digitalcommons.odu.edu/chs_pubs/31</u>

- Johnson, K. F., & Brookover, D. L. (2020). Counselors' role in decreasing suicide in mental health professional shortage areas in the United States. *Journal of mental health counseling*, 42(2), 170-186.
- Johnson, R. M., Frank, E. M., Ciocca, M., & Barber, C. W. (2011). Training mental healthcare providers to reduce at-risk patients' access to lethal means of suicide: evaluation of the CALM Project. Archives of Suicide Research, 15(3), 259-264.
- Johnson, J., Wood, A. M., Gooding, P., Taylor, P., & Tarrier, N. (2011). Resilience to suicidality: The buffering hypothesis. *Clinical Psychology Review*, 31(4), 563–591. https://doi.org/10.1016/j.cpr.2010.12.007
- Joiner, T.E. (2005). Why people die by suicide. Cambridge, MA: Harvard University Press.
- Joiner, T. E., Van Orden, K. A., Witte, T. K., Selby, E. A., Ribeiro, J. D., Lewis, R., & Rudd, M. D. (2009). Main predictions of the interpersonal–psychological theory of suicidal behavior: Empirical tests in two samples of young adults. Journal of Abnormal Psychology, 118, 634–646. doi:10.1037/a0016500
- Joint Commission. (2021). The Continuing Problem of Psych Patients Boarded in Emergency Departments. <u>https://www.jointcommission.org/resources/news-and-</u> <u>multimedia/blogs/leading-hospital-improvement/2021/10/the-continuing-problem-of-</u> <u>psych-patients-boarded-in-emergency-departments/</u>
- Juhnke, G. A. (1991). An Evaluation of a Method of Suicide Assessment Training. Western Michigan University. http://scholarworks.wmich.edu/cgi/viewcontent.cgi?article=3034&context=dissertations
- Kann et al (2016). Youth risk behavior surveillance- United States 2015. Retrieved from https://www.cdc.gov/mmwr/volumes/65/ss/ss6506a1.htm
- Kann, L., McManus, T., Harris, W. A., Shanklin, S. L., Flint, K. H., Hawkins, J., Queen, B., Lowry, R., Olsen, E. O., Chyen, D., Whittle, L., Thornton, J., Lim, C., Yamakawa, Y., Brener, N. D., & Zaza, S. (2016). Youth Risk Behavior Surveillance United States, 2015. *Morbidity and Mortality Weekly Report*, 65(6), 1–174. https://doi.org/10.15585/mmwr.ss6506a1
- Kazan, D., Calear, A. L., & Batterham, P. J. (2016). The impact of intimate partner relationships on suicidal thoughts and behaviours: A systematic review. *Journal of Affective Disorders*, 190, 585-598.
- Kelly, K. T., & Knudson, M. P. (2000). Are no-suicide contracts effective in preventing suicide in suicidal patients seen by primary care physicians? Archives of Family Medicine, 9, 1119–1121.

- Kennard, B. D., Goldstein, T., Foxwell, A. A., McMakin, D. L., Wolfe, K., Biernesser, C., Moorhead, B.S., Douaihy, A., Zullo, L., Wentroble, E., Owen, V., Zelazny, J., Iyengar, S., Porta, G., & Brent, D. (2018). As Safe as Possible (ASAP): a brief app-supported inpatient intervention to prevent post discharge suicidal behavior in hospitalized, suicidal adolescents. *American journal of psychiatry*, *175*(9), 864-872.
- Kessler, R. C., Berglund, P., Borges, G., Nock, M., & Wang, P. S. (2005). Trends in suicide ideation, plans, gestures, and attempts in the United States, 1990–1992 to 2001–2003. *Journal of the American Medical Association*, 293, 2487–2495.
- Kimberlin, C. L., & Winterstein, A. G. (2008). Validity and reliability of measurement instruments used in research. *American Journal of Health-System Pharmacy*, 65(23), 2276–2284. https://doi.org/10.2146/ajhp070364
- King, C. A., Foster, C. E., & Rogalski, K. M. (2013). Teen suicide risk: A practitioner guide to screening, assessment, and management. Guilford Press.
- Kleiman, E. M., Adams, L. M., Kashdan, T. B., & Riskind, J. H. (2013). Grateful individuals are not suicidal: Buffering risks associated with hopelessness and depressive symptoms. *Personality and Individual Differences*, 55(5), 595-599.
- Kral, M. J., Links, P. S., & Bergmans, Y. (2012). Suicide studies and the need for mixed methods research. *Journal of Mixed Methods Research*, *6*(3), 236-249.
- Kurz, A., & Moller, H. (1984). Help-seeking behavior and compliance of suicidal patients. *Psychiatrische Praxis*, *11*, 6–13.
- Lambert, M. J., & Barley, D. E. (2001). Research summary on the therapeutic relationship and psychotherapy outcome. *Psychotherapy: Theory, research, practice, training*, *38*(4), 357.
- Landes, S. J., Chalker, S. A., & Comtois, K. A. (2016). Predicting dropout in outpatient dialectical behavior therapy with patients with borderline personality disorder receiving psychiatric disability. *Borderline personality disorder and emotion dysregulation*, 3(1), 1-8.
- Lee, D. J., Heyman, A. N., Winkelman, L., Sneed, Z., & Sametz, R. (2023). Effectiveness of Teletherapy During the COVID-19 Pandemic. *Journal of Mental Health Counseling*, 45(2), 147-165.
- Leung, L. C. (2015). Validity, reliability, and generalizability in qualitative research. *Journal of Family Medicine and Primary Care*, 4(3), 324. https://doi.org/10.4103/2249-4863.161306

- Liddell, J. L., & Lilly, J. M. (2022). Healthcare experiences of uninsured and under-insured American Indian women in the United States. *Global Health Research and Policy*, 7(1), 5.
- Linehan, M. M. (1993a). Cognitive Behavioral Treatment of Borderline Personality Disorder. New York: Guilford Press.
- Linehan, M. M. (1993b). *Skills training manual for treating borderline personality disorder*. Guilford press.
- Linehan, M. M. (2008). Suicide intervention research: a field in desperate need of development. *Suicide and Life-Threatening Behavior*, *38*(5), 483-485.
- Linehan, M. M., Armstrong, H. E., Suarez, A., Allmon, D., & Heard, H. L. (1991). Cognitivebehavioral treatment of chronically parasuicidal borderline patients. *Archives of general psychiatry*, 48(12), 1060-1064.
- Linehan, M. M., Comtois, K. A., Murray, A. M., Brown, M. Z., Gallop, R. J., Heard, H. L., Korslund, K. E., Tutek, D. A., Reynolds, S. K., & Lindenboim, N. (2006). Two-year randomized controlled trial and follow-up of dialectical behavior therapy vs therapy by experts for suicidal behaviors and borderline personality disorder. *Archives of general psychiatry*, 63(7), 757-766.
- Linehan, M. M., Goodstein, J. L., Nielsen, S. L., & Chiles, J. A. (1983). Reasons for staying alive when you are thinking of killing yourself: the reasons for living inventory. *Journal of consulting and clinical psychology*, *51*(2), 276.
- Linehan, M. M., Korslund, K. E., Harned, M. S., Gallop, R. J., Lungu, A., Neacsiu, A. D., McDavid, J., Comtois, K. A., & Murray-Gregory, A. M. (2015). Dialectical behavior therapy for high suicide risk in individuals with borderline personality disorder: a randomized clinical trial and component analysis. *JAMA psychiatry*, 72(5), 475-482.
- Linehan, M. M., & Laffaw, J. A. (1982). Suicidal behaviors among clients at an outpatient psychology clinic vs. the general population. *Suicide and Life-Threatening Behavior*, 12(4), 234-239.
- Links, P., Nisenbaum, R., Ambreen, M., Balderson, K., Bergmans, Y., Eynan, R., Harder, H., & Cutcliffe, J. (2012). Prospective study of risk factors for increased suicide ideation and behavior following recent discharge. *General hospital psychiatry*, 34(1), 88-97.
- Lipari, R. N., Hedden, S. L., & Hughes, A. (2016). Substance use and mental health estimates from the 2013 National Survey on Drug Use and Health: overview of findings.

- Litt, I. F., Cuskey, W. R., & Rudd, S. (1983). Emergency room evaluation of the adolescent who attempts suicide: Compliance with follow-up. *The Journal of Adolescent Health*, *4*, 106–108.
- Lynch, T. R., Chapman, A. L., Rosenthal, M. Z., Kuo, J. R., & Linehan, M. M. (2006). Mechanisms of change in dialectical behavior therapy: Theoretical and empirical observations. *Journal of Clinical Psychology*, 62(4), 459–480. https://doi.org/10.1002/jclp.20243
- Ma, J., Batterham, P. J., Calear, A. L., & Han, J. (2016). A systematic review of the predictions of the Interpersonal–Psychological Theory of Suicidal Behavior. *Clinical psychology review*, 46, 34-45.
- Mann, J. J., Apter, A., Bertolote, J., Beautrais, A., Currier, D., Haas, A., Hegerl, U., Lonnqvist, J., Malone, K., Marusic, A., Mehlum, L., Patton, G., Phillips, M., Rutz, W., Rihmer, Z., Schmidtke, A., Shaffer, D., Silverman, M., Takahashi, Y., Varnik, A., Wasserman, D., Yip, P & Hendin, H. (2005). Suicide prevention strategies: a systematic review. *Jama*, 294(16), 2064-2074.
- Mantey, D. S., Omega-Njemnobi, O., & Kelder, S. H. (2021). Self-reported history of concussions is associated with risk factors for suicide completion among middle school students: a cross-sectional study. *Journal of psychiatric research*, *132*, 191-194.
- Maple, M., Frey, L. M., McKay, K., Coker, S. & Grey, S. (2020) "Nobody Hears a Silent Cry for Help": Suicide Attempt Survivors' Experiences of Disclosing During and After a Crisis, Archives of Suicide Research, 24:4, 498-516, DOI: <u>10.1080/13811118.2019.1658671</u>
- McCauley, E., Berk, M. S., Asarnow, J. R., Adrian, M., Cohen, J., Korslund, K., Avina, C., Hughes, J., Harned, M., Gallop, R., & Linehan, M. M. (2018). Efficacy of dialectical behavior therapy for adolescents at high risk for suicide: a randomized clinical trial. *JAMA psychiatry*, 75(8), 777-785.
- McKinley, C. E., Spencer, M. S., Walters, K., & Figley, C. R. (2021). Mental, physical and social dimensions of health equity and wellness among US Indigenous peoples: What is known and next steps. *Journal of ethnic & cultural diversity in social work*, *30*(1-2), 1-12.
- Melnyk, B. M. & Morrison-Beedy, D. (2012). *Intervention Research: designing, conducting, analyzing, and funding*. http://ci.nii.ac.jp/ncid/BB09990729
- Meyer, R. E., Salzman, C., Youngstrom, E. A., Clayton, P. J., Goodwin, F. K., Mann, J. J., Alphs, L. D., Broich, K., Goodman, W. K., Greden, J. F., Meltzer, H. Y., Normand, S. T., Posner, K., Shaffer, D., Oquendo, M. A., Stanley, B., Triveldi, M. H., Turecki, G., Beasley, C. M., Beautrais, A. L., Bridge, J. A., Brown, G. K., Revicki, D. A., Ryan, N.

D., & Sheehan, D. V. (2010). Suicidality and risk of suicide—definition, drug safety concerns, and a necessary target for drug development: a consensus statement. *The Journal of clinical psychiatry*, *71*(8), 20326.

- Micol, V. J., Prouty, D., & Czyz, E. K. (2022). Enhancing motivation and self-efficacy for safety plan use: Incorporating motivational interviewing strategies in a brief safety planning intervention for adolescents at risk for suicide. *Psychotherapy*, 59(2), 174.
- Miller, W. R., & Rollnick, S. (2013). Applications of motivational interviewing. Motivational interviewing: Helping people change (3rd ed.). Guilford Press
- Miller, W. R., & Rollnick, S. (2012). Motivational interviewing: Helping people change (3rd ed.). New York, NY: Guilford Press.
- Miller, W. R., & Rollnick, S. (1991). Motivational interviewing: Preparing people to change addictive behavior. New York, NY: Guilford Press.
- Milteer, R. M., Ginsburg, K. R., Council on Communications and Media Committee on Psychosocial Aspects of Child and Family Health, Mulligan, D. A., Ameenuddin, N., Brown, A., ... & Swanson, W. S. (2012). The importance of play in promoting healthy child development and maintaining strong parent-child bond: Focus on children in poverty. *Pediatrics*, 129(1), e204-e213.
- Mirick, R., McCauley, J., Bridger, J., & Berkowitz, L. (2016). Continuing education on suicide assessment and crisis intervention: What can we learn about the needs of mental health professionals in community practice? *Community Mental Health Journal*, *52*, 501-510.
- Mohajan, H. (2020). Quantitative Research: a successful investigation in natural and social sciences. *Journal of Economic Development, Environment and People*, 9(4). https://doi.org/10.26458/jedep.v9i4.679
- Monteith, L. L., Holliday, R., Dichter, M. E., & Hoffmire, C. A. (2022). Preventing suicide among women veterans: gender-sensitive, trauma-informed conceptualization. *Current treatment options in psychiatry*, 9(3), 186-201.
- Mukherjee, D., & Saxon, V. (2019). "Psychological Boarding" and community-based behavioral health crisis stabilization. *Community mental health journal*, 55(3), 375-384.
- National Action Alliance for Suicide Prevention: Crisis Services Task Force. Crisis Now: Transforming Services is Within Our Reach. Washington, DC: Education Development Center, Inc. 2016.
- National Institute of Mental Health. (2022). Retrieved from <u>https://www.nimh.nih.gov/health/statistics/suicide</u>.

- Nolan, J. M., Fee, C., Cooper, B. A., Rankin, S. H., & Blegen, M. A. (2015). Psychiatric boarding incidence, duration, and associated factors in United States emergency departments. *Journal of Emergency Nursing*, 41(1), 57-64.
- O'Connor, R. C., & Kirtley, O. J. (2018). The integrated motivational-volitional model of suicidal behaviour. *Philosophical transactions of the Royal Society of London. Series B, Biological sciences*, *373*(1754), 20170268. <u>https://doi.org/10.1098/rstb.2017.0268</u>
- O'Connor, R. C., & Nock, M. K. (2014). The psychology of suicidal behaviour. *The Lancet Psychiatry*, *1*(1), 73-85.
- O'Connor, R. C., Smyth, R., Ferguson, E., Ryan, C., & Williams, J. M. G. (2013). Psychological processes and repeat suicidal behavior: a four-year prospective study. *Journal of consulting and clinical psychology*, *81*(6), 1137.
- Olfson, M., Gao, Y. N., Xie, M., Cullen, S. W., & Marcus, S. C. (2021). Suicide risk among adults with mental health emergency department visits with and without suicidal symptoms. *The Journal of clinical psychiatry*, 82(6), 37637.
- Oordt, M. S., Jobes, D. A., Fonseca, V. P., & Schmidt, S. M. (2009). Training mental health professionals to assess and manage suicidal behavior: Can provider confidence and practice behaviors be altered? *Suicide and Life-Threatening Behavior*, *39*, 21-32.
- Pelkonen, M., & Marttunen, M. (2003). Child and adolescent suicide: epidemiology, risk factors, and approaches to prevention. *Pediatric Drugs*, *5*, 243-265.
- Phillips, L., St. Amant, E., Lee, D. J., Crumb, L., O'Neal, J. P., Holt, J., Papajohn, H. D., Gamble, C., Evans, A. M., Armas, C., Rodriguez, C., Dorn-Medeiros, C. M., Mendoza, K., & Cordray, J. (2023). A closer look at the mental health provider shortage. *Counseling Today*, 65(11), 25-39.
- Phillips, R. (2013). The sacred hour: Uninterrupted skin-to-skin contact immediately after birth. *Newborn and Infant Nursing Reviews*, *13*(2), 67-72.
- Piacentini, J. M., Rotheram-Borus, M. J., Gillis, J. R., Graae, F., Trautmant, P., Cantwell, C., et al. (1995). Demographic predictors of treatment attendance among adolescent suicide attempters. *Journal of Consulting and Clinical Psychology*, 63, 469–473.
- Pistorello, J., Fruzzetti, A. E., MacLane, C., Gallop, R., & Iverson, K. M. (2012). Dialectical behavior therapy (DBT) applied to college students: a randomized clinical trial. *Journal of consulting and clinical psychology*, 80(6), 982.
- Pistorello, J., Jobes, D. A., Gallop, R., Compton, S. N., Locey, N. S., Au, J. S., Noose, S.K., Walloch, J.C., Johnson, J., Young, M., Dickens, Y., Chatham, P., & Jeffcoat, T. (2021). A randomized controlled trial of the collaborative assessment and management of

suicidality (CAMS) versus treatment as usual (TAU) for suicidal college students. *Archives of Suicide Research*, 25(4), 765-789.

- Priebe, S., Bhatti, N., Barnicot, K., Bremner, S., Gaglia, A., Katsakou, C., Molosankwe, I., McCrone, P., & Zinkler, M. (2012). Effectiveness and cost-effectiveness of dialectical behaviour therapy for self-harming patients with personality disorder: a pragmatic randomised controlled trial. *Psychotherapy and psychosomatics*, 81(6), 356-365.
- Reese, R. J., Usher, E. L., Bowman, D. C., Norsworthy, L. A., Halstead, J. L., Rowlands, S. R., & Chisholm, R. R. (2009). Using client feedback in psychotherapy training: An analysis of its influence on supervision and counselor self-efficacy. Training and Education in Professional Psychology, 3, 157-168. doi:10.1037/a0015673
- Rigsbee, N., & Goodrich, K. M. (2019). Exploring the efficacy of online suicide assessment training in counselor education. *Counseling Outcome Research and Evaluation*, *10*(1), 34–48. https://doi.org/10.1080/21501378.2017.1409598
- Rojas, S. M., Gold, S. D., Bryan, C. J., Pruitt, L. D., Felker, B. L., & Reger, M. A. (2022). Brief cognitive-behavioral therapy for suicide prevention (BCBT-SP) via video telehealth: a case example during the COVID-19 outbreak. *Cognitive and behavioral practice*, 29(2), 446-453.
- Rosenbaum, R. L., & Horowitz, M. J. (1983). Motivation for psychotherapy: A factorial and conceptual analysis. *Psychotherapy: Theory, Research & Practice*, 20(3), 346.
- Rozek, D. C., & Bryan, C. J. (2020). Integrating crisis response planning for suicide prevention into trauma-focused treatments: A military case example. *Journal of clinical psychology*, 76(5), 852-864.
- Rudd, M. D., Bryan, C. J., Wertenberger, E. G., Peterson, A. L., Young-McCaughan, S., Mintz, J., Williams, S. R., Arne, K. A., Breitbach, J., Delano, K., Wilkinson, E., & Bruce, T. O. (2015). Brief cognitive-behavioral therapy effects on post-treatment suicide attempts in a military sample: results of a randomized clinical trial with 2-year follow-up. *American journal of psychiatry*, *172*(5), 441-449. <u>https://doi-org.proxy.lib.ohio-state.edu/10.1176/appi.ajp.2014.14070843</u>
- Rudd, M. D., Mandrusiak, M., & Joiner Jr, T. E. (2006). The case against no-suicide contracts: The commitment to treatment statement as a practice alternative. *Journal of clinical psychology*, 62(2), 243-251.
- Ryan, E. P., & Oquendo, M. A. (2020). Suicide risk assessment and Prevention: Challenges and opportunities. *Focus*, *18*(2), 88–99. <u>https://doi.org/10.1176/appi.focus.20200011</u>
- Ryberg, W., Fosse, R., Zahl, P.H., Brorson, I., Moller, P., Landro, N.I., & Jobes, D. (2016). Collaborative Assessment and Management of Suicidality (CAMS) compared to

treatment as usual (TAU) for suicidal patients: study protocol for a randomized controlled trial. *Trials*, 17, 481. <u>https://doi.org/10.1186/s13063-016-1602-z</u>

- Ryberg, W., Zahl, P. H., Diep, L. M., Landrø, N. I., & Fosse, R. (2019). Managing suicidality within specialized care: A randomized controlled trial. *Journal of Affective Disorders*, 249, 112-120.
- Sale, E., Hendricks, M., Weil, V., Miller, C., Perkins, S., & McCudden, S. (2018). Counseling on Access to Lethal Means (CALM): an evaluation of a suicide prevention means restriction training program for mental health providers. *Community mental health journal*, 54(3), 293-301.
- Samaniego, F. J., & Watnik, M. R. (1997). The separation principle in linear regression. *Journal* of *Statistics Education*, 5(3).
- San Too, L., Spittal, M. J., Bugeja, L., Reifels, L., Butterworth, P., & Pirkis, J. (2019). The association between mental disorders and suicide: a systematic review and meta-analysis of record linkage studies. *Journal of affective disorders*, 259, 302-313.
- Saxon V. Psychiatric Boarding: Evolving models for Community Crisis. 2015.
- Saxon, V., Mukherjee, D., & Thomas, D. (2018). Behavioral health crisis stabilization centers: A new normal. *Journal of Mental Health & Clinical Psychology*, 2(3).
- Schafer, K. M., Duffy, M., Kennedy, G., Stentz, L., Leon, J., Herrerias, G., Fulcher, S., & Joiner, T. E. (2022). Suicidal ideation, suicide attempts, and suicide death among Veterans and service members: A comprehensive meta-analysis of risk factors. *Military psychology*, 34(2), 129-146.
- Schmitz, W. M., Allen, M. H., Feldman, B. N., Gutin, N. J., Jahn, D. R., Kleespies, P. M., Quinnett, P. & Simpson, S. (2012). Preventing suicide through improved training in suicide risk assessment and care: An American association of suicidology task force Report addressing serious gaps in U.S. mental health training. *Suicide and Life-Threatening Behavior*, 42, 292-304. doi: 10.1111/j.1943-278X.2012.00090.x
- Shaffer, D., & Pfeffer, C. R. (2001). Practice parameter for the assessment and treatment of children and adolescents with suicidal behavior. *Journal of the American Academy of Child & Adolescent Psychiatry*, 40(7), 24S-51S.
- Shannonhouse, L. R., Elston, N., Lin, Y. D., Mize, M. C., Rumsey, A., Rice, R., Wanna, R., & Porter, M. J. (2018). Suicide Intervention Training for Counselor Trainees: A Quasi-Experimental Study on Skill Retention. *Counselor Education & Supervision*, 57(3), 194– 210. <u>https://doi.org/10.1002/ceas.12110</u>

- Shepard, D. S., Gurewich, D., Lwin, A. K., Reed Jr, G. A., & Silverman, M. M. (2016). Suicide and suicidal attempts in the United States: costs and policy implications. *Suicide and Life-Threatening Behavior*, 46(3), 352-362.
- Sinyor, M., Williams, M., Mitchell, R., Zaheer, R., Bryan, C. J., Schaffer, A., Westreich, N., Ellis, J., Goldstein, B. I., Cheung, A. H., Selchen, S., Kiss, A., & Tien, H. (2020). Cognitive behavioral therapy for suicide prevention in youth admitted to hospital following an episode of self-harm: A pilot randomized controlled trial. *Journal of affective disorders*, 266, 686-694.
- Slesnick, N., Zhang, J., Feng, X., Wu, Q., Walsh, L., & Granello, D. H. (2019). Cognitive therapy for suicide prevention: A randomized pilot with suicidal youth experiencing homelessness. *Cognitive Therapy and Research*, 44(2), 402-411.
- Snyder, C. R. (2000). Handbook of hope: Theory, measures, and applications. San Diego: Academic Press.
- Snyder, C. R., Rand, K. L., & Sigmon, D. R. (2002). Hope theory: A member of the positive psychology family.
- Sommers-Flanagan, J., & Sommers-Flanagan, R. (2014). *Tough kids, cool counseling: Userfriendly approaches with challenging youth.* John Wiley & Sons.
- Sowislo, J. F., & Orth, U. (2013). Does low self-esteem predict depression and anxiety? A metaanalysis of longitudinal studies. *Psychological bulletin*, 139(1), 213.
- Spirito, A., Stanton, C., Donaldson, D., & Boergers, J. (2002). Treatment-as-usual for adolescent suicide attempters: Implications for the choice of comparison groups in psychotherapy research. *Journal of Clinical Child and Adolescent Psychology*, 31, 41–47.
- Spirito, A., Webb, M., Cheek, S., Wolff, J., & Esposito-Smythers, C. (2021). An update on the latest treatment approaches with suicidal adolescents. *Current treatment options in psychiatry*, *8*, 64-76.
- Stanley, B., & Brown, G. K. (2012). Safety planning intervention: A brief intervention to mitigate suicide risk. *Cognitive and Behavioral Practice*, 19(2), 256–264. <u>https://doi.org/10.1016/j.cbpra.2011.01.001</u>
- Stanley, B., Brown, G. K., Brenner, L. A., Galfalvy, H. C., Currier, G. W., Knox, K. L., Chaudhury, S. R., Bush, A. L., & Green, K. L. (2018). Comparison of the safety planning intervention with follow-up vs usual care of suicidal patients treated in the emergency department. *JAMA psychiatry*, 75(9), 894-900.
- Stanley, B., Brown, G., Brent, D. A., Wells, K., Poling, K., Curry, J., Kennard, B. D., Wagner, A., Cwik, M., Klomek, A. B., Goldstein, T., Vitiello, B., Barnett, S., Daniel, S., &

Hughes, J. (2009). Cognitive-behavioral therapy for suicide prevention (CBT-SP): treatment model, feasibility, and acceptability. *Journal of the American Academy of Child & Adolescent Psychiatry*, 48(10), 1005-1013.

- Stanley, B., & Mann, J. J. (2020). The need for innovation in health care systems to improve suicide prevention. *JAMA Psychiatry*, 77(1), 96. https://doi.org/10.1001/jamapsychiatry.2019.2769
- Substance Abuse and Mental Health Services Administration. (2016). Suicidal Thoughts and Behavior Among Adults: Results from the 2015 National Survey on Drug Use and Health. Retrieved from <u>https://www.samhsa.gov/data/sites/default/files/NSDUH-DR-FFR3-2015/NSDUH-DR-FFR3-2015.html</u>
- Swift, J. K., Trusty, W. T., & Penix, E. A. (2021). The effectiveness of the collaborative assessment and management of suicidality (cams) compared to alternative treatment conditions: A meta-analysis. *Suicide and Life-Threatening Behavior*, 51(5), 882-896.
- Taylor, M. (2023, February 28). Boarding psychiatric patients in ED violates hospitals' rights, judge rules. *Becker's Hospital Review*. <u>https://www.beckershospitalreview.com/legal-regulatory-issues/boarding-psychiatric-patients-in-ed-violates-hospitals-rights-judge-rules.html</u>
- Thiese, M. S. (2014). Observational and interventional study design types; an overview. *Biochemia Medica*, 24(2), 199–210. https://doi.org/10.11613/bm.2014.022
- Toomey, R. B., Syvertsen, A. K., & Shramko, M. (2018). Transgender adolescent suicide behavior. *Pediatrics*, 142(4).
- Valentine, S. E., Bankoff, S. M., Poulin, R. M., Reidler, E. B., & Pantalone, D. W. (2015). The use of dialectical behavior therapy skills training as stand-alone treatment: A systematic review of the treatment outcome literature. *Journal of clinical psychology*, 71(1), 1-20.
- Van Orden, K. A., Witte, T. K., Cukrowicz, K. C., Braithwaite, S. R., Selby, E. A., & Joiner Jr, T. E. (2010). The interpersonal theory of suicide. *Psychological review*, 117(2), 575.
- VandenBos, G. R. (2007). APA dictionary of psychology. American Psychological Association.
- Walker, E. R., McGee, R. E., & Druss, B. G. (2015). Mortality in mental disorders and global disease burden implications: a systematic review and meta-analysis. *JAMA psychiatry*, 72(4), 334-341.
- Wallace, J. E., Lemaire, J. B., & Ghali, W. A. (2009). Physician wellness: a missing quality indicator. *The Lancet*, *374*(9702), 1714–1721. https://doi.org/10.1016/s0140-6736(09)61424-0

- Weber, A. N., Michail, M., Thompson, A., & Fiedorowicz, J. G. (2017). Psychiatric emergencies. *Medical Clinics of North America*, 101(3), 553–571. https://doi.org/10.1016/j.mcna.2016.12.006
- Wenzel, A., Brown, G. K., & Beck, A. T. (2009). *Cognitive therapy for suicidal patients: Scientific and clinical applications*. American Psychological Association.
- Wippold, G. M., & Roncoroni, J. (2020). Hope and health-related quality of life among chronically ill uninsured/underinsured adults. *Journal of Community Psychology*, 48(2), 576-589.
- World Health Organization. (2023). Retrieved from <u>https://www.who.int/news-room/fact-sheets/detail/suicide</u>
- Yang, B., & Lester, D. (2007). Recalculating the economic cost of suicide. *Death studies*, *31*(4), 351-361.
- Yen, S., Weinstock, L. M., Andover, M. S., Sheets, E. S., Selby, E. A., & Spirito, A. (2013). Prospective predictors of adolescent suicidality: 6- month post-hospitalization follow-up. *Psychological Medicine*, 43(5), 983–993. <u>https://doi.org/10.1017/S0033291712001912</u>
- Zyromski, B., Dimmitt, C., Mariani, M., & Griffith, C. (2018). Evidence-based school counseling: Models for integrated practice and school counselor education. *Professional School Counseling*, 22(1), 2156759X18801847.

Appendix A. The CAMS Suicide Status Form Initial Session (Jobes, D.A., 2016).

	CAMS SUICIDE STATUS FORM-4	(SSF-4) INITIAL SE	SSION
Patient:	Clinician:	Date:	Time:
Section	A (Patient):		
Rank	Rate and fill out each item according to how you feel rig (1 = most important to 5 = least important)	<u>aht now</u> . Then rank in ord	er of importance 1 to 5
	1) RATE PSYCHOLOGICAL PAIN (hurt, anguish, or miser	y in your mind, <u>not</u> stres	s, <u>not</u> physical pain):
	Low pain:	12345	:High pain
	What I find most painful is:		
	2) RATE STRESS (your general feeling of being pressure	d or overwhelmed):	
	Low stress:	12345	:High stress
	What I find most stressful is:		
	3) RATE AGITATION (emotional urgency; feeling that yo	u need to take action; no	t irritation; not annoyance):
	Low agitation:	12345	:High agitation
	I most need to take action when:		
	4) RATE HOPELESSNESS (your expectation that things w	vill not get better no mat	ter what you do):
	Low hopelessness:	12345	:High hopelessness
	I am most hopeless about:		
	5) RATE SELF-HATE (your general feeling of disliking you	Irself; having no self-este	em; having no self-respect):
	Low self-hate:	12345	:High self-hate
	What I hate most about myself is:		
N/A	6) RATE OVERALL RISK OF SUICIDE: (will not kill self)	12345	:Extremely high risk (will kill self)

1) How much is being suicidal related to thoughts and feelings about <u>vourself</u>? Not at all: (1) (2) (3) (4)(5) : completely 2) How much is being suicidal related to thoughts and feeling about <u>others</u>? Not at all: (1) (2) (3) (4)(5) : completely

Please list your reasons for wanting to live and your reasons for wanting to die. Then rank in order of importance 1 to 5.

ry much
ry much

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a Dunation	Describe: per da	ay	per week	per month	
Suicide plan	When: Where: How:	ds	_ minutes	hours	ans QN
	How:			Access to me	ans (VIV)
Suicide rebearsal	Describe:				
 History of suicidal beha Single attempt Multiple attempts 	aviors Describe: Describe:				
N Impulsivity	Describe:				
Substance abuse	Describe:				
Significant loss	Describe:				
Relationship problems	Describe:				
Burden to others	Describe:				
Health/pain problems	Describe:				
Sleep problems	Describe:				
V Legal/financial issues	Describe:				
	Dentil				
N Shame	Describe:				
Section C (Clinician):	Describe:	TREATME	NT PLAN		
Section C (<i>Clinician</i>): Problem # Problem De	Describe:	TREATME Goals and C	NT PLAN Objectives	Interventions	Duration
Shame Section C (Clinician): Problem # Problem De 1 Self-Harm Po	Describe:	TREATMEI Goals and C Safety and	NT PLAN Dbjectives	Interventions Stabilization Plan Completed	Duration
Shame Section C (Clinician): Problem # Problem De 1 Self-Harm Pc 2	scription	TREATMEI Goals and C Safety and	NT PLAN Dbjectives	Interventions Stabilization Plan Completed	Duration
Shame Section C (Clinician): Problem # Problem De 1 Self-Harm Pc 2 3	Describe:	TREATMEI Goals and C Safety and	NT PLAN Dbjectives	Interventions Stabilization Plan Completed	Duration

Man to a to	to babal and			
Ways to reduce acces	s to lethal means:			
1				
2.				
3.				
Things I can do to co	pe differently when I am i	in a suicide crisis (consider o	risis card):	
1				
2.				
3				
4				
5				
6. Life or death eme	rgency contact number:			
People L can call for h	ela or to decrease my isol	lation:		
reopie realition	icip of to decrease my iso			
1				
2				
3				
Attending treatment	as scheduled:			
Potential barrier:		Solutions I will try:		
1				

Section D (Clinician Postsession Evaluation):

MENTAL STATUS EXAM (Circle appropriate items): ALERTNESS: ALERT DROWSY LETHARGIC STUPOROUS OTHER: ORIENTED TO: PERSON PLACE TIME REASON FOR EVALUATION MOOD: EUTHYMIC ELEVATED DYSPHORIC AGITATED ANGRY AFFECT: FLAT BLUNTED CONSTRICTED APPROPRIATE LABILE THOUGHT CONTINUITY: [CLEAR & COHERENT] [GOAL DIRECTED] [TANGENTIAL] [CIRCUMSTANTIAL] OTHER: THOUGHT CONTENT: WNL DBSESSIONS DELUSIONS (DEAS OF REFERENCE) BIZARRENESS MORBIDITY OTHER: ABSTRACTION: WNL NOTABLY CONCRETE OTHER: SPEECH: WNL RAPID SLOW SLURRED IMPOVERISHED INCOHERENT OTHER: MEMORY: GROSSLY INTACT OTHER: WNL REALITY TESTING: OTHER: NOTABLE BEHAVIORAL OBSERVATIONS:

DIAGNOSTIC IMPRESSIONS/DIAGNOSIS (DSM/ICD DIAGNOSES):

PATIENT'S OVERALL SUICIDE RISK LEVEL (Check one and explain)

ATIENT 5 OVERALL SUICIDE RISK LE	EVEL (Check one and exp	sain);	
LOW (WTL/RFL)	Explanation:		
MODERATE (AMB)			
HIGH (WTD/RFD)			
CASE NOTES			
ASE NOTES.			
Next Appointment Scheduled:		Treatment Modality:	
Clinican Signature	Date		

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Appendix B. The CAMS Suicide Status Form Final Session (Jobes, D.A., 2016).

nuent.	Cimidan:	Date:	time.
ection A (Patient):			
tate and fill out each item according to	how you feel right now.		
1) RATE PSYCHOLOGICAL PAIN (hurt,	anguish, or misery in your n	nind, <u>not</u> stress, <u>not</u> phy	sical pain):
	Low pain:	12345	:High pain
2) RATE STRESS (your general feeling	of being pressured or overw	helmed):	
	Low stress:	02345	:High stress
3) RATE AGITATION (emotional urgen	cy; feeling that you need to	take action; not irritation	i; not annoyance):
	Low agitation:	12345	:High agitation
4) RATE HOPELESSNESS (your expecta	ation that things will not get	better no matter what y	ou do):
	Low hopelessness:	12345	:High hopelessness
5) RATE SELF-HATE (your general feel	ing of disliking yourself; havii	ng no self-esteem; having	no self-respect):
	Low self-hate:	12345	:High self-hate
6) RATE OVERALL RISK	Extremely low risk:	12345	:Extremely high risk
OF SUICIDE:	(will not kill self)		(will kill self)
Where there any aspects of your treatn ossible.	nent that were particularly he	elpful to you? If so, pleas	e describe these. Be as specific
Where there any aspects of your treatmossible. Mhat have you learned from your clinic	nent that were particularly he	elpful to you? If so, pleas	e describe these. Be as specific he future?
Where there any aspects of your treatm xossible. What have you learned from your clinic	nent that were particularly he	elpful to you? If so, pleas	e describe these. Be as specific
Where there any aspects of your treatm possible. What have you learned from your clinic	nent that were particularly he	elpful to you? If so, pleas	e describe these. Be as specific he future?
Where there any aspects of your treatmossible. What have you learned from your clinic Section B (<i>Clinician</i>):	nent that were particularly he	elpful to you? If so, pleas	e describe these. Be as specific he future?
Where there any aspects of your treatmossible. What have you learned from your clinic Section B (<i>Clinician</i>):	al care that could help you if	elpful to you? If so, pleas you became suicidal in t	e describe these. Be as specific he future?
Where there any aspects of your treatmossible. What have you learned from your clinic Section B (<i>Clinician</i>): Third consecutive session of resolved su	al care that could help you if	elpful to you? If so, pleas you became suicidal in t No (If no, continue CAMS erall risk of suicide < 3; in	e describe these. Be as specific he future? tracking) past week: no suicidal behavi
Where there any aspects of your treatmossible. What have you learned from your clinic Section B (<i>Clinician</i>): Third consecutive session of resolved su *Resolution of suicidality, if for third co and effectively managed suicidal tho	al care that could help you if <u>alcidality:</u> O Yes O M onsecutive week: current ove ughts/feelings	elpful to you? If so, pleas you became suicidal in t No (If no, continue CAMS erall risk of suicide < 3; in	e describe these. Be as specific he future? tracking) past week: no suicidal behavi
Where there any aspects of your treatmossible. What have you learned from your clinic Section B (<i>Clinician</i>): Third consecutive session of resolved su **Resolution of suicidality, if for third c and effectively managed suicidal tho DUTCOME/DISPOSITION (Check all t	al care that could help you if <u>alcidality:</u> Q Yes Q Monosecutive week: current over pughts/feelings hat apply):	elpful to you? If so, pleas you became suicidal in t No (If no, continue CAMS erall risk of suicide < 3; in	e describe these. Be as specific he future? tracking) past week: no suicidal behavi
Where there any aspects of your treatmossible. What have you learned from your clinic Section B (<i>Clinician</i>): Third consecutive session of resolved su **Resolution of suicidality, if for third c and effectively managed suicidal tho DUTCOME/DISPOSITION (Check all the Continuing outpatient psychothera	al care that could help you if <u>aicidality:</u> O Yes O M onsecutive week: current ove ughts/feelings hat apply):	elpful to you? If so, pleas you became suicidal in t No (If no, continue CAMS erall risk of suicide < 3; in	e describe these. Be as specific he future? : tracking) past week: no suicidal behavi
Where there any aspects of your treatmossible. What have you learned from your clinic Section B (<i>Clinician</i>): Third consecutive session of resolved su "Resolution of suicidality, if for third c and effectively managed suicidal tho DUTCOME/DISPOSITION (Check all the Continuing outpatient psychothera Mutual termination	anent that were particularly here that could help you if aicidality: O Yes O Monosecutive week: current over ughts/feelings hat apply): apy O	elpful to you? If so, pleas you became suicidal in t No (If no, continue CAMS erall risk of suicide < 3; in Inpatient hospitalization Patient chooses to discon	e describe these. Be as specific he future? tracking) past week: no suicidal behavi
Where there any aspects of your treatmossible. What have you learned from your clinic Section B (<i>Clinician</i>): hird consecutive session of resolved su *Resolution of suicidality, if for third c and effectively managed suicidal tho DUTCOME/DISPOSITION (Check all the Continuing outpatient psychothera Mutual termination Referral to:	al care that could help you if <u>uicidality:</u> O Yes O M onsecutive week: current over ughts/feelings hat apply): py O i	elpful to you? If so, pleas you became suicidal in t No (If no, continue CAMS erall risk of suicide < 3; in Inpatient hospitalization Patient chooses to discon	e describe these. Be as specific he future? • tracking) past week: no suicidal behavi tinue treatment (unilaterally)
Where there any aspects of your treatmossible. What have you learned from your clinic Section B (<i>Clinician</i>): Third consecutive session of resolved su terms and effectively managed suicidal tho DUTCOME/DISPOSITION (Check all the Continuing outpatient psychothera Mutual termination Referral to: Other. Describe:	al care that could help you if <u>uicidality:</u> O Yes O M onsecutive week: current over hat apply): py O	elpful to you? If so, pleas you became suicidal in t No (If no, continue CAMS erall risk of suicide < 3; in Inpatient hospitalization Patient chooses to discon	e describe these. Be as specific he future? i tracking) past week: no suicidal behavi tinue treatment (unilaterally)
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Section C (Clinician Postsession Evaluati	on)
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MENTAL STATUS EXAM (Circle appropriate items):

ALERTNESS:	ALERT DROWSY LETHARGIC STUPOROUS
	OTHER
ORIENTED TO:	PERSON PLACE TIME REASON FOR EVALUATION
MOOD:	EUTHYMIC ELEVATED DYSPHORIC AGITATED ANGRY
AFFECT:	FLAT BLUNTED CONSTRICTED APPROPRIATE LABILE
THOUGHT CONTINUITY:	CLEAR & COHERENT GOAL-DIRECTED TANGENTIAL CIRCUMSTANTIAL
	OTHER:
THOUGHT CONTENT:	WNL OBSESSIONS DELUSIONS IDEAS OF REFERENCE BIZARRENESS MORBIDITY
	OTHER:
ABSTRACTION:	WNL NOTABLY CONCRETE
	OTHER:
SPEECH:	WNL RAPID SLOW SLURRED IMPOVERISHED INCOHERENT
	OTHER:
MEMORY:	GROSSLY INTACT
	OTHER:
REALITY TESTING:	WNL
	OTHER:
NOTABLE BEHAVIORAL OBSERVATIONS:	

DIAGNOSTIC IMPRESSIONS/DIAGNOSIS (DSM/ICD DIAGNOSES):

PATIENT'S OVERALI	SUICIDE	RISK LEVEL	(Check	one and	explai
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PATIENT'S OVERALL SUICIDE RISK I	<u>LEVEL</u> (Check one and explain): Explanation:
MODERATE (AMB) HIGH (WTD/RFD)	
CASE NOTES:	
Clinican Signature	Date
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