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Examining the Experience and Impact of Teen-to-Teen Crisis Line Work for Youth Volunteers: A Pilot Study

Taylor Kalgren
Old Dominion University, tkalg001@odu.edu

EXAMINING THE EXPERIENCE AND IMPACT OF TEEN-TO-TEEN CRISIS LINE WORK FOR YOUTH VOLUNTEERS: A PILOT STUDY

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Taylor Kalgren
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Approved by:

Catherine Glenn (Director)

James Paulson (Member)

Mark Scerbo (Member)

ABSTRACT

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Taylor Kalgren
Old Dominion University, 2023
Director: Dr. Catherine Glenn

For young people, suicide is a leading cause of death. In addition, suicidal thoughts and behaviors begin during adolescence, and rates are high during this developmental period. Crisis lines are one of the oldest suicide prevention strategies used today. Crisis line work is challenging, and therefore, examining the health and safety of these operators is critical. Teen-to-teen (t2t) crisis lines are a unique resource where adolescent volunteers help their similarity aged peers. The goal of this pilot study was to begin to evaluate the impact of t2t crisis lines for youth volunteers. Twenty youth crisis line volunteers (ages 15-20) were recruited from two of the largest t2t crisis lines in the U.S. Enrolled volunteers were assessed up to five times over the course of one year; once at baseline and then every three months for up to approximately one year (baseline, 3-month follow-up, 6-month follow-up, 9-month follow-up, 12-month/1-year follow-up). The most common motivations reported for joining the t2t crisis line were to help others and give back to the community. Volunteers reported some negative impact via checkbox (e.g., stressful work and increased pressure to support others' mental health), they also reported their overall negative experience to be low. Psychological distress was reported to be moderate and secondary traumatic stress was reported to be low. Volunteers reported many positive impacts via checkbox (e.g., helping others and greater empathy), they also reported their overall

positive experience to be high. Considering our results, t2t crisis lines may not only be a unique opportunity for adolescents struggling with mental health, but for volunteers as well.

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TABLE OF CONTENTS

Page

Page

LIST OF TABLES

CHAPTER I

INTRODUCTION

Suicide is currently the 12th leading cause of death in the United States and is considered a serious public health problem by the World Health Organization (Centers for Disease Control, 2021; World Health Organization, 2021). It is estimated that more than 700,000 individuals will take their own lives every year (World Health Organization, 2021). Suicide not only impacts the individual but also many others. Death by suicide significantly impacts families, neighbors, co-workers, and communities emotionally (i.e., anger and guilt) and physically (i.e., the contagion of suicidal behaviors; Stone et al., 2017).

Sadly, for young people between the ages of 10 and 14, suicide has climbed to be the 2nd leading cause of death (Centers for Disease Control and Prevention, 2021). Beyond suicide deaths, rates of non-fatal suicidal thoughts and behaviors (STBs) are even higher among youth. During this developmental period, suicidal thoughts and behaviors are reported to increase, starting at age 12 with a peak at age 16 (Nock et al., 2008). In 2019, 19% of high school students across the United States reported seriously considering suicide, and 9% of high school students reported attempting suicide (i.e., when a person attempts to end their own life, however, death does not result from their actions; Centers for Disease Control and Prevention, 2019; Centers for Disease Control and Prevention, 2021). Moreover, these non-fatal suicidal behaviors also appear to be increasing in severity; in 2020, it was estimated that individuals between the ages of 10 and 34 visited the emergency department over 300,000 times for non-fatal self-injury (Centers for Disease Control and Prevention, 2022). Considering suicidal thoughts and behaviors begin during adolescence and rates are high during this developmental period, effective prevention strategies are critical (Nock et al., 2008).

As there is no single determining cause for suicide, prevention requires a comprehensive approach that integrates multiple levels that influence the individual (i.e., community and school; Stone et al., 2017). Suicide prevention strategies range from upstream to downstream approaches (Stone et al., 2017). An upstream approach focuses on enhancing life skills and resilience before the occurrence of suicidal thoughts and behaviors (e.g., social-emotional learning programs and family relationship programs; Ports et al., 2017). A downstream approach focuses on individuals who are already considered high risk for suicide (e.g., safety planning and crisis intervention strategies; Ports et al., 2017).

Crisis lines are one of the oldest downstream approaches to suicide prevention used today, originally created in the 1950s for individuals contemplating suicide (Paterson et al., 2009). Contact via telephone has been the traditional method of contact, however, crisis lines have since expanded to other forms of communication, such as texting or online chat. Multiple studies have reported on the expansion to other forms of communication that were driven by younger populations. For instance, in 2015, Crosby Budinger et al. recruited at-risk youth (10-17 years old) from inpatient and outpatient settings and asked them about their preferences for crisis service. It was reported that 41% of the sample preferred a traditional telephone method for contact, while the majority (59%) chose a newer media category, such as online chat, text messaging, and use of social networking sites (Crosby Budinger et al., 2015). Many children around the world utilize these services annually. Global data from the Child Helplines report in 2021, roughly 262,881 children reached out to helplines via text, and over 2,075,383 reached out via website chat. Although data include children who reached out for a variety of reasons (including physical health, violence, and relationship concerns), the main reason for contacting these helplines was mental health-related concerns (Child Helpline International, 2022). The

option for different contact methods offers a unique opportunity to immediately assist and serve younger populations (in a form they are most comfortable with). While the utilization of these services is promising, they also need to demonstrate effectiveness.

Crisis Line Effectiveness

Crisis lines have demonstrated some effectiveness for adults. Contact with crisis lines has been found to reduce depression, emotional distress, hopelessness, the severity of suicidal ideation, and the severity of the presenting problem (Ben-Ari & Azaiza, 2003; Coveney et al., 2012; Gould et al., 2021, Gould et al., 2007; Kalafat et al., 2007; Mishara et al., 2007; Mishara & Daigle, 1997; Mishara et al., 1993; Ramchand et al., 2017; Shaw & Chiang, 2019; Tyson et al., 2016). Specifically for suicidal callers, hopelessness and psychological pain continued to decrease at follow-up (on average two weeks after the initial call; Gould et al., 2007). Other long-term benefits include referrals for mental health resources and the development of a plan of action (Gould et al., 2007; Kalafat et al., 2007). Overall, callers report satisfaction with hotline services and recommend them to others (Ben-Ari & Azaiza, 2003; Ramchand et al., 2017).

Although most research on effectiveness has been conducted with adults, a few adult-run crisis lines examined preliminary effectiveness for youth who utilize these services. Dutch De Kindertelefoon is a Dutch crisis line specifically for children ages 8-18. Children can contact this crisis line via telephone or online chat. Improvement has been demonstrated immediately after support including an increased sense of well-being and a decrease in the perceived burden of the problem (Fukkink & Hermanns, 2009). Children who contacted the crisis line reported satisfaction and positive results such as feeling supported, being taken seriously, being made to feel at ease, and thought the support was comprehensible and not disorganized (Fukkink & Hermanns, 2009). At the 1-month follow-up, children who contacted the crisis service felt better

about their problem and even considered it less severe. Kids Help Line, an Australian crisis line, also aims to assist the younger population and is specific to callers under the age of 25. One study including callers ages 18 and younger found a significant decrease in depressive symptoms and suicidal ideation from the beginning to the end of the call (King et al., 2003). A significant decrease was also found in the proportion of callers who were considered imminent risk which indicated a decrease in suicidal urgency (King et al., 2003). Finally, Danish Child Help Line is available for young people up to the age of 23. One study focused on young people who contacted the Danish Child Help Line via text. Findings indicate that 36% of individuals who were considered suicidal (presenting suicide risk) and 61% of the non-suicidal sample (presenting with concerns other than suicide risk) immediately felt better after the text counseling session (Sindahl et al., 2019). At the two-week follow-up, 24% of the suicidal sample reported feeling better but 37% reported feeling worse; the non-suicidal sample reported more positive results such as increased well-being and a decrease in problem severity (Sindahl et al., 2019). Although research is limited and some studies report mixed findings, crisis lines seem to have many positive effects on youth with consistent findings including an increased sense of well-being and a decrease in the severity of the problem (Fukkink & Hermanns, 2009; King et al., 2003; Sindahl et al., 2019).

Adult Operator Impacts

Although the effectiveness of crisis lines is crucial, research shows it hinges on the person responding to the crisis (Cry & Dowrick, 1991). Crisis line work is challenging, and therefore, examining the health and safety of these operators is critical. Today, most crisis lines are staffed by adults, either in paid positions (workers) or volunteer positions. For studies that include both volunteers and workers in their sample, participants will be referred to as operators.

Although research has revealed variability in training programs (i.e., length of training and amount of information provided) the objective of both volunteers and workers is the same: suicide prevention (Alcohol, Drug Abuse, and Mental Health Administration, 1989). However, motivations for joining crisis lines and the impact on operators may not be universal across workers and volunteers, due to differences in pay and hours spent on the crisis line. One study found that although volunteers and workers were doing the same job, volunteers were more likely to report motivations for social interaction and that they were more satisfied with their work (Pearce, 1983). Four studies have measured motivations for crisis line volunteering. The most common motivations include giving back and helping others, developing new skills and personal growth, or a recent personal loss (Mishara & Giroux, 1993; Praetorious & Machtmes, 2005; Smith et al., 2020; Sundram et al., 2018). One study measured motivations for crisis line operators and found the most commonly reported reasons were related to expressing concern for others and learning and utilizing new skills (Kitchingman et al., 2018). No research so far has investigated the motivations of only workers.

Negative Impact of Crisis Line Work

Each day crisis line operators are faced with a variety of stressors. These stressors can potentially lead to negative impacts such as burnout, psychological distress, negative affect, and compassion fatigue (Kinzel & Nanson, 2000; Kitchingman et al., 2018). The Compassion Satisfaction-Compassion Fatigue (CS-CF) model may help to guide research and inform crisis line operator impacts (Stamm, 2010). This model is divided into two parts: compassion satisfaction (the positive emotions that come from helping others; e.g., feeling good) and compassion fatigue (the "bad stuff" related to crisis line work; e.g., burnout and secondary traumatic stress). Burnout is associated with hopelessness and gradually influences how well one

does their job. Secondary traumatic stress is associated with the negative experiences (e.g., difficulty sleeping or intrusive images) someone may experience after working with someone who has been exposed to trauma. The CS-CF model is complex as it combines the characteristics of a person's work environment, personal characteristics, and exposure to trauma in the work setting (Stamm, 2010). The CS-CF Model has been utilized to investigate the positive and negative experiences of human service professionals (medical personnel or Red Cross disaster responders; Stamm, 2010). This model has not been examined with youth crisis line volunteers. Below, we will review previous research on operator impacts that may include aspects of the CS-CF model.

A total of 13 studies on operator impacts measured negative impacts including vicarious traumatization, burnout, compassion fatigue, suicidal ideation, mental health diagnoses, stress level, and other broad negative impacts. Each will be discussed in turn below (organized from specific to broader domains).

Vicarious Traumatization. Two studies measured vicarious traumatization (i.e., a trauma reaction that passes on to the operator after an empathetic engagement with an individual; Dunkley & Whelan, 2006) and found similar results. Both studies found low to average vicarious traumatization scores for crisis line operators (Dunkley & Whelan, 2006; Furlonger & Taylor, 2013). Additionally, Dunkley and Whelan (2006) reported that participants who had a history of personal trauma reported higher vicarious traumatization scores. Consistent findings between both studies implicate vicarious traumatization was low among adult crisis line operators, however, results suggest the potential vulnerability of those with lived experience of personal trauma.

Burnout. Consistent with the CS-CF model, two studies measured volunteer burnout and found mixed results. Cyr and Dowrick (1991) found that 54% of volunteers felt burnout at one point from working on the crisis line. However, when specific burnout stages were assessed, the majority (97%) reported some experience. Specific stages endorsed included: 77% excessive enthusiasm (increased expectations and energy); 18% stagnation (lack of fulfillment); 39% frustration (doubts of one's value); and 28% apathy (emotional detachment). Roche and Ogden (2017) used emotional exhaustion, depersonalization, and personal accomplishment to predict burnout. This study found that when compared to population norms, individuals showed low levels of emotional exhaustion and depersonalization with moderate to high personal accomplishment. It was also reported that younger volunteers reported higher levels of emotional exhaustion. Additionally, it is important to note that the two studies used different scales to measure burnout which could contribute to the mixed findings. An additional difference between these two studies was the sample. Cyr and Dowrick (1991) included current volunteers (62% of the sample) and those who have left within the past four years (38% of the sample) while Roche and Ogden (2017) only included current volunteers. It may be that burnout caused some of the volunteers to stop their work at the crisis line, however, the reason for leaving was not addressed in this study. Although additional evidence is needed, burnout may be a risk to crisis line operators, specifically to younger volunteers. Burnout and secondary traumatic stress are components of compassion fatigue which will be mentioned below.

Compassion Fatigue. Consistent with the CS-CF model, compassion fatigue was investigated in one study. Compassion fatigue includes negative psychological factors (burnout and secondary traumatic stress, noted above) that come from helping others. O’Sullivan and Whelan (2011) reported that 61% of crisis line operators had concerning compassion fatigue

scores (scoring between 8 and 17 out of 50) and 17% had problematic scores (scoring 18 or above out of 50). Although these scores seem low (out of 50), the majority of crisis line operators reported concerning scores where Stamm (2002) has indicated they may have difficulties doing their job effectively (O'Sullivan & Whelan, 2011; Stamm, 2002).

Suicidal Ideation. Two studies measured the suicidal ideation of operators on a crisis line. Suicidal ideation includes thoughts or ideas concerning suicide (Harmer et al., 2021). Kitchingman et al. (2017) measured suicidal ideation of crisis line volunteers within the past month. Most (97%) workers reported minimal suicidal ideation (a score less than 8 out of 48). Kitchingman et al. (2018) measured suicidal ideation over crisis line operators' lifetime and in the past 12 months for crisis line operators. Results show 24% of operators reported previous suicidal ideation or attempt and 17% reported suicidal ideation within the past 12 months. One limitation of cross-sectionally measuring suicidal ideation is we are unsure when these thoughts started, before or after working on the crisis line. However, Kitchingman et al. (2018) did not report an increase in suicidal ideation from lifetime to the past 12 months for operators.

Mental Health Diagnoses. Two studies measured mental health diagnoses among crisis line volunteers, which could indicate the potential negative impact of crisis line experience. Mc Clure et al. (1973) examined the history of psychiatric diagnoses and rates of current disorders (while working on the crisis line) between two telephone crisis lines (one a suicide prevention line and one a teen hotline). Results indicated that across both crisis lines, 45% reported having a lifetime psychiatric disorder, but most notably, 14% reported having a current psychiatric disorder. This study shows volunteers are not performing worse than they were previously (before joining the crisis line). A more recent study by Paterson et al. (2009) compared lifetime and current mental health experiences between a control group (individuals who have never

volunteered before) to a group of helpline volunteers. No significant differences were found between groups for either lifetime or current mental health diagnosis. Based on this existing evidence, it does not appear crisis lines lead to more mental health disorders.

Other Broad Negative Impacts. Due to limited research across multiple constructs, negative impacts on broad psychological distress, stress level, and general frustrations were combined and discussed together in the section below.

Two studies examined the effect of broad psychological distress, one on operators and one on volunteers. Psychological distress follows empathetic engagement with distressed individuals and can precede functional impairment (i.e., elevated symptoms of depression and suicidal ideation; Kitchingman et al., 2018). Kitchingman et al. (2017) measured psychological distress in volunteers cross-sectionally. At the point of data collection, most (72%) volunteers reported low symptoms of psychological distress. It was also revealed that younger volunteers reported a higher level of psychological distress. In addition, volunteers with moderate suicidal ideation (n = 6) also reported greater functional impairment and had lower help-seeking intentions (both were used to measure psychological distress). These results may indicate potential vulnerability among younger volunteers and those with lived experience of suicidal ideation. In a second study, Kitchingman et al. (2018) measured levels of psychological distress in operators at three points in time: once before their shift, once during their shift, and once after their shift. Most workers reported a normal range of psychological distress symptoms at each point during the study, which did not cause functional impairment. In addition, participants who reported moderate suicidal ideation and moderate symptoms of depression, anxiety, and stress also reported significantly greater impairment of negative affect, psychological distress, and functional impairment. Although the studies used different measures of psychological distress,

findings were consistent that psychological distress was low among crisis line operators. In summary, younger volunteers and those who have a history of suicidal ideation, depression, anxiety, or stress may be at greater risk (Kitchingman et al., 2017; Kitchingman et al., 2018).

Mishara and Giroux (1993) measured the stress level of volunteers three times: before their shift, during their most high-urgency call, and the week after their shift. Volunteers reported a light stress level before their shift, a moderate stress level during their most high-urgency call, and a light to moderate stress level the week after their shift. Mishara and Giroux (1993) also found that a longer length of total calls during a shift heightened stress levels after the shift. These findings are consistent with Dunkley and Whelan (2006) who found a higher caseload was related to significantly higher symptoms of distress. Research has consistently reported that time spent listening during shifts can moderate negative impacts. For example, volunteers with longer shifts reported additional negative impacts (Mishara & Giroux, 1993).

Vattø et al. (2018) found a major theme of general frustration among volunteers. The study revealed a disconnect between expectations and the reality of calls. Volunteers revealed their training reflected the idea callers would be in urgent crisis; however, they reported most of their calls focused on mental illness support and loneliness (Vattø et al., 2018). These findings are similar to those of Pollock et al. (2012) who found most callers were not in extreme distress or having suicidal thoughts. Instead, volunteers reported callers as being unhappy, anxious, or lonely (Pollock et al., 2012). Willems et al. (2021) also found volunteers reported anger and irritation as a result of callers who tried to manipulate volunteers or even gain sexual gratification. In summary, frustration was reported among crisis line volunteers when the experience did not match their expectations of the job.

Existing literature can be challenging to integrate due to varying study designs, materials (most of which were not well-validated), and variations in how the outcomes were measured. However, past research with adults suggests that burnout and compassion fatigue may be a concern for crisis line operators (Cry & Dowrick, 1991; O'Sullivan & Whelan, 2011). Although the literature suggests that crisis lines do not increase mental health diagnoses or suicidal thoughts and behaviors, there is potential vulnerability of those with lived experience (Kitchingman et al., 2017; Kitchingman et al., 2018). Additional research is needed to identify moderators of the crisis line experience.

Positive Impact of Crisis Line Work

Most research on crisis line operators has examined negative impacts with little consideration for positive impacts. Fewer studies (n = 3) examined the positive impacts (posttraumatic growth and overall satisfaction) of crisis line operators. Only one study measured posttraumatic growth among operators. Posttraumatic growth can be considered a positive outcome (e.g., self-development or a positive change in interpersonal relationships) following a traumatic event, experienced not only by those directly involved but also by workers who assist said individuals (O'Sullivan & Whelan, 2011). O'Sullivan and Whelan (2011) reported operators with levels of posttraumatic growth that varied from low to high. However, crisis line operators reported some posttraumatic growth.

One study measured the overall satisfaction of volunteers. Hellman and House (2006) found that volunteers who had higher levels of overall satisfaction also reported higher levels of affective commitment and intent to remain on the job. In addition, a study by Willems et al. (2021) revealed many volunteers experience positive emotions such as satisfaction, compassion and understanding, joy and humor, gratitude, and enrichment during their work. Although most

research has focused on negative impacts, additional studies are needed that measure potential positive impacts. Overall, crisis line operators have the potential to achieve posttraumatic growth, as well as overall satisfaction and positive emotions in their line of work (Hellman & House, 2006; O'Sullivan & Whelan, 2011; Willems et al., 2021).

Teen-to-Teen (t2t) Crisis Lines and Peer Support

No research so far on operator impacts has included youth volunteers. However, teen-to-teen (t2t) crisis lines are a unique resource where adolescent volunteers can help their peers with suicidal thoughts and behaviors, feelings of hopelessness, and other mental health concerns. After extensive training (and while being monitored by trained adult staff), youth can provide resources and assistance to their peers. Although teen-to-teen (t2t) crisis lines have not yet been evaluated, peer support models offer great support in many different settings.

Peer support groups have been utilized for years in different settings such as physical and mental health. A review of peer support research (groups led by individuals sharing a common issue) including 45 self-help mutual aid groups focused on individuals battling events such as addiction, bereavement, cancer, chronic illness, diabetes, mental health, weight loss, and more specific groups for older adults and caregivers (Kyrous et al., 2002). Many of the studies report that members of the group acknowledge they have benefitted in some way (e.g., greater life satisfaction and reports of coping better; Kyrous et al., 2002). In addition, peer support can directly address suicide with prevention efforts such as gatekeeper training and crisis support in a wide variety of settings such as schools and hospitals (Bowersox et al., 2021; Isaac et al., 2009). It has even been recommended by the U.S Surgeon General's national suicide prevention strategy that peer support be included in the care of those at high risk for suicide (Bowersox et al., 2021). By encouraging youth to provide support, this opportunity may lower suicide risk by

reducing stigma and increasing connectedness (Bowersox et al., 2021). Additionally, youth have reported they would rather disclose suicide risk to peers rather than to adults (Kalafat & Elias, 1992). Taken together, youth may have a unique and important role they can make to prevent their peers from dying by suicide (Kalafat & Elias, 1992).

By implementing a teen-to-teen (t2t) model within a crisis line setting, we must acknowledge the vulnerability of youth volunteers. Adolescence is a period early in life when peer relationships become increasingly important (Knoll et al., 2017). Individuals spend less time with their families and more time with friends their own age (Knoll et al., 2017). This increased amount of time spent with peers begins around childhood and peaks around age 14 (Knoll et al., 2017). In addition, adolescence is also a period associated with risk-taking behavior (Knoll et al., 2017). Alcohol and drug use, risky sexual behavior, and dangerous driving begin to arise (Knoll et al., 2015). Many researchers believe contagion is the connection between social influence and risk-taking behavior. The social contagion of behaviors among adolescents is a robust and replicable finding and has been used to understand risk-taking behaviors among adolescents in general, but also more specific activities such as dropping out of high school, drug use, aggression, non-suicidal self-injury, and even suicide (Ali et al., 2011; Cohen & Prinstein, 2006; Dupéré et al., 2021; Insel & Gould, 2008; Reiter et al., 2019; Syed et al., 2020). Contagion of behaviors occurs when one activity (or behavior) facilitates the occurrence of the same activity (or behavior) in another person (Insel & Gould, 2008). The likelihood of imitation is increased when individuals share characteristics with one another or similar life experiences (Insel & Gould, 2008). With this combination of factors, concern for contagion, and research of negative impacts on adult operators, it is critical to examine the impact on adolescent volunteers. Before

examining the effectiveness of teen-to-teen (t2t) models, the safety and impacts on adolescent volunteers must be examined.

Current Study

The goal of this pilot study was to begin to evaluate the impact, and critically examine the safety of teen-to-teen (t2t) crisis lines for the youth operators. No research to date has examined the experience and impact of youth volunteers. This pilot project, although small, is the first study to begin to examine the experience of teen-to-teen (t2t) crisis line work for young people. This project will be informed by previous adult crisis line research and the framework of the Compassion Satisfaction-Compassion Fatigue (CS-CF) model. The CS-CF model has been utilized to investigate the positive and negative experiences of human service professionals (e.g., medical personnel and Red Cross disaster responders) but has not yet been extended to youth crisis line volunteers. There are five specific aims of this thesis project. The first aim was to examine motivations for pursuing crisis line work among youth volunteers. Based on previous research with adults, we predicted that motivations would include giving back and helping others, developing new skills and personal growth, or a recent personal loss (Mishara & Giroux, 1993; Praetorious & Machtmes, 2005; Smith et al., 2020; Sundram et al., 2018). The second aim was to examine the type/content of contacts (calls, text, chats) responded to by youth volunteers (e.g., high-risk suicide, child abuse, bullying). We did not have a specific hypothesis as no prior research has examined type/content of contacts at the individual level (only from crisis lines as a whole). The third aim was an exploratory examination of the potential negative impact and safety on youth volunteers. Negative impact was operationalized by measuring the degree of psychological distress and secondary traumatic stress, the prevalence of suicidal ideation, endorsement of negative or unhelpful experiences working on the crisis line, and endorsement of

negative impacts on life outside of work. We did not have a specific hypothesis as no prior research has examined negative impact over time among crisis line volunteers. We also examined the relationship between years of experience on the crisis line and negative impact. We did not have a specific hypothesis as no prior research has examined this relationship. The fourth aim was an exploratory examination of the positive impact on youth volunteers. Positive impact was operationalized by measuring endorsement of positive or helpful experiences working on the crisis line and endorsement of positive impacts on life outside of work. For the fourth aim, we did not have a specific hypothesis as no prior research has examined positive impact over time among crisis line volunteers. We also examined the relationship between years of experience on the crisis line and positive impact. We did not have a specific hypothesis as no prior research has examined this relationship. The fifth aim was also an exploratory examination of how lived experience with suicidal thoughts and behaviors and age may moderate the impact of crisis line work on youth volunteers. Moderators can help to identify which volunteers may benefit greatest from crisis line work and who may have a more negative experience. We examined whether youth with a history of suicidal thoughts and behaviors report more negative impacts of crisis line work. Based on previous research with adults, we predicted that volunteers with lived experience of suicidal thoughts and behaviors will report greater psychological distress and secondary traumatic stress (Dunkley & Whelan, 2006; Kitchingman et al., 2017, Kitchingman et al., 2018). We also examined if younger or older volunteers are reporting a heightened negative impact. Although there has been no previous research with adolescents, adult research has reported that younger adults experience greater negative impact (Roche & Ogden, 2017; Kitchingman et al., 2017). Considering this, we predicted that volunteers in a younger age group (less than 18) will experience greater psychological distress and secondary traumatic stress. To

reiterate, this is the first study to examine the impact of teen-to-teen crisis line work on youth volunteers and benefits from longitudinal examination of youth volunteers' experiences.

CHAPTER II

METHOD

Participants

Youth crisis line volunteers were recruited from two of the largest crisis lines in the U.S. – Teen Line and YouthLine. All youth crisis line volunteers at Teen Line and YouthLine were eligible for this study (approximately 150). There were no exclusion criteria beyond the age restriction (14-20 years).

Twenty volunteers (ages 15-20) were successfully recruited for this pilot study. Six (30%) volunteers were from Teen Line and 14 (70%) volunteers were from YouthLine. The average age was 16.95 years (*SD* = 1.15). The majority of the sample (85%, *n* = 17) identified as White/Caucasian. Additionally, 10% (*n* = 2) identified as multiracial and 5% (*n* = 1) as Asian. Detailed demographics are presented in Table 1. Among volunteers, the length of experience on the crisis line varied. Four (20%) volunteers started on the t2t line 1-2 months ago, 20% (*n* = 4) had been volunteering for 3-6 months, 5% (*n* = 1) for 7-11 months, 50% (*n* = 10) for 1-2 years, and 5% (*n* = 1) for more than 2 years. The author of this thesis did not collect the data and this thesis project is considered secondary data analysis.

Table 1

Sample Demographics

Demographic Variable	
Age *M (SD)*	16.95 (1.15)
Grade: n (%)	
9th	1 (5%)
10th	2 (10%)
11th	8 (40%)
12th	7 (35%)
College	2 (10%)
Gender[1]: n (%)	
Cisgender female	18 (90%)
Cisgender male	1 (5%)
Not sure	1 (5%)
Sexual Orientation[1]: n (%)	
Heterosexual/straight	10 (50%)
Bisexual	5 (25%)
Lesbian/gay	3 (15%)
Not sure	2 (10%)
Race[1]: n (%)	
White or Caucasian	17 (85%)
Multiracial	2 (10%)
Asian	1 (5%)
Ethnicity: n (%)	
Not Hispanic or Latinx	19 (95%)
Hispanic or Latinx	1 (5%)
Who do you currently live with? n (%)	
Biological/adoptive/step/foster mother	19 (95%)
Biological/adoptive/step/foster father	17 (85%)
Biological/adoptive/step/foster siblings	12 (70%)
Extended family	1 (5%)
Friend/roommate	1 (5%)
Boyfriend, girlfriend, romantic partner	1 (5%)

[1] Additional options were provided for gender identity, sexual orientation, and race. The reported demographic categories were the only ones endorsed in the current sample.

Teen Line

Teen Line is a nonprofit, community-based organization established in Los Angeles, California that has been in operation since 1980. Youth can contact the crisis line through a variety of communication methods, including text (the most common), phone calls, and emails. Volunteers between the ages of 14 and 18 years old are accessible for contact four hours a day (6-10pm PST). Over 21,000 individuals contacted Teen Line in 2020 via text, phone call, and email. Teen Line has over 160 active volunteers at any given time, with roughly 70 volunteers joining each year. Volunteers are largely recruited through word of mouth. Youth must be local (live in the Los Angeles area) and are eligible to volunteer once they enter 9th grade. A one-year commitment is required. Before volunteers can start responding to contacts, Teen Line requires 65 hours of training including skills such as active listening, crisis assessment, and intervention. After this, trainees must roleplay and pass a test that includes written and verbal tasks. The whole training process takes six months – one year to complete. During shifts, volunteers are supervised closely and provided debriefing sessions as needed.

YouthLine

YouthLine is a crisis and t2t support service established in Portland, Oregon that has been in operation since 2000. Youth can contact the crisis line through a variety of communication methods, including text, chat, phone calls, and emails. Text and chat are the most common methods of communication. Volunteers between the ages of 15 and 20 years old are accessible for contact six hours a day (4-10pm PST). Over 28,000 individuals contacted YouthLine in 2020 via text, phone call, and email. YouthLine has over 150 active volunteers at any given time, with roughly 110 new volunteers each year. Volunteers are largely recruited by word of mouth. Youth must be local (live in the Portland area) and are eligible to volunteer starting at age 15. A one-

year commitment is required. Before volunteers can start responding to contacts, YouthLine requires 63 hours of training which includes mental health skills, role plays, and shadow shifts. This training process takes about three to five weeks to complete. During shifts, volunteers are supervised closely and provided debriefing sessions as needed. Volunteers also have access to a text line for support.

Procedure

This study was approved by Old Dominion University's International Review Board (Protocol# 1610993). Adolescent assent (if the volunteer was between 14 and 17 years old) or consent (if the volunteer was between 18 and 20 years old) were collected prior to the study. Parent permission was also required if the volunteer was a minor. The same procedure was utilized for both crisis lines. Adult staff at both crisis lines were given information about the study, including a link to the assent/consent form for additional information. This information was then shared with the youth volunteers via flyers and emails. If minor volunteers were interested, parents were contacted for their permission. Participation in the study was voluntary, confidential, and did not affect the volunteers' position at the crisis line. For this one-year longitudinal study, baseline data were collected from August 2020-May 2021 with follow-up data collected until May 2022.

Enrolled volunteers were assessed up to five times over the course of one year; once at baseline and then every three months for up to approximately one year (baseline, 3-month follow-up, 6-month follow-up, 9-month follow-up, 12-month/1-year follow-up). The survey at each time point took approximately 20 minutes to complete.

Surveys were completed online (via Qualtrics) at the start of each volunteer shift, when possible, so that the research team could monitor the volunteers' surveys for safety. Specifically,

items asking about suicidal thoughts and behaviors within the past 30 days and/or since starting on the crisis line were monitored throughout the study. If a volunteer reported any suicidal thoughts and behaviors within the past 30 days or if they endorsed "Do not want to answer" they would be considered high-risk and need to be followed up by a supervisor at Teen Line or YouthLine (this follows the safety protocols in place at these crisis lines if a volunteer reports an increase in mental health symptoms or suicide risk).

For this pilot study, volunteers did not receive monetary compensation for participating. At the end of the study, they were thanked for their time and received debriefing materials including information about the study and national mental health resources.

Measures

The following measures were used to examine the motivations of volunteers, types of calls taken by volunteers, negative/unhelpful experiences, psychological distress, secondary traumatic stress, suicidal thoughts and behaviors, and positive/helpful experiences. A *Do not want to answer* option was also offered for all questions. See the Appendix for full measures.

Motivations of Youth Volunteers

A single-item measure created by the research team was developed to examine motivations, or reasons, for pursuing crisis line work. One question "Why did you join Teen Line/YouthLine?" offered a free response option. Motivations were only measured at baseline.

Types of Calls/Texts/Emails Taken by Youth Volunteers

A single-item measure created by the research team was developed to examine descriptive information about types of calls/texts/emails taken by youth volunteers. See the Appendix for the answer choices provided. This question was developed during collaboration with Teen Line and YouthLine and based on previous literature with adult operators. One

question “Which types of calls/texts/emails have you taken?” gave checkbox options with preexisting categories that were developed during collaboration with Teen Line and YouthLine. This item was measured at each survey (baseline-1 year).

Negative/Unhelpful Experiences

A novel questionnaire created by the research team was used to measure negative/unhelpful experiences on the t2t crisis line since no scale has previously been developed. These questionnaires were developed in collaboration with Teen Line and YouthLine and based on previous literature that examined adult operator impacts. One question “How negative/unhelpful has your experience on YouthLine/ Teen Line since you started?” was measured on a 5-point scale from 0=*Not at all negative* to 4=*Extremely negative.* Additionally, questions asking, “Which aspects of YouthLine/Teen Line have been the most negative/unhelpful for you since you started?” and “How has your work on the YouthLine/Teen Line negatively impacted your life outside of the crisis line since you started?” provided checkbox options which were based on previous research with adults and consultation with the two t2t crisis lines involved in this research. Additional items asking, “Are there other ways that you have found working on YouthLine/Teen Line to be negative/unhelpful to you?” and “Are there other ways that your work on the YouthLine/Teen Line has negatively impacted your life outside the crisis lines?” offered free response options.

Psychological Distress

Psychological distress was assessed with the Kessler-6 (K6; Kessler et al., 2002). This measure includes six questions that can be answered on a 5-point scale ranging from 1=*none of the time* to 5=*all of the time*. Example questions include: During the last 30 days, about how often did you feel nervous? During the last 30 days, about how often did you feel hopeless? This

scale has previously been used to measure psychological distress in adolescent samples with excellent internal consistency (α = .90; Green et al., 2010; Mewton et al., 2016; Peiper et al., 2015). A K6 score of greater than or equal to five is indicative of moderate mental distress and a score of greater than or equal to 13 is indicative of severe mental distress (Prochaska et al., 2012).

Suicidal Thoughts and Behaviors (STBs)

Suicidal ideation, suicide plans, and suicide attempts were assessed over the volunteer's life and recently (within the past 30 days) with the CDC's Youth Risk Behavior Survey (YRBS) STBs questions (Centers for Disease Control and Prevention, 2019). This measure includes six yes/no questions (a *Do not wish to answer* option was also provided for all questions). Items asked: Have you ever (in your lifetime) seriously thought about killing yourself? Have you ever (in your lifetime) made a plan about how you would kill yourself? Have you ever (in your lifetime) tried to kill yourself? Items in this assessment also addressed STBs within the past 30 days. This measure has been widely used in youth, specifically, the YRBS has previously been used to assess STBs in adolescent samples within a school setting. For example, this measure is administered to a random sample of U.S high school students every two years (Centers for Disease Control and Prevention, 2019; May & Klonsky, 2011; Pinźon-Pérez & Pérez, 2001; Shilubane et al., 2013). In addition, this study added questions to ask if these thoughts and behaviors started before or after volunteering on the crisis line if the volunteer reported lifetime STBs. These questions will be utilized to address two aims: (1) to measure potential negative impacts of crisis line work (i.e., presence of STBs since joining the crisis line), and (2) to examine differences based on lived experiences with suicidal thoughts and behaviors (i.e., lifetime history of STBs).

Secondary Traumatic Stress

Secondary traumatic stress was measured with a 10-item subscale from the Professional Quality of Life Measure (ProQoL; Stamm, 2010). This measure is consistent with the CS-CF model as a component of compassion fatigue. Questions are answered on a 5-point scale from 1=*never* to 5=*very often*. Example items include: I am preoccupied with more than one person I help on [YouthLine/Teen Line]. I find it difficult to separate my personal life from my life as a helper on [YouthLine/ Teen Line]. This measure has previously been used to measure secondary traumatic stress in child protection workers with good internal consistency (α =.80; Geoffrion et al., 2019; Vang et al., 2020). In addition, this subscale has also been used to measure secondary traumatic stress in adult crisis line workers (Kitchingman et al., 2018). A secondary trauma scale score of 22 or less is indicative of a low secondary traumatic stress level, a score between 23 and 41 is indicative of a moderate level, and 42 or more is indicative of a high level (Stamm, 2010).

Positive/Helpful Experiences

A novel questionnaire created by the research team was used to measure positive/helpful experiences on the t2t crisis line since no scale has previously been developed. These questionnaires were developed in collaboration with Teen Line and YouthLine and based on previous literature that examined adult operator impacts. One question "How positive/helpful has your experience on YouthLine/ Teen Line since you started?" was measured on a 5-point scale from 0=*Not at all positive* to 4=*Extremely positive.* Additionally, questions asking, "Which aspects of YouthLine/Teen Line have been the most positive/helpful for you since you started?" and "How has your work on the YouthLine/Teen line positively impacted your life outside of the crisis line since you started?" provided checkbox options which were based on previous research with adults and consultation with the two t2t crisis lines involved in this research. Additional

items asking, “Are there other ways that you have found working on YouthLine/Teen Line to be positive/helpful to you?” and “Are there other ways that your work on the YouthLine/Teen Line has positively impacted your life outside the crisis lines?” offered free response options.

Data Analysis

This is the first study to examine the experience and impact of teen-to-teen (t2t) crisis line volunteers. This pilot study examined qualitative (checkbox options and free response) data and quantitative (rated on a scale) data gathered over multiple time points (i.e., up to five times over one year). Because of the small sample size (n = 20), power was limited for the longitudinal aims and some analyses are considered exploratory. In previous research with adults, small effect sizes were typically recorded (Dunkley & Whelan, 2006; Furlonger & Taylor, 2013; Hellman & House, 2006; Kitchingman et al., 2017; Roche & Ogden, 2017), and the current study is underpowered to detect small effects.

Qualitative Data

Free response data were analyzed using a directed content analysis approach (Hsieh & Shannon, 2005). This approach is recommended when there is prior research about a phenomenon with preexisting categories for free-response data. A codebook was created by the first independent coder in two steps (see the Appendix for the full codebook). First, preexisting categories were created in collaboration with staff at the t2t crisis lines, Teen Line and YouthLine, and based on previous adult crisis line operator research. The first independent coder provided examples and definitions for each preexisting category. Examples and definitions did not include any direct quotes from the data or any information that would bias the coders' responses. Second, if free response data did not fit into any pre-existing categories, new categories were identified using thematic analysis. Specifically, themes in the data were

identified and new categories (mutually exclusive from the preexisting categories) were created, and definitions and examples were provided in the codebook. This step was repeated until the point of saturation – that is, when the codebook covered all free response data, and no new themes were identified. Once the codebook was complete, it was passed to the second independent coder (another graduate student). Any discrepancies between the coders were resolved with a third, senior coder (faculty mentor).

Quantitative Data

Data analysis for the quantitative data described below was run in R with the *lme4* (for multi-level models), *lmerTest* (for p-values from linear mixed effects models), *EMAtools* (for centering), *performance* (for ICC), *modi* (for weighted variance), *mice* (for multivariate imputation), and *corr* (for correlations) packages. Multi-level modeling (MLM) was the most appropriate statistical technique for repeated measures data for several reasons. First, MLM provides the opportunity to include two levels where time (level 1) is nested within people (level 2) predicting our outcomes (psychological distress, secondary traumatic stress, and positive and negative impact). Second, MLM is advantageous compared to other repeated measures approaches (e.g., repeated measures ANOVA) by providing the ability to look at individual differences and make predictions. Third, MLM allows the ability to run an unconditional (or null) model with no predictors and calculate the interclass correlation (ICC) for each MLM model below to quantify how much variability in each outcome is due to within-person differences and between-person differences. Restricted maximum likelihood (REML) was used for estimation to consider the uncertainty of fixed parameters and to consider the bias of having a smaller sample size. Missing data were addressed using multiple imputation, if less than 10% of the data on a scale was missing, to include as many participants as possible.

Aim 1. Examine Motivations for Pursuing Crisis Line Work Among Youth Volunteers

Data from one free-response question, assessed at baseline, were used to address this aim. This question provided volunteers with the opportunity to freely respond about their reasons for joining the crisis line. A codebook was created including preexisting categories and new categories identified in the free response data (described above). The two coders independently coded the free-response data using the codebook (i.e., data were coded "1" if a category was endorsed in the free response, or coded "0" if not). If coders disagreed, a consensus meeting was held with a third, and senior, member of the research team to resolve any discrepancies in coding. Data analysis for this aim is very similar to other aims that include free-response data. However, for this aim, preexisting categories were not included in the measure provided to participants, so we could examine how youth may respond differently (in their own words). Any identifiable information in free responses was removed or made more generalizable (e.g., any reference to a name was changed to NAME, etc.). All 20 participants were included in this aim.

Aim 2. Examine the Type/Content of Contacts Responded to by Youth Volunteers

Data from one question, assessed at each time point, addressed this aim (checkbox options and optional free response). Descriptive information was examined for types/content of contacts (calls, texts, chats) responded to by youth volunteers. Although data for this aim was measured up to five times, we primarily focused on content aggregated across time for each person. Therefore, frequency descriptives were collapsed across the multiple time points within-person. To code the free response data, a codebook was created including preexisting categories and new categories identified in the free response data (described above). The two coders independently coded the free-response data using the codebook. If coders disagreed, a consensus

meeting was held with a third, and senior, member of the research team to resolve any discrepancies in coding. All 20 participants were included in this aim.

Assumptions (For Aims 3-5)

Given the nature of this pilot study, data were not randomly sampled at either level. We attempted to recruit as many participants as possible by asking volunteers to participate in our study. However, all volunteers who wanted to participate in the study were enrolled based on eligibility criteria. Assumption checks were run using the check_model() function in R. Homogeneity of variance, and normality of residuals were all deemed to be normal. The linearity assumption, by observation, was violated and few outliers were identified. Typically, we would remove outliers from our data set to not skew results, however, because of the small sample size we did not remove any data based on assumption violations. For models examining trends (i.e., including time in the model), any participants with less than three data points were removed (no variability within-person, sigma squared would be zero) which resulted in 51 observations across 15 volunteers (originally 77).

Aim 3a. Exploratory Examination of the Potential Negative Impact and Safety on Youth Volunteers

Data from several sources addressed this aim. This included the questionnaire created by researchers to assess negative/unhelpful experiences, the Kessler-6 (K6) to assess psychological distress, the Youth Risk Behavior Survey (YRBS) to assess suicidal thoughts and behaviors, and the Professional Quality of Life (ProQOL) subscale to assess secondary traumatic stress.

First, we examined any negative impacts on youth volunteers using questions from the novel questionnaire created for this study. Quantitative data (data rated on a scale) were examined up to five-time points (baseline to 1 year) to identify any trends (e.g., if youth

volunteers report more negative experiences over time). This first model of this aim included time as a level one predictor and the participant as a level two predictor predicting negative impact experience (level one). Fifteen participants were included in this model.

Next, two check box questions and two free response questions were used to examine the most negative/unhelpful aspects of the crisis line and how volunteering has negatively impacted the volunteers' lives outside of the crisis line. Although data for this aim was measured up to five times, we primarily focused on content aggregated across time for each person. Therefore, frequency descriptives were collapsed across the multiple time points within-person. Qualitative data (frequencies and optional free response) were investigated to inform researchers of the most negative/unhelpful aspects of the crisis line and how working on the crisis line has negatively impacted volunteers' lives. A codebook was created including preexisting categories and new categories identified in the free response data (described above). The two coders independently coded the free-response data using the codebook. If coders disagreed, a consensus meeting was held with a third, and senior, member of the research team to resolve any discrepancies in coding. All 20 participants were included in the qualitative examination of negative/unhelpful aspects.

Finally, we examined psychological distress, suicidal thoughts and behaviors, and secondary traumatic stress over time using validated questionnaires assessed at up to five-time points. MLM models were used with time addressed in the model as a level one predictor and the participant as a level two predictor predicting psychological distress (level one) and secondary traumatic stress (level one). Each outcome was included in a separate model. The presence of suicidal thoughts and behaviors since starting on the crisis line is a low base rate occurrence and will be examined as a total percentage of overall follow-up time points for each volunteer.

Specifically, any presence of STBs was collapsed into a binary yes/no variable. Fifteen participants were included in these models.

Aim 3b. Examination of the Relationship between Experience on the Crisis Line and Negative Impact

We examined if there is a relationship between the length of experience on the crisis line negative experience, secondary traumatic stress, and psychological distress. A Spearman correlational analysis was used to measure the relationship between length of experience at baseline and negative experience, secondary traumatic stress, and psychological distress at baseline. This analysis is most appropriate considering length of experience include rank order data. All 20 participants were included in this aim.

Aim 4a. Exploratory Examination of the Positive Impact on Youth Volunteers

Data from four questions of a novel questionnaire addressed this aim. First, we examined any positive impacts on youth volunteers using questions from the novel questionnaire created for this study. Quantitative data (rated on a scale) was examined up to five-time points (baseline to one year) to identify any trends (e.g., if youth volunteers report fewer negative experiences over time). This first model of this aim included time as a level one predictor and the participant as a level two predictor predicting positive experience (level one). All 20 participants were included in this model.

Next, two check box questions and two free response questions were used to examine the most positive/helpful aspects of the crisis line and how volunteering has positively impacted the volunteers' lives outside of the crisis line. Although data for this aim were measured up to five times, we are primarily focused on content aggregated across time for each person. Therefore, frequency descriptives were collapsed across the multiple time points within-person. Qualitative

data (frequencies and free response) were investigated to inform researchers of the most positive/helpful aspects of the crisis line and how working on the crisis line has positively impacted volunteers' lives. A codebook was created including preexisting categories and new categories identified in the free response data. The two coders independently coded the free-response data using the codebook. If coders disagree, a consensus meeting was held with a third, and senior, member of the research team to resolve any discrepancies in coding. All 20 participants were included in the qualitative examination of positive/helpful aspects.

Aim 4b. Examination of the Relationship Between Experience on the Crisis Line and Positive Impact

We examined if there is a relationship between the length of experience on the crisis line and positive impact. A Spearman correlational analysis was used to measure the relationship between length of experience at baseline and positive experience at baseline. This analysis is most appropriate considering length of experience include rank order data. All 20 participants were included in this aim.

Aim 5. Exploratory Examination of How Lived Experience with Suicidal Thoughts and Behaviors and Age May Moderate the Impact of Crisis Line Work on Youth Volunteers

This exploratory aim examined two potential moderators of the crisis line experience: lived experience with suicidal thoughts and behaviors and age. These moderators may have potential influence on how youth volunteers experience secondary traumatic stress and secondary traumatic stress.

Lived Experience. First, lived experience with suicidal thoughts and behaviors were examined as a potential moderator of psychological distress and secondary traumatic stress over time. Participants were grouped into “Lived experience” (dummy coded as 1) or “No lived

experience" (dummy coded as 0). This model included time as a level one predictor and lived experience as a level two predictor predicting psychological distress. We also added the cross-level interaction between time and lived experience on psychological distress into the model. The next model included time as a level one predictor and lived experience as a level two predictor predicting secondary traumatic stress. We also added the cross-level interaction between time and lived experience on secondary traumatic stress into the model. Fifteen participants were included in this model.

Age. Second, age was also examined as a potential moderator of psychological distress and secondary traumatic stress. We were interested to know how experiences on the crisis line may vary for youth across adolescence. Age ranges in this study from 15 to 20 years old. Because we are interested in differences across adolescence, participants' age will be grouped into 15-17 (middle adolescence; dummy coded as 0) and 18-20 (late adolescence; dummy coded as 1). This model included time as a level one predictor and the participant's age as a level two predictor predicting psychological distress. We also added the cross-level interaction between time and age on psychological distress into the model. The next model was ran including time as a level one predictor and the participant's age as a level two predictor predicting secondary traumatic stress. We also added the cross-level interaction between time and age on secondary traumatic stress into the model. Fifteen participants were included in this model.

Data Analytic Issues and How to Address

Given the nature of the pilot study, we came into contact with a few potential issues with the data. First, quantitative data from aim 3a and aim 4a included a restricted range (0-4) asking about positive and negative experiences. Responses from volunteers showed little to no variability. Since data has already been collected, we did not find any significant results where

variables such as time (level one) and participant (level two) predicted positive and negative impacts. Instead, we looked at frequency descriptives collapsed across the multiple time points between-person (the overall average of the sample at each time point). Second, we removed the five participants with less than three longitudinal follow-up points for MLM analyses. This reduced our power for these analyses. Additionally, we looked at frequency descriptives collapsed across the multiple time points between-person (i.e., the overall average of the sample at each time point). We also included data such as how much variability in each outcome is due to within-person vs. between-person variability (ICC), amount of unexplained variability within-person ($sigma^2$), and amount of unexplained variability between-person (tau_{00}).

CHAPTER III

RESULTS

Over the course of the one-year longitudinal study, nine out of 20 participants were lost to follow-up or actively withdrew from the study. Retention rates were as follows: T2(85%), T3(75%), T4(70%), and T5(55%). Reasons for active withdrawal of the study include: one (5%) "recent events" unspecified and seven (35%) ended their positions at Teen Line/Youth Line. Of the seven who ended their positions, two moved away for college and the rest were unspecified. The remaining one (5%) was lost to follow-up. Considering this, there were 11 participants with five data points, two participants with four data points, two participants with three data points, three participants with two data points, and two participants with one data point.

Motivations for Pursuing Crisis Line Work Among Youth Volunteers

For qualitative analysis of motivations, a codebook was created by the first independent coder. Only two preexisting categories were shown to overlap with adolescent motivations (1) *help others and give back to the community* and (2) *gain new skills and experiences.* An additional preexisting category, *a recent personal loss*, was identified in adult research but not reported by adolescent volunteers. Additional categories were identified based on themes from the data: (1) *Given my own or close others lived experience with mental health issues or isolation*; (2) *learn more about mental health [more broadly]*; and (3) *destigmatize mental health.* Results indicated that the most common motivation for youth volunteers joining the crisis line was to *help others and give back to the community* (95%), followed by *given my own or close others lived experience with mental health issues or isolation* (40%), *gain new skills and experiences* (40%), *learn more about mental health* (20%), and *destigmatize mental health* (10%).

Type/Content of Contacts Responded to by Youth Volunteers

Adolescent volunteers reported responding to a variety of contacts via calls/texts/emails. All (100%) volunteers reported contacts related to: (1) *depression, anxiety, or other mental health symptoms or concerns*; and (2) *relationship difficulties*. In addition, the majority (95%) of volunteers reported taking calls/texts/emails and responded to contacts relating to (3) *self-injury or suicide* (*not high risk*); (4) *abuse, assault, or violence* (*not high risk*); (5) *bullying/harassment;* (6) *COVID-19 or quarantine stress;* and (7) *academic stress.* Additionally, 90% of volunteers reported contacts related to (8) *high-risk abuse, assault, or violence*; and (9) *high-risk suicide or self-injury*. All findings are displayed in Table 2.

Table 2

Which Types of Calls/Texts/Emails Have You Taken?

Category	*n* (%)
Depression, anxiety or other mental health symptoms or concerns	20 (100%)
Relationship difficulties	20 (100%)
Abuse, assault, or violence (*not high risk*)	19 (95%)
Academic stress	19 (95%)
Bullying/harassment	19 (95%)
COVID-19 or quarantine stress	19 (95%)
Self-injury or suicide (*not high risk*)	19 (95%)
High-risk abuse, assault, or violence	18 (90%)
High-risk suicide or self-injury	18 (90%)
Stressors related to gender identity or sexual orientation	18 (90%)
Grief/mourning loss of a loved one	17 (85%)
Negative self-image/body or weight concerns	17 (85%)
Pregnancy or STIs	17 (85%)
Substance abuse/addiction	13 (65%)
Financial concerns	12 (60%)
Racism, racial injustice, recent murders of Black people, protests, and/or discrimination-related stress	9 (45%)
Other:[1]	
Loneliness	2 (10%)
Identity concerns (e.g., race or religion)	2 (10%)
Disabilities	2 (10%)
Running away	1 (5%)
Access to resources	1 (5%)

[1]Additional categories identified from the free response data.

Potential Negative Impact and Safety on Youth Volunteers

Negative/Unhelpful Experience Working on the Crisis Line

Given the limited variability in scoring volunteers' negative/unhelpful experience working on the crisis line (on the 0-4 scale), frequency descriptives were collapsed across the multiple time points between-person. All (100%) of volunteers endorsed their experience on the crisis line as either 0=*Not at all negative* or 1=*A little negative*, $M = 0.49$ ($SD = 0.35$), on a scale from 0-4. Since there was variability in the number of surveys each volunteer completed, the mean and standard deviation were weighted based on the number of surveys per person.

Adolescent volunteers reported some negative/unhelpful experiences of working on the t2t crisis line. The top four most commonly endorsed categories were: (1) *Stressful work* (70%); (2) *Negative impact on my own mental health* (40%); (3) *Minimizing my own problems (compared to those who use Teen Line/YouthLine*; (25%); and (4) *High expectations of volunteer position* (*e.g., training;* 20%). It is important to note that 15% of the sample did not indicate any negative aspects of working on the t2t crisis line in the check box options or free response. All the above categories were pre-existing categories. Free response items indicated one new category of negative/unhelpful aspects of working on the t2t crisis lines: *Difficulties within the TL/YL community (i.e., with other volunteers or supervisors*). There were 14 free response items that were already indicated in the checkboxes (i.e., accounted for by preexisting categories) and three free response items that needed to be re-coded (i.e., not accounted for by preexisting categories but were reported in the free response). All findings are displayed in Table 3.

Table 3

Negative/Unhelpful Aspects of Working on the T2T Crisis Line

Category	*n* (%)
Stressful work	14 (70%)
Negative impact on my own mental health	8 (40%)
Minimizing my own problems (compared to those who use Teen Line/YouthLine)	5 (25%)
High expectations of volunteer position (e.g., training)	4 (20%)
Too much of a time commitment	2 (10%)
None of the above[1]	3 (15%)
Other:[2]	
Difficulties within the TL/YL community (i.e., with other volunteers or supervisors)	4 (20%)

[1]Participants did not endorse any negative impact of working on the crisis line at any point in the study.
[2]Additional categories identified from the free response data.

Negative Impact Outside of the Crisis Line

Additionally, adolescent volunteers were asked about the negative impact outside of the t2t crisis line. The top five most commonly endorsed categories were: (1) *Increased pressure to support others' mental health because of work on Teen Line/YouthLine* (65%); (2) *Emotionally drained* (60%); (3) *Increased stress or anxiety* (40%); (4) *Negative impact on my own mental health* (20%); and (5) *Less time for other activities outside of volunteer experience* (15%). All the above categories were pre-existing categories. Free response items indicated no new categories of negative/unhelpful impacts outside of the t2t crisis line, however, one participant mentioned an overwhelming feeling of emotions. There was one free response items that was already indicated in the checkboxes. All findings are displayed in Table 4.

Table 4

Negative Impact Outside of the Crisis Line

Category[1]	*n* (%)
Increased pressure to support others' mental health because of work on Teen Line/YouthLine	13 (65%)
Emotionally drained	12 (60%)
Increased stress or anxiety	8 (40%)
Negative impact on my own mental health	4 (20%)
Less time for other activities outside of volunteer experience	3 (15%)
None of the above[2]	3 (15%)

[1]All categories were preexisting. No new categories were identified.
[2]Participants did not endorse any negative impact outside of the crisis line at any point in the study.

Negative Impact Over Time

Average psychological distress was reported to be 12.32 out of 30 (*SD* = 2.91). This level is considered to be moderate since it falls between the range of 5-12. Average secondary traumatic stress was reported to be 19.11 out of 50 (*SD* = 3.93). This level is considered to be low since it falls between the range of 10 and 22.

Next, we examined the association of time on psychological distress and secondary traumatic stress. Although a random slopes model would be ideal (so that predictor slopes are free to vary), due to the small sample size a random intercept fixed slopes model was more appropriate to fit the data. Model results showed time (over the one-year follow-up) was not significantly associated with psychological distress ($B = 0.00$, $p = .098$) or secondary traumatic stress, ($B = 0.00$, $p = .447$). All findings are displayed in Table 5.

Table 5

Multilevel Models: Time Predicting Psychological Distress (Model 1) and Secondary Traumatic Stress (Model 2)

	Psychological Distress			Secondary Traumatic Stress		
Predictors	*B*	*95% CI*	*p*	*B*	*95%CI*	*p*
(Intercept)	11.24	9.80-12.68	**<.001**	18.35	16.38-20.31	**<.001**
Time	0.00	-0.00-0.01	.098	0.00	-0.00-0.01	.447
Random Effects						
σ^2	4.27			8.80		
τ_{00}	5.15			9.06		
ICC	0.55			0.51		
N	15			15		
Observations	69			69		
Marginal R^2/ Conditional R^2	0.019/0.556			0.004/0.509		

Notes. B = unstandardized beta; ICC = intraclass correlation. All models are random intercept, fixed slope models with restricted maximum likelihood estimation (REML). Bolded *p*-values highlight significance.

Suicidal Thoughts and Behaviors

A total of 11 (55%) volunteers reported lived experience with suicidal thoughts and behaviors (i.e., suicidal thoughts or behaviors before they started volunteering on the crisis line). Over the 1-year follow-up, five (25%) volunteers reported suicidal thoughts and behaviors after starting on the crisis line. All (100%) volunteers who reported suicidal thoughts and behaviors after starting on the crisis line had reported a history of STBs before joining the t2t crisis line.

Relationship Between Experience on the Crisis Line and Negative Impact

At baseline (enrollment in study), length of experience on the crisis line varied. The average negative experience reported at baseline was 0.55 (*SD* = 0.51). The average psychological distress level reported at baseline was 10.75 (*SD* = 2.17). The average secondary traumatic stress level reported at baseline was 18.61 (*SD* = 2.99).

Spearman rank correlations indicated small, non-significant associations between length of experience on the crisis line at baseline and negative experience at baseline ($r[18] = 0.12$, $p = .608$), psychological distress at baseline ($r[18] = 0.21$, $p = .365$), and secondary traumatic stress at baseline ($r[18] = -0.15$, $p = .565$).

Positive Impact on Youth Volunteers

Positive/Helpful Experience Working on the Crisis Line

Given the limited variability in scoring volunteers' positive/helpful experience working on the crisis line (on the 0-4 scale), frequency descriptives were collapsed across the multiple time points between-person. All (100%) of volunteers endorsed their experience on the crisis line as either 3=*Very positive* or 4=*Extremely positive*, *M* = 3.61 (*SD* = 0.49), on a scale from 0-4. Since there was variability in the number of surveys each volunteer completed, the mean and standard deviation were weighted based on the number of surveys per person.

Adolescent volunteers reported many positive/helpful experiences of working on the t2t crisis line. The top five most commonly endorsed categories were: (1) *Helping others* (100%); (2) *Skills learned* (*e.g., knowing "what to do" in a crisis, improved communication skills*; 100%); (3) *Work is a good match with my skills and values* (100%); (4) *Being accepted by others* (*for who I am*; 95%); and (5) *Sense of belonging* (95%). All of the above categories were pre-existing categories. Free response items indicated one new categories of positive/helpful aspects of working on the t2t crisis lines: *Offered a productive way to spend my time*. Additionally, there was one participant who mentioned volunteering provided a break from outside stressors. There were nine free response items that were already indicated in the checkboxes. All findings are displayed in Table 6.

Table 6

Positive/Helpful Aspects of Working on the T2T Crisis Line

Category	*n* (%)
Helping others	20 (100%)
Skills learned (e.g., knowing "what to do" in a crisis, improved communication skills)	20 (100%)
Work is a good match with my skills and values	20 (100%)
Being accepted by others (for who I am)	19 (95%)
Sense of belonging	19 (95%)
Provides me with a useful perspective on my own experiences	18 (90%)
Relationships/friendships (e.g., with other volunteers)	18 (90%)
Adults I can trust	16 (80%)
How to cope with my own problems	16 (80%)
Other:[1]	
Offered a productive way to spend my time	3 (15%)

[1]Additional categories identified from the free response data.

Positive Impact Outside of the Crisis Line

Additionally, adolescent volunteers were asked about the positive impact outside of the t2t crisis line. The top five most commonly endorsed categories were: (1) *Greater empathy for others* (100%); (2) *Improved listening and communication skills* (100%); (3) *Better understanding of the issues teens face* (95%); (4) *Changed the way I talk about or view mental health/illness* (95%); and (5) *Greater sense of purpose* (95%). All of the above categories were pre-existing categories. Free response items indicated no new categories of positive/helpful impacts outside of the t2t crisis line, however, one participant mentioned they were connected with resources/organizations outside of the crisis line. There were six free response items that were already indicated in the checkboxes. All findings are displayed in Table 7.

Table 7

Positive Impacts Outside of the Crisis Line

Category[1]	*n* (%)
Greater empathy for others	20 (100%)
Improved listening and communication skills	20 (100%)
Better understanding of the issues teens face	19 (95%)
Changed the way I talk about or view mental health/illness	19 (95%)
Greater sense of purpose	19 (95%)
Greater confidence	18 (90%)
Helped me think through my future career plans	18 (90%)
Increased understanding of own boundaries and knowing when to get others' help	18 (90%)
Relevant job experiences and references for future employment	18 (90%)
Improved decision-making	17 (85%)
Increased own help-seeking or treatment-seeking	17 (85%)
Appreciation for my own life	16 (80%)
Improved relationships with friends and family	14 (70%)
Improved time management	12 (60%)

[1]All categories were preexisting. No new categories were identified.

Relationship Between Experience on the Crisis Line and Positive Impact

Length of experience on the crisis line at baseline varied (see Aim 3b for descriptives). The average positive experience reported at baseline was 3.70 (*SD* = 0.47).

A Spearman's rank correlation was computed to assess the relationship between length of experience on the crisis line at baseline and positive impact at baseline. There was a non-significant correlation between the two variables, $r(18) = 0.08$, $p = .732$.

Age and Live Experience on Impact of Crisis Line Experience

Lived Experience with Suicidal Thoughts and Behaviors

Lived experience with STBs did not significantly moderate psychological distress ($B = -0.00$, $p = .790$) or secondary traumatic stress ($B = 0.00$, $p = .795$) over time. Moderated multilevel model results for lived experience are presented in Table 8.

Age

Age did not significantly moderate psychological distress ($B = 0.00$, $p = .950$) or secondary traumatic stress ($B = 0.01$, $p = .063$) over time. Results examining how secondary traumatic stress over time is moderated by age trended toward statistical significance. At baseline, younger volunteers reported higher secondary traumatic stress levels compared to older volunteers. However, over time, younger volunteers' scores were shown to decrease while older volunteers' scores were shown to increase. Moderated multilevel model results for age are presented in Table 9.

Table 8

Moderated Multilevel Models: The Effect of STB Lived Experience on Psychological Distress and Secondary Traumatic Stress

	Psychological Distress			Secondary Traumatic Stress		
Predictors	*B*	*95% CI*	*p*	*B*	*95% CI*	*p*
(Intercept)	10.19	8.19-12.20	**<.001**	17.81	14.96-20.67	**<.001**
Time	0.00	-0.00-0.01	.431	0.00	-0.01-0.01	.846
STB Lived Experience	1.98	-0.74-4.69	.151	1.04	-2.76-4.84	.586
Time x STB Lived Experience	0.00	-0.01-0.01	.790	0.00	-0.01-0.01	.795
Random Effects						
σ^2	4.36			9.01		
τ_{00}	4.17			9.04		
ICC	0.49			0.59		
N	15			15		
Observations	69			69		
Marginal R^2/ Conditional R^2	0.142/0.561			0.028/0.515		

Notes. B = unstandardized beta; STB = suicidal thoughts and behaviors; ICC = intraclass correlation. STB lived experience is a dichotomous level-1 variable where 0 = no lived experience and 1 = lived experience. All models are random intercept, fixed slope models with restricted maximum likelihood estimation (REML). Bolded *p*-values highlight significance.

Table 9

Moderated Multilevel Models: The Effect of Age on Psychological Distress and Secondary Traumatic Stress

	Psychological Distress			Secondary Traumatic Stress		
Predictors	*B*	*95% CI*	*p*	*B*	*95% CI*	*p*
(Intercept)	11.20	9.66-12.73	**<.001**	18.87	16.81-20.93	**<.001**
Time	0.00	-0.00-0.01	.407	-0.00	-0.01-0.01	.865
Age	0.61	-2.32-3.54	.679	-3.33	-7.38-0.73	.106
Time x Age	0.00	-0.01-0.01	.950	0.01	-0.00-0.02	.063
Random Effects						
σ^2	4.33			8.41		
τ_{00}	5.41			9.29		
ICC	0.56			0.52		
N	15			15		
Observations	69			69		
Marginal R^2/ Conditional R^2	0.026/0.567			0.038/0.543		

Notes. B = unstandardized beta; ICC = intraclass correlation. Age is a dichotomous level-1 variable where 0 = under the age of 18 and 1 = 18 years or older. All models are random intercept, fixed slope models with restricted maximum likelihood estimation (REML). Bolded *p*-values highlight significance.

CHAPTER IV

DISCUSSION

This study was a preliminary examination of the experience of teen-to-teen (t2t) crisis line work on youth volunteers. A sample of 20 youth crisis line volunteers was examined longitudinally (for up to approximately one year). Findings related to the five major aims of the pilot study will be discussed below.

Related to adolescent volunteers' motivations for joining t2t crisis lines, there are two major findings of this aim. First, although there were several motivations endorsed by volunteers, the main reason adolescents reported joining the t2t crisis line was to help others and give back to the community. This category along with gaining new skills and experiences is consistent with adult motivations for pursuing crisis line work (Kitchingman et al., 2018; Mishara & Giroux, 1993; Praetorious & Machtmes, 2005; Smith et al., 2020; Sundram et al., 2018). Additionally, some volunteers reported joining the t2t line based on their own or close others lived experience with mental health issues or isolation. Although we do not know exactly what about these experiences motivated adolescents to this line of work, previous research suggests that it is common for young people to support their peers (Hanckel et al., 2022; Kalafat & Elias, 1992). Furthermore, a national survey of young people (ages 16-25) in Australia reported 94% of respondents had previously helped a peer through a mental health issue (Hanckel et al., 2022). Second, there were new categories endorsed by adolescents that were not previously reported by adults. Specifically, adolescent volunteers indicated wanting to learn more about mental health (broadly) and destigmatize mental health. This finding may suggest a generational change in mental health opinions (or stigma). Previous research on trends in public stigma of mental illness in the U.S. suggested an increasing trend in mental health literacy and a decreasing trend in

public stigma (Pescosolido et al., 2021). Additionally, researchers found an overall population change where older, conservative individuals were being replaced by younger, more liberal individuals (Pescosolido et al., 2021). This finding is reassuring since stigma is a well-known barrier to seeking mental health treatment (Yap et al., 2013). We may also consider that a younger population has not had as many experiences as adults (e.g., learning about mental health in school), and this opportunity allows them to learn more about mental health directly. Considering these youth motivations, t2t crisis lines can offer support by providing volunteers with the resources and space to respond to their peers, making responses more effective. Overall, there are many motivations driving adolescents to join t2t crisis lines, however, the most common is to help others and give back to the community.

Related to the types of contacts adolescent volunteers were receiving, there are two major findings of this aim. First, contacts relating to depression, anxiety, or other mental health symptoms were received by all volunteers. Adult-run crisis lines report a much smaller percentage (around 50%) of contacts relating to symptoms of depression, anxiety, PTSD, or mental illness (Gould et al., 2007; Kalafat et al., 2007; Ramchand et al., 2017). Although mental health concerns still remain one of the top reasons for contact, adults report mainly responding to interpersonal problems (including family or relationship issues; Ramchand et al., 2017). Second, regardless of young age, volunteers are receiving many high-risk contacts from their peers. Specifically, contacts relating to high-risk suicide were received by the majority of volunteers. These findings are consistent with previous research where adolescents in high school reported they would rather disclose suicide risk to peers rather than to adults (Kalafat & Elias, 1992). Moreover, adolescent volunteers reported responding to a variety of other concerns from their peers ranging from financial concerns to high-risk suicide or self-injury.

Related to the exploratory examination of the potential negative impact and safety on youth volunteers, there are five major findings of this aim. First, volunteers indicated the most common negative/unhelpful aspect while working on the crisis line was stressful work. Although this category is broad, stressful work has also been identified in previous research with adults and was found to be related to time spent responding to contacts (Dunkley & Whelan, 2006; Mishara & Giroux, 1993).

Next, there were categories endorsed by teens that were not endorsed by adults. For example, some adolescent volunteers reported *negative impact on my own mental health.* In adult crisis line research, existing evidence reported that crisis lines did not lead to more mental health disorders (Mc Clure et al., 1973; Paterson et al., 2009). It is important to note that adult crisis line research assessed mental health with mental health diagnoses and the measure used in this study asked adolescents more broadly if they thought working on the crisis line had a negative impact on their own mental health. This measure provides a less categorical classification (yes or no diagnosis) and offers adolescents the opportunity to provide their subjective experience on their mental health. Additionally, *difficulties within the crisis line community* (*i.e., with other volunteers or supervisors*) was endorsed through the free response option. Community may be more important to adolescents since peer relationships are highly valued during this developmental period (Knoll et al., 2017). Moreover, providing volunteers with a supportive community may help to reduce burnout (Cyr & Dowrick, 1991).

Other categories were not examined by previous research. Although adolescent volunteers reported some negative impact via checkbox, they also reported their overall experience on the t2t crisis line was *not at all negative* or *a little negative*. This finding represents youth volunteers' overall opinions of the t2t crisis line. However, when comparing

more specific measures of negative impact (i.e., psychological distress and secondary traumatic stress), we found mixed findings.

Next, psychological distress was reported to be moderate. Compared to previous research with adolescents in the general population, this average is higher (Mewton et al., 2016; Peiper et al., 2015). There may be several reasons for these results. Additional stressors (e.g., COVID-19 or academic stress) during the time of data collection could have had a potential influence on psychological distress. Also, over half of the sample reported lived experience with suicidal thoughts and behaviors prior to working on the crisis line. These individuals may have had a higher level of psychological distress at baseline. It is important to note that, although psychological distress did not increase over time, this study was not sufficiently powered to detect change over time. Previous adult crisis line research reported operators overall have low psychological distress; however, younger volunteers reported higher levels than older volunteers (Kitchingman et al., 2017; Kitchingman et al., 2018). Considering this is the first study to examine these impacts with youth volunteers, additional research with a larger and more diverse sample is needed to replicate these findings.

Next, secondary traumatic stress was reported to be low (22 or less out of 50). This is around the same level (less than 20) that was reported in adult crisis line research (Kitchingman et al., 2018). For this sample, youth do not seem to be experiencing clinically significant secondary traumatic stress on the t2t crisis line.

Finally, we found that working on the t2t crisis line did not lead to the first onset of suicidal thoughts or behaviors. Many volunteers did report lived experience with suicidal thoughts and behaviors. However, for those who reported STBs over the follow-up period, all had a history of lived experience. This is consistent with adult research which reports working on

the crisis line does not increase suicidal ideation (Kitchingman et al., 2017; Kitchingman et al., 2018; O'Sullivan & Whelan, 2011). Additional research with a larger and more diverse sample is needed to confirm these findings.

In addition to aim three, we also examined the relationship between experience on the crisis line and negative impact. Although these correlations were non-significant, these analyses were underpowered to detect effects. Additionally, there may be other factors that may contribute to our results. First, our small sample size may have limited our power to detect these associations. Second, half of our sample had been volunteering for 1-2 years. We did not have a representative sample for each category. Volunteers experience ranged from 1-2 months (20%) to over two years (5%). However, it is important to note that, regardless of the amount of experience on the crisis line, the self-reported negative experience of volunteers at baseline was low.

Related to the exploratory examination of the positive impacts on youth volunteers, there are two major findings of this aim. First, adolescent volunteers reported many positive/helpful aspects of working on the crisis line (e.g., *helping others*, and *work is a good match with my skills and values*). Similar intrapersonal positive impacts are seen in adult crisis line research such as enhancing self-esteem, building a positive identity, and personal wellness (Smith et al., 2020; Sudram et al., 2018). Other categories were not examined by previous research.

Next, volunteers reported many positive impacts via checkbox (e.g., *helping others* and *greater empathy for others*) and also reported their overall positive experience to be high. Considering these results and the CS-CF model, we can acknowledge that working in human service does not only yield negative outcomes. Although most adult crisis line research focuses on the negative impact, Stamm (2010) highlights the importance of both positive and negative

impacts and how they both influence a person's professional quality of life. Additional research is needed to capture the potential positive impact of working on a crisis line.

In addition to aim four, we also examined the relationship between experience on the crisis line and positive impact. Although these correlations were non-significant, these analyses were underpowered to detect effects. Additionally, there may be other factors that may contribute to our results. As noted above, our small sample size may have limited our power to detect these associations and half of our sample had been volunteering for 1-2 years. However, regardless of experience on the crisis line, the average positive experience at baseline was high.

Related to the exploratory examination of how lived experience with suicidal thoughts and behaviors and age may moderate the impact of crisis line work on youth volunteers, there are two major findings of this aim.

First, lived experience with STBs did not moderate negative impact (including psychological distress and secondary traumatic stress) over time. These findings did not support our hypothesis that predicted volunteers with lived experience of suicidal thoughts and behaviors will report greater psychological distress and secondary traumatic stress. Additionally, this is not consistent with adult research where operators with lived experience reported a greater negative impact than individuals without lived experience (Dunkley & Whelan, 2006; Kitchingman et al., 2017, Kitchingman et al., 2018). This finding is reassuring since many of the youth volunteers reported lived experience and a common motivation for joining these crisis lines include lived experience with STBs. However, a larger and more diverse sample is needed to confirm these findings.

Next, age did not moderate negative impact (including psychological distress and secondary traumatic stress) over time. These findings did not support our hypothesis that

predicted younger volunteers will report greater psychological distress and secondary traumatic stress. However, it is important to note that the moderation of age on secondary traumatic stress was trending toward significance. Over time, younger volunteers' (under the age of 18) secondary traumatic sores were decreasing while older volunteers' (18 or older) scores were increasing. This trend is inconsistent with adult research where younger operators reported a greater negative impact than older volunteers (Roche & Ogden, 2017; Kitchingman et al., 2017). Additional research with a larger and more diverse sample is needed to examine adolescent resilience and vulnerability of crisis line impacts.

Limitations and Future Research

This is the first study that provides insight into the experiences and impact of t2t crisis lines on youth volunteers. However, this pilot study also has some limitations. First, only twenty youth volunteers participated in this study. Future research should gather more participants to increase power and allow researchers to examine trends using multi-level modeling. With a larger sample size, we could be able to detect small effects as seen in previous research (Dunkley & Whelan, 2006; Furlonger & Taylor, 2013; Hellman & House, 2006; Kitchingman et al., 2017; Roche & Ogden, 2017). Additionally, youth volunteers were allowed to participate in the study at any point during their crisis line work. Considering this, it becomes difficult to examine trends over time. Although this would still be an issue with a larger sample size, future research should start recruiting participants at the onset of their training so their first survey could align around the start time of their volunteer work. This would aid in the examination of trends over time. Next, there was a lack of diversity in the sample with the majority identifying as White and cisgender female. These findings may not generalize to the Teen Line and YouthLine populations or other crisis line locations. Future research should gather a more diverse sample

(i.e., race, gender, age, etc.) to increase generalizability. Next, there were limited quantifiable measures for positive experiences. In line with the CF-CS Model, compassion satisfaction was not measured and did not allow us to examine volunteer positive experience with a validated measure. Future research should examine positive impact (specifically compassion satisfaction) guided by the CF-CS Model. Finally, there was limited variability in the responses of overall positive and negative experiences. All volunteers reported *not at all negative* or *a little negative* for negative experience and *very positive* or *extremely positive* for positive experience. Future research should examine positive and negative impacts with measures that provide more variability.

Conclusion

This pilot study is the first to examine youth volunteers' experiences volunteering on a teen-to-teen crisis line. Although a larger and more diverse sample is needed to confirm findings, this study preliminarily indicates that all volunteers reported some positive aspects of the t2t line experience, and many reported some negative aspects as well. Considering our results, t2t crisis lines may not only be a unique opportunity for adolescents struggling with mental health, but for volunteers as well.

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APPENDIX A

PSYCHOLOGICAL DISTRESS

Kessler-6 (Kessler et al., 2002)

Instructions: The following questions ask about how you have been feeling during the past 30 days. For each question, please indicate the number that best describes how often you had this feeling. Scale: 1=*None of the time*, 2=*A little of the time*, 3=*Some of the time*, 4=*Most of the time*, 5=*All of the time*

Question: During the last 30 days, about how often did you feel…?

1. …nervous?
2. …hopeless?
3. …restless or fidgety?
4. …so depressed that nothing could cheer you up?
5. …that everything was an effort?
6. …worthless?

APPENDIX B

SECONDARY TRAUMATIC STRESS

Professional Quality of Life Measure subscale (Stamm, 2010)

Instructions: When you help people, you have direct contact with their lives. As you may have found, your compassion for those you help can affect you in positive and negative ways. Below are some questions about your experiences, both positive and negative, as a helper. Consider each of the following questions about you and your current work situation. Select the number that honestly reflects how frequently you experienced these things in the last 30 days. Scale: 1=*never*; 2=*rarely*; 3=*sometimes*; 4=*often*; 5=*very often*

Secondary traumatic stress (STS) subscale

1. I am preoccupied with more than one person I help on [YouthLine/Teen Line].
2. I jump or am startled by unexpected sounds.
3. I find it difficult to separate my personal life from my life as a helper on [YouthLine/Teen Line].
4. I think that I might have been affected by the traumatic stress of those I help on [YouthLine/Teen Line].
5. Because of my helping on YouthLine/Teen Line, I have felt “on edge” about various things.
6. I feel depressed because of the traumatic experiences of the people I help on [YouthLine/Teen Line].
7. I feel as though I am experiencing the trauma of someone I have helped on [YouthLine/Teen Line].

8. I avoid certain activities or situations because they remind me of frightening experiences of the people I help on [YouthLine/Teen Line].
9. As a result of my helping on [YouthLine/Teen Line], I have intrusive, frightening thoughts.
10. I can’t recall important parts of my work on [YouthLine/Teen Line].

APPENDIX C

SUICIDAL THOUGHTS AND BEHAVIORS

Youth Risk Behavior Survey (Centers for Disease Control and Prevention, 2019)

Instructions: Sometimes people feel so depressed about the future that they may consider attempting suicide or killing themselves. For each question, please indicate the answer that applies to you.

[*safety item flagged for follow-up by supervisor if endorsed as 'Yes' or 'Do not want to answer']

1. Have you ever (in your lifetime) seriously thought about killing yourself? Yes/No
    i. If Yes, was this before or after you started at YouthLine/Teen Line?
    ii. (Before/*After/*Both before and after)
2. Have you ever (in your lifetime) made a plan about how you would kill yourself? Yes/No
    i. If Yes, was this before or after you started at YouthLine/Teen Line?
    ii. (Before/*After/*Both before and after)
3. Have you ever (in your lifetime) tried to kill yourself? Yes/No
    i. If Yes, how many times? (*Scale:* 0 times, 1 time, 2 or 3 times, 4 or 5 times, 6+ times)
        1. If Yes, was this before or after you started at YouthLine/Teen Line? (Before/*After/*Both)
4. *During the past 30 days, did you ever seriously consider attempting suicide? Yes/No
5. *During the past 30 days, did you make a plan about how you would attempt suicide? Yes/No

6. *During the past 30 days, how many times did you actually attempt suicide?
    a. *Scale:* 0 times, 1 time, 2 or 3 times, 4 or 5 times, 6+ times)

APPENDIX D

NEGATIVE/UNHELPFUL EXPERIENCES

How negative/unhelpful has your experience been on YouthLine/Teen Line since you started/since the last survey? Scale: 0=*not at all negative*; 1=*a little negative*; 2=*somewhat negative*; 3=*very negative*; 4=*extremely negative*

1. Which aspects of YouthLine/Teen Line have been the most negative/unhelpful for you since you started/since the last survey? *[Please select all that apply.]*

- Stressful work
- Negative impact on my own mental health
- High expectations of volunteer position (e.g., training)
- Too much of a time commitment
- Minimizing my own problems (compared to those who use Teen Line/Youth Line)

2. Are there other ways that you have found working on YouthLine/Teen Line to be negative/unhelpful to you? *[Optional free response.]*

3. How has your work negatively impacted your life outside of the crisis line since [you started/your last survey] at YouthLine/Teen Line? *[Please select all that apply.]*

- Increased pressure to support others' mental health because of work on YouthLine/Teen Line
- Emotionally drained
- Increased stress or anxiety
- Less time for other activities outside of volunteer experience
- Negative impact on my own mental health

- Worsened relationships with friends and family

4. Are there other ways that your work on the YouthLine/Teen Line has negatively impacted your life outside of the crisis line? *[Optional free response.]*

APPENDIX E

POSITIVE/HELPFUL EXPERIENCES

How positive/helpful has your experience been on YouthLine/Teen Line since you started/since the last survey? Scale: 0=not at all positive; 1=*a little positive*; 2=*somewhat positive*; 3=*very positive*; 4=*extremely positive*

1. Which aspects of YouthLine/Teen Line have been the most positive/helpful to you since you started/since the last survey? *[Please select all that apply.]*

- Work is a good match with my skills and values
- Skills learned (e.g., knowing "what to do" in a crisis, improved communication skills)
- Helping others
- Provides me with a useful perspective on my own experiences
- Relationships/friendships (e.g., with other volunteers)
- Adults I can trust
- Sense of belonging
- Being accepted by others (for who I am)
- How to cope with my own problems

2. Are there other ways that you have found working on YouthLine/Teen Line to be positive/helpful to you? *[Optional free response.]*

3. How has your work positively impacted your life outside of the crisis line since [you started/your last survey] at YouthLine/TeenLine? *[Please select all that apply.]*

- Improved listening and communication skills
- Greater empathy for others

- Better understanding of the issues teens face
- Greater sense of purpose
- Increased own help-seeking or treatment-seeking
- Relevant job experience and references for future employment
- Increased understanding of own boundaries and knowing when to get others' help
- Greater confidence
- Changed the way I talk about or view mental health/illness
- Helped me think through my career objectives
- Improved relationships with friends and family
- Appreciation for my own life
- Improved decision-making
- Improved time management
- Increased desire to pursue a career in mental health

4. Are there other ways that your work on the YouthLine/Teen Line has positively impacted your life outside of the crisis line? *[Optional free response.]*

APPENDIX F

QUALITATIVE CODEBOOK FOR MOTIVATIONS FOR JOINING THE T2T CRISIS LINE

If this is your first time completing this survey, why did you join YouthLine/Teen Line?

Code	Definition	Example of Construct (not a direct quote)
Pre-existing Categories		
Help others and give back to the community	Teen describes wanting to provide resources to their peers and/or community	I wanted to give back
Given my own or close others lived experience with mental health issues or isolation	Teen describes own lived experience, or someone else's lived experience (with mental health issues) and/or describes own/others experience with isolation	There are a number of people in my family with mental health issues
Gain new skills and experiences	Teen describes gaining skills (interpersonal, intrapersonal, or general) and/or experiences related to their future careers	I wanted to learn how to help a friend in crisis
New Categories		
Learn more about mental health (broad knowledge, not just because of my own mental health)	Teen describes wanting to learn more about mental health in general (but not specific to their lived experience)	I wanted to learn more about the issues teens my age face
Destigmatize mental health	Teen describes a stigma in their community or in general wanting to destigmatize mental health	Growing up there was a stigma about people with mental health conditions

APPENDIX G

QUALITATIVE CODEBOOK FOR NEGATIVE IMPACT ON THE T2T CRISIS LINE FREE RESPONSE

Are there other ways that you have found working on YouthLine/Teen Line to be negative/unhelpful to you? *(optional)*

Code	**Definition**	**Example of Construct (not a direct quote)**
Pre-existing Categories		
Too much of a time commitment	Teen describes volunteering has taken up too much of their time	My shifts are too long
High expectations of volunteer position	Teen describes the crisis line having too many responsibilities or feels as if they cannot fulfill their expected role	I felt the training was really tough
Stressful work	Teen describes a stressful situation or stressful nature of volunteering on the crisis line	I recently answered some tough calls
Negative impact on my own mental health	Teen mentions that volunteering is directed related to a decline in their mental health (can also mention symptoms of anxiety or depression)	Since starting on the crisis line, I noticed I am more anxious than before
Minimizing my own problems (compared to those who use YouthLine/Teen Line)	Teen describes others or the crisis line needs are more important than their own	I feel as if I do not have as much time to cope with my own problems when I am worried about helping others
New Categories		
Difficulties within the TL/YL community (i.e., with other volunteers or supervisors)	Teen describes other volunteers or supervisors as being unhelpful, not welcoming, or creating an uneasy space	Other volunteers are not nice to me

APPENDIX H

QUALITATIVE CODEBOOK FOR NEGATIVE IMPACT OUTSIDE OF THE T2T CRISIS LINE FREE RESPONSE

Are there other ways that your work on the YouthLine/Teen Line has negatively impacted your life outside of the crisis line? *(optional)*

Code	**Definition**	**Example of Construct (not a direct quote)**
Pre-existing Categories		
Emotionally drained	Teen describes feeling worn out or drained from volunteering	Volunteering makes me feel exhausted
Increased stress or anxiety	Teen describes an increase in anxiety or stress symptoms	Volunteering makes me feel more stressed out than before
Worsened relationships with friends and family	Teen describes not having as strong of relationships with friends or family since volunteering	I have noticed my friendships outside of work are not as strong as before
Less time for other activities outside of volunteer experience	Teen describes since volunteering they have noticed less time for other activities (e.g., playing sports)	I do not have time to finish my homework on days that I volunteer
Increased pressure to support others' mental health because of work	Teen describes an internal pressure to support or help other individuals because of their volunteer work	My friends expect me to be able to help them all of the time
Negative impact on my own mental health	Teen mentions a decline in their mental health (in general)	Volunteering has worsened my own mental health issues

APPENDIX I

QUALITATIVE CODEBOOK FOR POSITIVE IMPACT ON THE T2T CRISIS LINE FREE RESPONSE

Are there other ways that you have found working on YouthLine/Teen Line to be positive/helpful to you? *(optional)*

Code	**Definition**	**Example of Construct (not a direct quote)**
Pre-existing Categories		
Relationships/friendships (e.g., with other volunteers)	Teen describes making friends while volunteering or a relationship within the crisis line space	I have made many friends since starting on the crisis line
Sense of belonging	Teen describes feeling a connection in the community they work in or being accepted by others	Everyone here is so supportive and welcoming
Work is a good match with my skills and values	Teen describes pre-existing qualities they had where they felt would fit in with volunteering on a crisis line	I have always been a good listener
Skills learned (e.g., knowing "what to do" in a crisis, improved communication skills)	Teen describes gaining skills related to helping others or themselves in a crisis, or general knowledge about mental health	I now know what to tell my friends when they are in a crisis
Provides me with a useful perspective of my own experiences	Teen describes gaining insight about own mental health (in general)	I realize that I am not the only one with these problems
New Category		
Offered a productive way to spend my time	Teen describes making good use of their free time	I feel this is the best use of my free time

APPENDIX J

QUALITATIVE CODEBOOK FOR POSITIVE IMPACT OUTSIDE OF THE T2T CRISIS LINE FREE RESPONSE

Are there other ways that your work on the YouthLine/Teen Line has positively impacted your life outside of the crisis line? *(optional)*

Code	**Definition**	**Example of Construct (not a direct quote)**
Pre-existing Categories		
Greater confidence	Teen describes they feel an increase of confidence within themselves (in general)	I feel more confidence in myself
Greater sense of purpose	Teen describes generally enjoying the work that they do on the crisis line	I enjoy being able to help others
Greater empathy for others	Teen describes being more aware of others' feelings	I am better able to understand my friends' feelings when they are having a hard time
Improved decision-making	Teen describes being able to make decisions easier (in general)	I can make decisions by myself now instead of asking others for help
Improved listening and communication skills	Teen describes after working on the crisis line they find talking to or listening to others has become easier	I am able to focus more when talking to others
Improved time management	Teen describes learning how to prioritize tasks or gets more work done	I learned how to manage volunteering part-time and my schoolwork
Improved relationships with friends and family	Teen describes having better social relationships	I feel like I can be a better friend now
Increased own help-seeking or treatment-seeking	Teen describes knowing when to reach out or increased self-knowledge about what to do with their own mental health	Volunteering has influenced me to start therapy
Increased understanding of others' boundaries and knowing when to get others' help	Teen describes being aware of when others need help (e.g., when to tell an adult)	I am better at knowing the warning signs of when others need help
Better understanding of the issues teens face	Teen describes being more aware of what other teens go through	I didn't realize other teens my age went through these kinds of issues

Helped me think through my future career plans	Teen describes volunteering has influenced what kind of work they want to do in the future	I decided I do not want to pursue a career in mental health anymore
Relevant job experience and references for future employment	Teen describes volunteering as being relevant or specific to their future employment	Volunteering looks good on my resume
Appreciation for my own life	Teen describes not taking life for granted and acknowledging their life as important	I now take the time to think about the good things in life
Changed the way I talk about or view mental health/illness	Teen describes being more conscious when talking about mental health or being more knowledgeable	My view of mental health has become less stigmatized

VITA

Taylor Kalgren
Virginia Beach, VA
(540)-760-1724
tkalg001@odu.edu

Education

Fall 2021-Present	**Old Dominion University, Norfolk, VA 23529** **Master of Science in Psychology** (Anticipated August 2023) Advisor: Catherine R. Glenn, Ph.D. Current GPA: 3.78 *Thesis titled:* Examining the Experience and Impact of Teen-to-Teen Crisis Line Work for Youth Volunteers: A pilot study
Fall 2019-Spring 2021	**Old Dominion University, Norfolk, VA** **Bachelor of Science** Major: Psychology Minor: Criminal Justice GPA: 4.0
Fall 2015-Summer 2018	**Tidewater Community College, Virginia Beach, VA** **Associate of Science** Dual enrollment in high school during 2015 and 2016 Major: Social Sciences GPA: 3.79

Research Experience

August 2021-Present
Graduate Research Assistant
Youth Risk and Resilience Laboratory, Old Dominion University
Lab Director: Catherine R. Glenn, Ph.D

Poster & Paper Presentations

Kalgren, T., Glenn, C. R., Kandlur, R., Allison, K. K., Duan, A., Karp, C., Leets, M., Dutta, S., & Gould, M. S. (2023, April). *Examining the experience of teen-to-teen crisis line work for adolescent volunteers: A pilot study.* Graduate Research Achievement Day. Old Dominion University. [Conference online]