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**The Impact of Suicide Prevention Gatekeeper Training on Resident
Assistants**

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**The Impact of Suicide Prevention Gatekeeper Training on Resident
Assistants**

by

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The Impact of Suicide Prevention Gatekeeper Training on Resident Assistants

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College student suicide is a significant concern on university campuses and suicide prevention has become a focus for outreach intervention. While college counseling centers appear effective in helping students who present for treatment, suicidal students also seem to underutilize professional help. Gatekeeper training programs have emerged to help colleges and universities tap into existing student social networks to encourage early intervention. Gatekeeper training is a type of suicide prevention intervention used to encourage members of the university community to identify, engage, and refer suicidal students to professional help. Resident Assistants are often a focus of such training as they exist in the living environment of students and may be more able to identify student distress than other staff. However, the potential for adverse mental health impact on those RAS we call upon to help is not well understood and no studies to date have examined the impact of suicide prevention training on their mental health. Using data from surveys administered in connection with the participation

of Resident Assistants in Suicide Prevention Training at The University of Texas at Austin, this study explores the mental health impact on RAs associated with their serving as gatekeepers.

Multiple regression analyses were used to study the impact of intervention load, perceived role responsibility, the acquisition of suicide prevention content knowledge and perceived competency to perform the duties of a gatekeeper, and support-seeking behavior on the stress and distress of RAs over the course of a semester. Results suggest that RAs appear resilient to situational stress experienced with resident mental health interventions. RAs also appear to have considerable prior, personal experience with suicidal thinking and others who are suicidal. Additionally, they generally report not seeking support as often as they could, yet also increasingly turn to their co-workers in residence life for support. A repeated measures ANOVA analysis found that over the course of the semester RAs reported an increased threshold for engaging in interventions with residents and for seeking support for themselves. Implications for gatekeeper training and future research are discussed.

Table of Contents

Chapter One: Introduction	1
Chapter Two: Literature Review	9
<i>The problem of suicide on college campuses</i>	9
<i>Mental health problems on college campuses</i>	11
<i>Suicidal and distressed students underutilize professional help</i>	12
<i>Constraints on campus counseling centers</i>	14
College student help seeking	15
<i>Why students conceal their suicidal ideation</i>	17
Gatekeeper training programs	19
<i>Overview of gatekeeper training</i>	20
Training Resident Assistants as gatekeepers	21
<i>How might helping others lead to increased stress and distress?</i>	23
<i>Are RAs part of a population of students who are vulnerable to stress or distress?</i>	23
<i>Might serving as a gatekeeper increase an RA’s vulnerability to stress?</i>	24
<i>Desensitization</i>	25
<i>Acquired capacity</i>	26
<i>Vicarious trauma and compassion fatigue</i>	26
<i>Suicidal contagion</i>	27
<i>Might mental health interventions be stressful triggering events?</i>	30
Features of gatekeeper training programs	34
<i>Training content and supervision</i>	38
Statement of Purpose	40
Chapter Three: Methods	43
Participants	43
<i>Sample description</i>	43
Procedures	46
<i>Approvals obtained for the current study</i>	46
<i>Confidentiality</i>	47

<i>Training protocols</i>	48
<i>Data collection</i>	49
<i>Emergency procedures</i>	50
<i>Assisting RAs to work with residents who conceal their distress</i>	51
<i>Instruments</i>	51
<i>Pre-study questionnaire</i>	53
<i>Post-training questionnaire</i>	54
<i>Post-study questionnaire</i>	54
<i>Research questions</i>	55
<i>Research question 1: Does RA stress and / or distress change as their intervention load with distressed residents increases, considering the number, intervention stress, and duration of interventions with residents?</i>	55
<i>Research question 2: Does RA stress and / or distress change with RAs' perceived role responsibility as a gatekeeper?</i>	57
<i>Research question 3: How does the possession of suicide prevention content knowledge and the perception of competency in working with distressed students impact RA stress and / or distress?</i>	57
<i>Research question 4: How do RA support-seeking behaviors impact RA stress and / or distress?</i>	58
<i>Research question 5: What impact might gatekeeper training have to desensitize RAs to the significance of the suicidal experiences of their residents and themselves?</i>	59
<i>Statistical analysis</i>	60
<i>Measures and recoding of data</i>	61
<i>Preliminary analyses: Multiple Regression</i>	66
<i>Preliminary analysis: Repeated Measures ANOVA</i>	67
<i>Power analysis</i>	67
<i>Primary analysis: Tests of research questions</i>	68
Chapter Four: Results	72
<i>Outcome variables</i>	72
<i>Prior experience with others' suicide</i>	75
<i>Research question 1</i>	76

<i>Research question 2</i>	85
<i>Research question 3</i>	95
<i>Research question 4</i>	111
<i>Research question 5</i>	120
Chapter Five: Discussion	126
<i>RA personal experiences of stress and distress</i>	<i>128</i>
<i>RA prior experience with others' suicide</i>	<i>129</i>
<i>RA intervention load</i>	<i>131</i>
<i>RA perceived role responsibility</i>	<i>132</i>
<i>RA content knowledge</i>	<i>134</i>
<i>RA perceived competency</i>	<i>134</i>
<i>RA support-seeking</i>	<i>136</i>
<i>RA desensitization to the need to intervene</i>	<i>137</i>
<i>Implications for Gatekeeper Training Programs</i>	<i>140</i>
<i>Study limitations and future directions</i>	<i>144</i>
Appendices	149
<i>Appendix A: Study Approval by IRB</i>	<i>149</i>
<i>Appendix B: Amendment to Study Approval by IRB</i>	<i>152</i>
<i>Appendix C: Informed Consent Approval by IRB</i>	<i>154</i>
<i>Appendix D: Treatment Fidelity Check for Be That One. Training</i>	<i>156</i>
<i>Appendix E: Pre-Study Announcement Script</i>	<i>157</i>
<i>Appendix F: Post-Training Announcement Script</i>	<i>159</i>
<i>Appendix G: Mid-Semester Experience Tracking Email Reminder</i>	<i>160</i>
<i>Appendix H: Post-Study Survey Email</i>	<i>161</i>
<i>Appendix I: Pre-Study Survey</i>	<i>162</i>
<i>Appendix J: Post-Training Survey</i>	<i>169</i>
<i>Appendix K: Post-Study Survey</i>	<i>174</i>
References	183

Chapter One: Introduction

Suicide is the third leading cause of death for youth between 15 and 24 years old (Centers for Disease Control and Prevention [CDC], 2006) and is believed to be the second leading cause of death among college students (Suicide Prevention Resource Center [SPRC], 2004). In addition to completed suicide, students experience a range of suicidal symptoms including distressing and morbid thoughts, suicidal ideation, and suicide attempts that impact their ability to perform to their potential in both academic and non-academic spheres (Drum, Brownson, Burton Denmark, & Smith, 2009; Garland & Zigler, 1993; SPRC, 2004). Suicidal experiences also appear widespread within the college student population, as Drum and colleagues found that over half of the undergraduates surveyed reported having experienced some form of suicidal ideation during their lifetime.

College student suicide is a significant concern on university campuses, yet suicidal students often underutilize professional help (Drum et al., 2009). In some cases students may lack awareness of mental health resources (Cook, 2007; Westefeld, et al., 2005). In other cases, students may be reluctant to seek the help they need due to stigma and other pressures (Cook, 2007). Compounding the problem of the disconnect from professional help, suicidal students can be difficult to detect in the population as some research suggests that only approximately one-third of adolescent suicide victims appeared to satisfy clinical criteria for depression or other mental illness (Shaffer, et al., 1988 as cited in CDC, 1992).

The disconnect between college students and campus professional mental health services is unfortunate because college counseling centers appear effective in helping suicidal students who present for treatment (Drum et al., 2009; Schwartz, 2006). Suicidal students would likely benefit by acquiring help sooner. Delays in receiving help increases the risk for suicide as evidenced by the finding of Gagnon, Davidson, Cheifetz, Martineau, and Beauchamp (2009) where 72% of adolescents and young adults complete suicide on the first attempt. Treating distressed students prior to or in the early stages of their manifestation of suicidal ideation would likely improve clinical outcomes. Waiting to treat students until they are in a suicidal crisis can be difficult, time consuming, and can result in an over-allocation of resources to crisis intervention (Baumeister, 1990; Drum et al., 2009). Consequently, increasing the number of suicidal students seeking help and shortening the period between the onset of distress and the acquisition of professional help by suicidal students are important yet challenging goals for campus mental health centers.

While suicidal students may underutilize professional help, they more often seek out their peers to disclose their suicidal ideation (Drum et al., 2009; Gould, Greenberg, Velting, & Shaffer, 2003; Kalafat & Elias, 1994; Lewis & Lewis, 1996; Wyman et al., 2008). Tapping into existing peer social networks appears to be a promising means of connecting suicidal students with professional help. Not only do suicidal youth tend to turn to their peers to disclose their suicidal ideation, but many of the negative coping mechanisms that college students often turn to in times of stress are more easily identified by peers than campus mental health professionals (Cook, 2007). Suicidal students may

feel that simply telling others about their suicidal distress is sufficient as 52% reported that telling the first person was helpful or very helpful (Drum et al., 2009). Unfortunately, when suicidal students confide in others, the help may not always be effective, as only 58% are advised to seek professional help by the first person they tell (Drum et al., 2009). Based on these findings it appears that a primary component of suicide prevention on college campuses lies in improving the ability to connect students in distress with professional helping resources (Westefeld et al., 2006).

The magnitude of the problem of college student suicidal experiences and the challenges of connecting students with professional help has led many campuses to develop suicide prevention programs that attempt to tap into student social networks. University gatekeeper training is one of the most frequently employed suicide prevention interventions. Gatekeeper programs attempt to increase suicidal student engagement in utilizing professional assistance through training non-mental health professionals to serve as referral agents. The “gatekeepers” are generally teachers, advisors or Resident Assistants (RAs) who exist in the everyday world of the student and have significant contact with them (CDC, 1992). Gatekeepers are chosen because of their proximity to the student as well as the likelihood that they will have a relationship with the suicidal student. As such, gatekeepers may be more likely to notice that the student is experiencing distress, be in a position to address their concerns with the student, and refer them to professional help.

Despite its potential to enhance the mental health of college student populations, the efficacy of gatekeeper programs in connecting suicidal students with professional

help is unclear. Potential negative side effects of peer helping programs, such as gatekeeper training, are rarely examined and there is not a sufficient body of evidence documenting the efficacy or safety of peer helping programs, despite their widespread use (Gould et al., 2003; Lewis & Lewis, 1996; Tompkins, Witt, & Abraibesh, 2010; Wyman et al., 2008). In addition to uncertainty in outcomes for suicidal students, gatekeeper training programs present a dilemma for campus mental health centers as the fairly rapid transition of students through college creates a challenge for sustaining a suicide prevention program based on student peer helpers (Schwartz & Friedman, 2009). As new students are continually entering the ranks of RAs, permanent residence life staff may be challenged to understand how these students are impacted by their role as gatekeeper.

The stress-diathesis model of cognitive vulnerability suggests that existing vulnerability combined with triggering events, such as taking on additional stress, can lead to adverse symptoms and outcomes (Morrison & O'Connor, 2005). The current study investigated the extent RAs appear vulnerable to stress and whether serving as a gatekeeper and engaging in mental health interventions with residents are sufficient triggering events to activate their stress. The extent of RA vulnerability to distress is unknown, but college students in general appear vulnerable to distress as over half of college students have reported having suicidal ideation at some point in their life (Drum et al., 2009). In terms of triggering events, it was hypothesized that the training and broadcasting of information about suicide into this population could lower the threshold among RAs for entertaining distressing and suicidal thoughts. RAs may be impacted

through several mechanisms by which exposure to stress and working with distressed residents lowers their threshold to resist distress, including a habituation experience and an acquired capacity to inflict self-harm (Joiner, Van Orden, Witte, & Rudd, 2009), compassion fatigue (Cacciatore, Carlson, Michaelis, Klimek, & Steffan, 2011; Jacobson, 2012), suicide contagion (Gould & Kramer, 2001; Range, Goggin & Steede, 1988; Rudd et al., 2006; Spirito, Brown, Overholser, & Fritz, 1989), and vicarious trauma (Voss Horrell, Holohan, Didion, & Vance, 2011; Jenkins & Baird, 2002). The potential for such impact is important to discern as universities call upon RAs to intervene with other students.

One challenge of implementing a safe and effective peer based gatekeeper campus suicide prevention effort lies in understanding the benefits of connecting suicidal students to professional help more often and sooner, while also being attuned to any potential adverse mental health impacts of participation on RAs. Success of these programs may hinge on the ability to engage RAs in more intensive interpersonal connection with suicidal students while also bolstering their ability to endure such connection. Yet gatekeeper training models vary in the role peers play. Some models limit the gatekeepers' responsibility to listening and reporting warning signs, while others train them to be more available and capable of intervening with high risk peers (Gould et al., 2003; Herring, 1990; Lewis & Lewis, 1996).

The current study examines the mental health impact on RAs based on their participation in a gatekeeper training program. All campus RAs involved in this study received the same program of training in suicide prevention by representatives from The

University of Texas at Austin (UT) Counseling and Mental Health Center's Be That One. Suicide Prevention Program. This training teaches RAs about rates of suicidal experiences on college campuses, to identify warning signs of suicide, how to talk to distressed residents from a quasi-professional helping role, and how to refer the residents to professional help.

While the training is primarily focused on suicide prevention, issues such as depression, anxiety, alcohol and drug use, relationship violence, academic and family stress, disordered eating, and self-injurious behaviors are addressed as well. In addition, this training promotes early intervention to support their residents in seeking help for problems when these problems are first identified. The training also addresses issues such as dealing with stigma that may prevent students from accessing professional mental health resources, policies regarding how to communicate their interactions to superiors and their online incident tracking system, and how to address common concerns students have about seeking professional help on campus, such as issues of confidentiality and cost. RAs also gain information about helping resources on campus, such as individual and group counseling at the UT Counseling and Mental Health Center, Telephone Counseling, the Dean of Students Office, and campus police.

The study explored the influence of several variables related to the role of serving as a gatekeeper on the mental health of RAs. Intervention load is likely influenced by the number, intervention stress, and duration of interventions with distressed residents. It is hypothesized that the greater the intervention load of working with distressed residents on the RA, the greater the impact on RA mental health.

In addition, the study examined RA attitudes towards helping others as well as towards suicide in general. The attitudes toward helping others most salient to this study revolve around perceived role responsibility. Such role responsibility may take the form of being reactive to known needs as well as being vigilant towards detecting potential problems in others. The study also investigated the extent RAs feel personally responsible versus collectively responsible to engage in interventions. The suicide prevention training defines the RA role as one who should reach out to distressed residents and it is hypothesized that RAs' sense of role responsibility in particular would impact stress load when RAs are placed in the quasi-professional role of helper.

Receiving effective training also serves to provide RAs with knowledge, skills and confidence to work more effectively with distressed residents. In addition, it is hypothesized that imparting knowledge and skills upon RAs serves to reduce the potential for desensitization to the importance of problems facing residents as well as the RAs themselves. The extent to which RAs become more knowledgeable and confident in their ability to identify, speak with, and refer distressed residents to professional help, will likely impact their stress load. Such impact is anticipated to reduce stress by giving RAs the knowledge and skills to help shift the residents from the RAs' responsibility to professional help.

Finally, the suicide prevention training encourages RAs to engage in self-care practices, such as seeking support when working with distressed residents as well as when dealing with their own stress. Such support likely allows RAs to decrease their feelings of stress by disbursing responsibility among a wider group including Hall

Coordinators, other RAs, the Counseling and Mental Health Center, and the Dean of Students Office. In addition, it is hypothesized that RAs who seek help from others for their own stress are likely better able to manage the stress of working with distressed residents. Understanding the mental health impact on RAs may help campus counseling centers implement gatekeeper training programs that safeguard the students who serve as gatekeepers.

The current study entailed the administration of three survey questionnaires to RAs about their experience with receiving suicide prevention training and serving in the role of gatekeeper for a semester. The RAs were trained in suicide prevention and initially assessed in August, 2011. A pre-study questionnaire gathered demographic information and baseline measures for RA knowledge, perceived competence, role responsibility, and attitudes about suicide prevention. The pre-study questionnaire also assessed baseline RA stress and distress. A post-training questionnaire was administered immediately following the suicide prevention training. This questionnaire assessed for changes in suicide prevention knowledge, perceived competence, attitudes, and role responsibility. At the end of the fall semester, RAs were administered a post-study survey that explored changes in stress and distress, knowledge, perceived competence, role responsibility, support-seeking practices, and questions regarding the potential for desensitization as gatekeepers. The survey also explored the number, intervention stress, and duration of interventions over the course of the semester.

Chapter Two: Literature Review

The following literature describes the current research on the problem of college student suicide, student underutilization of professional mental health services, and the efficacy of campus counseling centers in treating distressed students. It then explores the barriers to suicidal student disclosure of their ideation and how university counseling centers are responding with suicide prevention programs. This study focuses on one aspect of campus suicide prevention; gatekeeper training programs. It provides an overview as to why these programs are used, how they are structured, and the potential impact on distressed students and RAs.

The problem of suicide on college campuses

Viewing suicidal experience as existing on a continuum of distress enables college counseling centers to approach campus suicide as a public health concern, with resources allocated to a range of areas addressing student distress including crisis intervention and prevention (Drum et al., 2009; Garland & Zigler, 1993; SPRC, 2004). In a large-scale national self-report survey of over 26,000 students at 70 colleges and universities, Drum and colleagues found that over half of the college students surveyed self-reported some form of suicidal thinking over the course of their lives. In addition, during the prior 12 months students expressed a range of severity in their distressed thinking.

Study results indicate that in the preceding 12 months 37% of undergraduates reported they had thought “I wish this would all just end”, 11% thought “I wish I was

dead”, 6% endorsed seriously considering attempting suicide, and 1% reported they had attempted suicide (Drum et al., 2009). The American College Health Association’s National College Health Assessment (ACHA-NCHA) found a similar rate of suicidal ideation and attempts among students. Of their 80,121 college student respondents, 6% reported they had seriously considered suicide within the past school year and 1% claimed they had attempted suicide (ACHA-NCHA, 2011). The rate of completed suicide is estimated at approximately 7 per 100,000 students (Schwartz, 2011).

To elucidate the scope of the problem, Table 2.1 presents the percentages and number of student responses at a hypothetical university of 35,000 undergraduate students.

Table 2.1: Suicidal experiences at a hypothetical university of 35,000 undergraduates

Suicidal experience reported in past 12 months	Percentage Reporting	Number of Students Reporting
Thought “I wish this would all just end”	37%	12,950
Thought “I wish I was dead”	11%	3,850
Seriously considered suicide	6%	2,100
Attempted suicide	1%	350
Died by suicide	0.01%	2.5

Passage of the Garrett Lee Smith Memorial Act in 2004 by the U.S. House of Representatives further demonstrates the importance attributed to preventing college student suicide. This act provided \$82 million to address college suicide and supports the

Surgeon General's National Strategy for Suicide Prevention to increase evidence based programs to prevent suicide on college campuses (Westefeld et al., 2005).

Mental health problems on college campuses

While suicidal thoughts and attempts are highly concerning experiences among college students, college counseling centers must also assist students with a wide range of other mental health problems. When considering feelings experienced by college students, the ACHA-NCHA (2011) study results paint a picture of considerable distress among college students as they endorsed a range of feelings related to depression and anxiety. 31% of students reported that over the past 12 months they felt so depressed it was difficult to function and 51% indicated experiencing overwhelming anxiety during the past year. In addition, students endorsed feelings over the prior year that may be indicative of distress, such as feeling hopeless (45%), overwhelmed (86%), exhausted not from physical activity (82%), lonely (57%), and very sad (61%). 43% of students reported feeling more than average stress and 10% endorsed tremendous stress over the past 12 months. 5% of students indicated engaging in self-harm, such as intentionally cutting, burning or bruising over the past 12 months.

College students report experiences related to other serious mental health problems, such as relationship violence, drugs and alcohol, and eating disorders that can cause considerable distress. According to the ACHA-NCHA (2011) study, 11% of women and 7% of men reported being in an emotionally abusive intimate relationship, 2% of men and women endorsed being in a physically abusive relationship, and 1% of

men and 2% of women reported a sexually abusive relationship. Women, at 7%, were almost twice as likely as men to endorse being the victims of stalking. Only 29% of woman, compared with 56% of men, responded that they felt very safe on their campus at night. The ACHA-NCHA study found that 66% of college students reported using alcohol within the last 30 days, while 16% used during at least 10 of those days. 16% of students endorsed using marijuana in the last 30 days and 6% using during at least 10 of those days. The perception of drug and alcohol use may be worse than the reality, however, as students perceived that 94% of the campus used alcohol within the last month and that 80% of the campus used marijuana. These findings suggest that peer pressure and the perception of peers engaging in alcohol and drug use may serve to create pressure on students to use substances. Students also reported a range of body image issues including 22% reporting that their personal appearance has been traumatic or very difficult for them to handle. While 1% of students indicating that they had been diagnosed with or treated for Anorexia and 1% with Bulimia over the past year (ACHA-NCHA, 2011), Eisenberg, Nicklett, Roeder, and Kirz (2011) found that in a sample of 2,822 students, that 14% of women and 4% of men screened positive for an eating disorder.

Suicidal and distressed students underutilize professional help

Westefeld and colleagues (2005) found that students may view suicide as a generic, rather than a local problem at universities, as 42% of the student sample indicated that suicide is a problem on the nation's college campuses, but only 10%

indicated it was a problem on their campus. In addition, despite the prevalence of mental health issues reported on campus, only 26% of students appear to be aware of campus resources for help with suicide at their university (Westefeld et al., 2005). Almost half of suicidal students don't tell anyone about their suicidal ideation and those who do tend to tell peers rather than professionals (Drum et al., 2009). Perhaps most telling, nearly 80% of students who complete suicide never receive services at their campus counseling center (Kisch, Leino, & Silverman, 2005). Similarly, Gallagher (2011) found in a recent survey of college counseling center directors that of the 87 student suicides that had occurred over the past year, only 20% of the students were current or former clients of the campus counseling center.

Avoidance of seeking professional help for mental health issues is prevalent beyond the college student population. It is noted that with men in particular, suicide has been termed the "silent epidemic," partly due to their aversion to seeking help for mental health problems (Bilsker & White, 2011). Students also show reluctance to seek professional help for other mental health conditions. A survey of 1,455 college students showed that 53% of students stated they had experienced depression since beginning college, but only 17% reported they sought help for it (Furr, Westefeld, McConnell, & Jenkins, 2001). It is unfortunate that students do not seem to have a natural inclination to seek help more often as most depressed students find these services helpful (Furr et al., 2001.). A study of 946 students, where 47% were estimated to have met the DSM-IV criteria for substance use disorders involving alcohol or marijuana, found that only 4% perceived a need for help and only 16% were encouraged by someone else to seek help

(Caldeira et al., 2009). While the authors found help-seeking was rare at only 9%, it was elevated among those who perceived a need for help or experienced social pressures from parents, friends, or other people. However, such encouragement may not come often enough as Drum and colleagues (2009) found that among students who disclosed their suicidal ideation to others, only 58% were advised by the first person they told to seek professional help.

Constraints on campus counseling centers

Campus counseling centers are increasingly taxed with higher demand for services and increased role responsibility. Some research suggests that college counseling centers may be called on to help more students than in the past (Schwartz & Friedman, 2009; Schwartz, 2006). A national survey of college counseling center directors found that 11% of students sought individual or group counseling during the year (Gallagher, 2011). In addition, 91% of the directors perceived a continuing trend towards greater numbers of students with severe psychological problems on campus.

Universities, and counseling centers in particular, may also experience greater role responsibility in caring for suicidal students and be called upon to serve in the role of *in loco parentis*. Some courts appear increasingly willing to impose a duty on colleges to prevent student suicides through finding a “special relationship” with them (Gray, 2007). As a result, some universities are adopting forced leave policies, implementing “no-suicide contracts,” as well as mandating assessment for suicidal students (Drum et al., 2009; Schwartz & Friedman, 2009; Westefeld et al., 2006). However, “no-suicide

contracts” are generally ineffective, potentially harmful to clients, in particular as they may weaken the therapeutic alliance, and unlikely to protect clinicians from malpractice litigation in the event of a client suicide (Edwards & Sachmann, 2010; Lewis, 2007). In addition, leaving school may deprive students of valuable resources, social support, and reasons for living (Pavela, 2006).

Campus counseling centers find themselves in the position of balancing between working to improve the mental health of all students and managing resource constraints. While students who utilize professional help appear less likely to attempt suicide, meeting the needs of all suicidal students through the counseling center could require up to a 75% increase in counseling staff (Drum et al., 2009; Schwartz, 2006). Drum and colleagues suggest adopting a problem-focused paradigm that incorporates early identification and intervention. They caution that focusing exclusively on the crisis stage of intervention results in a failure to capitalize on opportunities to prevent development of suicidal symptoms and an over-allocation of resources to crisis intervention. Implementing suicide prevention programs may be an effective way to utilize resources to improve the mental health of many students.

College student help seeking

Increasing access to professional help for students in distress is an important yet challenging goal. One way to facilitate a connection between students and professional help is to reduce the barriers students perceive to exist when they consider whether to tell someone about their problems. Examining ways to utilize existing peer networks offers

promise to expand the ability of campus counseling centers to reach suicidal students more often and more quickly. Such bolstering of connections may also help prevent students from progressing along a continuum of distress. Understanding whom peers seek help from and why they choose to disclose or conceal their suicidal ideation informs how peer networks might be utilized to lower the disclosure barrier of suicidal students.

While suicidal ideation appears widespread on college campuses, many students do not disclose their troubling thoughts. Those that do tend to tell peers rather than professionals. Drum et al. (2009) found that of those endorsing a history of suicidal ideation, 46% of undergraduate students surveyed did not tell anyone about their suicidal thoughts. Of the 54% of students who did confide in others regarding their suicidal thoughts, two-thirds tended to turn to their peers, including partners, roommates, and friends for help (Drum et al., 2009). Barnes, Ikeda, & Kresnow (2001), found in a study of 153 nearly lethal suicide attempters that almost half of those who sought help tended to consult their family and friends over other potential sources of help. Other research highlights the tendency of adolescents to confide in their peers regarding their suicidal ideation, rather than turning to adults and professionals (Gould et al., 2003; Kalafat & Elias, 1994; Lewis & Lewis, 1996; Wyman et al., 2008). Suicidal students may confide in their peers due to their growing autonomy from adults, mistrust of adult helpers, and a sense of importance in keeping confidants of peers (Kalafat & Elias, 1995). Such findings suggest that improving responses by informal help sources could help suicidal individuals (Burton Denmark, Hess, & Swanbrow Becker, 2012).

When suicidal students confide in others, peers do not appear particularly effective in helping them utilize professional help. Peers seem to have difficulty in either distinguishing the level of risk in suicidal students or effectively referring them for help as they are less likely to refer high risk than low risk students to professional help (Drum et al., 2009). In addition, only 58% of students who disclosed their suicidal ideation to others were advised by the first person they told to seek professional help (Drum et al., 2009).

Why students conceal their suicidal ideation

A primary reason college counseling centers implement gatekeeper training programs is to identify and direct suicidal students to professional help (Schwartz & Friedman, 2009; Wyman et al., 2008). By concealing, these suicidal students decrease their opportunities to both get help to reduce stressors and to bolster protective factors. Understanding why students choose to conceal their ideation could help campus counseling centers tailor suicide prevention interventions to increase the sensitivity of detecting suicidal students, decrease barriers to disclosure and thresholds for engagement of help, and improve the personalization of the referral process for professional help.

Burton Denmark and colleagues (2012) conducted a qualitative analysis based on the data presented in the Drum et al. (2009) study to examine the reasons college students provided for concealing their suicidal ideation. The categories of reasons, response size, and percentage of total response presented in Table 2.2 reflect the total number of reasons

given for concealment where participants were able to list more than one reason for their decision not to disclose.

Peer based gatekeeper programs may be tailored to address the challenges of working with students' disclosure concerns. For instance, the most common reason for concealment was the students' perception that their ideation posed a low risk to themselves. Gatekeepers may be frustrated in their attempts to convince distressed students of their need for help as research indicates that, despite a belief that they are at low risk, students may underestimate the recurrence risk of suicidal ideation. For instance, many of those responding with low risk as a reason for concealment also indicated that their suicidal thoughts were recurrent and had resulted in suicide attempts (Burton Denmark, personal communication, December 22, 2009). With this understanding, gatekeepers can encourage suicidal peers to seek help, even when students perceive a low risk to themselves, by explaining that a failure to seek treatment for their suicidal thoughts may contribute to a return of suicidal ideation at a later point in time. Such understanding can also assist gatekeepers in identifying when they require support for themselves.

Most of these reasons for concealment can be addressed through gatekeeper training to encourage help seeking. Unfortunately, the group of concealers that may be the most difficult to reach may also be at the greatest risk. This group is the 7% who stated that they did not want to disclose because they perceive others could try to thwart their attempt. Those intent on concealing their suicidal ideation or intent may ultimately be able to successfully mask warning signs of suicide. However, some may not mask

their symptoms fully and may express signs of distress noticeable to gatekeepers. Suicide prevention training may address the stress that can be generated when encountering these students and help gatekeepers understand when and how to secure help.

Table 2.2: Reasons for concealing suicidal ideation

Category	N (723 Thematic Responses)	%
Low Risk of harming self	139	18%
Solicitude (i.e. not wanting to impose on others)	122	16%
Privacy	118	15%
Pointless	102	13%
Stigma	102	13%
Shame	56	7%
Repercussions	54	7%
Interference (i.e., not wanted to be interfered with in their attempt)	51	7%
Perceived Lack of Confidants	25	3%

Gatekeeper training programs

Gatekeeper programs seek to expand the expertise in suicide intervention beyond the campus counseling center to peer based gatekeepers who interact more frequently and directly with students. Turning the training focus from within the college counseling center to gatekeepers is theorized to result in earlier detection of students' mental health issues and more efficient referral to appropriate resources (Rihmer, 1996). This is especially important as these programs respond to concerns expressed by some researchers that relatively little is being done to systematically identify at-risk students prior to suicidal behavior and direct them into treatment (Haas, Hendin, & Mann, 2003). Incorporating peer assistance in a suicide prevention model also seems particularly

appropriate on college campuses as it aligns with Erik Erikson's theory of development, where adolescents increasingly turn from their parents and rely on peers for advice and support (Muuss, 1995). As evidence of this trend, college students who choose to disclose their ideation tend to tell their peers first (Drum et al., 2009).

Gatekeeper programs operate within the broader context of a university's suicide prevention program. Comprehensive suicide prevention programs would implement multiple interventions to achieve two broad goals: 1) reduction of risk factors and increasing protective factors for students, and 2) early detection and utilization of existing mental health resources (CDC, 1992). Gatekeeper training is an important element of suicide prevention as it strives to address the second goal to increase early detection and utilization of professional help. Even within the primary role of identification and referral, gatekeeper programs differ in terms of comprehensiveness and who on campus is trained to be a gatekeeper.

Overview of gatekeeper training

Gatekeeper training programs prepare peer "gatekeepers" to identify signs of distress in their peers, determine the level of risk, manage the situation, and direct students to professional mental health resources (Gould et al., 2003; Gould & Kramer, 2001; Tompkins & Witt, 2009; Weber, Metha, & Nelsen, 1997; Wyman et al., 2008). A potential gatekeeper can be anyone who has significant contact with students during the course of the day (CDC, 1992). Gatekeeper programs increase the availability of peer helpers trained specifically in suicide intervention beyond what is normally available in

the students' living environment. These programs often attempt to tap into extant peer to peer social networks, decrease student concealment of their suicidal ideation and the threshold of engagement for help, increase the sensitivity among peers to detect suicidal students, and provide a personalized referral process for them.

Training Resident Assistants as gatekeepers

Gatekeeper training programs target several primary audiences to enhance the connection between suicidal students and professional help. Programs may train faculty, staff, staff assistants, students, and parents to interact with suicidal students. The current study will focus on the training of RAs, as students who function as both peers and staff assistants.

To extend the university counseling centers' reach, RAs serve as their eyes and ears to identify and refer distressed students. Training RAs as gatekeepers is particularly appealing as their access to peer networks may help them connect with students. In addition, utilizing RAs as gatekeepers is important, as freshman students living in residence halls are subject to significant life transitions which may exacerbate existing psychological problems, trigger new problems, increase symptoms of depression and anxiety, and leave freshman without their old social supports (SPRC, 2004).

RAs appear well suited to function as gatekeepers for several reasons. First, RAs function in a quasi-professional role where their status as students may help them connect with other students more easily than older adults. Considering that students contemplating suicide are more likely to tell a peer than a professor or other adult about

their plans, training people who are perceived more like peers than professionals may encourage disclosure by suicidal students (Lewis & Lewis, 1996; Drum et al., 2009). Second, RAs may receive personal benefits from gatekeeper training in terms of increased awareness of their own mental health issues (Drum et al., 2009). Third, since RAs exist in the living environment of students, gatekeeper training may serve to enhance social supports. Developing social supports has been described as one of the most important protective factors for college students and there is strong evidence that having friends, being involved in extra-curricular activities, and having strong connections are all important protective factors (Westefeld et al., 2006). Fourth, when students transition from high school to college they are not supervised as closely and are called on to become more self-sufficient. Having parents around to detect behavioral changes in high school students provides an observational base that is not present when new students arrive at college. RAs may be able to partially fill this role.

Taub and Servaty-Seib (2010) noted that RAs may serve as part of the campus mental health safety net through their daily interactions with residents, but only if they know the residents well, are trained to identify signs of distress, and know how to refer residents to help. Westefeld and colleagues (2006) suggest that RAs should be well-educated about suicide as they are often “the first line of defense” (p. 936). Grosz (1990) notes that RAs should serve not as counselors but as interventionists to recognize, evaluate, and refer at risk students to professional assistance and support them during therapy.

How might helping others lead to increased stress and distress?

RAs are likely to have opportunities to help residents in distress and, therefore, are an obvious group to serve as gatekeepers. However, might serving in the role of gatekeeper adversely impact the RAs' mental health? The stress-diathesis model of cognitive vulnerability provides a theoretical basis for considering such risk.

The stress-diathesis model suggests that existing vulnerability combined with triggering events, such as taking on additional stress, can lead to adverse symptoms and outcomes (Morrison & O'Connor, 2005). In this model, stress manifests as a psychological or biological phenomenon following exposure to adverse events (van Heeringen, 2000). Such stress interacts with the diathesis, or existing vulnerability, to produce detrimental effects on the subject. This model has been previously applied to explain suicidal behavior (van Heeringen, 2000) and depression (Slavik & Croake, 2006).

Three questions arise from the proposition of stress-diathesis. First, are RAs part of a population that is vulnerable to stress or distress? Second, might serving as a gatekeeper increase their vulnerability or lower the threshold at which they can tolerate stress? Third, might mental health interventions with gatekeepers be stressful such that they may serve as triggering events in the stress-diathesis model?

Are RAs part of a population of students who are vulnerable to stress or distress?

College students appear vulnerable to distress as over half of college students have reported having suicidal ideation at some point in their life (Drum et al., 2009). In addition, Furr and colleagues (2001) found that over 50% of university students report

depressive symptoms after starting college. The ACHA-NCHA study (2011) found that a large proportion of college students endorsed feeling hopeless, overwhelmed, lonely, and very sad over the past year. In addition, 41% said they had felt above average stress and 10% noted tremendous stress over the past year (ACHA-NCHA, 2011). While college students in general appear to comprise a population of individuals vulnerable to stress, the current study will examine whether the stress endorsed by RAs differs from other college students.

Might serving as a gatekeeper increase an RA's vulnerability to stress?

The efficacy of gatekeeper training programs and their potential for unforeseen negative consequences on college student helpers is understudied (CDC, 1992; Garland & Zigler, 1993; Gould et al., 2003; Haas et al., 2003; Joiner, 2009; Lewis & Lewis, 1996; Schwartz & Friedman, 2009; Tompkins & Witt, 2009; Westefeld et al., 2006; Wyman et al. 2008). It is hypothesized that the training and broadcasting of information about suicide into the population of RAs could lower their threshold for managing stress and distress through several mechanisms. Exposure to suicidal students and content could lead to desensitization (Garland & Zigler, 1993; Gould, 2001) and more specifically, a habituation experience and an acquired capacity to inflict self-harm (Joiner et al., 2009), compassion fatigue (Cacciatore et al., 2011; Jacobson, 2012), vicarious trauma (Voss Horrell et al., 2011; Jenkins & Baird, 2002), and suicide contagion (Gould & Kramer, 2001; Range et al., 1988; Rudd et al., 2006; Spirito et al., 1989). These theories of suicide

build upon the stress-diathesis model to explain how vulnerability increases among those exposed to suicidal experiences.

Desensitization

While attempting to de-stigmatize suicide, suicide prevention programs may inadvertently desensitize students and normalize suicidal behavior as a reaction to common stressors rather than viewing suicidal ideation as resulting from significant mental health issues. Suicide prevention programs may also inadvertently reduce potentially protective societal taboos and leave adolescents with a message linking suicide with stressful experiences. It is also important to consider that prior suicidal experiences may serve to desensitize individuals by creating a numbing effect towards new suicidal experiences. As such, the exposure to new suicidal experiences may fail to alert the student to the problem at hand. Gould (2001) suggested that prior suicidal behavior may moderate the imitative effect of exposure to suicidal content.

Suicide prevention programs may also exaggerate the incidence of suicide in the population in an attempt to increase awareness and concern about the problem (Garland & Zigler, 1993). The danger of exaggeration is that students may perceive suicide as a more common and more acceptable act. Students may also come to closely identify with the problems portrayed by the case example provided in the training and may see suicide as a solution to their problems (Garland & Zigler, 1993). These issues are important as the high stress related to student suicide and the urgency felt at many universities may lead them to act quickly to implement gatekeeper training programs. As this study

examines the impact of gatekeeper training on RAs, important factors to consider include the impact of desensitization from exposure to content related to suicide and from working with suicidal residents.

Acquired capacity

Joiner and colleagues (2009) argue that two components are required for a serious attempt or death by suicide, including a desire and capacity to die. Perceived burdensomeness and failed belongingness are viewed as the primary components of the desire to die; however, without the capacity to die a serious attempt is less likely. Joiner and colleagues noted that people must acquire the ability to overcome self-preservation instincts in order to engage in self-harm as a required component of suicide attempts. The developed capacity to die informs how a person can become increasingly vulnerable to distressing thoughts as their resistance to such thoughts is worn down over repeated exposure to fear and / or pain inducing experiences. It is noted that Joiner et al. tend to refer to habituation to fear and pain of self-injury as primary mechanisms by which people acquire the capacity to inflict further harm on themselves. However, the authors note that exposure to violence or injury could create a habituation experience.

Vicarious trauma and compassion fatigue

Vicarious trauma and compassion fatigue are related phenomenon that may arise out of internalizing the traumatic material of patients (Voss Horrell et al., 2011). Clinicians with vicarious trauma may experience changes in their world view and relationships similar to changes that occur in traumatized individuals while those with

compassion fatigue may develop symptoms of PTSD as a result of listening to traumatic narratives or more general strain related to empathetic work (Jenkins & Baird, 2002; Voss Horrell et al., 2011). Exposure to suicidal students may impact RAs if they internalize the experience, making them more vulnerable to stress and additional suicidal experiences. This is demonstrated in that exposure to someone else's suicide is a core component in assessing the risk of someone seeking help for suicidal ideation (The United States Department of Health and Human Services, 2001).

In addition, RAs and other first responders who lack training to address the emotional needs of those involved in crisis situations, such as suicide and other mental health incidents, can be subject to compassion fatigue (Cacciatore, et al., 2011). Similarly, Employee Assistance Program counselors were found to experience moderate risk for compassion fatigue through their exposure to hearing client's traumatic stories during initial assessments, short-term counseling, and being the first mental health professional to respond to critical incidents (Jacobson, 2012).

Suicidal contagion

Distressed adolescents are perceived as being vulnerable to behavioral contagion regarding suicide (Gould & Kramer, 2001; Range et al., 1988; Rudd et al., 2006; Spirito et al., 1989). RAs may also be subject to a contagion effect where the suicidal ideation of the distressed student impacts the RA adversely (Gould & Kramer, 2001; Range et al., 1988; Rudd et al., 2006; Spirito et al., 1989). Considering the wide range and prevalence of suicidal experiences on college campuses, a significant percentage of college students

are likely already vulnerable to suicidal ideation (Drum et al., 2009) and are likely to interact with others having such experiences.

Gould (2001) described suicide contagion as the process by which one suicide becomes a compelling model for successive suicides. The process by which suicidal contagion might impact RAs has been conceptualized from three theoretical vantage points: behavioral contagion, social learning theory, and an infectious disease model. It can be viewed within the larger context of behavioral contagion where behaviors spread quickly and spontaneously through a group. Behavioral contagion theory holds that individuals have a preexisting motivation to perform a particular behavior (e.g., end their pain through suicide), but yet also hold some resistance to performing it (Gould, 2001). The resulting approach-avoidance conflict may be resolved in favor of approach by degrading the individual's internal resistance to the behavior when the individual comes into contact with related behavior (Gould, 2001). While imitation or contagion of suicidal experiences among peers is generally not viewed as a primary cause of adolescent suicides, it may lower the threshold for resistance to suicidal ideation among vulnerable individuals (Lewis & Lewis, 1996). Therefore, under the behavioral contagion model, it may not be that individuals will learn to utilize suicide as a coping mechanism by observing others, but rather their defense to it may erode.

Social learning theory may help explain suicide contagion through its emphasis on the influence of modeling on imitative behavior (Gould, 2001). Under this theory, observing a person modeling the suicidal behavior may lower behavior restraints and encourage imitation. For instance, the rate of cluster suicides is highest among teenagers

and young adults, indicating these individuals are more susceptible than those in other age groups to suicide contagion (Gould, 2001). Evidence of a contagion effect of suicide among friends and family members, however, is more consistent than the impact from the media. This may result from a stronger effect where intimates seem to reduce social deterrents working against suicide and to increase imitative behavior (Lewis & Lewis, 1996). Spirito and colleagues (1989) suggested that imitation of a friend, family member, or from the media is a relevant factor in adolescent suicide. Some have found that an advantage of a gatekeeper training program targeted to adult staff in a high school setting, rather than student peers, is that it does not carry the same risk of imitation that may accompany the adolescent-based suicide prevention education programs (Gould & Kramer, 2001). As young adults, it is unclear the extent to which RAs may be subject or resistant to such imitative effects.

A third way of viewing suicide contagion flows from a public health or infectious disease model of contagion. This model may be useful in terms of articulating the roles of the agent or model, host or vulnerable individual, and the environmental characteristics such as the media (Gould, 2001). Gould reported that extensive media coverage of suicide is associated with a significant increase in the rate of suicide in the geographic market exposed to the news, whether locally or nationally. Additionally, the magnitude of the increase in suicides is proportional to the amount, duration, and prominence of media coverage (Gould, 2001). With respect to the impact of media reporting on suicide in adolescents, however, some investigations have produced differing results, suggesting that different groups of adolescents may vary in their vulnerability to contagion in that

the same media events produced different effects (Lewis & Lewis, 1996). As such, RAs exposed to suicidal residents and the content of suicide prevention training may be impacted by the number, intervention stress and duration of their interventions with residents.

Students on college campuses can come into contact with suicidal students in a variety of contexts, not exclusively through suicide prevention programs. However, suicide prevention programs likely increase the frequency of such interactions as well as heighten the responsibility of the RA to intervene (Lewis & Lewis, 1996). In addition, some at-risk youth may become involved in the suicide prevention program by becoming a helper, suggesting that the peer helpers themselves may experience suicidal symptoms prior to training (Lewis & Lewis, 1996). The authors cautioned that we have little information on the nature of the problems peer helpers confront, the type of support helpers receive, and the overall effectiveness of the programs they serve. Suicide prevention programs should exercise care in designing their training interventions, as increasing performance demands on vulnerable RAs or undermining protective forces can leave them increasingly at risk for adverse mental health impacts.

Might mental health interventions be stressful triggering events?

Impact on professionals when working with suicidal clients

As RAs are increasingly called upon to deal with difficult resident problems such as alcoholism, suicide, homophobia, racism, date rape, eating disorders, and stress, some university administrators have questioned whether the job has become too big for

students (Dodge, 1990). However, the impact on RA mental health is understudied. Much of the literature that may be helpful in providing an estimation of the mental health impact of gatekeeper training on RAs resides in examining of the experiences of counselors and first-responders. While gatekeeper training generally advises RAs against serving in the role of counselor, the experience may be similar in terms of the potential for forming helping relationships with residents that extend over time. The RA experience may also be similar to those of first-responders in terms of working with short-term high intensity interventions. The literature for both will be reviewed.

Even the most seasoned professional clinician can become unnerved by working with suicidal clients (Collins, 2003; Hendin, Haas, Maltzberger, Koestner & Szanto, 2006). Professional clinicians are often highly trained to work with suicidal clients and have established professional support networks to help them manage the stress of their work. For instance, professional counselors staffing telephone based suicide hotlines are advised to engage in self-care following an intervention with a suicidal client, including debriefing, taking time away from the phone, and considering who to call if the helper feels upset or distraught later (United States Department of Health and Human Services, 2001).

Hendin, Haas, Maltzberger, Szanto, and Rabinowicz (2004) found that over one-third of therapists experiencing a patient's suicide endorsed severe distress. Following the suicide of a client, clinicians may also experience feelings of shock, grief, guilt, shame, anger and doubts about one's competence (Akhtar, 2011, Hendin, Lipschitz, Maltzberger, Haas, & Wynecoop, 2000). RAs, however, lack both the level of training and the

extensive professional helping network available to clinicians to support their interventions with suicidal residents. Examining the impact of exposure to suicidal peers on RAs is important based on the evidence that working with suicidal clients can have significant mental health impacts on professionals (Hendin et al., 2006; Lewis, 2007).

Responses by first responders to traumatic events are influenced by several factors, including the social context of the event, biological factors, past experiences and expectations, and factors related to the event, such as cause, intensity, duration of exposure, and support (Benedek, Fullerton, & Ursano, 2007). While different people may experience distress related to events differently, first responders have identified witnessing injury or death and injury to a friend, events that RAs could encounter, as traumatic experiences (Osofsky et al., 2011). Benedek and colleagues note that adverse reactions to traumatic events vary, where most experience mild, transient distress, such as problems with sleep, fear, worry, anger, sadness, or increased substance use. A smaller group may experience more moderate symptoms, such as anxiety and fewer may develop PTSD or depression (Benedek et al., 2007).

Differential impact from exposure to suicide prevention curriculum

Research indicates that the suicide prevention training content may impact students' perceptions and attitudes differently based on their gender and prior exposure to suicidal experiences. For instance, male students displayed more hopelessness and maladaptive coping responses following exposure to a suicide prevention curriculum presented to 215 high school students (Overholser, Hemstreet, Spirito and Vyse, 1989). The authors noted that male students were more likely to feel that discussing suicide

could increase a person's risk for actually attempting it. They suggested that exposure to the curriculum may have made it less likely that the men would be able to deal with their suicidal experiences in a constructive manner (Overholser et al., 1989). Some students receiving suicide prevention training in a study of 758 high school students felt that exposure to the program had worsened any emotional problems they or a friend might have had (Shaffer, Garland, Vieland, & Underwood, 1991). Importantly, the authors found that students reporting a prior suicide attempt were more likely to show a negative reaction to the curriculum than those who did not.

Research suggests that those with prior suicidal experiences may react differently to new content regarding suicide than those without prior experience (Doron et al., 1988). Rudd et al. (2006) examined 92 undergraduate college students and found that students asked to memorize a list of suicide warning signs scored lower on emotional distress than students asked to memorize a list of heart attack warning signs. This study implies that between the training conditions, suicide prevention training may be less emotionally impactful on its recipients than heart attack prevention training.

Experience with suicidal peers may influence whether and how students will intervene in the future. In a study of 325 high school students, those who knew a peer who had committed suicide were less likely to intervene directly with a suicidal peer than those who did not know a peer who committed suicide (Kalafat & Elias, 1992). The authors speculate that the negative impact of interacting with suicidal peers may lead students to develop negative or avoidant attitudes towards suicidal peers (Kalafat & Elias, 1994). As it is unclear the extent to which RAs are vulnerable to stress, that suicide

prevention training impacts that vulnerability, and that RAs find mental health interventions with residents stressful, program evaluation measures should be designed to identify such potential consequences. We turn now to an examination of several prominent gatekeeper training programs.

Features of gatekeeper training programs

Gatekeeper programs incorporate a range of objectives including raising awareness of the problem of college student suicide, increasing the ability of RAs to detect signs of distress in students, facilitating referrals for professional help, and engaging distressed students interpersonally. The current study examines a multi-featured program that explores all four of these components. This section reviews prominent programs to provide a context for the current study. The most comprehensive programs address all four objectives, while some address fewer.

Examples of less comprehensive gatekeeper training programs are school based programs that traditionally focused on helping high school staff identify students at risk for suicide and to refer them to help (CDC, 1992). These programs are not designed to replace professional mental health care or to encourage school staff to act as counselors. Rather they are intended to “sound the alarm” and refer students to professional help (CDC, 1992). However, some programs have trained peers to develop counseling skills and intervene in more of a quasi-professional role (Gould et al., 2003; Herring, 1990).

The National Alliance on Mental Illness (NAMI) has created various training resources to educate gatekeepers that are somewhat more comprehensive. Their models

tend to follow a socio-constructivist pedagogic approach, where they utilize people who have experienced suicidal events themselves or in their families to instruct the class.

These programs draw on the personal experience of mental health consumers and family members who have experienced suicide or suicide attempts in their family and have been trained to help others. They also utilize the expertise of mental health professionals and educators (NAMI, 2010). The NAMI training provides instruction on identifying early warning signs of mental illness, how to anticipate responses by the family to the mental illness, a sharing of perspectives as to their experience of living with mental illness, and group discussion (NAMI, 2010). The NAMI program is less than fully comprehensive in that it focuses more on making referrals to professional help and less on engaging suicidal students interpersonally.

The Department of Nursing at Bloomsburg University of Pennsylvania established an on-campus NAMI chapter, which provides an illustration of this approach. The department initiated a suicide prevention program that appears more focused on raising awareness and increasing referrals than on active engagement by gatekeepers (Cook, 2007). The suicide prevention training taught faculty and students how to identify common signs of mental health difficulties and how to quickly intervene, including references to the counseling center or other mental health resources. The training also emphasized maintaining student confidentiality and decreasing the stigma associated with seeking help for mental health problems (Cook, 2007).

Question, Persuade, Refer (QPR) training is one of the most comprehensive gatekeeper programs. This program trains staff on the topics of rates of youth suicide,

warning signs and risk factors for suicide, procedures for asking a student about suicide, persuading a student to get help, and referring a student for help. The training generally includes campus specific based data to provide a local context of student suicidal behavior and the protocol for responding to suicidal students (Wyman et al., 2008).

QPR training is comprehensive in that it addresses all four components of raising awareness, increasing detection, increasing referrals, and engaging suicidal students. Wyman and colleagues (2008) sought to determine whether the success of a QPR training program lies in increasing gatekeeper knowledge and positive appraisals of training quality or whether success comes from stronger interpersonal relationships between gatekeepers and suicidal students. In their study, they examined whether staffs' questioning of students' suicidal behaviors were impacted most by the surveillance model or the communication model.

The surveillance model focuses on increasing gatekeeper knowledge of risk factors and attitudes about preventing suicide to enable them to more effectively respond to suicidal communications from students and refer them to professional help. In contrast, the communication model is more comprehensive as it seeks to change the nature of the transaction between the RA and student. This model holds that suicidal students' own attitudes and behaviors impact whether they will disclose their suicidal ideation to others. Consequently, the communication model programs focus on helping the staff interact with suicidal students to promote trust, decrease stigma, and allow for a more integrative response between the student and helper (Wyman et al., 2008).

After the QPR training was implemented the number of staff inquiries about suicide directed to students increased, but only for those staff already communicating with students about suicide before the training (Wyman et al., 2008). Those staff entering the study with closer communication with students about emotional distress asked more students about suicide after training. The study results suggest that identifying more students at high risk for suicide will require expanding staff members' open communication with students about issues of emotional distress (Wyman et al., 2008).

An important finding of the study is that increased knowledge about suicidal ideation and positive appraisals of the QPR training by the staff are not sufficient to increase suicide identification behaviors. This study demonstrates that the quality of the relationship between the suicidal student and the gatekeeper is more important than the knowledge of the gatekeeper. The authors recommended skill training for staff and interventions that modify students' help-seeking behaviors to supplement universal gatekeeper training (Wyman et al., 2008). In a study of 120 RAs trained in QPR, Tompkins and Witt (2009) also found an increase in appraisals of preparation, efficacy, and intentions to perform in a gatekeeper role did not result in a sizeable increase in key gatekeeper behaviors. The authors suggest that skill-based practice may help translate knowledge and appraisals into behaviors, particularly for those RAs already possessing a high level of prior knowledge and appraisals.

The proposed study focused on components of both the surveillance and communication models and their impact on RA stress load. The study measured surveillance model components of changes in RA knowledge, perceived competency and

attitudes from pre-study to post-training and then again after serving in the role of RA for one semester. This study also measured components of the communication model including addressing resident concerns regarding stigma, confidentiality, and the level of comfort the RA has in talking about suicide with residents.

Training content and supervision

Despite the various program composition issues presented in the suicide literature, the research has failed to clearly validate a comprehensive empirically supported peer-based gatekeeper training model (Kalafat & Elias, 1994; Westefeld et al., 2006; Wyman et al. 2008). More specifically, there appears to be little empirical support for the training and education of non-mental health professionals on college campuses such as RAs (Westefeld et al., 2006). While the research examining the effectiveness of gatekeeper training is limited, some findings are encouraging in terms of gatekeepers being able to apply the knowledge and skills they acquire in training (Gould & Kramer, 2001).

The gatekeeper suicide prevention training model delivered in this study utilizes principles from the communication model and incorporates instructional design techniques from the theory of Situated Cognition. This theory holds that with regard to learning, the learner and the learning environment cannot be separated (Wilson & Myers, 2000). One of the difficulties in working with suicidal students lies in managing the emotions that can be present or restricted (Baumeister, 1990; Wyman, et al., 2008). Through Situated Cognition, gatekeepers would learn in environments that replicate the experience they will face outside of the classroom. For instance, to support student

learning and enhance their ability to transfer their skills in working with suicidal students from the classroom to the residence halls, RAs should practice role playing scenarios of when and how to intervene (Wyman et al., 2008).

In addition to providing a proper training environment, gatekeeper program efficacy may be impacted by the skill and knowledge base of the trainers. Lewis and Lewis (1996) found that while peer-to-peer helper counseling programs in high schools are widely used, they are often supervised by non-counseling professionals. They reported significantly greater numbers of completed suicides at those schools where programs are supervised by non-counseling professionals (Lewis & Lewis, 1996). The authors cautioned that non-counseling professionals are often not trained in issues such as privacy, confidentiality, dual relationships, establishing appropriate boundaries, risk assessment, and understanding the limits of competence to the extent a professional counselor would be (Lewis & Lewis, 1996).

When colleges proceed with training RAs, they should consider how to address several challenges that can induce stress in the RAs. First, RAs may encounter difficulty in observing change in a student when it occurs gradually and almost imperceptively over time. Second, RAs may become desensitized to the changes over time. Third, RAs must learn to identify signs of distress in light of cultural influences. Fourth, RAs must be able to distinguish signs of low level distress from those indicating a crisis. Fifth, gatekeepers must be able to relate interpersonally to suicidal students to provide a trusting contact for students while also maintaining appropriate boundaries so that the RA remains healthy and safe. Sixth, RAs must manage the strain that can accompany increased role

responsibility and serving in a quasi-professional role. Training RAs to be attuned to their stress level and encouraging them to utilize professional mental health resources when needed may serve to mitigate the impact of these challenges.

Statement of Purpose

Gatekeeper training programs can be distinguished by the roles the gatekeepers assume. The broad roles include raising awareness of suicidal ideation, increasing knowledge of warning signs, engagement by the gatekeeper with the suicidal student, and increasing referrals to professional help. The current study was situated within a program evaluation of the UT Be That One. Suicide Prevention Program. The goals of the program evaluation were to evaluate the effectiveness of the program in training RAs to help students in distress and its impact on the stress and distress of the RAs trained as gatekeepers. The current study examined data produced by that program evaluation through December, 2011 and focus on the question of the impact on RA stress and distress related to their participation in suicide prevention training and their role of gatekeepers.

The current study consisted of the administration of a series of surveys to measure the impact of a RA suicide prevention gatekeeper training program. All RAs participating in this study received the Be That One. Suicide Prevention Training at the University of Texas at Austin prior to the start of the fall semester. Some RAs had prior exposure to suicide prevention training and prior experience serving as an RA, while for others these were new experiences. As part of its focus on suicide prevention, the training addressed

issues related to distress, including depression, anxiety, relationship violence, eating disorder problems, alcohol and drug use, self-injurious behaviors, family stress, academic stress, and suicidal ideation. A series of three related surveys were administered such that RAs completed one survey at each of the following times: pre-study, post-training, and at the end of the fall semester.

The impact of the training and the performance of the role of gatekeeper on RAs was measured by changes in their endorsed stress and distress from before the training begins through approximately three months after serving as RAs. Stress was measured with the Perceived Stress Scale – 10 (Cohen & Williamson, 1988). Distress was measured by asking RAs to identify their most distressing thought or experience over the past 12 months from a list of increasingly severe items ranging from distressing thoughts to planning a suicide attempt to attempting suicide.

It was hypothesized that RA stress and distress could be impacted by several factors related to the training and serving in the role of gatekeeper, including exposure to distressed and suicidal students, role responsibility, training efficacy, and support-seeking behaviors. It was anticipated that the greater number, higher intervention stress, and longer duration of interventions with distressed residents would increase the stress load on the RAs. In addition, internalizing greater role responsibility for protecting their residents was expected to add to the stress load on the RA. The effectiveness of training, measured by the extent RAs gained knowledge of how to help their residents and also gained a subjective sense of being prepared to work with distressed residents, was expected to serve as a protective factor to limit or reduce stress on the RA. In addition,

the presence of support-seeking behaviors by RAs was expected to act to limit or reduce their stress. The study also examined whether the training may desensitize RAs to the need to intervene with their residents and take care of themselves.

The present study is important because college counseling centers are currently implementing gatekeeper training programs but lack the understanding of the extent to which they impact their participants. By understanding such impacts, college counseling centers can adjust their training programs to better address gaps in knowledge and deficiencies in perceived competence. They may also encourage support-seeking among RAs and strive to ensure that they receive sufficient supervision and encouragement to help them to maintain their mental health.

Chapter Three: Methods

Participants

The research study analyzed data from self-reported survey results from RAs working at the University of Texas at Austin. The study coordinated with The Division of Housing and Food Services and the Counseling and Mental Health Center within the Division of Student Affairs at UT Austin to train all RAs prior to the start of the fall 2011 academic term to serve as gatekeepers in the residence halls. Of the approximately 160 students employed as RAs, 146 were trained in suicide prevention and 142 participated in the study. Participation in the study was voluntary and RAs were informed that they could skip questions on the surveys. RAs that did not complete the initial survey were asked not to complete later surveys and those unable to attend the training were excluded from this study.

Sample description

This analysis examined the results from surveys completed by Resident Assistants at three time periods. 142 RAs completed the pre-study survey immediately before suicide prevention training, 138 completed the post-training survey immediately after training, and 124 RAs completed the post-study survey. Participants were instructed to take the post-training and post-study surveys only if they had completed the pre-study survey, however, not all participants included matching identifier codes across all three surveys. Consequently, responses from 93 RAs were successfully matched across all three surveys, 128 were matched between pre-study and post-training (inclusive of those

matched across all surveys) and 99 were matched between the pre-study and post-study surveys (inclusive of those matched across all surveys).

Sample demographics are noted in Table 3.1. Fifty-two percent of respondents were first year RAs while 48% indicated having more than one year of prior experience as an RA. Mean age was 20.1 years with most of the RAs responding that they were juniors and seniors. The sample had a higher proportion of female respondents than male as compared to the campus as a whole where the survey consisted of 61% females and 39% males as compared to 50.4% females and 49.6% males on the broader UT campus (Fisher, 2011). Only 36% of the RAs identified as solely Caucasian / white as compared to 51% of the UT students enrolled in the fall 2011 (Fisher, 2011), indicating that this sample appears more racially and ethnically diverse than the broader campus. Additionally, 9% self-identified as bisexual, gay or questioning.

Table 3.1: Demographics gathered from pre-study survey

Prior RA Experience		Sex	
First Year RAs	52%	Female	61%
Returning RAs	48%	Male	39%
		Transgender	0%
Residence Hall		Mean age	20.1 years
Jester East or West	40%		
Other than Jester	60%		
Grade Classification		Sexual Orientation	
Freshman	0%	Bisexual	4%
Sophomore	21%	Gay	4%
Junior	40%	Heterosexual	91%
Senior	38%	Lesbian	0%
Graduate Student	0%	Queer	0%
		Questioning	1%
		Other	0%
Race / Ethnicity			
African American, of African descent, African, of Caribbean descent, or Black			16% (14%) ^a
Asian or Asian American (e.g., Chinese, Japanese, Korean)			24% (21%)
Caucasian, White, of European descent, or European (including Spanish)			42% (36%)
Hispanic, Latino or Latina (e.g., Cuban American, Mexican American, Puerto Rican)			17% (13%)
Middle Eastern or East Indian (e.g., Pakistani, Iranian, Egyptian)			9% (6%)
Native American (e.g., Dakota, Cherokee) or Alaskan Native			2% (0%)
Native Hawaiian or other Pacific Islander (e.g., Samoan, Papuan, Tahitian)			1% (0%)
Other, please specify: _____			0% (0%)
Multiple selections			(11%)

^aThe number in parenthesis represents the percentages selecting only one race or ethnicity.

Procedures

Approvals obtained for the current study

Approval by Human Subjects Committee

The study complies with all ethical standards of research established by the American Psychological Association (2002) and the University of Texas at Austin. A research study proposal, survey instruments and informed consent form were approved by the Departmental Review Committee within the Department of Educational Psychology and the Institutional Review Board at the University of Texas at Austin (see Appendices A, B and C).

Approval by the Division of Housing and Food Service

Prior to training and collecting data, permission to conduct the training was secured by the Be That One. Suicide Prevention Program. In addition, the survey instruments were submitted to the Division of Housing and Food Services, the feedback of Hall Coordinators and senior staff was incorporated into the instruments, and the Director of Residence Life granted approval to implement this study.

Approval by the Counseling and Mental Health Center

Prior to training and collecting data, the research proposal and survey instruments were submitted to the Counseling and Mental Health Center where feedback from members of the Be That One. Suicide Prevention Program, two senior staff members, and one staff member familiar with college student research was incorporated into the

instruments. The Director and Associate Director of the counseling center granted their approval to implement this study.

Confidentiality

Protecting privacy and confidentiality of participants

The survey introduction clearly stated that their responses are confidential and anonymous, that this study will not divulge any information from the surveys that will identify anyone individually, and that results will be reported in the aggregate. This study implemented several procedures to ensure confidentiality and anonymity of the residents in distress as well as the confidentiality of the RAs. At no time were RAs requested to provide their name or the names of the residents they work with. Information in the form of the first three letters of the RA's mother's maiden name, and two-digit birth month and day were used in order to link RA responses between surveys. The commercial survey research company, StudentVoice, managed the collection of the data under a license agreement with The Division of Student Affairs at UT Austin and can only release the survey information to the sponsoring researcher. The data gathered from these surveys may be shared for research purposes only. However, prior to sharing such data, any individual identifying information will be removed.

Procedures for maintaining confidentiality of the research data

Raw survey data will be initially housed on the StudentVoice secure website; only the Principle Investigator (PI) of this study and the Director of Assessment in the Office of the Dean of Students will have access to download the data from the StudentVoice

website. Prior to reporting survey results to the Division of Housing and Food Service, the Counseling and Mental Health Center, and any other recipients, the data will be de-identified and aggregated so that individual responses cannot be associated with any individual RA.

Training protocols

The Be That One. Suicide Prevention Training Program provided a different trainer to lead each session. Training was conducted by the University of Texas at Austin Counseling and Mental Health Center through its Be That One. Suicide Prevention Program. One trainer is employed full-time as a masters-level suicide prevention program coordinator with over three years of experience in delivering the Be That One. Suicide Prevention Training program. The other trainer is a doctoral level graduate assistant with over one year experience conducting suicide prevention training on the university campus. The trainers utilized the same training materials, including PowerPoint presentation, handouts, role-play scenarios, and experiential exercises. They also coordinated their efforts to provide substantially similar training experiences. The PI is also a graduate assistant in the Be That One. Suicide Prevention Program, but did not serve as a trainer of RAs during this study. The PI observed the trainings, implemented the evaluation protocol, and utilized a treatment fidelity check to ensure both trainers provided substantially similar materials to the RAs (see Appendix D). Seventy-nine first year RAs were assigned to one training session while 67 experienced RAs were assigned to a second training session.

During this 90-minute training, RAs were trained to understand the prevalence of suicidal distress on college campuses, identify warning signs of suicide and resident distress, and talk to residents they have identified as being potentially suicidal about their suicidal thoughts. RAs were provided with information regarding professional helping resources, referral procedures, and ways to reduce the stigma commonly associated with professional help seeking. These resources include in-person counseling at The University of Texas at Austin Counseling and Mental Health Center (CMHC), professionally staffed anonymous telephone counseling, The University of Texas at Austin Behavior Concerns Advice Line, 911 and non-emergency police phone numbers, SafePlace, and a national suicide hotline. RAs were encouraged to engage in support-seeking behaviors, such as consulting with their supervisors and accessing the Counseling and Mental Health Center as needed. RAs were also instructed to follow up with the distressed resident after the intervention to continue to encourage their resident to seek professional help. The training provided experiential exercises (e.g., scripted and unscripted role plays) to accomplish these training goals.

Data collection

Prior to the start of training, the PI provided an introduction to the survey in written and oral form (See Appendix E). RAs then completed an online survey through the use of their individual lap top computers and iPads. An identically structured paper version of the survey was provided to those participants without access to electronic media.

Following the 75-minute suicide prevention training, the PI introduced the post-training survey (see Appendix F). The post-training survey was substantially similar to the pre-study survey except that it omitted the demographic questions gathered in the pre-study survey as well as stress and distress questions that ask about experience over extended periods of time. RAs were then sent two emails, one in late September and the other in early November, encouraging them to pay attention to their work with residents' mental health issues as the post-study survey would ask about these experiences (see Appendix G).

At the end of the fall semester, RAs were asked to complete a post-study survey to measure the mental health impact of participation in the gatekeeper program (see Appendix H). The post-study survey is substantially similar to the pre-study survey with the addition of additional questions regarding their perception of the source of their stress, the number, intervention stress, and duration of interventions, and their support-seeking behavior throughout the semester.

Emergency procedures

The appropriate emergency procedure is highly dependent on the level of suicidal distress found among residents. RAs were trained that if they believe a suicide attempt is imminent or has already begun they should call 911 for immediate assistance. They were also encouraged to consult with their Hall Coordinator and / or the Behavior Concerns Advice Line for assistance with their residents. RAs received information on the signs of stress they themselves may encounter when working with suicidal students, the

importance of seeking help to help them manage their own stress, and resources available to them for support. RAs were encouraged to access a range of resources to best meet their needs, including other RAs, supervisors, friends, family, and mental health professionals.

Assisting RAs to work with residents who conceal their distress

The PI anticipates that some suicidal students will readily disclose their ideation to RAs while RAs may help others to disclose if they possess a better understanding of the nature of concealing distress from others. The training addressed most of the reasons Burton Denmark and colleagues (in press) found that students conceal their ideation, including feeling they are at low risk of harming themselves (18%), a desire to not impose on others (16%), a desire for privacy (15%), feeling help-seeking would be pointless (13%), concerns of stigma (13%) and shame (7%), fear of repercussions (7%), and a perceived lack of confidants (3%). It is noteworthy to consider that Burton Denmark et al. found that 7% of students said they concealed their suicidal ideation out of a desire to not be interfered with. Since it is not anticipated that these students would voluntarily approach an RA for help, RAs will be trained to have both a proactive and reactive role.

Instruments

Three surveys were administered to RAs receiving suicide prevention training (see Table 3.2). These self-report measures asked the RAs to report on their experiences prior to training, immediately after training, and then again after serving as a RA for the

fall semester. The RAs were asked to provide basic demographic information and respond to questions about stress load, attitudes regarding role responsibility, training effectiveness, and support-seeking behaviors.

Table 3.2: Summary of survey administration

Time Period	Date Survey Completed	Survey Name	Number completing survey
1 – Pre-study	August 8, 2011	Pre-study survey	142
2 – Post-training	August 8, 2011	Post-training survey	138
3 – Post-study	November 28, 2011	Post-study survey	124

The survey questions were created through a process of gathering questions from a variety of sources, including the 2011 National Research Consortium survey (Brownson, 2011), survey questions presented in the suicide prevention literature, and by asking representatives from the suicide prevention training program, the Division of Housing and Food Service, and experts in program development and evaluation from the Counseling and Mental Health Center. The questions were then grouped into categories related to the constructs of interest and in terms of similarity to each other. Duplicate questions were removed and additional questions were added by the PI to provide a wide range of question options that covered the constructs of interest. The questions were then reviewed by representatives from the suicide prevention program, Division of Housing and Food Service, the Counseling and Mental Health Center, and faculty and staff members with expertise in statistical analysis, survey development, and mental health program evaluation. Based on feedback from these representatives, survey questions were eliminated, modified or retained to produce questions intended to tap into the constructs of interest. The survey questions represent a mix of Likert scale, short answer, true-false /

yes-no, multiple choice, drop down responses, and assignment of percentages to various categories of responses.

Pre-study questionnaire

Prior to training RAs completed a 70 question survey (see Appendix I). RAs provided a non-personally identifying code in order to tie survey responses together over multiple administrations. Several questions asked RAs basic demographic information such as age, sex, race/ethnicity, and sexual orientation. RAs were also asked about prior exposure to individuals with suicidal experiences, prior suicide prevention training, and stress and distress measures.

The pre-study questionnaire provided an objective assessment of suicide prevention knowledge consisting of seven multiple choice, three true-false, and two short-answer questions. The survey also asked 13 subjective assessment questions to measure the comfort and confidence RAs have in working as gatekeepers. These questions were based on the training components of the suicide prevention program. For instance, the questions asked about the RA perception of the prevalence of suicidal ideation on college campuses, student help-seeking behaviors, warning signs, impressions of asking residents about their suicidal ideation, concerns around stigma and confidentiality, and the availability of mental health resources. The purpose of these questions was to provide a baseline from which to evaluate the change in knowledge and perceived competency provided by the training as well as how that knowledge and perceived competency changes over the course of the semester.

RAs were then asked five questions about their attitudes toward suicide and serving as a gatekeeper, with a particular focus on their perceived role responsibility. The questions asked about role responsibility from several perspectives, including their sense of vigilance in discovering sources of distress, their reactivity to known needs, and their perspective regarding whom on campus is responsible for helping residents.

The pre-study survey concluded with three questions regarding RA support-seeking behavior. RAs were asked to assign the percentage of time they sought support from various resources in different situations.

Post-training questionnaire

The 44 question post-training survey (see Appendix J) asked a sub-set of the questions asked in the pre-study questionnaire in an attempt to measure a change in RA knowledge, attitudes, and understanding of help-seeking resources resulting from the suicide prevention training. As they were captured in the pre-study survey, demographic questions were omitted from this survey. In addition, the stress and distress measures were omitted as those measures are sensitive over extended periods of time, such as months, rather than hours.

Post-study questionnaire

Participants could respond to a maximum of 139 questions on the post-study questionnaire (see Appendix K). This questionnaire posed the same questions as the pre-study and post-training questionnaires regarding RA knowledge, attitudes, and understanding of help-seeking resources. The post-study questionnaire also asked RAs

additional questions regarding the source of their stress and the type, number, intervention stress, and duration of mental health interventions they engaged in throughout the semester. While the suicide prevention training primarily focuses on helping RAs understand suicidal behavior of their residents, the training also addresses issues that may lead to, or indicate the potential for, suicidal behavior, such as depression, anxiety, relationship violence, eating disorder problems, alcohol and drug use, and family and academic stress. Consequently, the questionnaire asked RAs about their experiences in working with residents confronting a broad range of mental health issues. To gather data on their intervention load, participants were first asked “how often did the following problems occur among your residents?” Only those types of interventions RAs endorsed had occurred among their residents (e.g., depression, anxiety, thoughts of suicide) were made available as response options through the number, intervention stress, and duration questions.

Research questions

Research question 1: Does RA stress and / or distress change as their intervention load with distressed residents increases, considering the number, intervention stress, and duration of interventions with residents?

Rationale: The potential negative side effects of gatekeeper training programs on college student helpers are rarely examined and may have unforeseen negative consequences (CDC, 1992; Garland & Zigler, 1993; Gould et al., 2003; Haas et al., 2003; Joiner, 2009; Lewis & Lewis, 1996; Schwartz & Friedman, 2009; Westefeld et al., 2006;

Wyman et al. 2008). RAs may not be trained sufficiently to work with troubled students and may be subject to adverse effects similar to others experiencing first responder trauma (Cacciatore, et al., 2011; Jacobson, 2012; Sharkin, Plageman, & Mangold, 2003). Even for mental health professionals, working with suicidal clients can have significant mental health impacts (Collins, 2003; Hendin, et al., 2006; Lewis, 2007).

Intervention load may increase existing vulnerabilities in RAs, resulting in a lower threshold to tolerate the stress associated with mental health interventions. These vulnerabilities may be impacted through several means. Exposure to distressed residents may lead to a habituation experience and an acquired capacity to inflict harm on oneself (Joiner et al., 2009). RAs may also be subject to a contagion effect where the suicidal ideation of the distressed student impacts the RA (Gould & Kramer, 2001; Range, et al., 1988; Rudd et al., 2006; Spirito, et al., 1989). For instance, student recipients of suicide prevention training have endorsed believing that exposure to the training would worsen the emotional problems of themselves and their friends and students reporting a prior suicide attempt were more likely to show a negative reaction to the curriculum than those who did not (Kalafat & Elias, 1994; Shaffer, et al., 1991).

Considering the wide range and prevalence of suicidal experiences on college campuses, a significant percentage of college students are likely already vulnerable to distress (Drum et al., 2009; Furr et al., 2001). Suicide prevention programs should understand the impact of suicide prevention training on RAs as increasing performance demands on vulnerable RAs or undermining protective forces may leave them increasingly at risk for adverse impacts.

Research question 2: Does RA stress and / or distress change with RAs' perceived role responsibility as a gatekeeper?

Rationale: A primary reason for implementing gatekeeper training programs is to increase the role responsibility of the helper in order to decrease the disclosure barrier of suicidal students and to facilitate the identification of distressed students and their referral to professional assistance (Schwartz & Friedman, 2009). In an effort to balance the perceived risks to gatekeepers and the benefits to distressed students, gatekeeper training models vary in the role peers play. Some models limit the gatekeeper's responsibility to listening and reporting warning signs, while others train them to be more available and capable of counseling high risk peers (Gould et al., 2003; Herring, 1990; Lewis & Lewis, 1996). It is possible that gatekeeper performance may be impacted by the level at which they are invested or engaged in their role. Information regarding the link between role responsibility and RA mental health would help gatekeeper training programs determine how to best align the RA role with program needs and available helping resources.

Research question 3: How does the possession of suicide prevention content knowledge and the perception of competency in working with distressed students impact RA stress and / or distress?

Rationale: This question addresses how exposure to suicide prevention training content impacts RAs' stress and distress. While college students are often the first to respond to their peers in need, they may not be trained sufficiently to effectively deal with troubled students (Sharkin, et al., 2003). In addition, despite a focus on increasing

knowledge and appraisals of efficacy in working with suicidal students, these aspects of suicide prevention training do not appear to increase suicide identification behaviors (Wyman et al., 2008). Complicating the training effort is the finding that individual RAs may respond differently to the training as some research suggests that those with prior suicidal experiences may react differently to new content regarding suicide than those without prior experience (Doron et al., 1988; Gould, 2001). In addition, differences in demographics may impact the recipients of training. For instance, male high school students displayed more hopelessness and maladaptive coping responses following exposure to a suicide prevention curriculum (Overholser, et al., 1989). The authors noted that male students were more likely to feel that discussing suicide could increase a person's risk for actually attempting it and suggested that exposure to the curriculum may have made it less likely that the men would be able to deal with their suicidal experiences in a constructive manner.

Research question 4: How do RA support-seeking behaviors impact RA stress and / or distress?

Rationale: Mental health professions are advised to engage in self-care following an intervention with a suicidal client, including debriefing and considering whom to call if the helper feels upset or distraught later (United States Department of Health and Human Services, 2001). RAs are also encouraged to seek support as part of suicide prevention training in order to reduce the intervention impact on them. However, their level of support-seeking and sources of help are largely unknown. College counseling

centers appear effective in helping suicidal students who present for treatment (Drum et al., 2009; Schwartz, 2006) and it is anticipated that such resources would help RAs as well. In addition, understanding where RAs naturally turn for support, such as other RAs, friends and family, would help gatekeeper training programs encourage broader community support. A better understanding of RA support-seeking behaviors would allow suicide prevention programs to address the needs of RAs and provide the most efficacious resources.

Research question 5: What impact might gatekeeper training have to desensitize RAs to the significance of the suicidal experiences of their residents and themselves?

Rationale: This question addresses how exposure to suicide prevention training and serving as a gatekeeper may desensitize RAs to problematic behavior, thoughts, and feelings. Suicide prevention training could produce unintended results by producing a numbing effect towards new suicidal experiences where exposure to new suicidal experiences fails to alert the RA to problems (Rudd et al., 2006). Suicide prevention programs may also exaggerate the incidence of suicide in the population in an attempt to increase awareness and concern about the problem (Garland & Zigler, 1993). The danger of exaggeration is that students may perceive suicide as a more common and more acceptable act. Students may also come to closely identify with the problems portrayed by the case example provided in the training and may see suicide as a solution to their problems (Garland & Zigler, 1993). Such results could impact the ability of the RA to

perform in their gatekeeper role and also inhibit the ability of the RA to monitor themselves for signs of distress.

Statistical analysis

The primary purpose of this study was to examine the change in RA stress and / or distress resulting from their participation in suicide prevention training and through their role as gatekeepers. Data collected from RA self-reports of their stress, suicidal and distressing thoughts, intervention load, perceived role responsibility, suicide prevention content knowledge, their perceived competency in working with distressed residents, and their support-seeking behaviors were analyzed using multiple regression and repeated-measures ANOVA analyses. Alpha was set at .05 for all analyses. See Table 3.3 for a description summary of the measures used.

Measures and recoding of data

Table 3.3: Summary of study measures

Construct	Measure used	Description
Stress	Perceived Stress Scale-10	10 items scale developed by Cohen & Williamson
Distress	Manifest Distress Scale	A 10 item scale created for this study based on the work of Drum et al.
Intervention Load	3 questions on survey were asked to determine frequency, intensity and duration of RA engagement:	Developed for this study and based on the work of McCarthy and Colleagues to evaluate interventions
Role Responsibility	RAs provided Likert scale responses to 3 questions regarding their perceived role responsibility and asked to allocate a percentage of responsibility for prevention of suicide and distress on campus.	These questions were developed for this study to evaluate perceptions of role responsibility
Content Knowledge	The sum of correct answers on 10 questions related to the training.	These questions were developed for this study to evaluate acquisition of content knowledge
Perceived Role Responsibility	RAs provided Likert scale response to 13 questions regarding their perception of competency in working as a gatekeeper.	These questions were developed for this study to evaluate perception of competency
Perceived support-seeking behaviors	RAs were asked about the percentage of time they sought support from resources and how often they did not utilize support but might have.	These questions were developed for this study to evaluate support-seeking behaviors
Desensitization	RA responded to two questions regarding when they would seek help for residents and when they would seek help for themselves.	These questions were developed for this study to evaluate desensitization to engagement as a gatekeeper

Stress and distress measures

The current study utilized the Perceived Stress Scale-10 (Cohen & Williamson, 1988) to assess RA stress over the past month. An exploratory factor analysis conducted by Roberti, Harrington, & Storch (2006) revealed this scales measures two factors; perceived helplessness and self-efficacy. In addition this scale has been shown to have good validity where Cronbach's alpha = .78 (Cohen & Williamson). RAs provided self-report responses to ten Likert scale (0 to 4) stress measures on the Perceived Stress Scale pre-study and again at post-study. The responses were averaged at each time period to produce a single score for each participant at pre-study and at post-study. The pre-study Perceived Stress Scale score was subtracted from the post-study Perceived Stress Scale score to create a change in stress score variable for each RA. The survey also asks one question about RA current stress in order to compare their perceived stress level pre- and post-training.

To evaluate distressed thinking among RAs, the survey asked RAs to indicate their most severe or intense experience in the past year ranging from distressing thoughts, thoughts of self-harm, suicidal ideation, planning for suicide and suicide attempts. This measure, called the Manifest Distress Scale for the purposes of this study, was inspired by a measure contained in the 2011 National Research Consortium of Counseling Centers in Higher Education (RC) study (Brownson et al., 2011). This measure sought to expand on the work of Drum and colleagues (2009) where they found that students' experiences clustered in categories of ideation, contemplation, planning, attempts, multiple attempts, and completions. The authors contended that these clusters could be ordered into a

progression of intensity to aid in understanding students at varying levels of distress. RAs indicated the most severe or intense experience at pre-study and again at post-study. To provide for an initial assessment of distress that could be compared to surveys of other college students, RAs were asked prior to the training “*have you ever seriously considered attempting suicide?*” and “*have you ever attempted suicide?*” This scale has good reliability where Cronbach’s alpha = .87.

Intervention load

During the post-study survey, RAs were asked three questions to determine the intervention load they experienced during the semester. These questions were based on measures developed by McCarthy and colleagues (in press) for use in evaluating interventions with teachers. First, the number of interventions was determined by summing responses to the question: “*How often did you help your residents with the following problems?*” Residents indicated on a scale of one to five the extent to which they helped residents with the nine problems identified as those commonly faced by college students. Second, intervention stress was measured by summing responses to the nine problem categories for the question: “*When your resident experienced these problems, how stressful was it for you?*” Third, duration of interventions was determined by summing responses to the nine categories for the question: “*On average, how long did it take from when you first talked to your resident about these problems until they either sought help from a mental health professional or you felt the situation was fully resolved?*” Responses to this question were reverse coded to match the structure of the number and intervention stress questions where a higher response indicated a more

problematic outcome. As it is unknown which of these factors is most impactful, they were given equal weight in the analysis.

Role responsibility

RAs were asked five questions about their perceived role responsibility regarding helping others. The first three scores asked about the RA's individual responsibility and utilized Likert scale responses where 1 indicated "strongly disagree" and 5 indicated "strongly agree". The questions are: 1) *"I believe I am responsible for helping others, including my residents, when they need it."* 2) *"As an RA I feel I am responsible for solving the mental health problems of my residents."* 3) *"If an RA suspects a resident is suicidal, the RA should be responsible for talking to the resident about their suicidal thoughts."*

The next two questions asked about collective responsibility among RAs: *"Please allocate the percentage of responsibility you feel each of the following holds for preventing the suicide of a distressed resident on campus assuming each is aware the resident is at risk for suicide."* and *"Please allocate the percentage of responsibility you feel each of the following holds for reducing the degree to which suicidal distress is present on campus in general."* Response options included the distressed resident, the resident's friend and family, the resident's RA, other staff at UT, and other.

RA suicide prevention knowledge and perceived competency

RAs were asked seven multiple choice and three true/false questions to assess their knowledge of suicide prevention content. Their score of correct answers on these ten questions were averaged to create an objective knowledge score. RAs were also asked to

list warning signs and campus resources to indicate their ability to produce information provided in the suicide prevention training.

Participants were also asked 13 Likert scale questions regarding their perception of competency to implement the duties required by gatekeepers, where 1 indicated they strongly disagree and 5 indicated they strongly agree with the statement assessing their confidence and comfort with engaging in the required tasks. The scores on the 13 items were averaged to create a score of perceived competency for each RA. This scale has good reliability where Cronbach's Alpha = .92.

Perceived support-seeking behaviors

RAs were asked questions regarding who they would turn to for help when experiencing stress or for help related to their residents. RAs provided the percentage of time they would seek help from each resource listed, including their Hall Coordinator, other RAs, friends, family, on-campus mental health professionals, and other. To evaluate how often did not seek help when it may have been helpful RAs were asked, "*How many times this semester did you feel you might have benefited by turning to someone to get help in managing your stress, but did not seek out help?*"

Desensitization

RAs were asked two questions to measure the potential for desensitization to the need to talk with their residents about their suicidal thoughts and in the RAs' ability to seek help for themselves. The first question asked RAs to "*please select at what point you would talk to your resident about their suicidal thoughts.*" To evaluate when RAs

would seek help for themselves, they were asked to “*please select at what point you would seek help for your suicidal thoughts.*”

Response options for both questions included “when the thoughts _____”

- 1) Are mild or occasional
- 2)
- 3) Occur with moderate severity or moderately often
- 4)
- 5) Are severe or frequent

Preliminary analyses: Multiple Regression

Preliminary analyses were conducted on SPSS version 19 to ensure the requirements of a multiple regression analysis were met. Prior to testing the research hypotheses using a multiple regression analysis regarding the impact of intervention load, perceived role responsibility, suicide prevention knowledge, perceived competence, and perceived support-seeking behaviors on RA stress and distress, a case analysis was performed where the distribution of the stress and distress measures (the dependent variables) were inspected for apparent outliers. To test for the influence of potential outliers on the model, data with standardized residuals with absolute values greater than 2.5 were examined to determine if their Cook’s distance was greater than 1. In the event of potential outliers, a sensitivity study would be conducted to determine the impact of the outliers on the study results. If the presence of outliers appears to impact study results, a decision will be made and documented as to whether to continue with the analysis with the outliers or discard them.

The validity of the multiple regression assumptions were also be explored before testing the research hypotheses, including no perfect multicollinearity by examining

correlations between independent variables and whether the Variance Inflation Factor exceeds 10. Homoscedasticity and the linear relationship between outcome and predictor variables was examined using a scatter plot of regression standardized residuals by the regression standardized predicted values and looking for a random array of dots evenly dispersed around zero. A normal distribution of errors was evaluated by examining a histogram of the frequency of standardized residuals and looking for a normal distribution and examining a normal P-P plot of regression standardized residuals (Field, 2009).

Preliminary analysis: Repeated Measures ANOVA

Preliminary analyses were conducted to ensure the requirements of a repeated-measures ANOVA were met. Prior to testing the research hypothesis regarding the impact of desensitization, a case analysis was performed where the distribution of responses (the dependent variables) across time were inspected for apparent outliers. In addition, SPSS version 19 was used to evaluate whether the data met the assumption of homogeneity of covariance using Box's test of equality of covariance matrices. The sphericity assumption was tested through Mauchly's test of sphericity and, if violated, the Greenhouse-Geisser correction was used as the test of within-subjects effects.

Power analysis

A power analysis was conducted using G*Power software, version 3.1.2 (Faul, Erdfelder, Lang, & Buchner, 2007), to determine the approximate number of participants required in the regression analysis to obtain a statistically significant finding in the

proposed study. An overall model with a moderate effect size of $R^2 = .25$, alpha of .05, power of .80, and 11 predictor variables were used to determine sample size. The 11 predictor variables were the maximum number of predictor variables included in any analysis. It was determined that a sample size of 78 RAs was adequate to achieve 80% power. As such, the current sample of 142 RAs was sufficient for the current study.

To determine the approximate number of participants required in the repeated-measures ANOVA analysis to obtain a statistically significant finding in the proposed study an overall model with a moderate effect size of $R^2 = .25$, alpha of .05, power of .80, 2 groups and 3 measurements were used to determine sample size. It was determined that a sample size of 30 RAs was adequate to achieve 80% power. As such, the current sample of 142 RAs was sufficient for the current study.

Primary analysis: Tests of research questions

To answer research questions one through four, multiple regression analyses were conducted to examine the relationship between RA stress and distress with intervention load, perceived role responsibility, suicide prevention knowledge, perceived competency, and perceived support-seeking behaviors. Correlations were first examined between the variables. The model summary was then examined to determine the amount of variance explained by the regression model and provide an estimate of overall model fit. F test results were examined for evidence that the overall model is statistically significant. Finally, standardized coefficients were used to compare the relative importance of the variables in the model and unstandardized coefficients will be used to explain the results.

To answer research question 5, a repeated measures ANOVA was conducted to examine the relationship between desensitization measures over time. F-test results were examined to identify within subjects, between subjects, and interaction effects. Profile plots were reviewed for evidence of interactions. Pairwise comparisons were then examined using a Bonferroni adjustment.

To examine the relationship between first year and returning RAs, an independent t-test was conducted on the measures of stress and distress. Results were compared from pre-study to post-study.

Research question 1

Does RA stress and / or distress change as their intervention load with distressed residents increases, considering the number, intervention stress, and duration of interventions with residents?

Test of research question 1: The analysis utilized multiple regression to examine the relationship between changes in RA stress and distress measures and intervention load. Separate multiple regression analyses were run with the change in stress and change in distress scores as the dependent variables. Independent variables for both multiple regression analyses include the number, intervention stress, and duration of intervention load, as well as pre-study stress and distress measures as control variables.

Research question 2

Does RA stress and / or distress change with RAs' perceived role responsibility as a gatekeeper?

Test of research question 2: The analysis utilized a multiple regression analysis to examine the relationship between changes in RA stress and distress measures and perceived role responsibility. Separate multiple regression analyses were run with the change in stress and change in distress scores as the dependent variables. Independent variables for both multiple regression analyses include the five questions regarding role responsibility as well as pre-study stress and distress measures as control variables. This analysis was run on scores of role responsibility as measured pre-study and again post-study.

Research question 3

How does the possession of suicide prevention content knowledge and the perception of competency in working with distressed students impact RA stress and / or distress?

Test of research question 3: The analysis utilized a multiple regression analysis to examine the relationship between changes in RA stress and distress measures with content knowledge and perception of competency. Separate multiple regression analyses were run with the change in stress and change in distress scores as the dependent variables. Independent variables for both multiple regression analyses include the objective knowledge and perceived competency summed scores as well as pre-study stress and distress measures as control variables. This analysis was run on scores of knowledge and perceived competency as measured post-training and post-study. In order to determine the factor structure underlying the perceived competency questions, a principal component analysis was run on these 13 questions.

Research question 4

How do RA support-seeking behaviors impact RA stress and / or distress?

Test of research question 4: The analysis utilized a multiple regression analysis to examine the relationship between changes in RA stress and distress measures and support-seeking behaviors. Separate multiple regression analyses were run with the change in stress and change in distress scores as the dependent variables. The independent variable for both multiple regression analyses included the sum of support received when working with residents and the number of times residents did not seek support as reported post-study as well as pre-study stress and distress measures as control variables.

Research Question 5

What impact might gatekeeper training have to desensitize RAs to the significance of the suicidal experiences of their residents and themselves?

Test of research question 5: The analysis utilized a repeated-measures ANOVA to examine the relationship between suicide prevention training and desensitization. Separate ANOVAs were run for each of the two questions across the three time periods of survey administration with RA experience (first year RAs as compared to RAs with prior experience) as a grouping variable.

Chapter Four: Results

Outcome variables

The outcome variables measured in this study included RA stress and distress. RA stress was measured by averaging their responses on the Perceived Stress Scale in the post-study survey. RA responses to the Perceived Stress Scale in the pre-study survey were incorporated into the analysis as a control variable. RAs were asked to respond to 10 questions on the Perceived Stress Scale with responses ranging from 0 “never” to 4 “very often”. The mean response across RAs at the time of pre-study was 15 (standard deviation = 6.1) while the mean at post-study was 16 (standard deviation = 6.4). The results of a Pearson’s Correlation indicate a moderate correlation between pre-study and post-study Perceived Stress Scores ($r = .50, p < .001$).

RA distress was measured through the RAs’ endorsement of thoughts and behaviors on the Manifest Distress Scale. RA responses to the Manifest Distress Scale at pre-study were incorporated as a control variable in the regression analysis. RAs were asked to indicate the most severe or intense experience they had over the past 12 months. Responses ranged from 0 “I did not have any of these experiences” to 9 “I have attempted suicide.” See Table 4.1 for a comparison of pre- and post-study endorsement of distress. The results of a Pearson’s Correlation indicate a moderate correlation between pre- and post-study Manifest Distress Scale scores ($r = .49, p < .001$). In addition to distress

measured on this scale, 21% of RAs endorsed having seriously considered suicide and 1% said they had attempted suicide in their lifetime.

Table 4.1: Manifest Distress Scale scores

Respondents were asked to “Please indicate the most severe or intense experience you had in the past 12 months.”	Pre-study (n=139)	Post-study (n=120)
0- I did not have these experiences	35%	37%
1- I thought “This was all just too much”	32%	40%
2- I thought “I wish this would all end”	12%	11%
3- I thought “I have to escape”	15%	11%
4- I thought “I wish I was dead”	1%	1%
5- I thought “I want to hurt myself”	1%	0%
6- I thought “I want to kill myself”	2%	1%
7- I have seriously considered attempting suicide	0%	1%
8- I have developed a plan for a suicide attempt	1%	0%
9 - I have attempted suicide	0%	0%
Mean response	1.3	1.1

First-year RAs were compared to RAs with one or more years of prior experience to determine if their stress or distress levels were statistically different at pre-study, post-study or as a measure of change over the semester (see Table 4.2). Independent t test results indicate that RAs with or without prior experience did not differ significantly on the average Perceived Stress Scores at either time period or as a measure of change over the semester. RAs with varying experience also did not differ significantly on their measure of distress at pre-study. However, at post-study first year RAs reported statistically significant higher average scores on the Manifest Distress Scale than RAs with prior experience, 1.4 and 0.8, respectively ($t[84] = 2.29, p = .025$). In addition, first year RAs reported an average 0.1 point increase in their distress over the semester as

compared to a 0.5 point decrease reported by experienced RAs, a statistically significant difference ($t[92] = 2.18, p = .032$).

Table 4.2: Stress and distress measure comparison between RAs with and without prior experience

	Mean (SD) score first year RAs	Mean (SD) score experienced RAs	t test (df)	Sig.
Perceived Stress Scale – pre-study	16 (6.1)	14 (6.2)	1.61 (140)	.110
Perceived Stress Scale – post-study	17 (7.7)	17 (5.5)	-0.07 (93)	.942
Perceived Stress Scale – change score	0.1 (0.7)	0.3 (.65)	-0.90 (95)	.372
Manifest Distress Scale score – pre-study	1.3 (1.4)	1.3 (1.6)	-0.15 (137)	.882
Manifest Distress Scale score – post-study	1.4 (1.5)	0.8 (0.9)	2.29 (84)	.025
Manifest Distress Scale score – change	0.1 (1.2)	-0.5 (1.5)	2.18 (92)	.032

Preliminary Analysis: factor analysis of perceived competency items

A principal component analysis was conducted to determine whether there was an underlying factor structure of the perceived competency questions. A principal axis extraction was conducted on the 13 post-training response items with oblique rotation. Preliminary analysis revealed that variables correlated with each other in the range of .30 to .65, suggesting that multicollinearity is not problematic. An initial analysis was run to obtain eigenvalues for each component in the data. Two components had eigenvalues over Kaiser’s criterion of 1. Initial eigenvalues of factor 1 of 6.66, explained 51% of the variance while initial eigenvalue of factor 2 or 1.07, explained 8% of the variance. An examination of the Scree Plot indicated an inflection and significant leveling off of the

plot starting at factor 2. The Factor Matrix indicates that all items have correlations above .40 with the first factor; however, only one item has a correlation above .40 with the second factor. These results suggest that there is one dominant factor of perceived competency.

Prior experience with others' suicide

RAs endorsed considerable prior experience related to suicide (see Table 4.3). Sixty-two percent indicated 1 or more people had told them about their suicidal thoughts. Of those told, 84% responded that at least one of those people had been a close friend or relative. First-year RAs endorsed having more people confide in them regarding their suicidal thoughts than returning RAs with means of 1.7 and 1.1, respectively ($t[139] = 1.96, p = .052$) and more first-year RAs said at least one of those people was a close friend or relative (65% vs. 35%, Chi-square = 12.93, $p = .002$). Fifty-nine percent endorsed knowing at least 1 person who had attempted suicide, with 60% of those responding that at least one attempter was a close friend or relative. The number known was not significantly different between first year and returning RAs with means of 1.0 and 1.1, respectively ($t[138] = -0.25, p = .807$). Additionally, almost half (48%) indicated knowing at least one person who had died by suicide, with 31% of those responding that at least one close friend or relative had died by suicide. The number of people known to have died by suicide was not significantly different between first year and returning RAs, both with means of 0.8 ($t[139] = 0.13, p = .899$). The number known to attempt or die by suicide who were close friends or relatives was not significantly different between first

year and returning RAs. Fifty-five percent indicated they had been trained in suicide prevention prior to this training.

Table 4.3: RA prior experience with suicide

How many people have told you about their suicidal thoughts, but have not attempted suicide?	n=141 87 (62%) indicated 1 or more Mean = 1.4 Range = 0-15
Were any of these people close friends or relatives?	n=87 73 (84%) of those told responded “yes”
How many people do you know who have attempted suicide?	n=140 82 (59%) indicated 1 or more Mean = 1.0 Range = 0-10
Were any of these people close friends or relatives?	n=82 49 (60%) of those who knew someone responded “yes”
How many people do you know who have died by suicide?	n=141 68 (48%) indicated 1 or more Mean = 0.8 Range = 0-5
Were any of these people close friends or relatives?	n=68 21 (31%) of those who knew someone responded “yes”
Have you ever been trained in suicide prevention before?	55% responded “yes”
Have you been trained in the UT Be That One. Suicide Prevention Training before?	43% responded “yes”

Research question 1

This analysis seeks to answer the question of whether RA stress and / or distress changes as their intervention load with distressed residents increases, considering the number, intervention stress, and duration of interventions with residents. RAs rated the level of stress they experienced based on their interventions with residents from 1 (not stressful) to 5 (very stressful). Results suggest that RAs experienced an average of low to

moderate stress with these interventions. In order of most to least stressful, RAs rated interventions with thoughts of suicide (2.8), relationship violence (2.4), self-injury (2.4), depression (2.1), eating disorders (2.1), alcohol and drugs (2.0), anxiety (1.9), academic stress (1.9), and family stress (1.9). A multiple regression analysis was run with predictor variables including the sum of the frequency with which RAs reported they helped residents, the sum of how stressful RAs reported working with each problem was, and the sum of how long it took for residents to either resolve their problem or seek professional help for it. The pre-study Perceived Stress Scale score and pre-study Manifest Distress Scale score were incorporated as predictor variables to control for their potential influence on post-study stress and distress. See Table 4.4 for a description of the research question and corresponding independent and dependent variables.

Table 4.4: Research question 1 variables

Research Question	Independent Variables	Dependent Variables
Does RA stress and / or distress change as the number, stress, and duration of interventions increases?	<p>Number: The sum of the frequency with which RAs reported they helped residents across a range of problems. RAs were asked: “How often did you help your residents with the following problems?”</p> <p>Stress of interventions: The sum of the intervention stress scores on the post-study survey. RAs were asked: “When your residents experienced these problems, how stressful was it for you?”</p> <p>Duration: The sum of the duration scores on the post-study survey. These scores were reversed coded for this analysis. RAs were asked: “On average, how long did it take from when you first talked to your resident about these problems until they either sought help from a mental health professional or you felt the situation was fully resolved?”</p> <p>For the examination of stress: The pre-study Perceived Stress Scale score for each individual was added as a predictor variable.</p> <p>For the examination of distress: The pre-study Manifest Distress Scale score for each individual is added as a predictor variable.</p>	The Perceived Stress Scale post-study Or The Manifest Distress Scale post-study

Question 1a: Does RA stress change with an increase in intervention load?

Preliminary analysis

A regression analysis was run with the post-study Perceived Stress Scale score as the dependent variable and independent variables consisting of the number of interventions, intervention stress, duration, and the Perceived Stress Scale pre-study score. Results indicate 1 potential outlier with a standardized residual greater than 2.5.

However, this data point was retained in the analysis as the maximum Cook's Distance was below 1, at 0.22, indicating that this data point does not have a large effect on the regression analysis. The number of interventions were significantly correlated with intervention stress ($r = .74, p < .001$) and duration ($r = .48, p < .001$). Intervention stress was also significantly correlated with duration ($r = .39, p < .001$). However, the Variance Inflation Factors for the items ranged from 1.0 to 2.5, suggesting there is no significant multicollinearity. A review of a histogram of the frequency of the regression standardized residuals indicates a normal distribution of residuals. In addition, a graph of the regression standardized residuals compared to the regression standardized predicted value indicates even dispersion of data, suggesting the assumptions of linearity and homoscedasticity are met.

Primary analysis

Utilizing the blockwise entry method, the pre-study Perceived Stress Scale score was entered first into the regression model as an independent variable. Next the number of intervention, intervention stress, and duration were entered together as one block of independent variables.

Post-study Perceived Stress Scale scores were moderately correlated with pre-study Perceived Stress Scale scores ($r = .50, p < .001$). Post-study Perceived Stress Scale scores were not significantly correlated to the number of interventions ($r = .08, p = .200$), intervention stress ($r = .14, p = .063$), or duration ($r = .13, p = .087$).

The pre-study Perceived Stress Scale scores significantly predicted post-study Perceived Stress Scale scores ($F[1,91] = 30.08, p < .001$) where for each point increase in

the pre-study average score, the post-study average stress score increased by 0.51 ($B = 0.51$, $t[91] = 5.49$, $p < .001$). Pre-study stress explained 24.8% of the variance in post-study stress scores ($r^2 = .25$). Adding the number of interventions, intervention stress, and duration to the model explained an additional 3.2% of the variance in post-study stress and resulted in a non-significant change in the F value ($F \text{ Change } [3,88] = 1.29$, $p = .280$). See Table 4.5 for the regression coefficients.

Table 4.5: Regression results for question 1a – stress and intervention load.

Model	Unstandardized Coefficients		Standardized Coefficients
	B	SE B	Beta
Step 1			
Constant	1.36	0.24	
Pre-study Perceived Stress Scores	0.51	0.09	0.50*
Step 2			
Constant	1.20	0.28	
Pre-study Perceived Stress Scores	0.52	0.09	0.50*
Number of interventions	-0.01	0.01	-0.87
Intervention stress	0.02	0.02	0.22
Duration of interventions	0.00	0.01	0.04

Note: $r^2 = .25$ for Step 1, Change in $r^2 = .03$ for Step 2 ($p = .280$). * $p < .001$.

Alternate analysis 1

An alternate regression analysis was run using the change in Perceived Stress Scale scores from pre-study to post-study as the dependent variable and number, intervention stress, and duration of interventions as independent variables using the forced entry method. Results showed that intervention stress had a small but significant correlation with the change in perceived stress over the semester ($r = .20$, $p = .029$). The number of interventions and duration of interventions were not significantly correlated with a change in stress ($r = .11$, $p = .136$ and $r = .08$, $p = .233$, respectively). The

independent variables explained 4.1% of the variance ($r^2 = .04$) and the model were not significant predictors of the change in perceived stress over the semester ($F[3,88] = 1.25$, $p = .300$).

Alternate analysis 2

An alternate regression analysis was run using the interaction of RA experience in terms of first year or experienced RA with RA number, intervention stress, and duration to determine the relationship of RA experience to these variables and stress. Pre-study stress was entered as the first block, followed by RA experience as the second block, then number, intervention stress, and duration of interventions as the third block, followed by the interaction variables as the fourth block. Post-study stress served as the dependent variable. Post-study stress was not significantly correlated with RA experience ($r = .01$, $p = .472$). Pre-study stress explained 24.8% of the variance in the model, RA experience explained an additional 0.6% of the variance and intervention number, stress, and duration collectively explained an additional 3.0% of the variance. The interaction variables then explained an additional 1.0% of the variance and were not significant additional predictors of the model ($F[3,83] = 0.41$, $p = .749$).

Question 1b: Does RA distress change with an increase in intervention load?

Preliminary analysis

A regression analysis was run with the post-study Manifest Distress Scale score as the dependent variable and independent variables consisting of the number of interventions, intervention stress, duration, and the pre-study Manifest Distress Scale score. Results indicate 2 potential outliers with standardized residual greater than 2.5.

However, these data points were retained in the analysis as the maximum Cook's Distance was below 1, at 0.39 indicating that these data points did not have a large effect on the regression analysis. As noted in the prior analysis, the number of interventions, intervention stress, and duration are significantly correlated with each other. However, the Variance Inflation Factors for the items ranged from 1.0 to 2.5, suggesting there is no significant multicollinearity in this analysis. A review of a histogram of the frequency of the regression standardized residuals indicates a normal distribution of residuals. In addition, a graph of the regression standardized residuals compared to the regression standardized predicted value indicates even dispersion of data, suggesting the assumptions of linearity and homoscedasticity are met.

Primary Analysis

Utilizing the blockwise entry method, the pre-study distress scale score was entered first into the regression model as an independent variable. Next the number of interventions, intervention stress, and intervention duration were entered together as one block of independent variables.

The post-study distress scale score was moderately correlated with pre-study distress ($r = .49, p < .001$). The post-study distress scale score was not significantly correlated with the number of interventions ($r = -.01, p = .444$), intervention stress ($r = -.08, p = .201$), or duration of interventions ($r = .02, p = .425$).

The pre-study Manifest Distress Scale scores significantly predicted post-study distress ($F[1,89] = 28.23, p < .001$) where for each point increase in the pre-study score, the post-study distress score increased by 0.40 ($B = 0.40, t[89] = 5.31, p < .001$). Pre-

study distress explained 24.1% of the variance in post-study distress scores ($r^2 = .24$).

Adding the number of interventions, intervention stress, and duration of interventions to the model explained an additional 1.6% of the variance in post-study distress and resulted in a non-significant change in the F value (F Change [3,86] = 0.62, $p = .605$). See Table 4.6 for the regression coefficients.

Table 4.6: Regression results for question 1b – distress and intervention load.

Model	Unstandardized Coefficients		Standardized Coefficients
	B	SE B	Beta
Step 1			
Constant	0.54	0.15	
Pre-study Manifest Distress Scale scores	0.40	0.08	0.49*
Step 2			
Constant	0.22	0.34	
Pre-study Manifest Distress Scale scores	0.41	0.08	0.50*
Number of interventions	0.05	0.04	0.17
Intervention stress	-0.03	0.03	-0.14
Duration of interventions	-0.01	0.02	-0.03

Note: $r^2 = .24$ for Step 1, Change in $r^2 = .02$ for Step 2 ($p = .605$). * $p < .001$.

Alternate analysis 1

An alternate regression analysis was run using the change in the Manifest Distress Scale scores from pre-study to post-study as the dependent variable and the number, intervention stress, and duration of interventions as the independent variables using the forced entry method. Results showed that distress scale scores decreased on average by 0.20 over the course of the semester. Change in distress was not significantly correlated with the number of interventions ($r = .16$, $p = .059$), intervention stress ($r = .04$, $p = .350$), or duration of interventions ($r = .05$, $p = .311$). The independent variables explained 4.2%

of the variance ($r^2 = .04$) and the model were not significant predictors of the change in distress over the semester ($F[3,85] = 1.23, p = .304$).

Alternate analysis 2

An alternate regression analysis was run using the interaction of RA experience in terms of first year or experienced RA with RA number, intervention stress, and duration of interventions to determine the relationship of RA experience to these variables and distress. Pre-study distress was entered as the first block, followed by RA experience as the second block, then intervention number, intervention stress, and intervention duration as the third block, followed by the interaction variables as the fourth block. Post-study distress served as the dependent variable. Post-study distress showed a small, but significant correlation with RA experience ($r = -.22, p = .015$). Since first year RAs were coded with a lower number than experienced RAs in the data set, the negative correlation means that being a first year RA was related to more distress than experienced RAs.

Pre-study distress explained 24.1% of the variance in the model. RA experience explained an additional 5.1% of the variance and was a significant predictor of the model ($F[1,88] = 6.40, p = .013$). Intervention number, stress, and duration collectively explained an additional 1.3% of the variance but was not a significant additional predictor in the model ($F[3,85] = 0.52, p = .671$). The interaction variables then explained an additional 1.8% of the variance and were not significant additional predictors of the model ($F[3,82] = 0.74, p = .530$). See Table 4.7 for the regression coefficients.

Table 4.7: Regression results with the impact of RA experience for question 1b – distress and intervention load.

Model	Unstandardized Coefficients		Standardized Coefficients
	B	SE B	Beta
Step 1			
Constant	0.54	0.15	
Pre-study Manifest Distress Scale scores	0.40	0.08	0.49*
Step 2			
Constant	1.36	0.35	
Pre-study Manifest Distress Scale scores	0.40	0.07	0.49*
RA experience	-0.55	0.22	-0.23**
Step 3			
Constant	1.02	0.47	
Pre-study Manifest Distress Scale Scores	0.42	0.08	0.51*
RA experience	-0.54	0.22	-0.22**
Number of Interventions	0.04	0.04	0.16
Intervention stress	-0.02	0.03	-0.11
Duration of interventions	0.00	0.02	0.01
Step 4			
Constant	1.33	1.02	
Pre-study Manifest Distress Scale Scores	0.43	0.08	0.53*
RA experience	-0.79	0.77	-0.33
Number of Interventions	-0.05	0.09	-0.18
Intervention stress	0.05	0.07	0.25
Duration of interventions	0.00	0.05	0.02
RA experience x number of interventions	0.07	0.06	0.53
RA experience x intervention stress	-0.05	0.04	-0.50
RA experience x duration of interventions	-0.00	0.03	-0.01

Note: $r^2 = .24$ for Step 1, Change in $r^2 = .05$ for Step 2 ($p = .013$), Change in $r^2 = .01$ ($p = .671$) for Step 3, Change in $r^2 = .02$ ($p = .530$) for step 4.

* $p < .001$, ** $p < .05$.

Research question 2

This analysis seeks to answer the question of whether RA stress and / or distress changes with RA perceived role responsibility as a gatekeeper. RAs responded to questions regarding how responsible they felt across a range of situations from specific interventions to general campus wellness. A multiple regression analysis was run with

predictor variables including RA perceived responsibility at pre-study for helping others, solving the mental health problems of their residents, talking to residents they suspect have suicidal thoughts, preventing the suicide of a distressed resident, and reducing suicidal distress on campus. The pre-study Perceived Stress Scale and pre-study Manifest Distress Scale scores were incorporated as predictor variables to control for their potential influence on post-study stress and distress. See Table 4.8 for a description of the research question and corresponding independent and dependent variables.

Table 4.8: Research question 2 variables

Research Question	Independent Variables	Dependent Variables
Does RA stress and / or distress change with their perceived role responsibility?	<p>“Please indicate the extent you disagree or agree with the following:” (1=strongly disagree to 5=strongly agree):</p> <ol style="list-style-type: none"> 1. “I believe I am responsible for helping others, including my residents, when they need it.” 2. “As an RA I feel I am responsible for solving the mental health problems of my residents.” 3. “If an RA suspects a resident is suicidal, the RA should be responsible for talking to the resident about their suicidal thoughts.” 4. “How responsible is each of the following for preventing the suicide of a distressed resident assuming each knows the resident is at risk for suicide?” % endorsed for RAs 5. “How responsible is each of the following for reducing the degree to which suicidal distress is present on campus in general?” % endorsed for RAs <p>For the examination of stress: The pre-study Perceived Stress Scale score for each individual was added as a predictor variable.</p> <p>For the examination of distress: The pre-study Manifest Distress Scale score for each individual is added as a predictor variable.</p>	The Perceived Stress Scale post-study Or The Manifest Distress Scale score post-study

Question 2a: Does RA stress change with RA perceived role responsibility?

Preliminary analysis

A regression analysis was run with the post-study Perceived Stress Scale score average as the dependent variable and independent variables consisting of 10 questions regarding role responsibility, five from the pre-study survey and five from the post-study survey and the Perceived Stress Scale pre-study average. Results indicate 1 potential outlier with a standardized residual greater than 2.5. However, this data point was retained in the analysis as the maximum Cook's Distance was below 1, at 0.31, indicating that this data point does not have a large effect on the regression analysis. Measures of responsibility reported at pre-study were moderately correlated with their identically worded questions at post-study with correlations ranging from .30 to .56 (see Table 4.9). However, the Variance Inflation Factors for the items ranged from 1.0 to 2.1, suggesting there is no significant multicollinearity. A review of a histogram of the frequency of the regression standardized residuals indicates a normal distribution of residuals. In addition, a graph of the regression standardized residuals compared to the regression standardized predicted value indicates even dispersion of data, suggesting the assumptions of linearity and homoscedasticity are met.

Primary analysis

Utilizing the blockwise entry method, the average pre-study Perceived Stress Scale score was entered first into the regression model as an independent variable. Next the ten role responsibility questions were entered together as one block of independent

variables. Descriptive results and Pearson's correlations coefficients for the independent variables are provided in Table 4.9.

Table 4.9: Descriptive and correlation results for question 2 independent variables

Item	Pre-study			Post-study			Correlation
	Mean	SD	n	Mean	SD	n	
I believe I am responsible for helping others, including my residents, when they need it. ^a	4.61	.67	139	4.55	.76	116	.46*
As an RA I feel I am responsible for solving the mental health problems of my residents. ^a	2.76	1.11	140	2.57	1.23	116	.56*
If an RA suspects a resident is suicidal, the RA should be responsible for talking to the resident about their suicidal thoughts. ^a	3.60	.98	140	3.72	1.17	116	.39*
How responsible is each of the following for preventing the suicide of a distressed resident assuming each knows the resident is at risk for suicide? ^b	18.6%	12.09	138	17.8%	10.16	119	.48*
How responsible is each of the following for reducing the degree to which suicidal distress is present on campus in general? ^b	25.7%	15.75	140	25.3%	15.28	118	.30 (p=.002)

^aMeans represent responses from Likert Scale where 1 = strongly disagree to 5 = strongly agree.

^bMeans represent percentage of responsibility allocated to the category of RA out of the 5 possible categories.

*p<.001

The pre-study Perceived Stress Scale scores were moderately correlated with the post-study Perceived Stress Scale scores ($r = .50, p < .001$). Results indicate that post-study stress had a significant, but small negative correlation with the percentage of responsibility reported post-study that was allocated to RAs for preventing the suicide of a distressed resident ($r = -.18, p = .028$). Post-study stress was not significantly correlated to responsibility for helping others reported at pre-study ($r = -.05, p = .328$) or post-study ($r = .03, p = .389$), responsibility for solving the mental health problems of residents reported at pre-study ($r = -.08, p = .226$) or post-study ($r = -.11, p = .122$), responsibility for talking to residents about suicidal thoughts reported at pre-study ($r = -.11, p = .153$) or post-study ($r = -.04, p = .320$), the percentage or responsibility assumed for preventing the suicide of a distressed resident reported at pre-study ($r = .06, p = .295$), or the percentage of responsibility assumed for reducing the degree to which suicidal distress is present on campus in general reported at pre-study ($r = .02, p = .414$) and at post-study ($r = -.09, p = .158$).

The pre-study Perceived Stress Scores significantly predicted post-study Perceived Stress Scores ($F[1,88] = 29.09, p < .001$) where for each point increase in the pre-study average score, the post-study average stress score increased by 0.51 ($B = 0.51, t[88] = 5.39, p < .001$). Pre-study stress explained 24.8% of the variance in post-study stress scores ($r^2 = .25$). Adding the ten responsibility variables to the model explained an additional 7.4% of the variance in post-study stress and resulted in a non-significant change in the F value ($F \text{ Change } [10,78] = 0.85, p = .583$). See Table 4.10 for the regression coefficients.

Table 4.10: Regression results for question 2a – stress and role responsibility

Model	Unstandardized Coefficients		Standardized Coefficients
	B	SE B	Beta
Step 1			
Constant	1.36	0.24	
Pre-study Perceived Stress Scores	0.51	0.10	0.50*
Step 2			
Constant	2.06	0.55	
Pre-study Perceived Stress Scores	0.51	0.10	0.50*
Responsible for helping others			
Pre-study	-0.12	0.11	-0.14
Post-study	0.02	0.10	0.02
Responsible for solving the mental health problems of residents			
Pre-study	0.07	0.07	0.12
Post-study	-0.12	0.06	-0.23
Responsible for talking to residents about their suicidal thoughts			
Pre-study	-0.04	0.08	-0.06
Post-study	0.03	0.06	0.05
Percentage RAs are responsible for preventing suicide of distressed resident			
Pre-study	0.01	0.00	0.21
Post-study	-0.01	0.01	-0.21
Percentage RAs are responsible for reducing suicidal distress on campus			
Pre-study	0.00	0.10	0.04
Post-study	0.00	0.01	-0.01

Note: $r^2 = .25$ for Step 1, Change in $r^2 = .07$ for Step 2 ($p = .583$). * $p < .001$.

Alternate analysis 1

Considering the moderate correlations found between pre-study and post-study role responsibility items, an alternate regression analysis was run using only the post-study responsibility items and pre-study stress as independent variables using the blockwise entry method. Results showed that adding the post-study responsibility variables explained an additional 2.9% of the variance ($r^2 = .03$) over the variance

explained by pre-study stress and resulted in a non-significant change in the F value (F Change [5,85] = 0.69, $p = .630$).

Alternate analysis 2

An alternate regression analysis was run using the change in Perceived Stress Scale scores from pre-study to post-study as the dependent variable and the 10 role responsibility items from pre-study and post-study evaluations as the independent variables using the forced entry method. Results showed that responsibility for solving the mental health problems of residents had a small but significant negative correlation to the change in perceived stress over the semester ($r = -.20$, $p = .029$). Other variables were not significantly correlated with the change in reported stress. The independent variables explained 11.2% of the variance ($r^2 = .11$) and the model was not a significant predictor of the change in perceived stress over the semester ($F[10,79] = 0.99$, $p = .460$).

Question 2b: Does RA distress change with RA perceived role responsibility?

Preliminary analysis

A regression analysis was run with the post-study Manifest Distress Scale score as the dependent variable and independent variables consisting of 10 questions regarding role responsibility, five from the pre-study survey and five from the post-study survey and the Perceived Stress Scale scores at pre-study. Results indicate 2 potential outliers with standardized residuals greater than 2.5. However, these data points were retained in the analysis as the maximum Cook's Distance was below 1, at 0.24, indicating that these data points do not have a large effect on the regression analysis. Measures of responsibility reported at pre-study were moderately correlated with their identically

worded questions at post-study with correlations ranging from .30 to .56 (see Table 4.9). However, the Variance Inflation Factors for the items ranged from 1.1 to 2.2, suggesting there is no significant multicollinearity. A review of a histogram of the frequency of the regression standardized residuals indicates a normal distribution of residuals. In addition, a graph of the regression standardized residuals compared to the regression standardized predicted value indicates even dispersion of data, suggesting the assumptions of linearity and homoscedasticity are met.

Primary analysis

Utilizing the blockwise entry method, the pre-study Manifest Distress Scale score was entered first into the regression model as an independent variable. Next the ten role responsibility questions were entered together as one block of independent variables. Descriptive results and Pearson's correlations coefficients for the independent variables are provided in Table 4.9.

The pre-study Manifest Distress Scale score was moderately correlated with the post-study distress ($r = .50, p < .001$). Results indicate that the post-study distress had a significant, but small negative correlation with the percentage of responsibility reported post-study that was allocated to RAs for preventing the suicide of a distressed resident ($r = -.21, p = .010$). Post-study distress was not significantly correlated to responsibility for helping others reported at pre-study ($r = -.03, p = .391$) or post-study ($r = -.06, p = .252$), responsibility for solving the mental health problems of residents reported at pre-study ($r = -.02, p = .439$) or post-study ($r = -.15, p = .055$), responsibility for talking to residents about suicidal thoughts reported at pre-study ($r = -.04, p = .358$) or post-study

($r = -.07$, $p = .237$), the percentage or responsibility assumed for preventing the suicide of a distressed resident reported at pre-study ($r = .01$, $p = .451$), or the percentage of responsibility assumed for reducing the degree to which suicidal distress is present on campus in general reported at pre-study ($r = -.04$, $p = .337$) and post-study ($r = -.01$, $p = .438$).

The pre-study Manifest Distress Scale score significantly predicted post-study distress ($F[1,88] = 27.92$, $p < .001$) where for each point increase in the pre-study average score, the post-study average distress score increased by 0.40 ($B = 0.40$, $t[88] = 5.28$, $p < .001$). Pre-study average distress explained 24.1% of the variance in post-study distress scores ($r^2 = .24$). Adding the ten responsibility variables to the model explained an additional 7.6% of the variance in post-study distress and resulted in a non-significant change in the F value ($F \text{ Change } [10,78] = 0.87$, $p = .570$). Allocation at post-study of responsibility for RAs to prevent the suicide of a distressed resident emerged as a significant predictor where a one point increase in percentage of responsibility allocated to RAs led to a 0.04 point decrease in post-study distress ($B = -0.04$, $t[78] = -2.24$, $p = .030$). See Table 4.11 for the regression coefficients.

Table 4.11: Regression results for question 2b – distress and role responsibility

Model	Unstandardized Coefficients		Standardized Coefficients
	B	SE B	Beta
Step 1			
Constant	0.54	0.15	
Pre-study Manifest Distress score	0.40	0.76	0.49*
Step 2			
Constant	1.34	0.96	
Pre-study Manifest Distress score	0.36	0.08	0.44*
Responsible for helping others			
Pre-study	-0.03	0.22	-0.01
Post-study	-0.18	0.19	-0.11
Responsible for solving the mental health problems of residents			
Pre-study	0.17	0.14	0.15
Post-study	-0.20	0.12	-0.20
Responsible for talking to residents about their suicidal thoughts			
Pre-study	0.09	0.15	0.07
Post-study	0.03	0.12	0.03
Percentage RAs are responsible for preventing suicide of distressed resident			
Pre-study	0.02	0.01	0.19
Post-study	-0.04	0.02	-0.31**
Percentage RAs are responsible for reducing suicidal distress on campus			
Pre-study	-0.00	0.01	-0.04
Post-study	0.01	0.01	0.09

Note: $r^2 = .24$ for Step 1, Change in $r^2 = .08$ for Step 2 ($p = .570$). * $p < .001$, ** $p < .05$.

Alternate analysis 1

Considering the moderate correlations found between pre-study and post-study role responsibility, an alternate regression analysis was run using only the post-study responsibility items and pre-study distress as independent variables using the blockwise entry method. Results showed that adding the post-study responsibility variables

explained an additional 3.5% of the variance ($r^2 = .04$) over the variance explained by pre-study distress and resulted in a non-significant change in the F value (F Change [5,83] = 0.79, $p = .560$).

Alternate analysis 2

An alternate regression analysis was run using the change in Manifest Distress Scale scores from pre-study to post-study as the dependent variable and the 10 role responsibility items from pre-study and post-study evaluations as the independent variables using the forced entry method. Results showed that the percentage of responsibility allocated to RAs for reducing the degree to which suicidal distress is present on campus at pre-study had a small but significant negative correlation to the change in distress over the semester ($r = -.17$, $p = .054$). Other variables were not significantly correlated with the change in reported distress. The independent variables explained 7.8% of the variance ($r^2 = .08$) and the model were not significant predictors of the change in perceived stress over the semester ($F[10,77] = 0.65$, $p = .770$).

Research question 3

This analysis seeks to answer the question of how the possession of RA content knowledge and the perception of competency in working with distressed residents impacts RA stress and / or distress. To measure content knowledge, RAs responded to seven multiple choice and three true / false questions regarding the content of the suicide prevention training. To measure perception of competency, RAs responded to 13 questions with Likert scale responses ranging from 1 = strongly disagree to 5 = strongly

agree regarding their comfort and confidence in performing the functions covered in the training.

The PI had anticipated using additional questions to measure content knowledge of RAs, including questions asking RAs to list as many warning signs and as many counseling center resources as they knew. However, a review of the data revealed that RAs answered these questions in ways not anticipated and in ways not easily measured. For instance, some RAs listed multiple warning signs as one response, while others listed the same signs as separate responses. Additionally, not all warning signs and resources listed were easily identified as correct responses. As the objective of this question to identify the number of warning signs and resources RAs could list was not met, these questions will be excluded from analysis.

A multiple regression analysis was run with predictor variables including the mean number of correct questions answered at post-training and post-study. A separate multiple regression analysis was then run with predictor variables including the mean response to the perception of competency questions at post-training and post-study. The pre-study Perceived Stress Scale scores and pre-study Manifest Distress Scale scores were incorporated as predictor variables to control for their potential influence on post-study stress and distress. See Table 4.12 for a description of the research questions and corresponding independent and dependent variables.

Table 4.12: Research question 3 variables

Research Question	Independent Variables	Dependent Variables
How does the possession of suicide prevention content knowledge in working with distressed residents impact RA stress and / or distress?	<p>Mean of correct post-training content knowledge Mean of correct post-study content knowledge</p> <p>For the examination of stress: The pre-study Perceived Stress Scale score for each individual was added as a predictor variable.</p> <p>For the examination of distress: The pre-study Manifest Distress Scale score for each individual is added as a predictor variable.</p>	<p>The Perceived Stress Scale post-study Or The Manifest Distress Scale score post-study</p>
How does the perception of competency in working with distressed residents impact RA stress and / or distress?	<p>Perceived competency post-training average Perceived competency post-study average</p> <p>For the examination of stress: The pre-study Perceived Stress Scale score for each individual was added as a predictor variable.</p> <p>For the examination of distress: The pre-study Manifest Distress Scale score for each individual is added as a predictor variable.</p>	<p>The Perceived Stress Scale post-study Or The Manifest Distress Scale score post-study</p>

Question 3a: How does the possession of suicide prevention content knowledge in working with distressed residents impact RA stress?

Preliminary analysis

A regression analysis was run with the post-study Perceived Stress Scale score as the dependent variable and independent variables consisting of the percentage correct for content knowledge questions from post-training and post-study. Results indicate 1 potential outlier with a standardized residual greater than 2.5. However, this data point was retained in the analysis as the maximum Cook's Distance was below 1, at 0.08, indicating that this data point does not have a large effect on the regression analysis. The

measure of content knowledge at post-training was moderately correlated with content knowledge at post-study ($r = .33, p = .001$) (see Table 4.13). In addition, the measure of content knowledge post-training had a small, but significant negative correlation with pre-evaluation stress ($r = -.15, p = .042$). However, the Variance Inflation Factors for the items ranged from 1.0 to 1.1, suggesting there is no significant multicollinearity. A review of a histogram of the frequency of the regression standardized residuals indicates a normal distribution of residuals. In addition, a graph of the regression standardized residuals compared to the regression standardized predicted value indicates even dispersion of data, suggesting the assumptions of linearity and homoscedasticity are met.

Primary analysis

Utilizing the blockwise entry method, the average pre-study Perceived Stress Scale score was entered first into the regression model as an independent variable. Next the mean score of content knowledge questions at post-training and post-study were entered together as one block of independent variables. Descriptive results and Pearson’s correlations coefficients for the independent variables are provided in Table 4.13.

Table 4.13: Descriptive and correlation results for question 3a content knowledge.

Item	Post-training			Post-study			Correlation
	Mean correct	SD	n	Mean correct	SD	n	
Content knowledge	0.53	0.15	132	0.53	0.15	124	.33*

* $p = .001$

The post-study average Perceived Stress Scale score was moderately correlated with the pre-study average Perceived Stress Scale score ($r = .50, p < .001$). Post-study

stress was not significantly correlated to post-training content knowledge ($r = -.03$, $p = .401$) or post-study content knowledge ($r = .08$, $p = .205$).

Pre-study stress significantly predicted post-study stress ($F[1,90] = 29.75$, $p < .001$) where for each point increase in the pre-study average stress score, the post-study average stress score increased by 0.51 ($B = 0.51$, $t[90] = 5.46$, $p < .001$). Pre-study average stress explained 24.0% of the variance in post-study stress scores ($r^2 = .24$). Adding the post-training and post-study content knowledge variables to the model explained an additional 1.3% of the variance in post-study stress and resulted in a non-significant change in the F value ($F \text{ Change } [2,88] = 0.77$, $p = .470$). See Table 4.14 for the regression coefficients.

Table 4.14: Regression results for question 3a – stress and content knowledge

Model	Unstandardized Coefficients		Standardized Coefficients
	B	SE B	Beta
Step 1			
Constant	1.36	0.24	
Pre-study Perceived Stress Scores	0.51	0.09	0.50*
Step 2			
Constant	1.05	0.38	
Pre-study Perceived Stress Scores	0.53	0.10	0.51*
Post-training content knowledge	0.07	0.42	0.02
Post-study content knowledge	0.47	0.43	0.11

Note: $r^2 = .24$ for Step 1, Change in $r^2 = .01$ for Step 2 ($p = .470$). * $p < .001$.

Alternate analysis 1

Considering the moderate correlations found between post-training and post-study content knowledge, an alternate regression analysis was run using only the post-study content knowledge measure and pre-study stress as independent variables using the

blockwise entry method. Results showed that adding the post-study responsibility variables explained an additional 1.3% of the variance ($r^2 = .01$) over the variance explained by pre-study stress and resulted in a non-significant change in the F value (F Change [1,94] = 1.62, $p = .210$).

Alternate analysis 2

An alternate regression analysis was run using the change in Perceived Stress Scales scores from pre-study to post-study as the dependent variable and the post-training and post-study content knowledge measures as the independent variables using the forced entry method. Results showed that the change in stress over the semester was not significantly correlated with post-training content knowledge ($r = .18$, $p = .135$) or post-study content knowledge ($r = .14$, $p = .088$). The independent variables explained 2.5% of the variance ($r^2 = .03$) and the model were not significant predictors of the change in perceived stress over the semester ($F[2,88] = 1.13$, $p = .330$).

Question 3b: How does the possession of suicide prevention content knowledge in working with distressed residents impact RA distress?

Preliminary analysis

A regression analysis was run with the post-study Manifest Distress Scale score as the dependent variable and independent variables consisting of post-training and post-study content knowledge scores and the pre-study Manifest Distress Scale score. Results indicate 2 potential outliers with standardized residuals greater than 2.5. However, these data points were retained in the analysis as the maximum Cook's Distance was below 1, at 0.42, indicating that these data points do not have a large effect on the regression

analysis. The measure of content knowledge at post-training was moderately correlated with content knowledge at post-study ($r = .33, p = .001$) and showed a small correlation with pre-study distress ($r = .16, p = .039$). Post-study content knowledge also showed a small but significant correlation with pre-study distress ($r = .21, p = .018$). However, the Variance Inflation Factors for the items ranged from 1.0 to 1.2, suggesting there is no significant multicollinearity. A review of a histogram of the frequency of the regression standardized residuals indicates a normal distribution of residuals. In addition, a graph of the regression standardized residuals compared to the regression standardized predicted value indicates even dispersion of data, suggesting the assumptions of linearity and homoscedasticity are met.

Primary analysis

Utilizing the blockwise entry method, the average pre-study Manifest Distress Scale score was entered first into the regression model as an independent variable. Next the post-training and post-study scores of content knowledge were entered together as one block of independent variables. Descriptive results and Pearson's correlations coefficients for the independent variables are provided in Table 4.13.

The post-study Manifest Distress Scale score was moderately correlated with pre-study distress ($r = .49, p < .001$) and showed a small correlation with post-study content knowledge ($r = .16, p = .037$). Post-study distress was not significantly correlated to post-training content knowledge ($r = -.13, p = .116$).

The pre-study distress scores significantly predicted post-study distress ($F[1,89] = 28.23, p < .001$) where for each point increase in the pre-study average stress score, post-

study stress increased by 0.40 ($B = 0.40$, $t[89] = 5.31$, $p < .001$). Pre-study distress explained 24.1% of the variance in post-study stress scores ($r^2 = .24$). Adding the post-training and post-study content knowledge variables to the model explained an additional 1.0% of the variance in post-study stress and resulted in a non-significant change in the F value ($F \text{ Change } [2,87] = 0.27$, $p = .765$). See Table 4.15 for the regression coefficients.

Table 4.15: Regression results for question 3b – distress and content knowledge

Model	Unstandardized Coefficients		Standardized Coefficients
	B	SE B	Beta
Step 1			
Constant	0.54	0.15	
Pre-study Perceived Stress Scores	0.40	0.08	0.49*
Step 2			
Constant	0.19	0.52	
Pre-study Perceived Stress Scores	0.39	0.08	0.47*
Post-training content knowledge	0.43	0.84	0.05
Post-study content knowledge	0.28	0.81	0.04

Note: $r^2 = .24$ for Step 1, Change in $r^2 = .01$ for Step 2 ($p = .765$). * $p < .001$.

Alternate analysis 1

Considering the moderate correlation found between post-training and post-study content knowledge, an alternate regression analysis was run using only the post-study content knowledge measure and pre-study distress as independent variables using the blockwise entry method. Results showed that adding the post-study responsibility variables did not explain additional variance ($r^2 = .00$) over the variance explained by pre-study stress and resulted in a non-significant change in the F value ($F \text{ Change } [1,91] = 0.43$, $p = .512$).

Alternate analysis 2

An alternate analysis was run using the change in distress scores from pre-study to post-study as the dependent variable and the post-training and post-study content knowledge measures as the independent variables using the forced entry method. Results showed that the change in distress over the semester was not significantly correlated with post-training content knowledge ($r = -.03$, $p = .403$) or post-study content knowledge ($r = -.05$, $p = .311$). The independent variables did not explain additional variance ($r^2 = .00$) and the model was not a significant predictor of the change in perceived stress over the semester ($F[2,85] = 0.12$, $p = .889$).

Alternate analysis 3

An alternate regression analysis was run using the interaction of RA experience with post-training content knowledge to determine the relationship of RA experience to these variables and stress. To examine the relationship between the interaction variables and stress, pre-study stress was entered as the first block, followed by RA experience as the second block, then post-training content knowledge as the third block, followed by the interaction variable as the fourth block. A similar analysis was run to examine distress where the pre-study and post-study distress variables were used in place of the stress variables. Post-study stress or distress served as the dependent variables. The interaction variables were not significant predictors of post-study stress (change in $r^2 = .00$, $F[1,86] = 0.72$, $p = .399$) or distress (change in $r^2 = .00$, $F[1,85] = 0.46$, $p = .500$).

Question 3c: How does the perception of competency in working with distressed residents impact RA stress?

Preliminary analysis

A regression analysis was run with the post-study Perceived Stress Scale score average as the dependent variable and independent variables consisting of the average response on the 13 perceived competency questions from the post-training and post-study surveys and the Perceived Stress Scale pre-study scores. Results indicate 2 potential outliers with standardized residuals greater than 2.5. However, these data points were retained in the analysis as the maximum Cook's Distance was below 1, at 0.34, indicating that these data points do not have a large effect on the regression analysis. Measure of perceived competency from post-training and post-study were moderately correlated ($r = .43, p < .001$) (see Table 4.16). In addition, pre-study stress showed a small, but significant negative correlation with the measure of competency at post-study ($r = -.29, p = .002$), but was not significantly correlated with post-training competency ($r = -.11, p = .109$). The Variance Inflation Factors for the items ranged from 1.1 to 1.3, suggesting there is no significant multicollinearity. A review of a histogram of the frequency of the regression standardized residuals indicates a normal distribution of residuals. In addition, a graph of the regression standardized residuals compared to the regression standardized predicted value indicates even dispersion of data, suggesting the assumptions of linearity and homoscedasticity are met.

Primary analysis

Utilizing the blockwise entry method, the pre-study Perceived Stress Scale score was entered first into the regression model as an independent variable. Next the mean score of perceived competency questions for post-training and post-study were entered together as one block of independent variables. Descriptive results and Pearson's correlations coefficients for the independent variables are provided in Table 4.16.

Table 4.16: Descriptive and correlation results for question 3c stress and perceived competency.

Item	Post-training			Post-study			Correlation
	Mean ^a	SD	n	Mean ^a	SD	n	
Perceived competency	4.1	0.52	130	4.1	0.63	124	.43*

^aMean results represent the average response across the Likert scale competency questions where a response of 1 indicates a lower perception of competency and 5 indicates higher perceived competency.

* $p < .001$

The post-study Perceived Stress Scale scores were moderately correlated with the pre-study Perceived Stress Scale scores ($r = .50, p < .001$) and moderately negatively correlated with post-training perceived competency ($r = -.33, p = .001$). Post-study stress was not significantly correlated with post-study perceived competency ($r = -0.13, p = .079$).

The pre-study Perceived Stress Scale scores significantly predicted post-study stress ($F[1,88] = 29.09, p < .001$) where for each point increase in the pre-study stress score, the post-study stress score increased by 0.51 ($B = 0.51, t[88] = 5.39, p < .001$). Pre-study stress explained 24.8% of the variance in post-study stress scores ($r^2 = .25$). Adding

the post-training and post-study perceived competency variables to the model explained an additional 9.8% of the variance in post-study stress and resulted in a significant change in the F value (F Change [2,86] = 6.47, $p = .002$). In particular, post-training perceived competency was a significant predictor of post-study stress where a one point increase in perceived competency resulted in a 0.42 decrease in the average stress score ($B = -0.42$, $t[86] = -3.59$, $p = .001$). See Table 4.17 for the regression coefficients.

Table 4.17: Regression results for question 3c – stress and perceived competency

Model	Unstandardized Coefficients		Standardized Coefficients
	B	SE B	Beta
Step 1			
Constant	1.36	0.24	
Pre-study Perceived Stress Scores	0.51	0.10	0.50*
Step 2			
Constant	2.39	0.59	
Pre-study Perceived Stress Scores	0.53	0.09	0.51*
Post-training perceived competency	-0.42	0.12	-0.35**
Post-study perceived competency	0.17	0.10	0.17

Note: $r^2 = .25$ for Step 1, Change in $r^2 = .10$ for Step 2 ($p = .002$). * $p < .001$, ** $p = .001$.

Alternate analysis 1

Considering the moderate correlation found between post-training and post-study perceived competency, an alternate regression analysis was run using only the post-training perceived competency measure and pre-study stress as independent variables using the blockwise entry method. Results showed that adding the post-training competency as a variable explained an additional 7.7% of the variance ($r^2 = .08$) over the variance explained by pre-study stress and resulted in a significant change in the F value (F Change [1,87] = 9.92, $p = .002$).

Alternate analysis 2

Based on the findings of perceived competency significantly predicting post-study stress, an alternate regression analysis was run using the change in perceived stress from pre-study to post-study as the dependent variable and the pre-study, post-training and post-study perceived competency measures as the independent variables using the forced entry method. Pre-study competency showed a significant, moderate correlation with post-training competency ($r = .52, p < .001$) and post-study competency ($r = .41, p < .001$). Measure of perceived competency from post-training and post-study were also moderately correlated ($r = .43, p < .001$). Results showed that the change in stress over the semester was not significantly correlated with pre-study competency ($r = -.03, p = .395$), post-training perceived competency ($r = -.07, p = .257$) or post-study perceived competency ($r = .01, p = .462$). The independent variables explained 0.7% of the variance ($r^2 = .01$) and the model was not a significant predictor of the change in perceived stress over the semester ($F[3,85] = 0.20, p = .900$).

Question 3d: How does the perception of competency in working with distressed residents impact RA distress?

Preliminary analysis

A regression analysis was run with the post-study Manifest Distress Scale scores as the dependent variable and independent variables consisting of the average response on the 13 perceived competency questions from the post-training and post-study surveys and the pre-study Manifest Distress Scale scores. Results indicate 2 potential outliers with standardized residuals greater than 2.5. However, these data points were retained in

the analysis as the maximum Cook's Distance was below 1, at 0.44, indicating that these data points do not have a large effect on the regression analysis. Measure of perceived competency from post-training and post-study were moderately correlated ($r = .43$, $p < .001$). In addition, pre-study distress showed a small, but significant negative correlation with the measure of competency at post-training ($r = -.17$, $p = .032$) and competency at post-study ($r = -.18$, $p = .039$). The Variance Inflation Factors for the items ranged from 1.0 to 1.2, suggesting there is no significant multicollinearity. A review of a histogram of the frequency of the regression standardized residuals indicates a normal distribution of residuals. In addition, a graph of the regression standardized residuals compared to the regression standardized predicted value indicates even dispersion of data, suggesting the assumptions of linearity and homoscedasticity are met.

Primary analysis

Utilizing the blockwise entry method, the average pre-study Manifest Distress Scale score was entered first into the regression model as an independent variable. Next the mean score of perceived competency questions for post-training and post-study were entered together as one block of independent variables. Descriptive results and Pearson's correlations coefficients for the independent variables are provided in Table 4.16.

Post-study distress was moderately correlated with the pre-study distress ($r = .49$, $p < .001$). Post-study distress was not significantly correlated with post-training perceived competency ($r = -.07$, $p = .272$) or post-study perceived competency ($r = -.14$, $p = .060$).

The pre-study distress scores significantly predicted post-study distress ($F[1,87] = 27.60, p < .001$) where for each point increase in the pre-study stress score, the post-study average stress score increased by 0.40 ($B = 0.40, t[87] = 5.25, p < .001$). Pre-study distress explained 24.1% of the variance in post-study stress scores ($r^2 = .24$). Adding the post-training and post-study perceived competency variables to the model explained an additional 1.0% of the variance in post-study stress and resulted in a non-significant change in the F value ($F \text{ Change } [2,85] = 0.28, p = .757$). See Table 4.18 for the regression coefficients.

Table 4.18: Regression results for question 3d – distress and perceived competency

Model	Unstandardized Coefficients		Standardized Coefficients
	B	SE B	Beta
Step 1			
Constant	0.54	0.15	
Pre-study Manifest Distress scores	0.40	0.08	0.49*
Step 2			
Constant	0.68	1.05	
Pre-study Manifest Distress scores	0.40	0.08	0.49*
Post-training perceived competency	0.11	0.25	0.05
Post-study perceived competency	-0.15	0.20	-0.08

Note: $r^2 = .24$ for Step 1, Change in $r^2 = .01$ for Step 2 ($p = .757$). * $p < .001$.

Alternate analysis 1

Considering the moderate correlation found between post-training and post-study perceived competency, an alternate regression analysis was run using only the post-training perceived competency measure and pre-study distress as independent variables with the blockwise entry method. Results showed that adding the post-training perceived competency as a variable explained an additional 0.0% of the variance ($r^2 = .00$) over the

variance explained by pre-study stress and resulted in a non-significant change in the F value (F Change [1,86] = 0.03, $p = .856$).

Alternate analysis 2

An alternate regression analysis was run using the change in Manifest Distress Scale scores from pre-study to post-study as the dependent variable and the post-training and post-study perceived competency measures as the independent variables using the forced entry method. Results showed that the change in stress over the semester was not significantly correlated with post-training perceived competency ($r = .14$, $p = .097$) or post-study perceived competency ($r = -.00$, $p = .486$). The independent variables explained 2.5% of the variance ($r^2 = .03$) and the model was not a significant predictor of the change in perceived stress over the semester ($F[2,83] = 1.07$, $p = .350$).

Alternate analysis 3

An alternate analysis was run using the interaction of RA experience with post-training perceived competency to determine the relationship of RA experience to this variable and stress. To examine the relationship between the interaction variables and stress, pre-study stress was entered as the first block, followed by RA experience as the second block, then post-training perceived competency as the third block, followed by the interaction variable as the fourth block. A similar analysis was run to examine distress where the pre-study and post-study distress variables were used in place of the stress variables. Post-study stress or distress served as the dependent variables for their respective analyses. The interaction of perceived competency and RA experience was not a significant predictor of post-study stress (change in $r^2 = .01$, $F[1,84] = 1.80$, $p = .180$).

However, the interaction was a significant predictor of distress in the model ($B = -0.95$, $t[83] = -2.16$, $p = .030$), explaining an additional 3.8% of the variance ($F[1,83] = 4.68$, $p = .030$).

Research question 4

This analysis seeks to answer the question of how support-seeking behaviors impact RA stress and / or distress. To measure support-seeking behaviors, RAs responded during the post-study survey to the question “how often did you receive support in working with your residents dealing with these problems?” They provided responses to the areas of resident problems they had worked with including, depression, anxiety, relationship violence, eating disorders, alcohol and drugs, thoughts of suicide, self-injury, academic stress, and family stress. Response options ranged from “they never sought help” to “less than one week.”

In addition, to measure the gap between support needed and received to help RAs manage their stress, they responded to the question “how many times this semester did you feel you might have benefited by turning to someone to get help in managing your stress, but did not seek out help?” Descriptively, RAs responded as follows: “0 times” = 33%, “1 time” = 9%, “2 times” = 13%, and “3 or more times” = 45%.

At pre-study, RAs predicted who they would turn to for support and at post-study retrospectively reported who they actually turned to by indicating the percentage of time they would turn to various sources of support during differing circumstances. Results indicate that over the course of training and throughout the semester they increasingly

turned to their Hall Coordinator and other RAs for support. Conversely, they appeared to rely less on their friends, family and other on-campus mental health resources (see Table 4.19)

Table 4.19: Use of Hall Coordinator and RAs as support

What % of time would you turn to the following if you:	Pre-study	Post-training	Post-study
needed help with a mental health issue related to one of your residents?			
Hall Coordinator	35%	38%	44%
Another RA	14%	17%	21%
Friend	14%	10%	10%
Family	10%	8%	9%
On-campus mental health professional	26%	25%	16%
Other	0%	1%	0.5%
were experiencing a lot of stress from your position as an RA?			
Hall Coordinator	29%	31%	37%
Another RA	25%	23%	24%
Friend	23%	23%	18%
Family	17%	17%	15%
On-campus mental health professional	4%	5%	4%
Other	1%	1%	2%
were experiencing a lot of stress from problems not directly related to your position as an RA?			
Hall Coordinator	9%	11%	16%
Another RA	10%	12%	16%
Friend	41%	41%	34%
Family	30%	28%	28%
On-campus mental health professional	6%	5%	4%
Other	3%	3%	3%

A multiple regression analysis was run with predictor variables including the total frequency of support received across interventions and the number of times they did not seek support but might have benefited from it. Pre-study Perceived Stress Scale scores

and pre-study Manifest Distress Scale scores were incorporated as predictor variables to control for their potential influence on post-study stress and distress. See Table 4.20 for a description of the research questions and corresponding independent and dependent variables.

Table 4.20: Research question 4 variables

Research Question	Independent Variables	Dependent Variables
How did RA support-seeking behaviors impact their stress and / or distress?	<p>How many times this semester did you feel you might have benefited from help but did not seek it?</p> <p>How often did you receive support in working with your residents?</p> <p>For the examination of stress: The pre-study Perceived Stress Scale score for each individual was added as a predictor variable.</p> <p>For the examination of distress: The pre-study Manifest Distress Scale score for each individual is added as a predictor variable.</p>	<p>The Perceived Stress Scale post-study</p> <p>Or</p> <p>The Manifest Distress Scale score post-study</p>

Question 4a: How did RA support-seeking behaviors impact their reported stress levels?

Preliminary analysis

A regression analysis was run with the post-study Perceived Stress Score as the dependent variable and independent variables consisting of the total frequency of support across interventions, the number of times RAs reported not seeking support when they may have benefited from it, and the pre-study Perceived Stress Scale scores. Results indicate 1 potential outlier with a standardized residual greater than 2.5. However, this data point was retained in the analysis as the maximum Cook's Distance was below 1, at 0.65, indicating that this data point does not have a large effect on the regression analysis.

A review of the responses to the question, “How many times this semester did you feel you might have benefited from help but did not seek it?” revealed a mean response of 12, but a median response of 2. Further analysis uncovered that most participants indicated between 0 and 30 times in their response, but one participant had stated they did not seek help 1000 times. The 1000 times response is considered an exaggerated response and was deleted from the query. Without that response the revised mean of not seeking support is 3 times.

The number of times RAs did not seek out support when managing their own stress showed a small, but significant correlation with the sum of support received when working with residents over the semester ($r = .19, p = .025$) and with pre-study stress ($r = .26, p = .006$). However, the Variance Inflation Factors for the items ranged from 1.0 to 1.1, suggesting there is no significant multicollinearity. A review of a histogram of the frequency of the regression standardized residuals indicates a normal distribution of residuals. In addition, a graph of the regression standardized residuals compared to the regression standardized predicted value indicates even dispersion of data, suggesting the assumptions of linearity and homoscedasticity are met.

Primary analysis

Utilizing the blockwise entry method, the average pre-study Perceived Stress Score was entered first into the regression model as an independent variable. Next the total frequency of help with resident problems and number of times RAs did not seek support to manage their stress over the semester were entered together as one block of independent variables.

Post-study stress was moderately correlated with pre-study stress ($r = .50, p < .001$) and number of times RAs did not seek support throughout the semester when they might have benefited from it ($r = .38, p < .001$), but was not significantly correlated to total frequency of support received for resident problems ($r = -.05, p = .318$).

The pre-study Perceived Stress Scores significantly predicted post-study Perceived Stress Scores ($F[1,92] = 30.42, p < .001$) where for each point increase in the pre-study average stress score, the post-study average stress score increased by 0.51 ($B = 0.51, t[92] = 5.52, p < .001$). Pre-study stress explained 24.8% of the variance in post-study stress scores ($r^2 = .25$). Adding the total frequency of support received for resident problems and the number of times RAs did not seek support variables to the model explained an additional 6.9% of the variance in post-study stress and resulted in a significant change in the F value ($F \text{ Change } [2,90] = 4.58, p = .013$). Of the two variables, the number of times RAs did not seek support was a significant predictor of post-study stress ($B = 0.28, p < .001$), while the frequency of support received was not ($B = -0.01, p = .890$). See Table 4.21 for the regression coefficients.

Table 4.21: Regression results for question 4a – stress and support-seeking

Model	Unstandardized Coefficients		Standardized Coefficients
	B	SE B	Beta
Step 1			
Constant	1.36	0.24	
Pre-study Perceived Stress Scores	0.51	0.09	0.50*
Step 2			
Constant	1.43	0.25	
Pre-study Perceived Stress Scores	0.44	0.09	0.43*
Number of times support not sought	0.04	0.01	0.28**
Frequency of support received for resident problems	-0.00	0.01	-0.01

Note: $r^2 = .25$ for Step 1, Change in $r^2 = .07$ for Step 2 ($p = .013$). * $p < .001$, ** $p = .004$.

Alternate analysis 1

An alternate regression analysis was run using the change in Perceived Stress Scales scores from pre-study to post-study as the dependent variable and the total frequency of support received for resident problems and number of times RAs did not seek support to manage their stress over the semester were entered together as one block of independent variables using the forced entry method. Results showed that the change in stress over the semester was not significantly correlated with the number of times RAs did not seek support ($r = .14$, $p = .096$) or the total frequency they received support with resident problems ($r = .02$, $p = .412$). The independent variables explained 1.9% of the variance ($r^2 = .02$) and the model was not a significant predictor of the change in perceived stress over the semester ($F[2,90] = 0.85$, $p = .430$).

Question 4b: How did RA support-seeking behaviors impact their reported distress levels?

Preliminary analysis

A regression analysis was run with the post-study Manifest Distress Scale scores as the dependent variable and independent variables consisting of the total frequency of support across interventions, the number of times RAs reported not seeking support when they may have benefited from it, and the pre-study Manifest Distress Scale scores. Results indicate 2 potential outliers with standardized residuals greater than 2.5. However, these data points were retained in the analysis as the maximum Cook's Distance was below 1, at 0.41, indicating that these data points do not have a large effect on the regression analysis.

A review of the responses to the question, "How many times this semester did you feel you might have benefited from help but did not seek it?" revealed a mean response of 12, but a median response of 2. Further analysis uncovered that most participants indicated between 0 and 30 times in their response, but one participant had stated they did not seek support 1000 times. The 1000 times response is considered an exaggerated response and was deleted from the query. Without that response the new mean of not seeking support is 3 times.

The number of times RAs did not seek support in managing their own stress showed a small, but significant correlation with the sum of support received when working with residents over the semester ($r = .19, p = .025$) and with pre-study distress ($r = .22, p = .019$). In addition, the sum of support received showed a small, but significant

negative correlation with pre-study distress ($r = -.20, p = .026$). However, the Variance Inflation Factors for the items were 1.1, suggesting there is no significant multicollinearity. A review of a histogram of the frequency of the regression standardized residuals indicates a normal distribution of residuals. In addition, a graph of the regression standardized residuals compared to the regression standardized predicted value indicates even dispersion of data, suggesting the assumptions of linearity and homoscedasticity are met.

Primary Analysis

Utilizing the blockwise entry method, the pre-study Manifest Distress Scale score was entered first into the regression model as an independent variable. Next the total frequency of support received for resident problems and number of times RAs did not seek support to manage their stress over the semester were entered together as one block of independent variables.

Post-study distress was moderately correlated with pre-study distress ($r = .49, p < .001$). Post-study distress was not significantly correlated to the number of times RAs did not seek support ($r = .14, p = .074$) or the total frequency of support received for resident problems ($r = -.14, p = .069$).

Pre-study distress significantly predicted post-study distress ($F[1,90] = 28.55, p < .001$) where for each point increase in the pre-study score, the post-study score increased by 0.40 ($B = 0.40, t[90] = 5.34, p < .001$). Pre-study distress explained 24.1% of the variance in post-study stress scores ($r^2 = .24$). Adding the total frequency of support received for resident problems and number of times RAs did not seek support variables to

the model explained an additional 0.4% of the variance in post-study stress and resulted in a non-significant change in the F value (F Change [2,88] = .21, p = .814). See Table 4.22 for the regression coefficients.

Table 4.22: Regression results for question 4b – distress and support-seeking

Model	Unstandardized Coefficients		Standardized Coefficients
	B	SE B	Beta
Step 1			
Constant	0.54	0.15	
Pre-study Manifest Distress Scale Scores	0.40	0.08	0.49*
Step 2			
Constant	0.63	0.25	
Pre-study Manifest Distress Scale Scores	0.39	0.08	0.47*
Number of times support not sought	0.01	0.03	0.05
Frequency of support received for resident problems	-0.01	0.02	-0.05

Note: $r^2 = .24$ for Step 1, Change in $r^2 = .00$ for Step 2 (p = .814). *p < .001.

Alternate analysis I

An alternate regression analysis was run using the change in the Manifest Distress Scale scores from pre-study to post-study as the dependent variable and the total frequency of support received for resident problems and number of times RAs did not seek support to manage their stress over the semester were entered together as one block of independent variables using the forced entry method. Results showed that the change in distress over the semester was not significantly correlated with the number of times RAs did not seek support ($r = -.09$, $p = .196$) or the total frequency with which they received support for resident problems ($r = .04$, $p = .349$). The independent variables explained 1.2% of the variance ($r^2 = .01$) and the model was not a significant predictor of the change in perceived stress over the semester ($F[2,87] = 0.52$, $p = .560$).

Alternate analysis 2

An alternate regression analysis was run using the interaction of RA experience with the two support-seeking variables; support received and support not received. To examine the relationship between the interaction variables and stress, pre-study stress was entered as the first block, followed by RA experience as the second block, then support received for interventions and number of times support would have been helpful as the third block, followed by the interaction variable as the fourth block. A similar analysis was run to examine distress where the pre-study and post-study distress variables were used in place of the stress variables. Post-study stress or distress served as the dependent variables.

Post-study stress was not correlated with RA experience ($r = .01$, $p = .472$). The interaction variables were significant predictors of post-study stress (change in $r^2 = .07$, $F[2,85] = 5.09$, $p = .010$). Of the two interactions, support received with RA experience was a significant predictor of stress ($B = -.06$, $t[85] = -2.68$, $p = .010$), while support not received with RA experience was not ($B = -.04$, $t[85] = -1.51$, $p = .135$).

Post-study distress showed a small, but significant correlation with RA experience ($r = -.22$, $p = .015$). The interactions were not significant predictors in the model explaining only 2.0% of the variance above the other variables ($F[2,85] = 1.25$, $p = .293$).

Research question 5

This question seeks to address whether the effect of training or serving as a gatekeeper might desensitize RAs to the significance of the suicidal experiences of their

residents and themselves. To measure the impact on their role as gatekeeper, RAs were asked at pre-study, post-training, and post-study *“please select at what point you would talk to your resident about their suicidal thoughts.”* To measure the impact on RAs themselves, they were asked at pre-study, post-training, and post-study *“please select at what point you would seek help for your suicidal thoughts.”*

Question 5a: What impact might gatekeeper training have to desensitize RAs to the significance of the suicidal experiences of their residents?

A repeated measures ANOVA was run to determine if RAs demonstrate a change in when they would talk to their residents about suicide over the three periods of time. RA experience was added as a grouping variable to test for main effects of experience and interaction effects of experience and time period. Results indicate that RAs provided an average response of when they would initiate their gatekeeper function of 1.9 at pre-study and post-training and 2.4 at post-study (see Table 4.23).

Table 4.23: Mean response of RA self-reported initiation of gatekeeping function.

Time Period	Mean	Standard Deviation	n
Overall results			
Pre-study	1.9	0.98	81
Post-training	1.9	0.95	81
Post-study	2.4	0.97	81
First Year RAs			
Pre-study	2.2	1.04	42
Post-training	2.2	0.99	42
Post-study	2.6	0.97	42
Average across time	2.4	0.12*	42
Experienced RAs			
Pre-study	1.6	0.98	39
Post-training	1.6	0.81	39
Post-study	2.2	0.94	39
Average across time	1.8	0.12*	39

*standard error

Box's test of equality of covariance matrices was not significant ($F[6,44528] = 0.76, p = .600$) suggesting that the assumption of homogeneity of covariance matrices is met. Mauchly's test of sphericity returned a significant result, Mauchly's $W = 0.890, p = .010$, indicating that the assumption of sphericity was not met for this analysis. Since the Greenhouse-Geisser Epsilon of 0.90 was closer to 1 than to the lower-bound of .50, the Greenhouse-Geisser correction was used to evaluate the test of within-subjects effects. The Greenhouse-Geisser correction indicated that there are significant differences in the participants across time periods ($F[1.8] = 14.57, p < .001$), but there are not significant interaction effects between RA experience and time ($F[1.8] = 0.16, p = .683$). In addition, examination of a profile plot of RA experience and desensitization suggests there is no interaction effect. The test of between subjects effects revealed that there was a

significant main effect of RA experience on when they would talk to their residents about suicidal thoughts ($F[1] = 9.01, p = .004$).

Pairwise comparisons were examined using a Bonferroni adjustment. RAs as a whole did not indicate a significant difference as to when they would talk to their residents about their suicidal thoughts from pre-study to post-training (mean difference = 0.01, sig. = 1.00). RAs did respond that they would wait to talk to their residents until more acuity was displayed as measured from both pre-study to post-study (mean difference = 0.48, $p < .01$) and from post-training to post-study (mean difference = 0.47, $p < .01$). In addition, experienced RAs responded that they would talk to their residents based on less acuity in their residents' suicidal thoughts than first year RAs (mean difference = 0.51, $p = .004$).

Question 5b: What impact might gatekeeper training have to desensitize RAs to the significance of their own suicidal experiences?

A repeated measures ANOVA was run to determine if RAs demonstrate a change in when they would seek help for their own suicidal thoughts over the three periods of time. RA experience was added as a grouping variable to test for main effects of experience and interaction effects of experience and time period. Results indicate that RAs provided an average response of when they would seek help for their suicidal thoughts of 2.9 at pre-study, 2.6 at post-training and 3.0 at post-study. (See Table 4.24).

Table 4.24: Mean response of RA self-reported initiation of self-care.

Time Period	Mean	Standard Deviation	n
Overall results			
Pre-study	2.9	1.45	82
Post-training	2.6	1.33	82
Post-study	3.0	1.31	82
First Year RAs			
Pre-study	3.1	1.36	42
Post-training	2.9	1.29	42
Post-study	3.2	1.30	42
Average across time	3.1	0.18*	42
Experienced RAs			
Pre-study	2.7	1.52	40
Post-training	2.2	1.29	40
Post-study	2.7	1.29	40
Average across time	2.5	0.19*	40

*standard error

Box's test of equality of covariance matrices was significant ($F[6,46061] = 2.11$, $p = .090$) suggesting that the assumption of homogeneity of covariance matrices is not met. However, since the cell sizes between RAs with experience and without are similar and the sample size is large, Hotelling's Trace is a robust measure that can be used in a two-group situation (Field, 2009, p. 604). In the multivariate tests, Hotelling's Trace indicates that there are significant main effects of time ($F[2] = 9.50$, $p < .001$) and that there are no significant interaction effects with time and RA experience ($F[2] = 1.08$, $p = .345$). In addition, examination of a profile plot of RA experience and desensitization suggests there is no interaction effect. The test of between subjects effects revealed that there was a significant main effect of RA experience on when they would seek support for their suicidal thoughts ($F[1] = 4.06$, $p = .047$).

Pairwise comparisons were examined using a Bonferroni adjustment. RAs as a whole indicated that they would seek support for themselves when their suicidal thoughts were less acute after training than before (mean difference = 0.35, $p = .001$) and also endorsed being more likely to seek support sooner post-training as compared to post-study (mean difference = 0.39, $p = .010$). These effects of decreasing their threshold to seek support for themselves after training, however, did not persist until the end of the semester. At post-study, RAs were not more likely to endorse seeking support sooner as compared to their pre-study responses (mean difference = 0.05, $p = 1.000$). In addition, experienced RAs responded that they would seek support for their suicidal thoughts prior to first year RAs said they would (mean difference = 0.53, $p = .047$).

Chapter Five: Discussion

This chapter will discuss study findings regarding the relationship between stress, distress, suicide prevention training, and serving as a gatekeeper on a college campus. Implications for gatekeeper training associated with stress and distress, prior experience with suicide, intervention load, role responsibility, content knowledge, perception of competency, support-seeking, and desensitization will be explored in light of the results. Next, implications for campus suicide prevention training are outlined. A discussion of study limitations and future directions for research concludes the chapter.

Early intervention supports the work of college counseling centers to further students' well-being, personal growth, and academic and life goals (for an example of the UT Counseling and Mental Health Center Mission Statement see *The Mission of CMHC*, 2012). Some researchers express concern, however, that relatively little is being done to systematically identify at-risk students early and direct them to treatment (Haas et al., 2003). Such prevention work would appear to help students at a population level as Drum and colleagues (2009) suggest that intervening with students earlier may help campuses capitalize on opportunities to prevent a progression of distress. Gatekeeper training is theorized to address these issues through earlier detection of mental health problems and more efficient referrals (Rihmer, 1996).

A key element of such early intervention lies in training members of the community, such as RAs who interact with a significant portion of the study body, to identify students in distress and facilitate their seeking professional support. While

universities are implementing such training, their efficacy and impact on college student helpers is understudied (Garland & Zigler, 1993; Gould et al., 2003; Haas et al., 2003; Joiner, 2009; Lewis & Lewis, 1996; Schwartz & Friedman, 2009; Westefeld et al., 2006; Wyman et al., 2008).

The stress-diathesis model of cognitive vulnerability suggests that existing vulnerability combined with triggering events, such as taking on additional stress, can lead to adverse symptoms and outcomes (Morrison & O'Connor, 2005). College students appear vulnerable to distress as over half of college students have reported having suicidal ideation at some point in their life (Drum et al., 2009). RAs in this study were also found to have similar levels of stress as other college students and, considering that 21% of the RAs in this study had seriously considered suicide at some point in their life, they are likely subject to similar vulnerabilities to experiencing mental health problems as other students.

It was hypothesized that the training and broadcasting of information about suicide into this population could lower the threshold among RAs for entertaining distressing and suicidal thoughts. Serving as gatekeepers may impact RAs through several mechanisms by which exposure to stress and working with distressed students lowers their threshold to resist distress, including a habituation experience and an acquired capacity to inflict self-harm (Joiner et al., 2009), compassion fatigue (Cacciatore et al., 2011; Jacobson, 2012), suicide contagion (Gould & Kramer, 2001; Range et al., 1988; Rudd et al., 2006; Spirito et al., 1989), and vicarious trauma (Voss Horrell et al., 2011; Jenkins & Baird, 2002). As universities call upon students to take on the potentially

stressful role of gatekeeper, it is imperative to understand the potential impact of such work on them. The primary aim of this study was to understand the mental health impact on RAs based on their participation in suicide prevention training and from serving in the role of gatekeeper.

RA personal experiences of stress and distress

The Perceived Stress Scale was used as an initial assessment instrument and indicated that prior to the study RAs reported similar levels of stress as other college students and similarly aged peers. The pre-study average Perceived Stress Scale score for RAs of 15 appears similar to the Perceived Stress Scale score of 18 (standard deviation = 6.4) found among a survey of 285 college undergraduates (Roberti et al., 2006) and 14 (standard deviation = 6.2) found in a sample of 648 respondents in the United States aged 18-29 (Cohen & Williamson, 1988). In addition, RA stress did not change significantly over the semester for first year or returning RAs. These results are encouraging in light of the finding by Overholser et al. (1989) that suggests exposure to suicide prevention content was associated with more hopeless and maladaptive coping responses in some students. Of note, pre- and post-study stress scores were moderately correlated, suggesting that some of the stress RAs felt in August remained with them at the end of the semester.

Responses to questions about recent and lifetime suicidal ideation and attempts indicate that prior to the study RAs in this sample endorsed generally lower rates of suicidal experiences as compared to a national sample of 26,451 undergraduate college

students (see Drum et al., 2009) and as compared to the UT specific sample of 268 undergraduate students based on an analysis of the data used in the Drum et al. study. While 21% of RAs said they had seriously considered attempting suicide at some point in their life as compared to 18% with the national sample and 15% from the UT specific sample, over the past 12 months 1% of RAs endorsed such thoughts compared to 6% among the national sample and 7% from the UT specific sample. RAs endorsed lifetime attempts at lower rates of 1% as compared to 8% for both the national sample and the UT specific sample, and for attempts in the past 12 months 0% versus 0.85% for the national sample and 2.24% of the UT specific sample.

RA average distress as measured by the Manifest Distress Scale did not appear to change significantly over the semester. As with stress, pre- and post-study distress scores were moderately correlated, suggesting that some of the distress RAs endorsed at the time of training remained at the end of the semester. When examined based on RA experience, first year RAs endorsed similar levels of distress as returning RAs at initial assessment. However, by the end of the semester first year RAs indicated higher levels of distress than returning RAs.

RA prior experience with others' suicide

A striking finding of this study was the extent to which RAs endorsed prior, personal, experience related to suicide. These results build on the findings of Kalafat and Elias (1992) where 68% of female and 43% of male high school students reported knowing a teen who had committed or attempted suicide. Of the almost two-thirds of

RAs who said that at least one person had told them about their suicidal thoughts, 84% said at least one of these people was a close friend or relative. Of the over half of RAs who knew at least one person who had attempted suicide, over half of those said that at least one person was a close friend or relative. Surprisingly, almost half (48%) indicated knowing at least one person who had died by suicide, with approximately one-third of those indicating they had a close friend or relative died by suicide. These findings hold important implications for suicide prevention training as research suggests that those with prior exposure to suicidal experiences may react differently to content regarding suicide (Doron et al., 1988; Rudd et al., 2006).

First year RAs endorsed having more people and more close friends or relatives confide in them regarding their suicidal thoughts than returning RAs. However, they endorsed knowing a similar number of people who had attempted and completed suicide. In contrast, it is expected that returning RAs have had greater exposure to suicide prevention content as they had likely attended a similar training the prior year and had prior work with residents. While RA experience was a significant predictor in the regression model for distress, its impact appears small as it had a small correlation with distress and explained only 5% of the variance in the model. These findings warrant further investigation to determine more precisely the extent of change in first-year RA distress and the factors behind such differences.

RA intervention load

Results suggest that RAs experience situational intervention stress related to their mental health interventions, but that intervention load over the semester was not a significant predictor of post-study stress or distress. It was hypothesized that as intervention load increased with their exposure to distressed residents, RAs may experience more triggering events that, when combined with existing vulnerabilities in RAs, may lead to increased stress or distress. Several theories of suicide apply this stress-diathesis model where exposure to distressed students may wear away at the ability to cope with stress through mechanisms such as compassion fatigue, vicarious trauma, suicide contagion, and increasing the capacity for self-injurious behaviors (Cacciatore et al., 2011; Gould & Kramer, 2001; Jacobson, 2012; Jenkins & Baird, 2002; Joiner et al., 2009; Range et al., 1988; Rudd et al., 2006; Spirito et al., 1989; Voss Horrell et al., 2011). The results of this study suggest that when called into the role of helper, RAs find their interventions stressful, but not deteriorating of their ability to cope. The stress experienced from mental health interventions did not persist over time and did not appear to build a significant cumulative stress load on the RAs.

To measure the intervention load of working with the mental health problems of residents, the study examined the frequency, interventions stress, and duration of interventions related to residents' mental health problems. Intervention stress was measured as the self-report of the degree of stress RAs felt based on direct interventions with residents, with issues such as depression, anxiety, relationship violence, eating

disorder, alcohol and drugs, thoughts of suicide, self-injurious behaviors, academic stress, and family stress.

Findings indicate that intervention stress was strongly correlated with the frequency of helping residents and moderately correlated with the duration of their interventions. These findings suggest that situational intervention stress seems to be related to the number and duration of mental health encounters. In addition, RA experience showed a small, but significant correlation with post-study distress. These findings indicate that returning RAs may not be as adversely impacted by intervention load as first year RAs. While intervention stress during the study period showed a potentially small correlation with post-study stress, intervention load overall did not predict post-study stress. These findings provide helpful guidance for gatekeeper training as they demonstrate the ability of RAs to manage the stress of their interventions over the semester.

RA perceived role responsibility

As the relationship between gatekeeper role responsibility and mental health outcomes has not been clearly established, this study investigated the potential connection. RAs responded to five questions inquiring regarding their perception of their responsibility. To understand individual RAs' perception of role responsibility, they were asked questions that ranged from general to specific, such as how responsible they feel for helping others when they need it, for solving residents' problems, and for talking to suicidal residents. Questions also inquired into their perception of the collective

responsibility of RAs as a group to decrease the prevalence of suicidal distress on campus in general and to prevent the suicide of an at-risk student.

Allocating more responsibility to RAs as a group for preventing the suicide of a distressed resident, showed a small, inverse correlation with post-study stress and distress. The negative correlation, indicating that as responsibility increases the stress and distress experienced decreases, were unexpected as it was hypothesized that feeling more responsible for others would serve as a burden on RAs. In contrast, stress and distress did not appear related to responsibility felt for helping others in general, solving others' problems, intervening with residents with suspected suicidal thoughts, or the more global measures of collective RA responsibility for decreasing suicidal experiences across campus.

Suicide prevention programs likely increase the frequency of contact with suicidal students and heighten the responsibility of the RA to intervene (Lewis & Lewis, 1996). However, gatekeeper training programs are not consistent in the type of role responsibility they encourage among their trainees (Gould et al., 2003; Herring, 1990; Lewis & Lewis, 1996). In this study, role responsibility was not a significant predictor of stress or distress. Post-study stress and distress, however, had small, but statistically significant inverse relationships with the relatively specific question regarding the percentage of responsibility allocated to RAs collectively for preventing the suicide of a distressed resident. These findings warrant further investigation to better understand the differing impact between collective and individual responsibility.

RA content knowledge

While the results indicate that having lower stress going into training was related to improved recall of suicide prevention information, learning more did not predict post-study stress or distress. RAs were presented with questions related to the content of the suicide prevention training, including the prevalence of suicidal distress on campus, help-seeking patterns among students, confidentiality considerations, emergency procedures, how to ask about suicide, warning signs, and campus mental health resources. While this association between stress and learning is unlikely unique to gatekeeper training, it suggests that facilitating a low-stress learning environment may help with information retention.

Conversely, pre-study distress had small, but significant positive correlations with content knowledge at both post-training and post-study time periods. This finding is unexpected in light of the aforementioned finding that lower stress was related to more content knowledge. These findings should be interpreted with caution as the correlations found between content knowledge and stress and distress are small and content knowledge did not predict post-study stress or distress.

RA perceived competency

To evaluate perceived competency in working with distressed residents, RAs responded to a self-report measure of their comfort and confidence in performing the tasks of gatekeeper. The tasks presented followed the main training topics related to working with distressed students, including noticing warning signs of suicide, initiating

conversations with suicidal students, addressing concerns of confidentiality and stigma associated with receiving professional help, and knowledge of resources and the referral process. A factor analysis revealed a one-factor structure, indicating that these questions collectively tap into the construct of perceived competency.

Perceived competency measured at post-training and post-study collectively explained 10% of the variance in post-study stress and were significant predictors of the regression model. Post-training competency in particular appears more closely related to post-study stress than most other variables as it showed a moderate, negative correlation. In addition, the regression model illustrates that for every one point increase in perceived competency present after training, average post-study stress decreases by 0.42 on the five-point scale. These findings indicate that developing a sense of competency to perform as a gatekeeper should be a focus of suicide prevention training as it would appear to serve as a protective factor with regards to stress. In addition, post-training competency appears more related to stress than competency endorsed at post-study, potentially suggestive of the need for booster training throughout the year.

Unlike with stress, perceived competency by itself did not predict post-study distress. However, the interaction of RA experience and competency was a significant predictor in the model for post-study distress. This finding suggests that either perceived competency impacts the distress in experienced RAs differently than in first year RAs or that the relationship between stress and perceived competency is different across RA experience. As first year and returning RAs did not appear to possess significantly different levels of perceived competency, post-study distress may be more influenced by

differences in RA experience. While both first year and returning RAs may complete training with a perception of similar competency, RAs with prior experience in working with residents appear to have ways to minimize their distress.

RA support-seeking

RAs were asked to report on the support they received throughout the semester, including who they turned to for support, how often they received help dealing with residents' mental health problems, and the gap between their need for help to manage their stress and the support they received. It is interesting to note that over the course of the semester, RAs turned for support increasingly to other RAs and Hall Coordinators and less to the family and friends they had anticipated pre-study. This shift in support to work colleagues applied to receiving support in their work with residents, their other responsibilities as an RA, and for stress not related to their position as an RA. These findings suggest that RAs may become involved in their community and may gain confidence in turning to their residence life peers for help dealing with a range of problems over the course of the semester.

The frequency of support received in their work with residents showed a small, but statistically significant negative correlation with pre-study distress, suggesting a relationship between distress and inhibited support-seeking among RAs. While receiving more support for interventions with residents may be partly related to having more interventions requiring assistance, and hence the potential for more stressful encounters with residents, receiving such support was not related to post-study stress or distress. The

interaction of support received with RA experience, however, was a significant predictor of post-study stress, suggesting that stress decreased with the combination of more RA experience and additional support in working with residents' problems.

A larger gap between the need for support and the amount received was related to both pre-and post-study stress and pre-study distress. It is noted that while the correlation between the gap in support received and post-study distress was not statistically significant, it showed evidence of a small correlation. While these correlations were small to moderate, they suggest that stress and distress are related to seeking support when needed.

As the gap between support needed and received to manage their stress increased, the amount of support received for residents' problems also tended to increase. At first this finding seems counterintuitive as RAs receiving help in their work with residents also reported not receiving as much help as they may have benefited from to manage their own stress. As these questions were asked retrospectively, it may be that those RAs who reported acquiring more help were also better able to identify those times when it would have been beneficial to seek help, but did not do so. Future studies could try to penetrate this question more deeply to determine if they were more attuned and able to assess their need or whether they had greater needs that went unmet.

RA desensitization to the need to intervene

To detect desensitization to the problems among residents and themselves, two items were developed to explore how sensitive RAs are to the need of mental health

intervention. One question asked the RA to select at what point along a continuum of intensity and frequency they would talk to a resident about their suicidal thoughts and the second asked when they would seek help for their own suicidal thoughts. Comparison of the pre-study, post-training, and post-study study scores on these items indicate that the threshold of engagement shifted over the course of training and the semester. RAs appear to leave training with the message of the need for early intervention and with the intent to intervene early.

Their threshold for talking to their residents appeared low prior to training and remained low by the end of training. However, following training RAs' threshold for seeking help for their own suicidal thoughts decreased. These results are encouraging as the importance of seeking help for themselves was a key message presented throughout the suicide prevention training. By the end of the semester, however, their threshold to intervene with their residents and to seek help for their own suicidal thoughts had risen. It is unclear why their thresholds shifted. These findings are troubling and support a concern that suicide prevention training may lead RAs to a desensitization of the problems among residents and themselves (Garland & Zigler, 1993; Gould, 2001). It is important to understand the dynamics behind the differences in timing interventions as the consequence of not engaging with support in a timely way may be increased risks to RAs and residents. Future studies should explore possible explanations including whether RAs are waiting for more information, are delaying discomfort, or their experience of having distressing thoughts interferes with their desire to seek help.

RAs indicated a lower threshold for helping others than helping themselves, suggesting that they would act earlier when working with residents than seeking help for their own issues. Such findings are important as a failure to seek help early countermines the very intent of promoting early intervention through gatekeeper training (Schwartz & Friedman, 2009; Wyman et al., 2008). While RAs did not indicate increased stress in this study, investigating the longer-term effects of desensitization is an important consideration for future studies.

Experienced RAs appear more motivated to talk with residents sooner than first year RAs. This suggests that with their experience comes the understanding of the need, and intention, to intervene when residents' symptoms are less acute. Experienced RAs also responded that they would tend to seek help for themselves sooner than new RAs. These findings are encouraging, as with desensitization one would expect those with more RA experience to wait longer to intervene. As this survey focused on questions of acuity when asking about the timing of interventions, of particular interest would be learning more about the gap between when RAs knew about a need for intervention and when help was provided or sought. Future studies might also investigate the implications of re-training each year and the impact of experience in working with residents. Such experiences may lead to a greater understanding of their role, experiences with having difficult conversations with residents, greater awareness of the need for help and comfort in asking, and the realization that speaking with residents about their problems are often best to occur sooner than later.

Implications for Gatekeeper Training Programs

This study provides support that by and large suicide prevention training with RAs is not harmful to them. RAs are not immune to stress, as they report that it impacts them in the moment, but intervention stress appears to dissipate over time. This study found RAs to be as stressed and distressed as typical students. In addition, the stress and distress they felt at the start of the semester appears related to the level of stress and distress they felt at the end. Based on the finding that RAs carry their stress through the semester and find interventions stressful, particularly when there are more of them and they last longer, supervisors should be aware of the need to monitor their RAs' intervention load and ability to cope. In addition, future studies should explore how intervention stress impacts RAs over longer time periods. With regards to implementing effective training, this study provided support for the notion that encouraging a low-stress training environment may facilitate information retention among RAs.

A second important finding of this study was that RAs have considerable prior, personal experience with suicidal thinking and others who are suicidal. The vast majority has connections with the suicidal experiences of others and 21% said they had seriously considered suicide in their lifetime. These experiences probably impact their attitudes about suicidal people and, consequently, their training experience. It is important to understand their impressions in order to dispel unhelpful ones and support those in line with best practices. Future studies might explore how extensive such experiences are among those in the university community commonly trained as gatekeepers, including students, faculty, and staff. Suicide prevention training could try to draw out these

experiences in order to tap into the existing knowledge base of participants. Such a process may be facilitated by techniques used by NAMI (2010) which draws on the personal experience of those who have experienced suicide or suicide attempts in their family to enhance the training. By understanding existing impressions, trainers could weave suicide prevention content into the students' prior experiences. Such work could focus on reinforcing those perceptions that are supported by best practices, while correcting for misperceptions.

A third implication lies in the finding that RAs seem to understand that they did not seek out support as could have been beneficial during the study period. It appears that not seeking support when they believe they should is more closely related to increased stress than how frequently they sought support. To cope with stress, RAs should seek support closer in time to their perceived need for assistance. Gatekeeper training that facilitates a better understanding of when RAs should seek out help for themselves and for their work with residents would likely improve mental health outcomes. Training might incorporate messages to prompt RAs to be more attuned to their need for support and encouragement to seek it out when they think they should. End of semester reviews or debriefs with RAs would provide an ideal time for RAs to reflect on their missed opportunities to get help and use such experiences as learning opportunities.

Belief that RAs as a group were more responsible for preventing the suicide of a distressed resident was related to lower stress and distress and highlights a fourth implication of this study. This suggests that incorporating a greater sense of responsibility among the collective team of RAs may be protective and help them connect to their work.

While instilling clear role responsibility within each RA for early intervention with residents remains important to achieve the goals of gatekeeper training, such responsibility does not appear related to the stress RAs experience. Having a greater understanding of how collective and individual responsibility impact RAs would help those delivering gatekeeper training incorporate messages to reinforce both aspects.

Further supporting the notion of collective responsibility is the finding that building a sense of community among RAs and residence hall personnel appears helpful for RAs. This study found that experienced RAs seem more able than first year RAs to learn over time how to handle their responsibilities with less adverse impact on their mental health. In addition, results suggest that over the course of the semester, RAs increasingly turn to other RAs and their Hall Coordinators for support. Helping first year RAs integrate in the residence life community would likely facilitate their growth. Providing experienced RAs as mentors and peer support for first year RAs may help to transfer knowledge and provide support. In addition, utilizing group process where first year and experienced RAs mix in periodic support sessions would serve as a forum to identify and address RA issues as they emerge. Experienced RAs may also form a “panel of experts” to share their experiences with new RAs as part of training experiences. In this study, the correlation between RA experience and distress was statistically significant, but small. Future studies should further explore the impact of RA experience on the stress and distress associated with engaging with residents.

A fifth implication of this study is the finding that greater perceived competency reported immediately after training was related to lower levels of stress. Interestingly, the

sense of perceived competency at the end of the semester was not as related to lower stress levels. This suggests the need for booster sessions to provide a forum for identifying issues and problem solving to support their sense of comfort and confidence in intervening with residents. While increased knowledge about suicide and positive appraisals of suicide prevention training were not sufficient to increase suicide identification behaviors among those trained in suicide prevention (Wyman et al., 2008), increased perceived competency may serve a different, but also important, protective function for RAs. Gatekeeper trainers could join in periodic meetings with Hall Coordinators and their RAs to facilitate such conversations and provide support.

A sixth implication lies in RA desensitization to the need to intervene with residents and to seek support for themselves. RAs appear to leave training with the intent to intervene early with their residents and to seek support for themselves, both important outcomes of the training. However, by the end of the semester their threshold for intervening with residents and seeking support for themselves had risen. Understanding the reasons for their increased reluctance to engage students and seek support would allow these issues to be addressed in training. In addition, supervisors should discuss the RA's experience with intervention and support-seeking regularly to understand these dynamics and encourage appropriate interventions. Understanding whether the threshold for engagement shifts based on RA discomfort with interventions, an adjustment of training-induced enthusiasm to a pre-training threshold, a realization that based on their responsibilities a certain level of distress in residents does not need to be addressed, or other reasons would help supervisors better support RAs and allow these issues to be

addressed in the training. While the reasons for these shifts are unclear, they support the desensitization concerns of Garland and Zigler (1993) and Gould (2001).

Additionally, results indicate that RAs have a higher threshold for seeking support for themselves than for helping others. These findings are important as they suggest a difficulty in supporting RAs who may experience stress. These findings should be articulated in training and shared with supervisors to promote support-seeking by RAs when needed. A further important implication for gatekeeper training lies in the finding that experienced RAs reported a lower threshold for talking with residents and seeking support for themselves than new RAs. With these findings in mind, experienced RAs may take a more active role in gatekeeper training and mentoring of new RAs in order to promote peer based instruction and a lower threshold of engagement.

Study limitations and future directions

Several limitations of this study are noted. The ability of RAs to self-report on their behaviors and impressions across the semester likely decreases over time. Distortions are apt to creep in as they reflect on their experiences and the accuracy of their reflection is questioned. A challenge with addressing this limitation lies in not wanting to overly shape their experience by continually probing them. This study sought to minimize this limitation by sending emails to RAs during the semester, reminding them to focus their attention on these interventions. In addition, with regards to their reporting on interventions, they were asked about fairly broad time periods that might

approximate their recall ability, such as whether experiences occurred monthly or weekly.

To measure distress, this study utilized an exploratory Manifest Distress Scale. The scale is theoretically grounded in the prior research of Drum and colleagues (2009) and the current research of Brownson et al. (2011). The measure has high utility in terms of discovering where participants fall across a range of experiences from distressing thoughts, intentions, plans, and action. However, the current results are not easily compared to other populations. In addition, comparing these results with RAs not trained in suicide prevention or trained under a different program would likely increase the generalizability of these findings and could help explain the results. Further, RAs likely self-select into their positions and are hired based on common characteristics, such as an inclination to help others. Comparing these results to a gatekeeper training program other than RAs may shed light on how different groups of gatekeepers may respond differently to training and their role responsibility.

Some of the power of the statistical analysis may have been lost by the inability to match the data of some participants across surveys. In an attempt to avoid asking participants for identifying information in order to maintain confidentiality, RAs provided a unique identifier code consisting of their birth date and letters from their mother's maiden name. Inspection of the identifiers revealed that several codes provided close, but not exact matches. For instance, in one case the participant appeared to provide their birth-month at pre-study but their birth-year at post-study. In other cases the birth-day and birth-month matched across time periods, but the maiden name identifier did not

match exactly. This suggests that RAs may have mistyped information in their identifier or understood the task differently at pre-and post-study.

Investigation of responses to the content knowledge questions indicated that some questions may have been ambiguously worded. In addition, while certain content was covered in the training, it was not necessarily the most important information needed to perform the role of gatekeeper. For instance, RAs generally performed poorly on questions asking about the prevalence of suicidal experiences and help-seeking on campus. This information serves an important function in suicide prevention training, namely to alert participants to the extent suicidal experiences are present, but not necessarily obvious, on campus. However, it is not critical for RAs to know these percentages to perform effectively as a gatekeeper. Rather, focusing more on the confidence or comfort RAs feel in performing the required tasks appears to be a more fruitful area of focus.

RAs entertain a special role as both students and employees of the university. They exist in the living environment of students and have opportunities to observe their residents over time. They may see problems arise such as thwarted belongingness or lack of social connection. Those with more limited exposure, such as professors, would likely have a different experience with respect to the training and in their role as gatekeeper. As such, these results may or may not generalize to others on campus.

Gatekeeper training programs have emerged as a way to address the significant concern that college student suicide poses on campus. Such programs can help bring distressed college students and campus mental health providers together sooner.

Acquiring help sooner would likely improve clinical outcomes and promote university missions of facilitating the academic and personal growth of its students.

Gatekeeper training programs tap into existing social networks and train those on campus who exist in proximity to students, such as RAs. Such training can help empower students, faculty, and staff who are more likely to notice that the student is experiencing distress, be in a position to address their concerns with the student, and refer them to professional help. However, gatekeepers are likely as vulnerable to the ill effects of stress as other college students. The stress-diathesis model informs that combining stress with existing vulnerability can lead to adverse outcomes. Such risks are concerning when the level of pre-existing vulnerability and the amount of stress imposed among those trained as gatekeepers are unknown.

This study examined the mental health impact on RAs based on their participation in a gatekeeper training program. It was encouraging to discover that RAs appear resilient to the stress of engaging in mental health interventions with residents. This study also provides important implications for the delivery of suicide prevention training. Fostering a sense of community may encourage RAs to seek support when they need it. In addition, the use of experienced RAs as mentors and peer coaches may facilitate the transfer of their skills and experience to those just starting out. Understanding the prior experience with suicide that RAs bring to training would help instructors integrate training content with the existing impressions held by participants. Trainers should supplement their periodic suicide prevention training with individualized booster sessions with Hall Coordinators and their RAs. As universities consider the needs of those we call upon to

watch over our community, they may improve their ability to provide supportive suicide prevention training.

Appendices

Appendix A: Study Approval by IRB



OFFICE OF RESEARCH SUPPORT

THE UNIVERSITY OF TEXAS AT AUSTIN

P.O. Box 7426, Austin, Texas 78713 (512) 471-8871 -FAX (512) 471-8873
North Office Building A, Suite 5.200 (Mail code A3200)

FWA # 00002030

Date: **07/22/11**

PI(s): **Martin Alan Swanbrow Beck** Department & Mail Code: **Educational Psychology**

Title: **The Impact of Suicide Prevention Gatekeeper Training on Resident Assistants**

IRB EXPEDITED APPROVAL: IRB Protocol # **2011-06-0061**

Dear: **Martin Alan Swanbrow Beck**

In accordance with the Federal Regulations the Institutional Review Board (IRB) reviewed the above referenced research study and found it met the requirements for approval under the Expedited category noted below for the following period of time: **07/22/2011 - 07/21/2012**. Expires 12 a.m. [midnight] of this date.

Expedited category of approval:

- (1) Clinical studies of drugs and medical devices only when condition (a) or (b) is met. (a) Research on drugs for which an investigational new drug application (21 CFR Part 312) is not required. (Note: Research on marketed drugs that significantly increases the risks or decreases the acceptability of the risks associated with the use of the product is not eligible for expedited review). (b) Research on medical devices for which (i) an investigational device exemption application (21 CFR Part 812) is not required; or (ii) the medical device is cleared/approved for marketing and the medical device is being used in accordance with its cleared/approved labeling.
- (2) Collection of blood samples by finger stick, heel stick, ear stick, or venipuncture as follows: (a) from healthy, non-pregnant adults who weigh at least 110 pounds. For these subjects, the amounts drawn may not exceed 550 ml in an 8 week period and collection may not occur more frequently than 2 times per week; or (b) from other adults and children, considering the age, weight, and health of the subjects, the collection procedure, the amount of blood to be collected, and the frequency with which it will be collected. For these subjects, the amount drawn may not exceed the lesser of 50 ml or 3 ml per kg in an 8 week period and collection may not occur more frequently than 2 times per week.
- (3) Prospective collection of biological specimens for research purposes by Non-invasive means.
Examples:
 - (a) hair and nail clippings in a non-disfiguring manner;
 - (b) deciduous teeth at time of exfoliation or if routine patient care indicates a need for extraction;
 - (c) permanent teeth if routine patient care indicates a need for extraction;
 - (d) excreta and external secretions (including sweat);

- (e) uncannulated saliva collected either in an un-stimulated fashion or stimulated by chewing gumbase or wax or by applying a dilute citric solution to the tongue;
 - (f) placenta removed at delivery;
 - (g) amniotic fluid obtained at the time of rupture of the membrane prior to or during labor;
 - (h) supra- and subgingival dental plaque and calculus, provided the collection procedure is not more invasive than routine prophylactic scaling of the teeth and the Process is accomplished in accordance with accepted prophylactic techniques;
 - (i) mucosal and skin cells collected by buccal scraping or swab, skin swab, or mouth washings;
 - (j) sputum collected after saline mist nebulization.
- (4) Collection of data through noninvasive procedures (not involving general anesthesia or sedation) routinely employed in clinical practice, excluding procedures involving x-rays or microwaves. Where medical devices are employed, they must be cleared/approved for marketing. (Studies intended to evaluate the safety and effectiveness of the medical device are not generally eligible for expedited review, including studies of cleared medical devices for new indications).
Examples:
- (a) physical sensors that are applied either to the surface of the body or at a distance and do not involve input of significant amounts of energy into the subject or an invasion of the subject's privacy;
 - (b) weighing or testing sensory acuity;
 - (c) magnetic resonance imaging;
 - (d) electrocardiography, electroencephalography, thermography, detection of naturally occurring radioactivity, electroretinography, ultrasound, diagnostic infrared imaging, doppler blood flow, and echocardiography;
 - (e) moderate exercise, muscular strength testing, body composition assessment, and flexibility testing where appropriate given the age, weight, and health of the individual.
- (5) Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for non-research purposes (such as medical treatment or diagnosis). (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(4). This listing refers only to research that is not exempt).
- (6) Collection of data from voice, video, digital, or image recordings made for research purposes.
- (7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies. (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(2) and (b)(3). This listing refers only to research that is not exempt).
- Use the attached approved informed consent.
- You have been granted a Waiver of Documentation of Consent according to 45 CFR 46.117 and/or 21 CFR 56.109(c)(1).
- You have been granted a Waiver of Informed Consent according to 45 CFR 46.116(d).

Responsibilities of the Principal Investigator:

1. Report immediately to the IRB any unanticipated problems.

2. Ensure the proposed changes in the approved research during the IRB approval period will not be applied without IRB review and approval, except when necessary to eliminate apparent immediate hazards to the subject. Changes in approved research implemented without IRB review and approval initiated to eliminate apparent immediate hazards to the subject must be promptly reported to the IRB, and will be reviewed under the unanticipated problems policy to determine whether the change was consistent with ensuring the subjects continued welfare.
3. Report any significant findings that become known in the course of the research that might affect the willingness of subjects to continue to participate.
4. Ensure that only persons formally approved by the IRB enroll subjects.
5. Use only a currently approved consent form (remember that approval periods are for 12 months or less).
6. Protect the confidentiality of all persons and personally identifiable data, and train your staff and collaborators on policies and procedures for ensuring the privacy and confidentiality of subjects and their information.
7. Submit for review and approval by the IRB all modifications to the protocol or consent form(s) prior to the implementation of the change.
8. Submit a Continuing Review Application for continuing review by the IRB. Federal regulations require IRB review of on-going projects no less than once a year (a Continuing Review Application and a reminder letter will be sent to you two months before your expiration date). If a reminder is not received from Office of Research Support (ORS) about your upcoming continuing review, it is still the primary responsibility of the Principal Investigator not to conduct research activities on or after the expiration date. The Continuing Review Application must be submitted, reviewed and approved, before the expiration date.
9. Upon completion of the research study, a Closure Report must be submitted to the ORS.
10. Include the IRB study number on all future correspondence relating to this protocol.

If you have any questions call or contact the ORS (Mail Code A3200) or via e-mail at orsc@uts.cc.utexas.edu.

Sincerely,



Jody L. Jensen, Ph.D.
Professor
Chair, Institutional Review Board

Appendix B: Amendment to Study Approval by IRB



OFFICE OF RESEARCH SUPPORT
THE UNIVERSITY OF TEXAS AT AUSTIN

P.O. Box 7426, Austin, Texas 78713 (512) 471-8871 -FAX (512) 471-8873
North Office Building A, Suite 5.200 (Mail code A3200)

FWA # 00002030

Date: **08/09/11**

PI(s): **Martin A Swanbrow Becker** Department & Mail Code: **Educational Psychology**

Title: **The Impact of Suicide Prevention Gatekeeper Training on Resident Assistants**

IRB AMENDMENT APPROVAL: IRB Protocol # **2011-06-0061**

Dear: **Martin A Swanbrow Becker**

In accordance with the Federal Regulations for review of research studies, the Institutional Review Board (IRB) reviewed your amendment to the above referenced protocol and found that it met the requirements for approval.

Approval for your study expires on **07/21/2012** . Expires 12 a.m. [midnight] of this date.

The following requested changes were approved:

Amendment: Modifications to pre/post training and post-summer survey (sentence structure and clarification)

- Continue to use the original approved consent form(s).
- Use the attached approved informed consent.
- You have been granted a Waiver of Documentation of Consent according to 45 CFR 46.117 and/or 21 CFR 56.109(c)(1).
- You have been granted a Waiver of Informed Consent according to 45 CFR 46.116(d).

Responsibilities of the Principal Investigator:

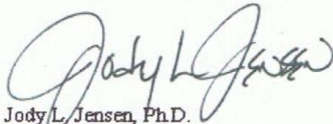
1. Report immediately to the IRB any unanticipated problems.
2. Ensure the proposed changes in the approved research during the IRB approval period will not be applied without IRB review and approval, except when necessary to eliminate apparent immediate hazards to the subject. Changes in approved research implemented without IRB review and approval initiated to eliminate apparent immediate hazards to the subject must be promptly reported to the IRB,

and will be reviewed under the unanticipated problems policy to determine whether the change was consistent with ensuring the subjects continued welfare.

3. Report any significant findings that become known in the course of the research that might affect the willingness of subjects to continue to participate.
4. Ensure that only persons formally approved by the IRB enroll subjects.
5. Use only a currently approved consent form (remember that approval periods are for 12 months or less).
6. Protect the confidentiality of all persons and personally identifiable data, and train your staff and collaborators on policies and procedures for ensuring the privacy and confidentiality of subjects and their information.
7. Submit for review and approval by the IRB all modifications to the protocol or consent form(s) prior to the implementation of the change.
8. Submit a Continuing Review Application for continuing review by the IRB. Federal regulations require IRB review of on-going projects no less than once a year (a Continuing Review Application and a reminder letter will be sent to you two months before your expiration date). If a reminder is not received from Office of Research Support (ORS) about your upcoming continuing review, it is still the primary responsibility of the Principal Investigator not to conduct research activities on or after the expiration date. The Continuing Review Application must be submitted, reviewed and approved, before the expiration date.
9. Upon completion of the research study, a Closure Report must be submitted to the ORS.
10. Include the IRB study number on all future correspondence relating to this protocol.

If you have any questions call or contact the ORS (Mail Code A3200) or via e-mail at orsc@uts.cc.utexas.edu.

Sincerely,



Jody L. Jensen, Ph.D.
Professor
Chair, Institutional Review Board

Protocol# 2011-06-0061

Approval Dates: 07/22/2011 - 07/21/2012

Appendix C: Informed Consent Approval by IRB

IRB APPROVED ON: 07/22/2011
IRB Protocol #2011-06-0061

DO NOT USE AFTER: 07/21/2012

Consent to Participate in Research

The Division of Housing and Food Service and the Counseling and Mental Health Center are deeply committed to your training and development as a Resident Assistant at UT. The **purpose of this research study** is to better understand your experiences as a Resident Assistant and the impact suicide prevention training has on you. In particular, we are examining how suicide prevention training and the responsibility of assisting students in distress impacts you in terms of your own levels of stress and suicidality. We will use the information gathered from this survey to refine our program and enhance the support we provide to you. By providing honest and thoughtful responses you will help your supervisors and trainers better understand your experience and needs, thus helping to improve the RA experience for you and future RAs. The study will be used as both a program evaluation for the suicide prevention program and for a dissertation study by Marty Swanbrow Becker. The surveys will not be used as an evaluation of your performance as an RA and will not affect your employment with the university. You must be at least 18 years old to participate.

This survey will be administered in four parts. There will be a pre-training survey, post-training survey, post-fall semester survey and post-spring semester survey. Completion time of the questionnaires is estimated at about 15 minutes, 8 minutes, 15 minutes and 15 minutes, respectively.

We respect your **confidentiality** and will take several steps to ensure that your responses will not be tied to you individually. In order to link your responses together over the four administrations of the survey we will ask for you to provide the first three letters of your mother's maiden name, your two-digit birth month and two-digit birth day. A fifth year doctoral student from Counseling Psychology will analyze the responses. All of the RA responses will be summarized together so that the reporting of your responses will be anonymous. Your individual responses will not at any time be identifiable as coming from you by the Division of Housing and Food Service. Data resulting from your participation may be made available to other researchers in the future for research purposes, but the data will contain no identifying information that could associate you with it or with your participation in the study.

Risks to participants are considered minimal. However, the survey may ask you to recall events that you are uncomfortable thinking about. For example, the survey includes questions about difficult topics such as suicidal thoughts and attempts. If you become upset while answering the survey questions, you may wish to take a break from the survey, or you may exit the survey. You may also call the Counseling and Mental Health Center at 512-471-3515 to discuss any distressing or uncomfortable feelings or visit <http://cmhc.utexas.edu/> for more information about the Counseling and Mental Health Center.

IRB APPROVED ON: 07/22/2011
IRB Protocol #2011-06-0061

DO NOT USE AFTER: 07/21/2012

There are no direct **benefits** for the participants in the study and you will not be compensated for participating in this study. The results of this study would help identify how RAs are affected by suicide prevention training and through their functioning as campus gatekeepers. Results would help suicide prevention trainers understand how to alter training to promote the mental health of RAs and residents. Such information would also inform the type of support that would be most useful to RAs.

Your participation in this study is voluntary. You may decline to answer any question and you have the right to withdraw from participation at any time. Withdrawal will not affect your relationship with The University of Texas in anyway. If you do not want to participate either simply stop participating or close the browser window.

If you have any questions or concerns regarding this survey please contact the researcher, Marty Swanbrow Becker, at mbecker@utexas.edu.

This study has been reviewed and approved by The University of Texas at Austin Institutional Review Board. The study number is 2011-06-0061. If you have questions about your rights or are dissatisfied at any time with any part of this study, you can contact, anonymously if you wish, the Institutional Review Board by phone at (512) 471-8871 or email at orsc@uts.cc.utexas.edu.

If you agree to participate, click on the following link [HTTP://LINK TO STUDY URL]

Thank you.

Please print a copy of this document for your records.

Appendix D: Treatment Fidelity Check for Be That One. Training

Training Session: _____

1. The trainer provided the following materials during their training session.
2. Introduced the prevalence of suicidal distress on campus based on research
3. Provided information regarding warning signs of suicide and how to identify those signs in residents
4. Tips on how to ask residents about their suicidal thoughts
5. Professional helping resources, including the CMHC, telephone counseling, BCAL, 911, SafePlace, National Suicide Prevention Hotline
6. Referral procedures to get residents into professional help
7. Encouragement for RAs to seek help to manage their own distress and facilitate helping residents
8. Ways to reduce stigma commonly associated with professional help
9. Experiential exercises (e.g., role plays) to facilitate the learning of how to have conversations about suicide with residents
10. IRIS reporting

Appendix E: Pre-Study Announcement Script

Note: this text was read to RAs prior to training in order to introduce the study.

Hello, my name is Marty Swanbrow Becker. I am a graduate student in the Counseling Psychology program and also work in the Counseling and Mental Health Center. I am working with the Division of Housing and Food Service to conduct a study of how this suicide prevention training impacts you. We want to see whether it helps you help your residents better and also what impact it might have on your own mental health. Our hope is that by gaining your participation in this study we can improve the RA experience for you and future RAs as well as improve your service to your residents. This is an area that is not really being studied but our findings could help make a positive contribution to the field of residential life and help us provide you with the support you need. You all should have a copy of the Consent to Participate in Research hand out. Please read it over so that you can understand what I am asking of you. I will highlight some of the main points.

This study will be administered in four parts where I will ask you to complete an online survey at four points in time. We have allocated time in this training session for you to complete the first survey before we have the training today and the second immediately after the training. Links to the third and fourth surveys will be emailed to you at the end of the fall and spring semesters. I expect the first survey will take about 15 minutes to complete, the second about 8 minutes and the third and fourth about 15 minutes each.

A couple more points to note before we start. You must be at least 18 years old to participate. We respect your confidentiality and will take several steps to ensure that your responses will not be tied to you individually. In order to link your responses together over the four administrations of the survey in a way that keeps your responses anonymous we will ask for you to provide the first three letters of your mother's maiden name, your two-digit birth month and two-digit birth day. In order to ensure that your responses are confidential, I will analyze the responses and summarize them so that the reporting will show the whole group together. Your individual responses will not at any time be identifiable by the Division of Housing and Food Service as coming from you and they will not have access to your individual responses. Data resulting from your participation may be made available to other researchers in the future for research purposes, but the data will contain no identifying information that could associate you with it or with your participation in the study.

Risks to you are considered minimal, but the survey may ask you to recall events that are uncomfortable to think about, such as topics around suicide. If you become upset while answering the survey questions, you may take a break from the survey, or you may exit the survey. If you feel you need support, I encourage you to contact the Counseling and Mental Health Center or speak with your Hall Coordinator.

Participation is voluntary and you may skip any questions you don't want to answer. If you do not wish to participate you can take a 15 minute break, either sitting quietly in your seat or outside the room. The training will begin immediately after the administration of the survey.

In a moment I will ask you to use your iPads to go to a website and complete an online survey. If anyone has difficulty getting to the web site or prefers to complete the survey on a printed form, I have paper copies available for you. Please use care in entering the information in the first question regarding your mother's maiden name and your birthdate as we will use this information to tie your responses between surveys, so it is important that you enter the same information each time.

Do you have any questions?

Note: The PI will answer any questions and then post a link on an overhead screen with the web address for the survey.

Appendix F: Post-Training Announcement Script

Note: this text was spoken to RAs at end of suicide prevention training session

Hello again. I hope you found the training helpful. At this time I would like you to complete the second survey. I expect it will take you less than 10 minutes to complete. If you do not wish to participate you may take a 10 minute break, either sitting quietly in your seat or outside the room. Don't go too far though as Housing has other training activities for you planned after this. Please use care in entering the information in the first questions regarding your mother's maiden name and your birthdate as we will use this information to tie your responses between surveys, so it is important that you enter the same information each time.

You will all receive an email from me at the end of this semester and at the end of the spring semester for the third and fourth surveys. Those surveys will be very similar to the first one you took but will also ask about the interventions you had with your residents. You'll be asked questions about how often you helped them with issues like depression, anxiety and stress, relationship violence, disordered eating, alcohol and drugs, and suicidal experiences, and then how stressful the experience was for you and them, how prepared you felt you were, what sort of help you received, and how long you tended to be engaged with your residents in working through these problems. It may help for you to make some notes throughout the semester regarding your experiences so that the reporting will be easier once the end of the semester comes. You will likely see a couple of emails from me throughout the semester reminding you to be thinking about these topics. In order to keep your participation anonymous I will not know which of you participated or not. Consequently, I'll send the reminder emails to all RAs, so that we cannot identify those participating. If you do not want to participate, please ignore the emails and do not respond.

Thank you all again for your participation.

Do you have any questions?

Appendix G: Mid-Semester Experience Tracking Email Reminder

This email text was sent to RAs twice during fall semester.

Email Title: Suicide Prevention Survey Reminder

Hello RAs,

This email is intended for those RAs who completed questionnaires during the August, 2011 suicide prevention training. If you do not want to participate, please ignore this email and do not respond.

I am writing to remind you that at the end of the semester you will receive a link to a follow up survey that will ask you about the interventions you are having with your residents. Your participation in this survey will help us improve our training efforts and get a sense as to how your role as an RA affects your mental health. You'll be asked questions about how often you helped them with issues like depression, anxiety and stress, relationship violence, disordered eating, alcohol and drugs, and suicidal experiences. You will be asked about how stressful the experiences were for you and them, how prepared you felt you were, what sort of help you received, and how long you tended to be engaged with your residents in working through these problems. It may help for you to make some notes throughout the semester on your experiences so that the reporting will be easier once the end of the semester comes.

Thank you very much for your continued participation in our study.

Marty Swanbrow Becker
Doctoral Candidate, Counseling Psychology
The University of Texas at Austin
mbecker@utexas.edu

Appendix H: Post-Study Survey Email

This email was sent at the end of the fall semester to provide RAs with instructions and a link to the survey.

Email Title: Suicide Prevention Follow Up Survey

Hello RAs,

You may recall that during the suicide prevention training last August, you may have agreed to participate in a study about your experiences working as an RA. If you do not want to participate, please ignore this email and do not respond.

For those of you who completed the initial surveys, we would appreciate your taking a few minutes to complete this follow up questionnaire regarding your experiences working with students over the past semester. This study is sponsored by the Division of Housing and Food Service and the Counseling and Mental Health Center for us improve our training so that we can better help you help your residents and also understand what impact it might have on your own mental health. Our hope is that by gaining your continued participation in this study we can improve the RA experience for you and future RAs as well as improve our service to your residents. The survey may take approximately 15 minutes to complete. It may help you remember your interventions by looking through any notes you have taken over the semester regarding your interventions with students as well as reviewing your IRIS reports.

Please click on the link below to take you to survey. If you have any questions please feel free to contact me.

<http://studentvoice.com/austin/ratrainingpostsemfall2011>

Thank you very much for your continued participation.

Marty Swanbrow Becker
Doctoral Candidate, Counseling Psychology
The University of Texas at Austin
mbecker@utexas.edu

Appendix I: Pre-Study Survey

The Division of Housing and Food Service and the Counseling and Mental Health Center Resident Assistant Suicide Prevention Pre-Training Survey

In order to keep your responses anonymous and also connect them across administrations of this survey please enter the first three letters of your mother's maiden name, your two-digit birth month and two-digit birth day. Please carefully type in the first three letters of your mother's maiden name and month and day of your birth in the format: nnnmdd (e.g., swa0618)	Validation screen for nnnmdd
How many years have you already served as an RA?	0 (this is my 1st year), 1 (this is my 2 nd year), 2 (this is my 3 rd year) , 3 (this is my 4 th year), 4 years or more
What is your age?	(enter number)
What is your grade classification?	Freshman, Sophomore, Junior, Senior, Graduate Student
What residence hall will you work in?	Andrews, Blanton, Brackenridge, Carothers, Creekside, Duren, Jester-East, Jester-West, Kinsolving-North, Kinsolving-South, Littlefield, Moore-Hill, Prather, Roberts, San Jacinto-North, San Jacinto-South, Whitis Court
With the understanding that these categories might be limiting, how do you typically describe yourself? (Select all that apply)	<1> African American, of African descent, African, of Caribbean descent, or Black <2> Asian or Asian American (e.g., Chinese, Japanese, Korean) <3> Caucasian, White, of European descent, or European (including Spanish) <4> Hispanic, Latino or Latina (e.g., Cuban American, Mexican American, Puerto Rican) <5> Middle Eastern or East Indian (e.g., Pakistani, Iranian, Egyptian) <6> Native American (e.g., Dakota, Cherokee) or Alaskan Native <7> Native Hawaiian or other Pacific Islander (e.g., Samoan, Papuan, Tahitian) <8> Other, please specify: _____
How do you identify?	Female, Male, Transgender
How would you describe your sexual orientation?	Bisexual, Gay, Heterosexual, Lesbian, Queer, Questioning, Other, please specify _____
How many people have told you about their suicidal thoughts, but have not attempted suicide?	(enter number)
Were any of these people close friends or relatives?	Yes No N/A
How many people do you know who have attempted suicide?	(enter number)
Were any of these people close friends or relatives?	Yes No N/A

How many people do you know who have died by suicide?	(enter number)
Were any of these people close friends or relatives?	Yes No N/A
Have you ever been trained in suicide prevention before?	Yes No
Have you been trained in the UT Be That One. Suicide Prevention Training before?	Yes No
<u>Please select the best answer:</u>	
Suicide is the _____ leading cause of death for college students.	a. First b. Second c. Third d. Fourth
What percentage of college students have thought about suicide in their lifetime.	a. Less than 25% b. 25% to 50% c. 51% to 75% d. More than 75%
What percentage of students who seriously considered suicide in the past 12 months told someone about their suicidal thoughts?	a. Less than 25% b. 25% to 50% c. 51% to 75% d. More than 75%
Who do most students first tell about their suicidal thoughts?	a. Their RA b. Their family c. Their friends d. Their counselor
Under which condition(s) may a UT professor access student records at the Counseling and Mental Health Center?	a. Out of concern for their student's safety b. Out of academic necessity c. Both a and b d. Neither a nor b
You have learned that your resident has a weapon in their room and you are concerned they may have suicidal thoughts. Who do you call first?	a. The Counseling and Mental Health Center b. Behavior Concerns Advice Line c. 911 d. Your Hall Coordinator
The WRONG way to ask a friend/student if they're thinking about suicide is:	a. "You're not thinking about suicide, are you?" b. "Are you thinking about taking your own life?" c. "Have you been having thoughts of suicide lately?" d. All of the above are incorrect
<u>Please indicate whether the following are true or false:</u>	
There are some specific warning signs that are present in all suicidal residents.	True False
If your resident needs to talk to someone in the middle of the night, s/he could call a telephone counselor, call the Behavior Concerns Advice Line, or visit the Counseling and Mental Health Center.	True False
If your resident feels uncomfortable talking to a counselor, it can be appropriate to sit with him/her while they call a telephone counselor.	True False

<u>Please indicate the extent you disagree or agree with the following:</u>	1	2	3	4	5
	(strongly (disagree)		(neutral)		(strongly (agree)
I feel confident that I can notice when my resident may be thinking about suicide.	1	2	3	4	5
I feel comfortable initiating a conversation with my resident about their thoughts of suicide.	1	2	3	4	5
I feel confident that I will know when to ask my resident about suicide and when to not ask.	1	2	3	4	5
I feel comfortable saying “suicide” or “killing yourself” when asking my resident about their suicidal thoughts.	1	2	3	4	5
<u>Please indicate the extent you disagree or agree with the following:</u>	1	2	3	4	5
	(strongly (disagree)		(neutral)		(strongly (agree)
I know why it’s best to use the word/phrase “suicide” or “killing yourself” when addressing suicide with my resident.	1	2	3	4	5
I feel confident I can explain to my residents the limits of confidentiality of the Counseling and Mental Health Center, Behavior Concerns Advice Line, and Telephone Counseling.	1	2	3	4	5
I feel comfortable responding if my resident is concerned about the stigma of attending counseling (e.g., worried about what friends or family might say or they feel uncomfortable with the thought of attending counseling).	1	2	3	4	5
I would be effective helping a resident who is thinking about suicide figure out how to get professional help.	1	2	3	4	5
After having talked with my resident about suicide, I would feel comfortable following up with my resident to determine if s/he has sought professional help.	1	2	3	4	5
I would feel comfortable calling the Behavior Concerns Advice Line if my resident does not agree to seek help after expressing thoughts of suicide.	1	2	3	4	5
I feel confident that I know the appropriate campus resources in case I need to refer residents with suicidal thoughts to help.	1	2	3	4	5
If I had a conversation with a suicidal resident, I feel confident I would know whether to code it “welfare concerns”, “suicide attempt/suicide”, serious medical / injury”, or “minor medical / injury” in IRIS.	1	2	3	4	5
This training will prepare me to help suicidal residents.	1	2	3	4	5

<p>Please select at what point you would seek help for your suicidal thoughts.</p>	<p>I would seek help for my suicidal thoughts when they _____</p> <p>1. are mild or occasional 2 3. occur with moderate severity or moderately often 4 5. are severe or frequent</p>
<p>How responsible is each of the following for preventing the suicide of a distressed resident assuming each knows the resident is at risk for suicide? Please allocate the percentage of responsibility for each. The percentages added together should total to 100%.</p>	<p>The distressed resident _____%</p> <p>The resident's friends and family _____%</p> <p>The resident's RA _____%</p> <p>All other staff at UT (e.g., counselors, professors, TAs) _____%</p> <p>Other, please specify _____ %</p>
<p>How responsible is each of the following for reducing the degree to which suicidal distress is present on campus in general? Please allocate the percentage of responsibility for each. The percentages added together should total to 100%.</p>	<p>The distressed resident _____%</p> <p>The resident's friends and family _____%</p> <p>The resident's RA _____%</p> <p>All other staff at UT (e.g., counselors, professors, TAs) _____%</p> <p>Other, please specify _____ %</p>
<p>How stressed do you feel right now?</p>	<p>1=not stressed, 2 3=moderately stressed, 4 5=very stressed</p>
<p><u>The questions in this scale ask you about your feelings and thoughts during the last month. In each case, please indicate how often you felt or thought a certain way.</u></p>	
<p>In the last month, how often have you been upset because of something that happened unexpectedly?</p>	<p>0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often</p>
<p>In the last month, how often have you felt that you were unable to control the important things in your life?</p>	<p>0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often</p>
<p>In the last month, how often have you felt nervous and "stressed"?</p>	<p>0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often</p>
<p>In the last month, how often have you felt confident about your ability to handle your personal problems?</p>	<p>0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often</p>

In the last month, how often have you felt that things were going your way?	0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often
In the last month, how often have you found that you could not cope with all the things that you had to do?	0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often
In the last month, how often have you been able to control irritations in your life?	0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often
In the last month, how often have you felt that you were on top of things?	0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often
In the last month, how often have you been angered because of things that were outside your control?	0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often
In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often
Please indicate the most severe or intense experience you had in the past 12 months.	
I did not have any of the following experiences I thought "This is all just too much" I thought "I wish this would all end" I thought "I have to escape" I thought "I wish I was dead" I thought "I want to hurt myself" I thought "I want to kill myself" I have seriously considered attempting suicide I have developed a plan for a suicide attempt I have attempted suicide	Select most intense experience
Have you ever seriously considered attempting suicide at some point in your life?	Yes No
Have you ever attempted suicide?	Yes No
What percent of the time would you turn to the following if you needed help with a mental health issue related to one of your residents? The percentages added together should total to 100%. (Please note: If you would not turn to anyone, enter "0" in the following fields)	Hall Coordinator _____% Another RA _____% Friend _____% Family _____% On-campus mental health professional (e.g., Counseling Center, BCAL, Student Emergency Services) _____% Other - please specify _____% I wouldn't turn to anyone _____%

<p>What percent of the time would you turn to the following if you were experiencing a lot of stress from your position as an RA? The percentages added together should total to 100%. (Please note: If you would not turn to anyone, enter "0" in the following fields)</p>	<p>Hall Coordinator _____%</p> <p>Another RA _____%</p> <p>Friend _____%</p> <p>Family _____%</p> <p>On-campus mental health professional (e.g., Counseling Center, BCAL, Student Emergency Services) _____%</p> <p>Other - please specify _____%</p> <p>I wouldn't turn to anyone _____%</p>
<p>What percent of the time would you turn to the following if you were experiencing a lot of stress from problems not directly related to your position as an RA? The percentages added together should total to 100%. (Please note: If you would not turn to anyone, enter "0" in the following fields)</p>	<p>Hall Coordinator _____%</p> <p>Another RA _____%</p> <p>Friend _____%</p> <p>Family _____%</p> <p>On-campus mental health professional (e.g., Counseling Center, BCAL, Student Emergency Services) _____%</p> <p>Other - please specify _____%</p> <p>I wouldn't turn to anyone _____%</p>

The Counseling and Mental Health Center is located on the 5th floor of the Student Services Building. Call 512-471-3515 to schedule an initial consultation appointment. While not a complete list, some of the more common reasons students seek our services include adjustment issues, relationship concerns, problems with anxiety, depression or trauma, and even more severe mental health issues. We are also available for consultation on how to best help a friend or acquaintance who might be having a problem. You can also call our confidential Telephone Counseling line 24/7/365 at 512-471-CALL (2255). For more information about our services, visit our website at <http://cmhc.utexas.edu/>

Appendix J: Post-Training Survey

The Division of Housing and Food Service and the Counseling and Mental Health Center Resident Assistant Suicide Prevention Post-Training Survey

In order to keep your responses anonymous and also connect them across administrations of this survey please enter the first three letters of your mother's maiden name, your two-digit birth month and two-digit birth day. Please carefully type in the first three letters of your mother's maiden name and month and day of your birth in the format: nnnmdd (e.g., swa0618)	Validation screen for nnnmdd
<u>Please select the best answer:</u>	
Suicide is the _____ leading cause of death for college students.	e. First f. Second g. Third h. Fourth
What percentage of college students have thought about suicide in their lifetime.	e. Less than 25% f. 25% to 50% g. 51% to 75% h. More than 75%
What percentage of students who seriously considered suicide in the past 12 months told someone about their suicidal thoughts?	e. Less than 25% f. 25% to 50% g. 51% to 75% h. More than 75%
Who do most students first tell about their suicidal thoughts?	e. Their RA f. Their family g. Their friends h. Their counselor
Under which condition(s) may a UT professor access student records at the Counseling and Mental Health Center?	e. Out of concern for their student's safety f. Out of academic necessity g. Both a and b h. Neither a nor b
You have learned that your resident has a weapon in their room and you are concerned they may have suicidal thoughts. Who do you call first?	e. The Counseling and Mental Health Center f. Behavior Concerns Advice Line g. 911 h. Your Hall Coordinator
The WRONG way to ask a friend/student if they're thinking about suicide is:	e. "You're not thinking about suicide, are you?" f. "Are you thinking about taking your own life?" g. "Have you been having thoughts of suicide lately?" h. All of the above are incorrect
<u>Please indicate whether the following are true or false:</u>	
There are some specific warning signs that are present in all suicidal residents.	True False
If your resident needs to talk to someone in the middle of the night, s/he could call a telephone counselor, call the Behavior Concerns Advice Line, or visit the Counseling and Mental Health Center.	True False
If your resident feels uncomfortable talking to a counselor, it can be appropriate to sit with him/her while they call a telephone counselor.	True False

<u>Please indicate the extent you disagree or agree with the following:</u>	1 (strongly (disagree)	2	3 (neutral)	4	5 (strongly (agree)
I feel confident that I can notice when my resident may be thinking about suicide.	1	2	3	4	5
I feel comfortable initiating a conversation with my resident about their thoughts of suicide.	1	2	3	4	5
I feel confident that I will know when to ask my resident about suicide and when to not ask.	1	2	3	4	5
I feel comfortable saying “suicide” or “killing yourself” when asking my resident about their suicidal thoughts.	1	2	3	4	5
I know why it’s best to use the word/phrase “suicide” or “killing yourself” when addressing suicide with my resident.	1	2	3	4	5
I feel confident I can explain to my residents the limits of confidentiality of the Counseling and Mental Health Center, Behavior Concerns Advice Line, and Telephone Counseling.	1	2	3	4	5
I feel comfortable responding if my resident is concerned about the stigma of attending counseling (e.g., worried about what friends or family might say or they feel uncomfortable with the thought of attending counseling).	1	2	3	4	5
I would be effective helping a resident who is thinking about suicide figure out how to get professional help.	1	2	3	4	5
After having talked with my resident about suicide, I would feel comfortable following up with my resident to determine if s/he has sought professional help.	1	2	3	4	5
I would feel comfortable calling the Behavior Concerns Advice Line if my resident does not agree to seek help after expressing thoughts of suicide.	1	2	3	4	5
I feel confident that I know the appropriate campus resources in case I need to refer residents with suicidal thoughts to help.	1	2	3	4	5
If I had a conversation with a suicidal resident, I feel confident I would know whether to code it “welfare concerns”, “suicide attempt/suicide”, serious medical / injury”, or “minor medical / injury” in IRIS.	1	2	3	4	5
This training prepared me to help suicidal residents.	1	2	3	4	5

<p>Please select at what point you would seek help for your suicidal thoughts.</p>	<p>I would seek help for my suicidal thoughts when they _____</p> <p>1. are mild or occasional 2 3. occur with moderate severity or moderately often 4 5. are severe or frequent</p>
<p>How responsible is each of the following for preventing the suicide of a distressed resident assuming each knows the resident is at risk for suicide? Please allocate the percentage of responsibility for each. The percentages added together should total to 100%.</p>	<p>The distressed resident _____%</p> <p>The resident's friends and family _____%</p> <p>The resident's RA _____%</p> <p>All other staff at UT (e.g., counselors, professors, TAs) _____%</p> <p>Other, please specify _____ %</p>
<p>How responsible is each of the following for reducing the degree to which suicidal distress is present on campus in general? Please allocate the percentage of responsibility for each. The percentages added together should total to 100%.</p>	<p>The distressed resident _____%</p> <p>The resident's friends and family _____%</p> <p>The resident's RA _____%</p> <p>All other staff at UT (e.g., counselors, professors, TAs) _____%</p> <p>Other, please specify _____ %</p>
<p>How stressed do you feel right now?</p>	<p>1=not stressed, 2 3=moderately stressed, 4 5=very stressed</p>
<p>What percent of the time would you turn to the following if you needed help with a mental health issue related to one of your residents? The percentages added together should total to 100%. (Please note: If you would not turn to anyone, enter "0" in the following fields)</p>	<p>Hall Coordinator _____%</p> <p>Another RA _____%</p> <p>Friend _____%</p> <p>Family _____%</p> <p>On-campus mental health professional (e.g., Counseling Center, BCAL, Student Emergency Services) _____%</p> <p>Other - please specify _____ %</p> <p>I wouldn't turn to anyone _____%</p>
<p>What percent of the time would you turn to the following if you were experiencing a lot of stress from your position as an RA? The percentages added together should total to 100%. (Please note: If you would not turn to anyone, enter "0" in the following fields)</p>	<p>Hall Coordinator _____%</p> <p>Another RA _____%</p> <p>Friend _____%</p> <p>Family _____%</p> <p>On-campus mental health professional (e.g., Counseling Center, BCAL, Student Emergency Services) _____%</p> <p>Other - please specify _____ %</p> <p>I wouldn't turn to anyone _____%</p>
<p>What percent of the time would you turn to the following if you were experiencing a lot of stress from problems not directly related to your position as an RA? The percentages added together should total to 100%. (Please note: If you would not turn to anyone, enter "0" in the following fields)</p>	<p>Hall Coordinator _____%</p> <p>Another RA _____%</p> <p>Friend _____%</p> <p>Family _____%</p> <p>On-campus mental health professional (e.g., Counseling Center, BCAL, Student Emergency Services) _____%</p> <p>Other - please specify _____ %</p> <p>I wouldn't turn to anyone _____%</p>

What aspect(s) of the workshop did you find most useful?	
What aspect(s) of the workshop did you find least useful?	
One way I would improve this workshop is:	
Next time, to make me more engaged in this workshop, you could:	

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Appendix K: Post-Study Survey

The Division of Housing and Food Service and the Counseling and Mental Health Center Resident Assistant Suicide Prevention Post-Semester Survey

In order to keep your responses anonymous and also connect them across administrations of this survey please enter the first three letters of your mother's maiden name, your two-digit birth month and two-digit birth day. Please carefully type in the first three letters of your mother's maiden name and month and day of your birth in the format: nnnmdd (e.g., swa0618)	Validation screen for nnnmdd
<u>Please select the best answer:</u>	
Suicide is the _____ leading cause of death for college students.	i. First j. Second k. Third l. Fourth
What percentage of college students have thought about suicide in their lifetime.	i. Less than 25% j. 25% to 50% k. 51% to 75% l. More than 75%
What percentage of students who seriously considered suicide in the past 12 months told someone about their suicidal thoughts?	i. Less than 25% j. 25% to 50% k. 51% to 75% l. More than 75%
Who do most students first tell about their suicidal thoughts?	i. Their RA j. Their family k. Their friends l. Their counselor
Under which condition(s) may a UT professor access student records at the Counseling and Mental Health Center?	i. Out of concern for their student's safety j. Out of academic necessity k. Both a and b l. Neither a nor b
You have learned that your resident has a weapon in their room and you are concerned they may have suicidal thoughts. Who do you call first?	i. The Counseling and Mental Health Center j. Behavior Concerns Advice Line k. 911 l. Your Hall Coordinator
The WRONG way to ask a friend/student if they're thinking about suicide is:	i. "You're not thinking about suicide, are you?" j. "Are you thinking about taking your own life?" k. "Have you been having thoughts of suicide lately?" l. All of the above are incorrect
<u>Please indicate whether the following are true or false:</u>	
There are some specific warning signs that are present in all suicidal residents.	True False
If your resident needs to talk to someone in the middle of the night, s/he could call a telephone counselor, call the Behavior Concerns Advice Line, or visit the Counseling and Mental Health Center.	True False
If your resident feels uncomfortable talking to a counselor, it can be appropriate to sit with him/her while they call a telephone counselor.	True False

<u>Please indicate the extent you disagree or agree with the following:</u>	1 (strongly (disagree)	2	3 (neutral)	4	5 (strongly (agree)
I feel confident that I can notice when my resident may be thinking about suicide.	1	2	3	4	5
I feel comfortable initiating a conversation with my resident about their thoughts of suicide.	1	2	3	4	5
I feel confident that I will know when to ask my resident about suicide and when to not ask.	1	2	3	4	5
I feel comfortable saying “suicide” or “killing yourself” when asking my resident about their suicidal thoughts.	1	2	3	4	5
I know why it’s best to use the word/phrase “suicide” or “killing yourself” when addressing suicide with my resident.	1	2	3	4	5
I feel confident I can explain to my residents the limits of confidentiality of the Counseling and Mental Health Center, Behavior Concerns Advice Line, and Telephone Counseling.	1	2	3	4	5
I feel comfortable responding if my resident is concerned about the stigma of attending counseling (e.g., worried about what friends or family might say or they feel uncomfortable with the thought of attending counseling).	1	2	3	4	5
I would be effective helping a resident who is thinking about suicide figure out how to get professional help.	1	2	3	4	5
After having talked with my resident about suicide, I would feel comfortable following up with my resident to determine if s/he has sought professional help.	1	2	3	4	5
I would feel comfortable calling the Behavior Concerns Advice Line if my resident does not agree to seek help after expressing thoughts of suicide.	1	2	3	4	5
I feel confident that I know the appropriate campus resources in case I need to refer residents with suicidal thoughts to help.	1	2	3	4	5
If I had a conversation with a suicidal resident, I feel confident I would know whether to code it “welfare concerns”, “suicide attempt/suicide”, serious medical / injury”, or “minor medical / injury” in IRIS.	1	2	3	4	5
This training prepared me to help suicidal residents.	1	2	3	4	5

Please select at what point you would seek help for your suicidal thoughts.	I would seek help for my suicidal thoughts when they _____ 1. are mild or occasional 2 3. occur with moderate severity or moderately often 4 5. are severe or frequent
I think that residents have a right to die by suicide.	1 2 3 4 5
How responsible is each of the following for preventing the suicide of a distressed resident assuming each knows the resident is at risk for suicide? Please allocate the percentage of responsibility for each. The percentages added together should total to 100%.	The distressed resident _____% The resident's friends and family _____% The resident's RA _____% All other staff at UT (e.g., counselors, professors, TAs) _____% Other, please specify _____ %
How responsible is each of the following for reducing the degree to which suicidal distress is present on campus in general? Please allocate the percentage of responsibility for each. The percentages added together should total to 100%.	The distressed resident _____% The resident's friends and family _____% The resident's RA _____% All other staff at UT (e.g., counselors, professors, TAs) _____% Other, please specify _____ %
As you think about this past semester, in general , how much did the following contribute to your stress over the semester? The percentages added together should total to 100%.	Interactions with your residents _____% Your other responsibilities as an RA _____% All other experiences _____%
As you think about this past semester, think about the time you were most stressed . How much did the following contribute to your stress at that most stressful time? The percentages added together should total to 100%.	Interactions with your residents _____% Your other responsibilities as an RA _____% All other experiences _____%
How many residents were you assigned to this semester?	(enter number)
<u>The questions in this scale ask you about your feelings and thoughts during the last month. In each case, please indicate how often you felt or thought a certain way.</u>	
In the last month, how often have you been upset because of something that happened unexpectedly?	0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often
In the last month, how often have you felt that you were unable to control the important things in your life?	0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often
In the last month, how often have you felt nervous and "stressed"?	0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often

In the last month, how often have you felt confident about your ability to handle your personal problems?	0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often
In the last month, how often have you felt that things were going your way?	0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often
In the last month, how often have you found that you could not cope with all the things that you had to do?	0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often
In the last month, how often have you been able to control irritations in your life?	0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often
In the last month, how often have you felt that you were on top of things?	0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often
In the last month, how often have you been angered because of things that were outside your control?	0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often
In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	0 = never 1 = almost never 2 = sometimes 3 = fairly often 4 = very often
<u>Please indicate the most severe or intense experience you had in the past 12 months.</u>	
I did not have any of the following experiences I thought "This is all just too much" I thought "I wish this would all end" I thought "I have to escape" I thought "I wish I was dead" I thought "I want to hurt myself" I thought "I want to kill myself" I have seriously considered attempting suicide I have developed a plan for a suicide attempt I have attempted suicide	Select most intense experience (only one answer accepted)

<p>How often did the following problems occur among your residents?</p> <p>Note: If the respondent selects answer 1 or n/a indicating they do not know if the problem happened or do not think it happened, then on the following 8 questions please do not show that problem option.</p>	<p>1=I think it never happened 2=less than once a month 3=about once a month 4=about once a week 5=more than once a week n/a = I don't know</p> <p>Depression 1 2 3 4 5 n/a Anxiety 1 2 3 4 5 n/a Relationship violence (including stalking and emotional abuse) 1 2 3 4 5 n/a Eating disorder problem 1 2 3 4 5 n/a Alcohol and drugs 1 2 3 4 5 n/a Thoughts of suicide 1 2 3 4 5 n/a Self-injury 1 2 3 4 5 n/a Academic stress 1 2 3 4 5 n/a Family stress 1 2 3 4 5 n/a</p>
<p>How often did you help your residents with the following problems?</p> <p>Note: if we can successfully implement the skip pattern where problems that did not occur for the participant are omitted from the option list, then we do not need the n/a category for this or the following 7 questions.</p>	<p>1=never 2=less than once a month 3=about once a month 4=about once a week 5=more than once a week n/a=these problems did not occur</p> <p>Depression 1 2 3 4 5 n/a Anxiety 1 2 3 4 5 n/a Relationship violence (including stalking and emotional abuse) 1 2 3 4 5 n/a Eating disorder problem 1 2 3 4 5 n/a Alcohol and drugs 1 2 3 4 5 n/a Thoughts of suicide 1 2 3 4 5 n/a Self-injury 1 2 3 4 5 n/a Academic stress 1 2 3 4 5 n/a Family stress 1 2 3 4 5 n/a</p>
<p>When your residents experienced these problems, how stressful was it for you?</p>	<p>1=not stressful 2 3=moderately stressful 4 5=very stressful n/a=these problems did not occur</p> <p>Depression 1 2 3 4 5 n/a Anxiety 1 2 3 4 5 n/a Relationship violence (including stalking and emotional abuse) 1 2 3 4 5 n/a Eating disorder problem 1 2 3 4 5 n/a Alcohol and drugs 1 2 3 4 5 n/a Thoughts of suicide 1 2 3 4 5 n/a Self-injury 1 2 3 4 5 n/a Academic stress 1 2 3 4 5 n/a Family stress 1 2 3 4 5 n/a</p>

<p>On average, how stressful were the problems for your residents?</p>	<p>1=not stressful 2 3=moderately stressful 4 5=very stressful n/a=these problems did not occur</p> <p>Depression 1 2 3 4 5 n/a Anxiety 1 2 3 4 5 n/a Relationship violence (including stalking and emotional abuse) 1 2 3 4 5 n/a Eating disorder problem 1 2 3 4 5 n/a Alcohol and drugs 1 2 3 4 5 n/a Thoughts of suicide 1 2 3 4 5 n/a Self-injury 1 2 3 4 5 n/a Academic stress 1 2 3 4 5 n/a Family stress 1 2 3 4 5 n/a</p>
<p>When your residents experienced these problems, how prepared did you feel to deal with them?</p>	<p>1=not prepared 2 3=moderately prepared 4 5=very prepared n/a=these problems did not occur</p> <p>Depression 1 2 3 4 5 n/a Anxiety 1 2 3 4 5 n/a Relationship violence (including stalking and emotional abuse) 1 2 3 4 5 n/a Eating disorder problem 1 2 3 4 5 n/a Alcohol and drugs 1 2 3 4 5 n/a Thoughts of suicide 1 2 3 4 5 n/a Self-injury 1 2 3 4 5 n/a Academic stress 1 2 3 4 5 n/a Family stress 1 2 3 4 5 n/a</p>
<p>In general, how strong was your connection to your residents before you helped them with the following problems?</p>	<p>1=not at all strong 2 3=Moderately strong 4 5=Very strong n/a=these problems did not occur</p> <p>Depression 1 2 3 4 5 n/a Anxiety 1 2 3 4 5 n/a Relationship violence (including stalking and emotional abuse) 1 2 3 4 5 n/a Eating disorder problem 1 2 3 4 5 n/a Alcohol and drugs 1 2 3 4 5 n/a Thoughts of suicide 1 2 3 4 5 n/a Self-injury 1 2 3 4 5 n/a Academic stress 1 2 3 4 5 n/a Family stress 1 2 3 4 5 n/a</p>

<p>How often did you suggest that your residents seek professional help for these problems?</p>	<p>1=never 2=less than once a month 3=about once a month 4=about once a week 5=more than once a week n/a=these problems did not occur</p> <p>Depression 1 2 3 4 5 n/a Anxiety 1 2 3 4 5 n/a Relationship violence (including stalking and emotional abuse) 1 2 3 4 5 n/a Eating disorder problem 1 2 3 4 5 n/a Alcohol and drugs 1 2 3 4 5 n/a Thoughts of suicide 1 2 3 4 5 n/a Self-injury 1 2 3 4 5 n/a Academic stress 1 2 3 4 5 n/a Family stress 1 2 3 4 5 n/a</p>
<p>How often did you receive support in working with your residents dealing with these problems?</p>	<p>1=never 2=less than once a month 3=about once a month 4=about once a week 5=more than once a week n/a=these problems did not occur</p> <p>Depression 1 2 3 4 5 n/a Anxiety 1 2 3 4 5 n/a Relationship violence (including stalking and emotional abuse) 1 2 3 4 5 n/a Eating disorder problem 1 2 3 4 5 n/a Alcohol and drugs 1 2 3 4 5 n/a Thoughts of suicide 1 2 3 4 5 n/a Self-injury 1 2 3 4 5 n/a Academic stress 1 2 3 4 5 n/a Family stress 1 2 3 4 5 n/a</p>
<p>On average, how long did it take from when you first talked to your resident about these problems until they either sought help from a mental health professional or you felt the situation was fully resolved?</p>	<p>1=I don't know 2=they never sought help 3=more than a month 4= one week to one month 5= less than one week n/a=these problems did not occur</p> <p>Depression 1 2 3 4 5 n/a Anxiety 1 2 3 4 5 n/a Relationship violence (including stalking and emotional abuse) 1 2 3 4 5 n/a Eating disorder problem 1 2 3 4 5 n/a Alcohol and drugs 1 2 3 4 5 n/a Thoughts of suicide 1 2 3 4 5 n/a Self-injury 1 2 3 4 5 n/a Academic stress 1 2 3 4 5 n/a Family stress 1 2 3 4 5 n/a</p>

<p>What percent of the time would you turn to the following if you needed help with a mental health issue related to one of your residents? The percentages added together should total to 100%. (Please note: If you would not turn to anyone, enter "0" in the following fields)</p>	<p>Hall Coordinator _____% Another RA _____% Friend _____% Family _____% On-campus mental health professional (e.g., Counseling Center, BCAL, Student Emergency Services) _____% Other - please specify _____% I wouldn't turn to anyone _____%</p>																																										
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<p>How many times this semester did you feel you might have benefited by turning to someone to get help in managing your stress, but did not seek out help?</p>	<p>(number)</p>																																										
<p>If you felt help would be beneficial but did not seek out help, what were your reasons for not seeking help?</p>	<p>(open text response)</p>																																										
<p>In what ways were you prepared or not prepared to work with suicidal residents this semester?</p>	<p>(open text response)</p>																																										
<p>How helpful were the following trainings for you to perform as an RA?</p> <p>Be that One. Suicide Prevention training Voices Against Violence Student Emergency Services</p>	<table> <thead> <tr> <th></th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> </tr> </thead> <tbody> <tr> <td></td> <td>(not at all)</td> <td></td> <td>(neutral)</td> <td></td> <td>(very)</td> </tr> <tr> <td></td> <td>(helpful)</td> <td></td> <td></td> <td></td> <td>(helpful)</td> </tr> <tr> <td></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>Be that One. Suicide Prevention training</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>Voices Against Violence</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>Student Emergency Services</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </tbody> </table>		1	2	3	4	5		(not at all)		(neutral)		(very)		(helpful)				(helpful)		1	2	3	4	5	Be that One. Suicide Prevention training	1	2	3	4	5	Voices Against Violence	1	2	3	4	5	Student Emergency Services	1	2	3	4	5
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