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ATTITUDES, BELIEFS, AND PERCEIVED SELF-EFFICACY PRE- AND POST-SUICIDE PREVENTION TRAINING

by

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A DISSERTATION

Submitted to the graduate faculty of The University of Alabama at Birmingham,
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy

BIRMINGHAM, ALABAMA

2021

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ATTITUDES, BELIEFS, AND PERCEIVED SELF-EFFICACY PRE- AND POST-SUICIDE PREVENTION TRAINING

ANGELA M. SULLIVAN

HEALTH EDUCAITON HEALTH PROMOTION

ABSTRACT

A 2017 World Health Organization (WHO) data brief included suicide in the top 20 causes of death worldwide. The WHO also listed suicide as the second leading cause of death for those aged 15 – 29 worldwide. In the US, suicide is the leading cause of violent death and has been consistently ranked as the 10th leading cause of death among all age groups in the US since 2008. In Alabama, the CDC reports suicide as the 11th leading cause of death in the state and the second leading cause of death for those aged 15 – 34. This study investigates the effects of Question, Persuade, Refer (QPR) Gatekeeper Training on participants attitudes, beliefs, and perceived self-efficacy pre- and post- training. Pre- and Post- Training surveys were collected from 508 individuals with 129 matched pairs. Structured interviews were conducted with 8 participants. Quantitative analysis showed that there was a difference pre- and post- training in participants attitudes, beliefs, and perceived self-efficacy after QPR training. Changes from pre- and post- surveys indicated that, after training, respondents believed that hopelessness is one of the strongest predictors of suicide, there are warning signs, that suicidal people don't really want to die, they know the warning signs of suicide, and that they know how to ask someone about suicide. A template analysis of the qualitative interviews also showed that QPR was beneficial in aiding during a suicidal crisis.

Keywords: suicide prevention, intervention, Social Cognitive Theory, QPR Gatekeeper Training, perceived self-efficacy

DEDICATION

I dedicate this humble effort to:

- my husband, Josh Sullivan, who simply believes that I can accomplish the improbable and the seemingly impossible.
- my mother, Jan Largess, and my little sister, Monica Largess. Their unwavering love, boundless courage, and fierce determinism has and will always, be an endless source of strength and encouragement for me.
- my dear friends (Melissa, Ashley, Dawn, Katie, and Kristi), who are, and will always be, a constant inspiration for me to keep pushing.
- and, the rest of my family. My dad and stepmom (David and Carla Largess), along with my sisters (Haley and Ashley) and their families, who have supported me and my efforts every step of the way.

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I would like to convey my most sincere appreciation to:

- Dr. David Coombs, who, without hesitation, took me under his wing to bring aid in brining hope to all parts of the people of Alabama. Without his humble guidance, humor, and mentorship, this project would not have happened.
- The Alabama Suicide Prevention and Resources Coalition, the Alabama Department of Public Health, and the Garrett Lee Smith Grant, for allowing me the opportunity and the funds to conduct QPR Gatekeeper Trainings and utilize these data to construct this project.
- Dr. Ann Elizabeth Montgomery, who served as my advisor and dissertation chair. Her guidance, encouragement, and ability to be simultaneously humble and hilarious while pushing me to go the extra step, has solidified the type of mentor I aim to be.
- Dr. Greg Pavela, who not only has the ability to make data and design exciting, but also served as a mentor during my PhD and encouraged me when I felt hopeless and defeated and pushed me when I felt tired and lost.
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LIST OF ABBREVIATIONS

ADPH	Alabama Department of Public Health
AFSP	American Foundation for Suicide Prevention
ASIST	Applied Suicide Intervention Skills Training
ASPARC	Alabama Suicide Prevention and Resources Coalition
CDC	Centers for Disease Control and Prevention
DPHP	Office of Disease Prevention and Health Promotion
GLS	Garrett Lee Smith
NREPP	National Registry of Evidence-based Practices and Policies
QPR	Question Persuade Refer
SAMHSA	Substance Abuse and Mental Health Services Administration
SCT	Social Cognitive Theory
SPRC	Suicide Prevention Resource Center
UAB	The University of Alabama at Birmingham
WHO	World Health Organization
YSPP	Youth Suicide Prevention Program

CHAPTER I

INTRODUCTION

The Problem

The Centers for Disease Control and Prevention (CDC) (2019) defines **suicide** as "death caused by injuring oneself with the intent to die." The CDC (2019) defines a **suicide attempt** as "when someone harms themselves with the intent to end their life, but they do not die as a result of their actions." These simple definitions describe a complicated mental health phenomenon, which has an effect on friends and loved ones of those who have died by suicide, the economy, and public health and healthcare resources worldwide.

Epidemiology of Suicide

Etiology

The etiology of suicide is complex and rarely does a single factor precipitate suicide. There are groups that are at a higher risk of suicide but that does not imply that a person not represented in a high-risk group could not be individually at risk. In addition to high-risk groups in various communities, suicide and suicidal behaviors are more prevalent in certain age groups and suicide risk is also correlated with mental health

conditions such as major depressive disorder, which warrants plenty of research on its own etiology. The reasons why someone might take their own life could range from environmental factors such as abuse (Dube, Anda, Felitti, Chapman, Williamson & Giles, 2001) or bullying as a child or adolescent (either being bullied or being the bully) (Cha, et al., 2017) to a family history of suicide (Rajalin, Hirvikoski, & Jokinen, 2013).

The World Health Organization (WHO) estimated in an early prediction model that the global impact of suicide in the year 2020 could be represented in a suicide attempt every 1-2 seconds and a suicide every 20 seconds (Bertolote & Fleischmann, 2002). This estimation would equate to 4,320 deaths from suicide and 43,200 to 86,400 suicide attempts every single day. More recently, a WHO (2017) data brief included suicide in the top 20 causes of death worldwide. They also listed suicide as the second leading cause of death for those aged 15 – 29 worldwide. Although the COVID-19 pandemic is an ongoing crisis, Banerjee, Kosagisharaf, and Rao (2021) found that there has been a rise in suicides since the beginning of the pandemic; however, specific numbers attributed to the pandemic are not yet known since the pandemic was ongoing at the time of the conclusion of this project.

National

Suicide is the leading cause of *violent* death in the United States (Hoffmire el al., 2015) and has been consistently ranked as the 10th leading cause of death among all age groups in the U.S. since 2008 (Hedegaard, Curtin, & Warner, 2018). In addition, suicide rates in the U.S. have been on the rise over the last 20 years (Hedegaard, Curtin, & Warner, 2018), representing a major, growing public health crisis. According to the

American Foundation for Suicide Prevention (AFSP) (2019), nearly 50,000 Americans died by suicide in 2018 and approximately 1.4 million attempted suicide.

Alabama

According to the CDC (2019), suicide is the 11th leading cause of death in Alabama. The CDC also reports the suicide death rate per 100,000 people for the State of Alabama at 16.4 with 804 deaths in 2019. Alabama is ranked 24th in the nation for suicide death rates. Among specific age groups, suicide deaths are much more prevalent than others. For example, among those aged 15 – 34, suicide is the 2nd leading cause of death and the 4th leading cause of death for those aged 35 – 54. Among those aged 55 – 64, suicide is the 9th leading cause of death. Among those aged 65 and older, suicide is the 17th leading cause of death; however, this is a misleading statistic. Heart disease, cancers, and other health issues are responsible for many of the leading causes of death for this age group, but suicide is still a major cause of death. Suicide rates among those 65 – 69, for example, are still at 48 for 100,000 people. This rate declines to 37 for ages 70 – 74, 31 for ages 75 – 79, and continues to decline. See Figure 4 later in this chapter for a full breakdown of suicide rates by age group.

Suicide also has an extremely negative impact on Alabama's economy, costing just over $1.1 million per suicide death. Like the economic impact of suicide in the nation, the economic impact of suicide in the State of Alabama is comprised of loss of worker productivity as well as lifetime costs of medical and mental health treatment related to mental illness.

Theories of Suicide

This section will discuss various theories of suicide. Researchers have been attempting to identify the factors or variables needed for a person to progress from suicidal ideation to acting on those attempts.

Joiner's Theory of Suicide

Thomas Joiner developed Joiner's Theory of Suicide to try to explain and identify the key ingredients for a person acting on suicidal thoughts. Joiner's three key risk factors include: isolation, burdensomeness, and the capability to kill oneself (Joiner, 2011). Joiner goes on to explain that one might have two of these factors but without all three, there is no- to very low-risk of a suicide occurring.

Ideation-to-Action

Although Joiner's Theory indicate that all three factors need to be present for a suicide to likely occur, researchers have since tried to identify these factors by specific steps from ideation-to-action. The **Interpersonal Theory of Suicide** was the first theory to attempt to identify these steps. Van Orden et al (2010) identified two factors that must be present for one to experience suicidal ideation: thwarted belongingness and perceived burdensomeness. They also identify capacity to attempt suicide as one of the key factors for a suicide attempt to occur.

The **Three-Step Theory (3ST)** of suicide aims to identify the process by which a person begins to contemplate suicide to actually attempting suicide. Klonsky and May (2015) identified 3 steps of ideation-to-action as: 1) Development of Suicidal Ideation (via development of unspecified pain), 2) Strong vs. Moderate Ideation (when one's pain

becomes stronger than one's connectedness to society), and 3) Progression from Ideation to Attempts (when one reaches the capacity to attempt suicide). As discussed in Chapter II, the exposure to stressors contribute to the development of ideation, the movement from development of ideation to having strong or moderate ideation, and the progression to suicide attempts. Like Joiner's Theory, the 3ST identifies three key risk factors, or variables, that must be present for a person to reach the capacity to attempt suicide. These three variables include dispositional (genetic predisposition to pain tolerance), acquired (frequent experiences with pain and suffering) and practical (high-risk groups and/or those with access to lethal means).

The Impact of Suicide

Although anyone could be at risk for suicide, there are groups that are considered high risk for suicide and suicidal behaviors such as self-harm and substance abuse that are correlated with suicidality. Among those high-risk groups are individuals with depression or other mental health issues (Bolton, Gunnell, & Turecki, 2015; CDC, 2017) veterans (CDC, 2019; Poulin, Shiner, Thompson, Vepstas, Young-Xu, Goertzel, Watts, Flashman & McAllister, 2014) sexual minorities (CDC, 2019), and older (75+) non-Hispanic white males (Han, Kott, Hughes, McKeon, Blanco & Compton, 2016; Poulin, et al., 2014).

Economic

In addition to the impact of suicide on loved ones, suicide has a direct impact on the economy through medical costs and lost productivity. As for the impact of suicide on

the economy, completed suicides, attempted suicides, and self-harm cost the U.S. almost $70 billion in the year 2015 alone (AFSP, 2019). The Suicide Prevention Resource Center (SPRC) estimate that most of the negative economic impact of suicide is due to lost worker productivity (~ 97%) and the remaining due to lifetime medical and mental health treatment related to mental health (~3%) (Shepard, Gurewich, Lwin, Reed, & Silverman, 2015). As for the impact that the economy has on suicide, suicide rates have an inverse relationship with the economy, even on a regional level (Luo, Florence, Quispe-Agnoli, Ouyang, & Crosby, 2011), meaning that as the economy begins to struggle and unemployment rates increase, the rate of suicides also increases.

Social

The ripple effect of one suicide loss on the social aspect of a community can be measured as well. When a person is bereaved by suicide, not only are they at risk of suicide and suicidal behaviors (Erlangsen et al., 2017) they are at risk for dropping out of school or quitting work (Pitman et al., 2018). Cerel et al., 2018 estimate that one suicide severely affects 15 to 30 people and affects, to varying degrees, over 100 additional people. These numbers include all who directly knew the individual, including friends and family, co-workers, and other members of the person's social circle.

An additional social aspect of suicide that makes it unlike other causes of death is **suicide contagion**. Arendt, Scherr, and Romer (2019) explored media depictions of suicide and suicidal behavior and found that exposure to graphic depictions of self-harm can contribute to suicidal activities among vulnerable youth. Studies like these on suicide

contagion impacts how the field of suicidology urges media to report about suicide deaths and depicts suicide and self-harm in movies, television, and social media.

Suicide Prevention

Existing Interventions

Suicide prevention is not just important for groups and communities at a higher risk for these behaviors, but for public health as a whole. There are a variety of ways to prevent suicide and one of these ways is through gatekeeper training. This study will focus on changes in the attitudes, beliefs, and *perceived* self-efficacy among participants who received QPR Gatekeeper Training conducted by the Alabama Suicide Prevention and Resources Coalition (ASPARC).

In addition to QPR, there are a variety of other gatekeeper suicide prevention programs intended to train the layperson to recognize that a person might be experiencing a suicidal crisis and how to intervene during a crisis. Two of these interventions are ASIST (Applied Suicide Intervention Skills Training) and Mental Health First Aid.

According to their website at livingworks.net, ASIST is a 2-day workshop dedicated to training individuals to recognize the warning signs that a person might be experiencing a suicidal crisis, coaching on how to ask the suicide question, how to intervene on a suicide plan, and how to develop a safety plan for the individual. This program requires the trainee to be in-person, on location for the full 2-day workshop to be certified.

According to their website at mentalhealthfirstaid.org, Mental Health First Aid training is an 8-hour course offered in two formats: Youth or Adult. These courses offer training in recognizing and intervening during mental health issues such as anxiety, depression, suicide, and addiction. Both courses are intended for people 18 or older. The Youth version of the course focuses on issues from the perspective of those aged 12 – 18 and the Adult version focuses on those aged 19 and older.

The Present Intervention (QPR)

QPR Gatekeeper Training is a 1.5 – 2-hour training intended to teach the layperson to be able to appropriately ask someone about a potential suicidal crisis, persuade that person to seek help, and refer them to help. QPR Gatekeeper Training is offered in dozens of languages in versions appropriate for a myriad of professions such as police officers, teachers, clergy, firefighters, and more. QPR was selected over ASIST or Mental Health First Aid training due to the ease in which more people can be reached for a 1.5- to 2-hour training as opposed to an all-day or multi-day training program. In addition, Burnette *et al* (2015) found, in a review of literature on Gatekeeper-style suicide prevention training, that ASIST, Mental Health First Aid, and QPR Gatekeeper Training all had similar successful results with regard to positive changes in beliefs, understanding, and self-efficacy about intervening during a crisis.

The Alabama Suicide Prevention and Resources Coalition (ASPARC) is a Birmingham-based 501c3 that began in the early 2000s. ASPARC's creation was aimed at helping the Alabama Department of Public Health with suicide prevention efforts including state suicide prevention planning and resources. Now, as an autonomous

nonprofit, ASPARC aims to help with suicide prevention efforts in the State of Alabama through gatekeeper training, education, advocacy, and awareness.

Theoretical Framework: Social Cognitive Theory

This study will assess the self-efficacy construct from Albert Bandura's Social Cognitive Theory using survey respondent and interviewee responses to questions about their knowledge and perceived ability to intervene during a suicidal crisis. Bandura (1997) describes self-efficacy as a person's belief that they can successfully perform certain behaviors or tasks. A goal of suicide prevention interventions such as QPR Gatekeeper Training is that trainees will have the perceived self-efficacy that they can intervene using the QPR model of intervention during a suicidal crisis.

Research Questions

The primary goal of this research is to assess changes in the attitudes, beliefs, and *perceived* self-efficacy to intervene during a suicidal crisis after participation in suicide prevention training. A secondary data analysis of pre- and post-QPR Gatekeeper suicide prevention training surveys and collection of primary qualitative interviews of trainees who intervened in a suicidal crisis will be used to address the research questions below. The first three questions will be addressed with the pre- and post- survey data and questions four and five will be addressed with the interview data.

1. Do mean scores of knowledge of suicide and understanding of suicide differ pre and post Question, Persuade, Refer (QPR) Gatekeeper Training?

2. Is there a pre-test/post-test difference in participants' knowledge to identify the warning signs of suicide after participation in Question, Persuade, Refer (QPR) Gatekeeper Training?
3. Is there a pre-test/post-test difference in reported self-efficacy to intervene on a potentially suicidal person after QPR Training?
4. How was QPR training effective/ineffective while aiding during a suicidal crisis?
5. How can QPR training be improved?

Hypotheses

Based on a thorough review of existing literature regarding attitudes, beliefs, and self-efficacy pre- and post-suicide prevention trainings, the following hypotheses were developed and tested by the analysis of the pre- and post-training survey:

1. The self-reported knowledge and understanding of suicide myths and facts will increase after completing QPR Training.
2. The self-reported understanding of and identification of the warning signs that a person is potentially suicidal will increase after completing QPR Training.
3. The self-reported likelihood that a person will intervene on a potentially suicidal person will increase after completing QPR Training.

CHAPTER II

LITERATURE REVIEW

Background

This chapter provides an overview of the current understanding of suicide prevention in the United States and the State of Alabama. In addition, this chapter reviews the risk factors of suicide and how those risks relate to the population of Alabama and the common myths and their corresponding facts surrounding suicidality and suicidal behaviors. This chapter also provides an overview of QPR Gatekeeper Training through the QPR Institute and as offered through ASPARC and provided to the study population. Finally, this chapter provides an overview of the theoretical framework of this research project, Social Cognitive Theory, with specific emphasis on the importance on the self-efficacy and perceived self-efficacy construct as it relates to suicide prevention.

The Incidence of Suicide

Suicide in the United States

Since suicide is a leading public health issue, the Office of Disease Prevention and Health Promotion (2010) within the U.S. Department of Health & Human Services

listed several mental health and suicide-related objectives for the Healthy People 2020 initiative. Table 1 below illustrates these goals and their progress.

Table 1

Healthy People 2020 Goals and Progress

Goal	**Progress**
reduction of the overall suicide rate	the overall suicide rate has increased from 11.3 per 100,000 at baseline in 2009 to 14 suicide deaths per 100,000 in the year 2017
reduction of suicide attempts by adolescents	suicide attempts by adolescents increased from 1.9 at baseline in 2009 to 2.4 per 100 in the year 2017
increase of the proportion of adults experiencing major depressive episodes who receive treatment	the proportion of adults who experience major depressive episodes and received treatment has, unfortunately, gone down from 69% to 64.8%
increase of the proportion of adolescents experiencing major depressive episodes who receive treatment	the proportion of adolescents who experience major depressive episodes and received treatment has increased from 8.3% at baseline to 12.3% in the year 2017
increasing the prevalence of mental health treatment, including: 1. primary care facilities that provide mental health treatment 2. children with mental health problems who receive treatment 3. juvenile residential facilities that screen admissions for mental health problems	increasing in the proportion of mental health treatment, including: 1. there has been no change from the 2006 baseline of 79% 2. children with mental health problems who receive treatment has increased from 68.9% at baseline to 73.3 in the year 2018 3. juvenile residential facilities that screen admissions for mental health problems has had no change from the 2006 baseline of 58%.

Suicide affects American youth more than most might think. The national Youth Risk Behavior Survey (YRBS) reports that roughly 1 in 5 American youth in 9th through

12th grade reported seriously contemplating suicide during 2016 (Centers for Disease Control and Prevention, 2017).

As shown in Figure 1 below, the Morbidity and Mortality Weekly Report (2016) reported that the number of children, ages 10 – 14, who die with injuries related to motor vehicle traffic injuries decreased from a rate of 4.5 in 1999 to just under 2.0 in 2014. Simultaneously, the graph also indicates that the rate of children in the same age group who die from suicide went from just over 1.0 in 1999 to 2.0 in 2014. Note that the age in which the World Health Organization and the Alabama Department of Public Health begins counting deaths caused by intentional harm to oneself as suicide is age 10.

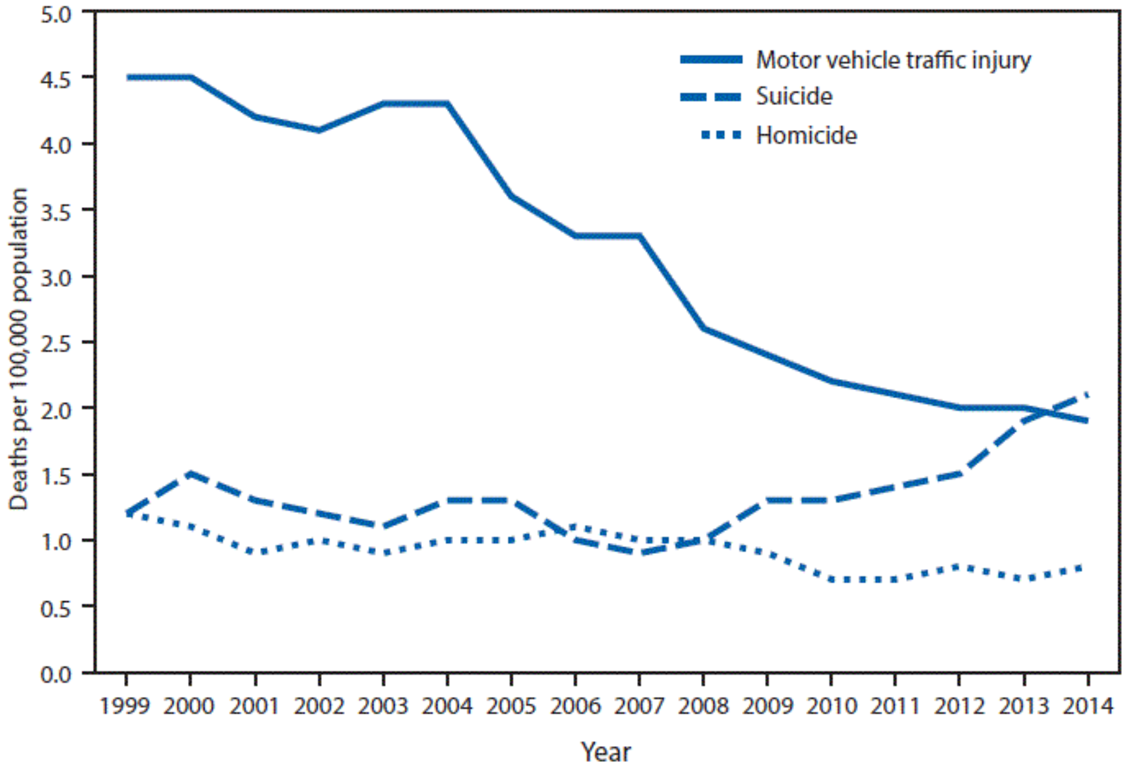

Figure 1. Comparison of deaths in children ages 10 to 14 from motor vehicle traffic injuries, suicide, and homicide from 1999 to 2014. Retrieved from *Morbidity and mortality weekly report: MMWR*. Atlanta, Ga.: U.S. Dept. of Health, Education, and Welfare, Public Health Service, Center for Disease Control (2016).

Although the figures surrounding youth and adolescent deaths can be staggering, the highest rates of suicide deaths in the US are among adults. The highest rate of suicide death is among those aged 35 – 64, followed by those aged 65 and older. Further trends in suicide death in the US identify the most at risk being those who are male, White or American Indian/Alaska Native in nonmetro/rural America (Ivey-Stephenson et al., 2017).

Suicide in Alabama

The rate of suicide in Alabama increased by 45% between 1985 and 2015, a rate of increase higher than the US as a whole (Alabama Vital Statistics, 2016). Figure 2 shows that Alabama suicide death rates had a sharp increase in the late 1980s, surpassing that of the national rate and peaked in 1991. Since the early 1990s, the rates have continued to see slips and surges, mirroring that of the national rate although it remains higher through 2016.

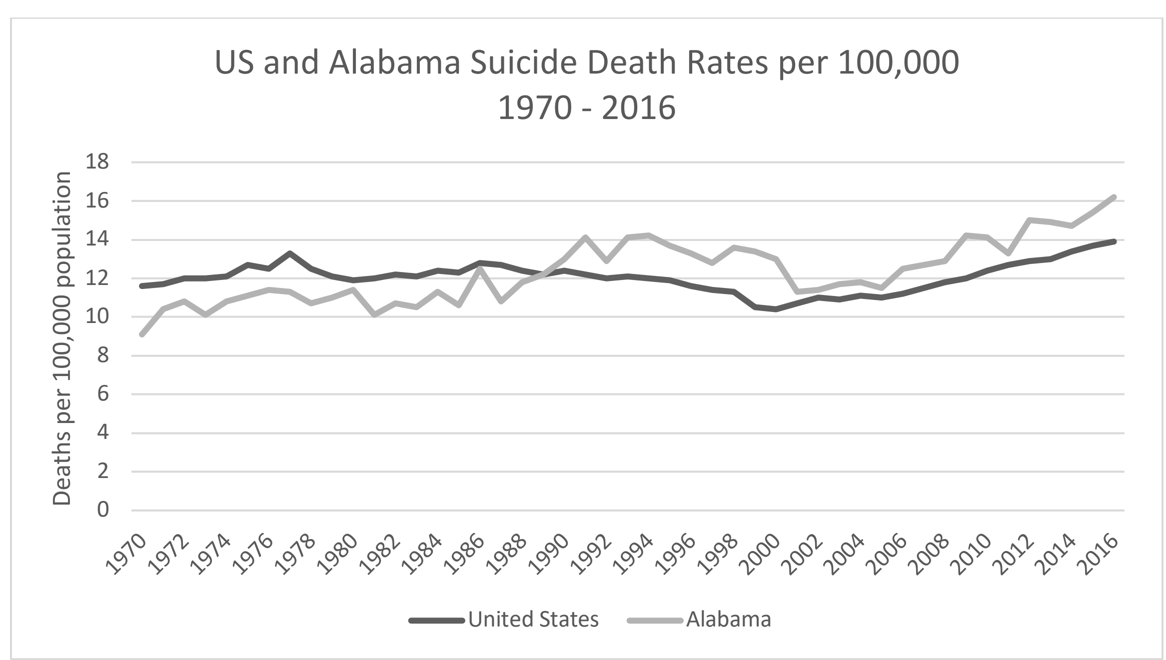

Figure 2. US and Alabama Suicide Death Rates per 100,000 from 1970 – 2016
Note: Recreated from *Alabama Vital Statistics* 2016 by Alabama Center for Health Statistics retrieved from: www.alabamapublichealth.gov/healthstats/assets/as2016.pdf

Figure 3 below shows the rates of suicide in Alabama to be much higher than homicide rates in the state (Alabama Vital Statistics, 2016). Alabama suicides by age group are shown in Figure 4 below and indicate higher-risk ages in the state of Alabama in the year 2016 to have been those in their 20s- to mid-30s and then from age 45 - 59 (Alabama Vital Statistics, 2016). The comparison of suicide and homicide rates in the state are important for perspective taking when thinking about these causes of death. Living in Alabama, it's nearly daily on the news when we hear about someone dying from homicide, especially a firearm-related death. The reality is that suicide deaths occur more often than homicides.

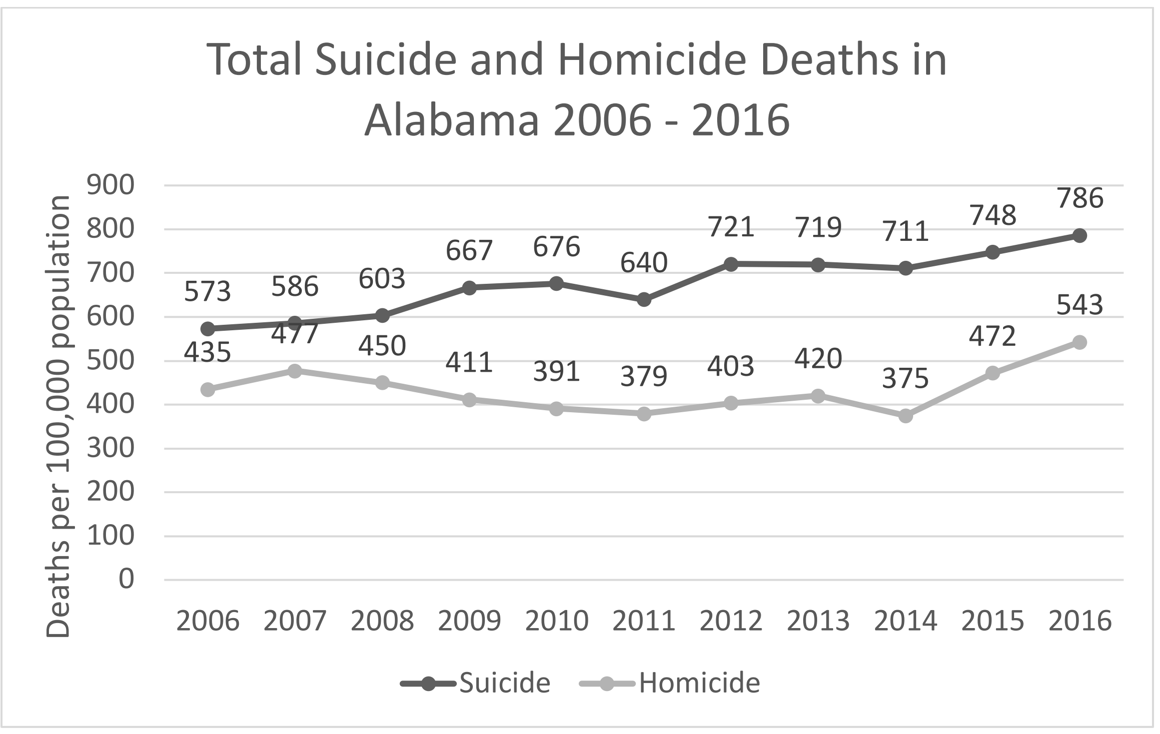

Figure 3. Total Suicide and Homicide Deaths in Alabama from 2006 – 2016
Note: Recreated from *Alabama Vital Statistics* 2016 by Alabama Center for Health Statistics retrieved from: www.alabamapublichealth.gov/healthstats/assets/as2016.pdf

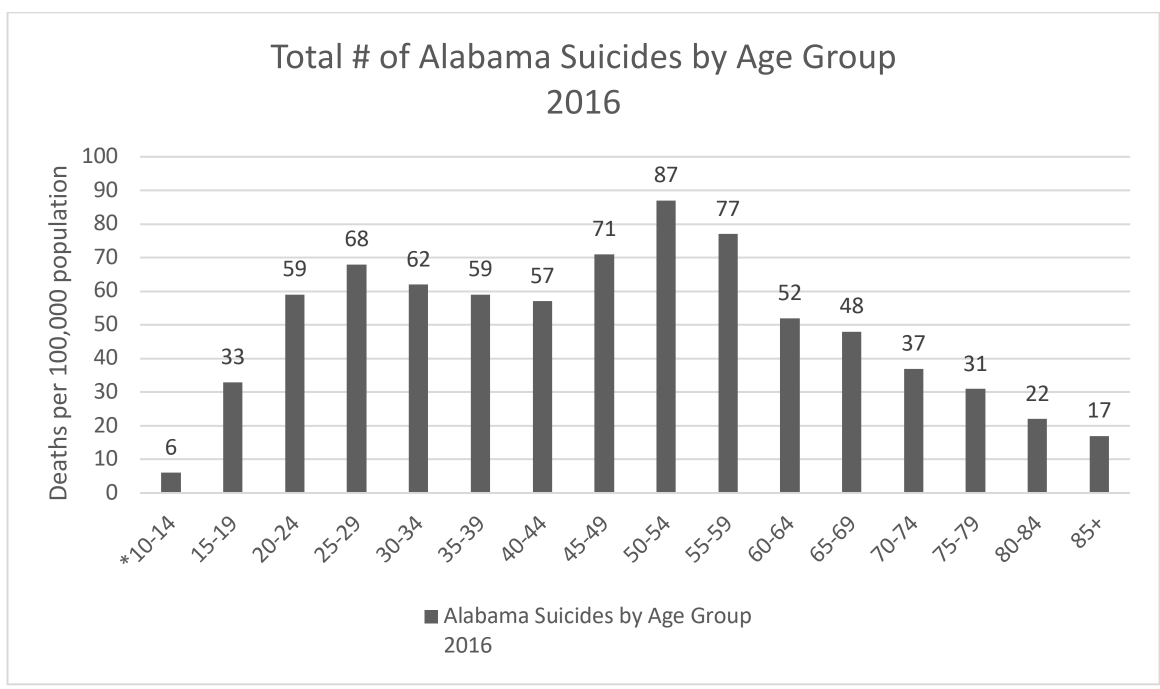

Figure 4. Alabama Suicide Deaths by Age Group, 2016
**The state of Alabama abides by the mandate of the World Health Organization which states that any death of a child under the age of 10 cannot be declared a suicide.*
Note: Recreated from *Alabama Vital Statistics* 2016 by Alabama Center for Health Statistics retrieved from: www.alabamapublichealth.gov/healthstats/assets/as2016.pdf

Risk Factors

Although anyone could be at risk for suicide, there are groups at higher risk than others. SAMHSA (2020) identifies high risk groups to include men, middle-age people (45 – 60), American Indian and Alaskan Natives, those who identify as LGBTQ+, veterans, youth and young adults, suicide loss and suicide attempt survivors, and disaster survivors. Social-environmental factors often precipitate suicide. According to the QPR Institute (see Appendix A, slide 34) and a study by Stone, Holland, Schiff, and McIntosh (2016), there are major life disruptions that can provide situational clues as to a potential crisis. These major life disruptions include relationship issues/loss of a relationship, loss of financial freedom/job, health issues, loss of freedom/perceived loss of freedom, an

unwanted move, or other family issues. These stressors can exacerbate other factors (such as being in a high-risk group) and lead to higher rates of suicidality.

When analyzing CDC data, Opoliner, Azrael, Barber, Fitzmaurice, & Miller (2014) found that those living in rural areas are also at a higher risk for suicide. Opoliner, et al. (2014) describes two of many reasons for higher rates of suicide in the rural U.S. when compared to more urban or suburban areas as: 1) rural areas of the U.S. tend to have higher rates of firearm ownership and, thus, access to more deadly means and, 2) the likelihood of newer anti-depressants to be prescribed was lower in rural areas when compared to urban. In addition to access to more deadly means of suicide and lower rates of being prescribed newer anti-depressant medications, studies have shown that exposure to firearms in the home increases risk of overall suicide and not just suicide by firearm (Dahlberg, Ikeda, & Kresnow, 2004).

Men have a higher risk of death from suicide than women (Riddell, Harper, Cerda, & Kaufman, 2018); Although, women make more suicide attempts than men (Quinnett, 2020). Men typically select a more lethal means than women such as using firearms where women tend to attempt suicide by inflicting potentially lethal incisions or by drinking poison (Quinnett, 2020). Since the means women select tend to take longer to become lethal, the opportunity for someone to intervene could lead to more thwarted attempts and potential for a person in crisis to receive help.

The National Center for Health Statistics (2018) identifies four major suicide methods or means by which people attempt suicide. These means include firearm, suffocation, poisoning, and all other. As shown below in Figure 4, nearly half of suicides involve firearms, followed by suffocation, poisoning, and all other. In Alabama, these

percentages look different as shown in Figure 5 and supported by previous claims of firearms and their impact on suicidality.

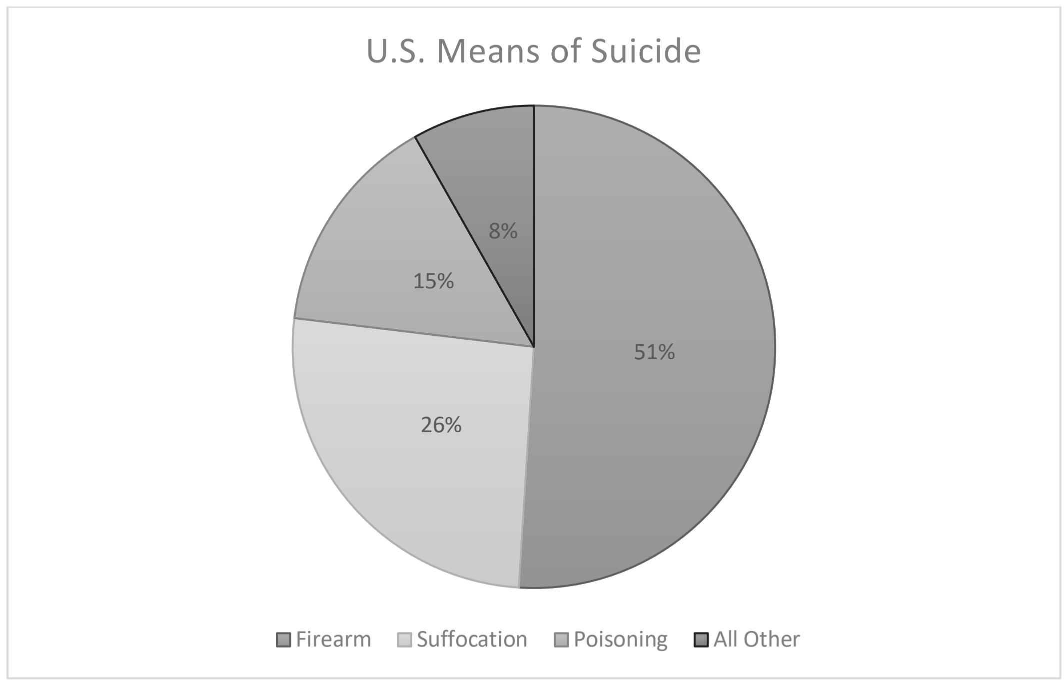

Figure 5. U.S. Means of Suicide

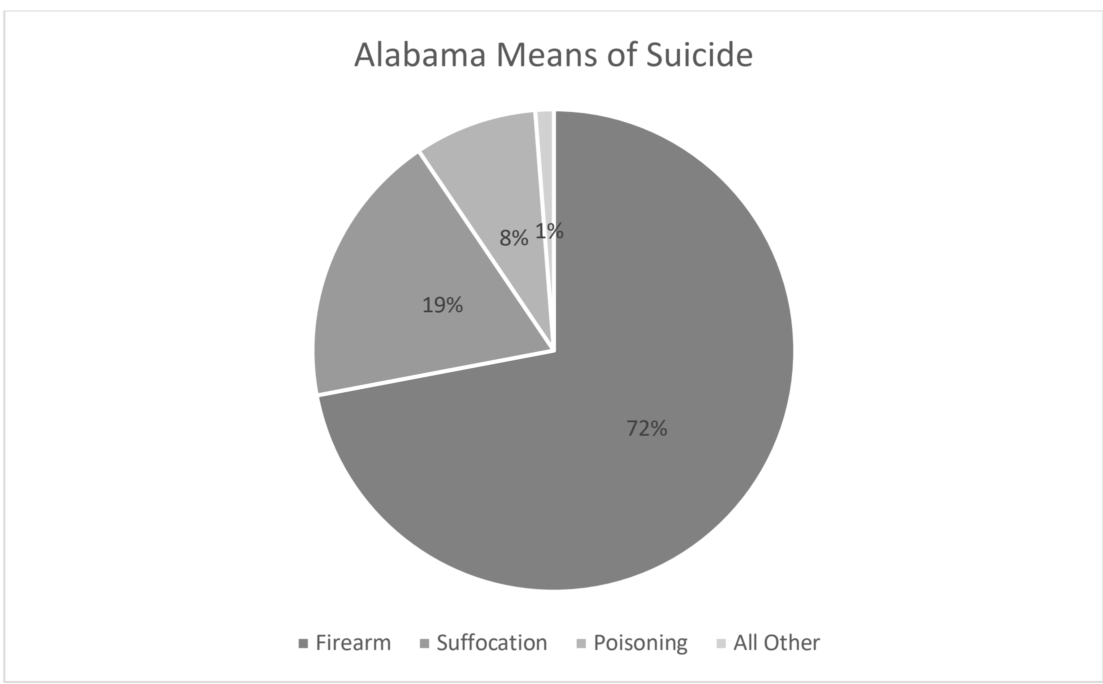

Figure 6. Alabama Means of Suicide

Protective Factors

In addition to risk factors for higher suicidality, there have been studies on protective factors. Studies across the globe highlight certain protective factors relative to the population being studied; however, the CDC's national health report on leading causes of death and associated risk and protective factors either did not find or did not indicate blanket protective factors for suicide for the general population (CDC, 2014). These specific protective factors are difficult to isolate for the general population.

Although there is evidence in the literature to support the idea that there are certain protective factors against suicide specific to age, risk, socioeconomic status, and ethnic groups, other studies have found that there is no evidence to support that these factors actually help individual patients. Berman and Silverman (2019) found that

protective factors are only protective for the prevention stage of population-based samples and not for patients who are considered high risk.

There have been several studies that found family connectedness (Kaminski et al., 2010), social engagement, and having a confidant protected both at-risk adolescents and young adults from suicidal behavior (Donald, Dower, Correa-Velez, & Jones, 2006). In another study, Kleiman and Liu (2013) found that social support is a protective factor for suicidal ideation and lifetime suicide attempts in adults. Social support is not only protective on its own but also increases other protective factors such as having a sense of belongingness (Joiner, 2011).

Prevention Efforts

Suicide prevention efforts can include means restriction, intervention training (such as QPR, ASIST, or Mental Health First Aid), and legislative efforts. This section will explore a few types of gatekeeper-style prevention efforts. Access to lethal means prevention when a person is experiencing a suicidal crisis is one effort to stop suicide. There are several firearm safety resources that are useful to aid in suicide prevention. The Harvard T.H. Chan School of Public Health hosts a website called Means Matter, which is a resource for mental health professionals, firearm owners, and laypersons alike for information on suicide prevention, means reduction, and an opportunity at partnerships between firearm owner groups and suicide prevention.

Additionally, one of the ASPARC executive board members, Fred Vars, developed a model state bill to help prevent firearm suicide. This bill would allow someone who is experiencing suicidal thoughts to voluntarily place their name on a list

prohibiting purchase of firearms while they are in crisis. Vars, McCullumsmith, Shelton, & Cropsey (2016) found that almost half of survey respondents from an inpatient psychiatric care center said that they would put their own name on the list, given the opportunity. This attitude of self-identification to be able to ask for support in preserving one's life should be a method each state considers adopting to help aid in suicide prevention.

Additional prevention efforts include the Jason Flatt Act, legislation that has been passed in 20 states, including Alabama, since 2007. According to their website at jasonfountation.com, the Jason Flatt Act requires all kindergarten through 12th grade public educators to complete suicide prevention training each year.

Overview of Question, Persuade, Refer (QPR) Gatekeeper Training

Suicide prevention, like any other public health prevention effort, is important for reducing the number of suicides and increasing the prevalence of health care and residential care facilities that screen and treat mental illness. There are a variety of strategies used to prevent suicide that range from individualized, professional therapies and medication to general suicide prevention training intended for non-mental health workers. For the purpose of this study, the suicide prevention strategy of focus will be QPR Gatekeeper Training. This section will provide a detailed overview of QPR Gatekeeper Training as prescribed by the QPR Institute and then the overview of how ASPARC delivers this training.

The idea that suicide can be prevented by people who are not mental health or healthcare workers is not novel to QPR Gatekeeper Training. There are other gatekeeper-

type suicide prevention trainings available to the layperson such as Applied Suicide Intervention Skills Training (ASIST), a two-day workshop or a program called At-Risk, which has training options specific to middle school educators, high school educators, university and college faculty (and staff), university and college students, and in the emergency department. There are also other programs specific to high school and college campuses such as Campus Connect, Connect Youth Leaders, High School Gatekeeper Curriculum, and How Not to Keep a Secret (HNTKAS).

QPR Gatekeeper Training is accredited through SAMHSA's (Substance Abuse and Mental Health Services Administration) National Registry of Evidence-based Programs and Practices (NREPP) (Quinnett, 2019). In an empirical review of gatekeeper-style suicide prevention programs, Burnette, Ramchand, and Ayer (2015) identified and reviewed the results from the evaluation studies that led to QPR's NREPP status. They found that QPR increased knowledge about suicide (Cross et al., 2007, Cross et al., 2011, Matthieu et al., 2008), self-rated knowledge about suicide (Indelicato, Mirsu-Paun, and Griffin, 2011), increased the intention to intervene (Cross et al., 2007, Cross et al.,2011, Indelicato et al.,2011, Matthieu et al., 2008, Tompkins and Witt, 2009), increased awareness of resources (Indelicato et al., 2011), and increased comfort in discussing suicidality (Indelicato et al., 2011).

The intention of QPR Gatekeeper Training is to train the layperson (or, Gatekeeper) to be able to detect behavioral, mood, situational, and direct and indirect verbal clues of possible suicide intentions and thus be able to recognize if and when a person might be facing a suicidal crisis. Once the Gatekeeper has identified that a person

might be contemplating suicide, they are trained to then appropriately question and help the individual. Table 2 below details the components of QPR Gatekeeper Training.

Table 2

QPR Gatekeeper Training

	Section	**Details**
Slide 1 – 2	QPR 1: Introduction	QPR is not intended to be a form of counseling; rather, it is intended to offer hope through positive action
Slide 3 – 4	QPR 2: Suicide Myths and Facts	Myths and corresponding facts related to suicidality and suicide prevention
Slide 5 – 9	QPR 3: Suicide Clues and Warning Signs	Direct verbal clues, indirect verbal clues, behavioral clues, and situational clues
Slide 10 – 13	QPR 4: Question	Tips for asking the suicide question, less direct approach to asking the question, direct approach to asking the question, and how not to ask someone if they are suicidal
Slide 14 – 15	QPR 5: Persuade	How to persuade someone to stay alive, how to go about asking them to get help, and a discussion of the best method of help-seeking
Slide 16	QPR 6: Refer	The best methods of referral to help based on the specific situation
Slide 17 – 20	QPR 7: Tips for Effective QPR	Ideas for building a team to help the individual, being a non-judgmental, listening ear, and hope messages important to suicide prevention

Overview of Question, Persuade, Refer Gatekeeper Training Provided by the Alabama Suicide Prevention and Resources Coalition (ASPARC)

The QPR Institute requires that instructors use a prescribed set of slides, discussed and detailed in Appendix A. QPR Gatekeeper Training, as delivered by ASPARC, include slides that cover the incidence of suicide (including the prevalence of suicide in the U.S. and Alabama), high risk groups, a review of suicides by method and a comparison of the U.S. to Alabama, resources, causes of suicide, Joiner's Theory of Suicide, drivers of suicide, protective factors of suicide, safety planning, and techniques

for detecting suicidality in a person, asking the person unambiguously if they are thinking of suicide and if so, persuading the person to get help. See Appendix A for the slide deck used by ASPARC for QPR Gatekeeper Training sessions, which clearly identifies the ASPARC-specific and QPR Institute-specific slides used. Table 3 below takes the details from Table 2 and adds in the ASPARC-specific sections of QPR Gatekeeper Training as delivered by ASPARC.

Table 3.

QPR Gatekeeper Training as Delivered by ASPARC

	Section	**Details**
Slide 1	ASPARC 1: Introduction	Introduces ASPARC, the trainers, and an overview of the training that will take place
Slide 2	ASPARC 2: Survey	Information about the pre- and post- survey and how the data will be used
Slide 3	ASPARC 3: Content Warning	A content warning about the training, instructions on how to alert one of the trainers if the training becomes too intense, and information about the National Suicide Prevention Lifeline
Slide 4 – 15	ASPARC 4: The Incidence of Suicide	Prevalence of suicide, suicide rates in the US and Alabama, suicide vs. homicide in Alabama, suicide deaths by age group in Alabama in 2016, death rates in children ages 10-14, high risk groups, suicides by method in the US and Alabama, firearm safety resources, Alabama suicide prevention resources, and other resources such as the crisis text and SAMHSA referral line
Slide 16 – 25	ASPARC 5: Causes of Suicide	Stigma and how to address stigma, Joiner's Theory of Suicide, suicide drivers, dos and don'ts of approaching a potential suicidal person, how to approach someone resisting help, protective factors against suicide, and a discussion on safety planning
Slide 26 - 27	QPR 1: Introduction	QPR is not intended to be a form of counseling; rather, it is intended to offer hope through positive action
Slide 28 – 29	QPR 2: Suicide Myths and Facts	Myths and corresponding facts related to suicidality and suicide prevention

Slide 30 – 35	QPR 3: Suicide Clues and Warning Signs	Direct verbal clues, indirect verbal clues, behavioral clues, and situational clues
Slide 36 – 38	QPR 4: Question	Tips for asking the suicide question, less direct approach to asking the question, direct approach to asking the question, and how not to ask someone if they are suicidal
Slide 39 – 40	QPR 5: Persuade	How to persuade someone to stay alive, how to go about asking them to get help, and a discussion of the best method of help-seeking
Slide 41	QPR 6: Refer	The best methods of referral to help based on the specific situation
Slide 42 – 45	QPR 7: Tips for Effective QPR	Ideas for building a team to help the individual, being a non-judgmental, listening ear, and hope messages important to suicide prevention
Slide 46	ASPARC 2.1: Ted Talk	If time and resources allow, we watch and discuss the Ted Talk by Kevin Briggs, "The Bridge Between Suicide and Life"
Slide 47	ASPARC 2.2: QPR Practice	Participants practice asking each other the suicide question and discuss
Slide 48	ASPARC 2.3: References	

ASPARC Section 1: Introduction. During the introduction, the trainers introduce themselves and their roles with ASPARC, talk about ASPARC's role in suicide prevention activities, and discuss the details of the training. This section includes talking about and defining QPR and the role we hope the trainee takes in the respective community's suicide prevention plan.

ASPARC Section 2: Survey. The survey components and uses are discussed along with assurance that there are not requirements to complete any part of the survey to participate in QPR Gatekeeper Training.

ASPARC Section 3: Content Warning. During this section of training, we discuss the sensitivity-aspect of training on suicide prevention. More will be discussed in Chapter III on specific instructions for participants who feel overwhelmed during training.

ASPARC Section 4: The Incidence of Suicide. The incidence of suicide in the United States and Alabama were discussed previously in this chapter. Versions of the same tables and figures are shown and discussed with the participants. Standard questions include asking participants why they think suicide is more prevalent in Alabama, reactions to suicide versus homicide statistics in the state, and discussions about high-risk groups and firearm safety are included during this section of training.

ASPARC Section 5: Causes of Suicide. The causes of suicide are complex. One of the causes of suicide and reasons why so many people avoid seeking help are due to the stigma regarding mental health. For the sake of mental health discussions, stigma can be divided into two areas: felt stigma and enacted stigma. Felt stigma is the internal stigma people feel over a plethora of subjects from sexual identity to having a speech impediment. Felt stigma would be feeling shame for having depression or contemplating suicide. Enacted stigma is the stigma one might feel from society such as feeling embarrassed to let friends know that you are seeking mental health counseling for depression or some other mental health illness. Enacted stigma could also be the experience of being treated differently due to mental health conditions. The difference in these two types of stigma could be simplified in feeling like one is weak for experiencing depression (felt stigma) to being called weak by friends or family for confessing to experiencing depression (enacted stigma).

There are a few possibilities to address stigma, including outlawing discrimination against people with mental illness, normalizing mental illness by talking about mental health and wellbeing like we might talk about going to the gym after work, and continuing to involve testimony by laypersons as well as celebrities that mental

illness is nothing to be ashamed of. An example of testimony or normalization of mental illness might be analogous to the response of people after Katie Couric, the former TODAY show host, filmed her experience getting a colonoscopy in 1998. According to Cram et al., (2003), there was a twenty percent increase in colonoscopy screening in the weeks and months after Couric went public with her experience. Perhaps other beloved celebrities could continue to share their experiences with mental health and counseling and that could have a similar effect as Couric's efforts for colorectal cancer screening.

Isolation can be both figurative isolation as well as literal isolation. Figuratively, a person might feel isolated if they do not feel like they fit into a social group or with their family for any reason perceived or otherwise. Literally, a person might be isolated due to rural living or during unprecedented circumstances such as the COVID-19 pandemic, which has yet to hit its peak during the time of this project. Burdensomeness might also present in ways that depend on the individual. Perhaps a person becomes sick or injured and feels as though they are a burden on their friends and family who are acting as caretakers. Perhaps a person feels like they have had a series of misfortune and have become a financial burden on their friends and family. One might feel like they are isolated and are a burden in whatever form those factors take on within each individual, yet they might not exhibit the capacity to go through with the act of suicide. It is important to note that again, the idea of burdensomeness and isolation can manifest very differently from individual to individual and once a Gatekeeper notices that these things exist, they need to take action.

Theoretical Background: Social Cognitive Theory

Albert Bandura's Social Cognitive Theory (SCT) is one of the most widely used theories in Health Education/Health Promotion and, more specifically, intervention research (Baum, Revenson, & Singer, 2012). SCT is based on the relationship and interaction between three evolving components of behavior change and their effect on the behavior(s) in question. These three components, or levels of influence, include behavior, environmental, and personal factors. These components work together to inform one's actions or behavior by observing other's actions or behavior and the related consequences. For example, through QPR Gatekeeper Training, one would learn that intervening (action/behavior) on a person who might be experiencing a suicidal crisis could save that person's life (consequence). SCT would indicate that anyone trained in QPR should then be more likely to intervene should they later realize that someone they know might be experiencing a suicidal crisis.

Behavioral influences include previous behaviors, understanding those behaviors, and having the skill to perform future behaviors (Bandura, 2001). Perhaps an individual had previous experiences with suicide, so they might be inclined to reach out to a friend, family member, colleague, or client who seemed to be in trouble, but they might not know how to react appropriately. The behavior then leads them to reaching out, even without knowing the appropriate steps to take or even if there are appropriate steps to take that might lead them to be more likely to engage in QPR once trained.

Environmental influences, at one time, were theorized to be the sole stimuli of behavior change (Bandura, 2001). Now, it is not just the influence of one's physical and social environment that influences behavior and behavior change, but the relationship

between the other influences and the manipulation of one's own environment that causes change. In contrast to earlier research, the environment is not the only influence of behavior change but could be a motivator, when working with the other two branches of influence, to motivate change.

Personal factors include self-efficacy, self-control, and personality to influence actions and behavior change. An individual's ideas about a behavior and the consequences of engaging in that behavior are either affirmed or denied by observing others in a similar situation. Bandura (2001) states that an individual's belief systems, interests, and personal goals also influence behavior. In addition to influencing whether or not an individual engages in a behavior one time is a part of the equation; however, whether or not a person engages in the behavior (or stops a behavior) for the long-term is also influenced by the personal level of influence.

Self-Efficacy

Within the construct of personal factors lies the model of self-efficacy and perceived self-efficacy. According to Bandura (1998), perceived self-efficacy can be defined as a person's beliefs in their own "capabilities to organize and execute the courses of action required to produce given levels of attainments." In other words, perceived self-efficacy is not having proof or knowledge that one can stop smoking, take daily medication, or enact QPR when necessary; rather, it is simply the *belief* that they can do so that motivates behavioral change.

According to Baum, Revenson, & Singer (2012), there are a few strategies that interventionists can deploy including 1) setting small goals, 2) using behavioral

contracting and a reward system, and 3) reinforcement of behaviors as well as monitoring behaviors. QPR Gatekeeper Training employs all three of these components. The first strategy, setting small goals, is achieved by having trainees practice asking fellow trainees if they are contemplating suicide via role-playing scenario. Once this activity is complete, trainees often indicate that they were nervous to ask the question but having done so, even as a role-play activity, they are much more comfortable with the thought of asking it in a real-life situation. The second strategy, behavioral contracting, could be considered in use by virtue of participating in QPR Gatekeeper Training. By electing to participate or work in a field that might include a need to intervene on a suicide crisis, an individual should feel obligated to intervene. The third strategy, reinforcement of behaviors, is used via the additional role-play exercises whereby trainees are provided a role-play scenario where they use what they learned in training to walk through the steps to implement training on for an actor in ‘crisis.’

Social Cognitive Theory and QPR Training

In an empirical review of gatekeeper trainings, Burnett, Ramchand, and Ayer (2015) developed a conceptual model of suicide trainings and intervention behavior. This model is based on and consistent with the Social Cognitive Theory, specifically the effect of the environment and personal factors on intervention behaviors. These factors, which align with the research questions of this project include knowledge of suicide, beliefs and attitudes about suicide prevention, reluctance to intervene, and self-efficacy to intervene.

CHAPTER III

METHODS

Overview

As noted above, suicide is a serious public health problem. Luckily, suicide prevention training for the layperson, such as QPR Gatekeeper Training, can help prevent suicide. Since the late 1980s, suicide rates in Alabama have been higher than in the US as a whole. To test the effectiveness of ASPARC's QPR Gatekeeper Training on attitudes, beliefs, and perceived self-efficacy, the investigator conducted a mixed methods analysis of pre- and post-QPR training surveys and one-on-one interviews with trainees who work with high-risk individuals and intervened during a suicidal crisis.

Research Questions

A secondary data analysis of 2018 and 2019 pre- and post-QPR Gatekeeper suicide prevention training surveys and collection of primary qualitative interviews of trainees who intervened in a suicidal crisis will be used to address the following research questions:

1. Do mean scores of knowledge of suicide and understanding of suicide differ pre and post Question, Persuade, Refer (QPR) Gatekeeper Training?

2. Is there a pre-test/post-test difference in participants' knowledge to identify the warning signs of suicide after participation in Question, Persuade, Refer (QPR) Gatekeeper Training?
3. Is there a pre-test/post-test difference in reported self-efficacy to intervene on a potentially suicidal person after QPR Training?
4. How was QPR training effective/ineffective while aiding during a suicidal crisis?
5. How can QPR training be improved?

The phase I quantitative data will be used to explore questions 1, 2, and 3 and phase II qualitative data will be used to address questions 4 and 5. Social Cognitive Theory (SCT), one of the most widely used theories in Health Education/Health Promotion and, more specifically, intervention research (Baum, Revenson, & Singer, 2012), will be the theoretical basis of exploring these questions. As described above in Chapter II, there are three components to SCT: behavioral factors, environmental factors, and personal factors. The relationship with these components is shown below in Figure 7, adapted from Bandura (1997).

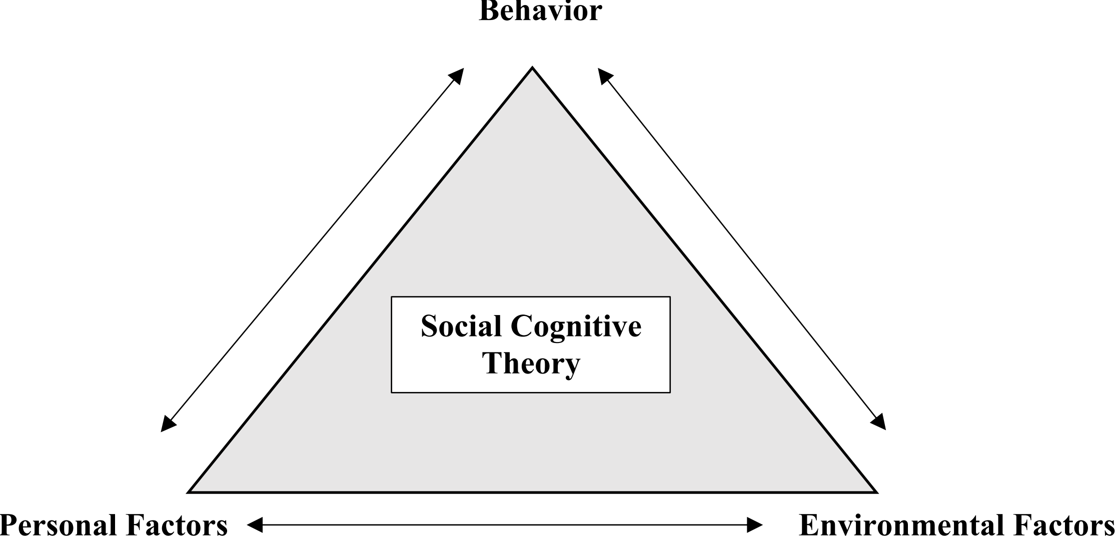

Figure 7. Social Cognitive Theory

The first study question, "is there a difference in knowledge and understanding of suicide after participation in Question, Persuade, Refer (QPR) Gatekeeper Training?," utilizes all three SCT components to explain differences pre- and post- training. The post-training survey responses will not only be affected by the training (environmental factors) but also through observation of the behaviors of the trainers (behavior) who will attest to QPR being an effective intervention on suicide. In addition, a participant's personal factors come into play with their own life experiences and reception of the training.

The second study question, "is there a difference in identifying the warning signs of suicide after participation in Question, Persuade, Refer (QPR) Gatekeeper Training?," also utilizes all three SCT components to explain differences pre- and post- training. be Personal factors come into play if someone has the perceived self-efficacy that not only are there warning signs, but they have had practice identifying specific warning signs that can be verbal, situational, or mood related. Behavioral factors related to this study

question can be affected by an individual already being predisposed to wanting to help those who need help and, post-training, have the skills to do so. Environmental factors, such as seeing others realize that they might have seen warning signs in a friend or family member or hearing stories from trainers about individuals who expressed those signs, could also be responsible for change in this question.

The third study question, "is there a difference in reported self-efficacy to intervene on a potentially suicidal person after QPR Training?," exemplifies SCT in action. All three factors are working together during training to, hopefully, promote a participant to believe that they can intervene during a suicidal crisis and then actually have the skills and intention to do so if and when needed.

The fourth study question, "was QPR training effective while aiding during a suicidal crisis?," culminates the effectiveness of SCT on not only the immediate after-effect of attitudes, beliefs, and perceived self-efficacy on participants but determines whether or not it 1) lasts and, 2) is effective in the real world. The answer to this question will determine how ASPARC can improve training and potentially save lives through future trainings and quality assurance.

Study Population

In 2006, the Alabama Department of Public Health (ADPH), via the Suicide Prevention Resource Center (SPRC) within the ADPH, partnered with the Alabama Suicide Prevention and Resources Coalition (ASPARC), the University of Alabama at Birmingham (UAB), and various crisis centers located throughout the State of Alabama on an initiative to prevent youth suicides throughout the state. This initiative was named

the Alabama Youth Suicide Prevention Program (YSPP). The purpose of the grant and charge of the sub-grantees is to provide suicide prevention trainings, for free, throughout the state.

Trainees were categorized into one of these sectors based on the group with which they trained. Those categorized into the mental health sector were mostly comprised of employees at mental health counseling centers. These employees might have been therapists or any other employee such as the executive assistant or pharmacist. Those categorized into community trainings were from trainings that took place at a library or civic center but not affiliated with any other group. Those categorized into substance abuse services were from a statewide substance abuse conference. Attendees could have been social workers, therapists, lawyers, or anyone else affiliated with substance abuse services in the state. Those categorized into the education sector included trainings at colleges, universities, or county school boards. Trainees included undergraduate, graduate, and professional students, educators, and education administrators. Those categorized in the faith-based sector were from trainings that occurred in the religious sector at a specific place of worship. Table 4 below shows a breakdown of representation for each of these sectors.

Table 4

Sector Represented in Pre- and Post- QPR Training Surveys

Industry	n	% of Survey Respondents Represented
Mental Health	157	41.42%
Community	22	5.8%
Substance Abuse Services	28	7.38%
Education	23	6.06%
Faith-Based	149	39.31%
Total n =	379	

Phase I: Quantitative Data

Inclusion Criteria

Eligible participants for the pre- and post- training survey data include those who were QPR trained by ASPARC between 2018 and 2019, were at least 19 years old at the time of training, and had both pre- and post- test data.

Study Design

The first goal of this research was to evaluate attitudes, beliefs, and perceived self-efficacy pre- and post- QPR training. The QPR Institute requires that all QPR trainings be administered by a certified QPR instructor. In addition, the QPR Institute requires that instructors use a prescribed set of slides with as much audience-, presenter-, affiliate-, location-, or any other subject-related information before and/or after these required slides as the presenter(s) deems appropriate. ASPARC elected to include slides

and commentary to be included in every training that covers the incidence of suicide (including the prevalence of suicide in the U.S. and Alabama), high risk groups, a review of suicides by method and a comparison of the U.S. to Alabama, resources, causes of suicide, Joiner's Theory of Suicide, drivers of suicide, protective factors of suicide, and safety planning. Once these background slides are covered, then the QPR Institute slides and commentary are covered. The QPR Institute-required slides include suicide myths and facts, suicide clues and warning signs, tips for asking the suicide question, how to effectively ask the question, how to persuade someone to stay alive and seek help, and approaches to refer someone to appropriate help. Details of these sections of training were covered in Chapter II.

QPR Training typically takes place in 1.5 to 2 hours with two trainers present. Due to the sensitive nature of the subject matter, ASPARC trainers begin the training with an acknowledgement that the training can be triggering and for audience members to give a thumbs up if they need to leave the room to indicate that they are stepping out to self-manage (phone call, restroom break, etc.). Failure to signal with a thumbs up upon exit will prompt one of the trainers to follow the audience member out of the training to check in on their well-being and current mental health status. Again, this training covers sensitive material and audience members might become overwhelmed or triggered at any time and potentially without warning.

All ASPARC QPR Trainers complete QPR Instructor Training and must pass a written exam. The training and exam are administered by the QPR Institute either virtually or by correspondence through the US postal service. Once trainers have completed the instructor training and passed the written exam, they will observe at least

two trainings, and then conduct two or more trainings with an experienced trainer (usually with 1 or more years of experience delivering QPR training).

Variables in the Quantitative Analysis

Variables included in the pre-QPR training survey include the following statements with instructions for the participant to indicate their level of agreement using a 4-point Likert Scale ranging from strongly disagree to strongly agree:

1) Once a person decides to kill him or herself, there is nothing anyone can do to stop them.
2) One of the strongest predictors of suicide is hopelessness.
3) If you ask someone if they are thinking about suicide, you may give them the idea to try it.
4) Suicide happens without warning signs.
5) People who threaten to kill themselves just want attention.
6) Suicidal people really want to die.
7) If you are thinking about suicide, you should keep those thoughts to yourself.
8) Suicide can be prevented.
9) I know the warning signs of suicide.
10) I know how to ask someone if they are thinking about suicide
11) I know of local resources for help with suicide.
12) If someone I knew was showing signs of suicide, I would directly raise the question of suicide with them.

In addition to the above 12 pre-QPR training survey questions, the below questions

were included in the post-QPR training survey:

1) My learning was enhanced by the knowledge of the instructor
2) I was given the opportunity to get answers to my questions

Data Collection

Data collection took place between September 2018 and March 2019, with eight separate trainings, and 508 total participants. Pre-QPR Training surveys were completed during slide 1 and 2 of the training (before the myths and facts section). Post-QPR Training surveys were completed immediately after the training concluded. Data collected for the pre- and post- training the survey responses were stored by the ADPH and then shared with the investigator. Data was then entered into IBM SPSS, Version 25. Pre- and post- training surveys were administered on 2 separate pieces of paper, stapled together, with a unique identifying number. This number was used to match pre- and post- training surveys to one single respondent.

Statistical Analysis

The outcome of interest for the quantitative phase of this study was to determine changes in responses to pre- and post-QPR Gatekeeper Training on attitudes, beliefs, and perceived self-efficacy on suicide and suicide prevention.

Data Collection

Outcomes regarding attitudes, beliefs, and perceived self-efficacy were drawn from self-reported survey responses. Survey responses to statements with instructions for the participant to indicate their level of agreement using a 4-point Likert Scale included

response options of strongly agree, agree, disagree, or strongly disagree. Each statement was presented in a Likert-scale with four options ranging from Strongly Disagree to Strongly Agree. These options are coded as follows: Strongly Disagree = 1, Disagree = 2, Agree = 3, and Strongly Agree = 4. The pre-training surveys were administered by the QPR trainers at the beginning of each training. The post-training surveys were administered by the QPR trainers at the conclusion of training. Surveys were completed by hand, using a blue or black ink pen. Pre- and post- training surveys were stapled together and collected at the end of each training. Surveys were mailed to the Alabama Department of Public Health (ADPH), Injury Prevention Branch. Once received, ADPH staff input data into an excel workbook. Participants did not receive any incentives for participation in the pre- or post-training surveys.

Data Analysis

The central tendencies from the 12 Likert scale items on the pre- and post-QPR Training survey data are presented in Chapter IV (Table 7). The pre- and post-QPR training survey data were analyzed by multilevel unconditional means model to examine the within-participant and between-person variations. The intra-class correlation coefficient is discussed and described in Chapter IV with regard to outcomes for each class and level 1 and level 2 characteristics. Level 1 characteristics include student characteristics that include pre- and post-training response as well as job-type. Level 2 characteristics include overall "class" outcomes and class setting.

To identify potential items for a scale measuring respondents' understanding of facts and knowledge of suicide prevention, we began by reviewing all post-test items,

displayed in Appendix C. This scale addresses two research questions, 1) “Do mean scores of knowledge of suicide and understanding of suicide differ pre and post Question, Persuade, Refer (QPR) Gatekeeper Training?” and 2) “Is there a pre-test/poste-test difference in participants’ knowledge to identify the warning signs of suicide after participation in Question, Persuade, Refer (QPR) Gatekeeper Training?” Four items were a priori identified based on expert review as likely measuring respondent’s understanding of basic facts and knowledge of suicide prevention. Following Hughes et al.’s (2004) exploration of a factors to create a scale to predict loneliness, we conducted an exploratory factor analysis using Varimax rotation. Statistical evidence supported a one-factor solution in the exploratory sample based on both a visual analysis of a scree plot and the number of factors extracted with an eigenvalue greater than 1. We subsequently selected three items with the highest factor loadings (Table 10) to form a Knowledge of Suicide Prevention Scale. The three items were “I know the warning signs of suicide,” “I know how to ask someone if they are thinking about suicide,” and “I know of local resources for help with suicide.” The fourth item “Suicide can be prevented” was not included because its factor loading was substantially less than that of the first three items. The reliability of the scale was assessed using Cronbach’s alpha, calculated to be $\alpha = .774$, indicating good reliability, especially given a three-item scale, as Cronbach’s alpha is generally higher with additional items. The final scale was calculated by summing respondent responses to each item and rescaling so that the final scale ranged from 0-9, with higher scores indicating greater self-reported knowledge about suicide prevention.

Phase II: Qualitative Data

The second goal of this research was to explore individual experiences of trainees who intervened during a suicidal crisis and use their experiences to enhance ASPARC's delivery of QPR Gatekeeper Training.

Inclusion Criteria

In addition to the quantitative analysis of pre- and post- QPR Gatekeeper Training surveys, we conducted and analyzed qualitative interviews of participants who intervened during a suicidal crisis. Eligible participants for the pre- and post- training survey data include those who were QPR trained by ASPARC between 2018 and 2019 and were at least 19 years old at the time of training. Eligible participants for the qualitative interviews included those who met the above criteria and have since intervened during a suicidal crisis.

Study Design

To dive deeply into the experiences of trainees, qualitative methods are appropriate because 1) interviewing techniques can be used to tease out the nuanced experience of a trainer during QPR training to enhance both the training experience and the learning objectives, 2) each step of QPR can be discussed from identification of warning signs and what the specific signs consisted of, to details of appropriately asking

the suicide question, persuading the individual to seek help, and referring the person to help. Since the details of each suicidal crisis intervention might not be apparent in a quantitative format, a qualitative design was appropriate.

Data Collection

Participants for the qualitative interviews were recruited via email (see Appendix E) to all ASPARC-trained QPR Gatekeeper participants. The email contained information about the study, eligibility, and how to contact the investigator. One week after the initial email, a follow-up email was sent with a reminder about the invitation with instructions on how to sign up for interviews. When a participant agreed to an interview, a confirmation email was sent with information about the study once again and that the participation was voluntary. Once participants enrolled, the investigator screened potential participants for eligibility and assent using a pre-determined, IRB-approved script. Participants did not receive any incentives for participation.

Table 5 below shows the number of people who were invited to interview (n=703). Following the first invitation, 101 people either had bad email addresses so they were removed from the next contact list, replied that they were not interested/eligible, or scheduled and interview before the follow-up email. One week later, the remaining 602 people who did not respond to the first invitation were sent a follow-up email. Fifteen individuals accepted the invitation to be interviewed. Of those, 13 were scheduled to interview, 1 could not find a time that worked within the timeframe, and 1 did not complete the scheduler and did not respond to follow-up contact. Of the 13 scheduled interviews, 5 interviews were either stopped during the interview or never got

to the first question because it became apparent that they or a loved one were in the midst of a suicidal crisis. QPR was deployed, where appropriate, and anyone in need was referred to appropriate help.

Table 5

Total Interview Invitations

Total Initial Invitation Emails Sent	703
Total Follow-up Emails Sent	602
Total Interview Requests	15
Total Interviews Scheduled	13
Total Interviews Stopped	5
Total Interviews Completed	8

For the interviews, the investigator used a pre-determined, IRB-approved script to consent participants over the phone (see Appendix E). The interview (see Appendix F) also used pre-determined, IRB-approved script for a guided dialog regarding participants' experiences. General topics of the interview include reasons for participating in QPR Gatekeeper Training, experiences with the training including anything that was particularly helpful, and an in-depth discussion of the experience with intervening during a suicidal crisis. This part of the discussion touched on each of the main sections of QPR Gatekeeper Training during the time they questioned the individual, persuaded them to get help, and how they referred the individual to seek assistance.

Qualitative data collected during the screening and enrollment process were organized and stored in an Excel worksheet. Audio data collected during the interview

process were stored behind a password-protected computer in a password-protected file. Audio data were sent to a professional transcribing service, Rev.com. All transcribing was completed through Rev.com's secure platform.

Statistical Analysis

In addition to the outcome(s) of interest through quantitative analyses, we were also interested in determining if trainees were able to effectively navigate a suicidal intervention post-QPR training. Interview data were analyzed using template analysis after coding individual interviews and summarizing primary themes related to the experiences of each individual participant interviewed. Although some a priori themes were pre-identified, additional themes emerged upon analysis (Brooks, McCluskey, Turley, and King, 2015). Outcomes regarding real-life experiences navigating a suicidal crisis using QPR and the effectiveness of QPR training were drawn from individual Zoom interviews with individuals who both completed QPR Training with ASPARC and intervened during a suicidal crisis.

CHAPTER IV

RESULTS

Phase I: Quantitative Data

During the observation period, 508 people participated in trainings. Among those participants, only 129 completed both a pre- and post-test response. There were 165 completed pre-tests only and 343 completed post-tests only (see Table 6, below). Pre-QPR Training surveys were completed during slide 1 and 2 of the training (before the myths and facts section). Post-QPR Training surveys were completed immediately after the training concluded. There was a large discrepancy in the number of people trained and the number of trainees who completed both the pre- and post-training survey. There were two major issues with data collection for pre-training surveys: 1) late arrivals to training and 2) since late arrivals came in after training had started, we did not want the in-progress training to influence the survey results, nor did we want the trainee to be distracted while the training was taking place. The pre-training surveys were often left incomplete after training and facilitators were not always able to disseminate and collect before trainees were excused.

Table 6

Total Pre- and Post- Training Survey Responses

Total Participants (X + Y)	508
Total Pre-test (X)	165
Total Post-Test (Y)	343
Total Matched Pairs (Z)	129

A Review of Suicide Prevention Training Outcomes

Because each training session takes place in various sites, we wanted to determine whether some portion of the total variation of the summed scale was due to site-level variation. We calculated the intraclass correlation coefficient, which summarizes the proportion of variation in scores associated with sites, by estimating an unconditional multilevel means model. Results indicated that there was no statistically significant variation in outcome scores associated with sites, with an estimated intraclass correlation coefficient (ICC) of 0.0272 ($p=0.369$). The ICC indicates that 2.7% of the variation in scores is associated with different training sites; however, this variation was not statistically significant. The lack of statistically significant intraclass correlation indicates both an existence of and the importance of fidelity to the intervention. The estimated ICC may be useful to inform power analyses in the design and analysis of multi-site interventions.

Appendix G summarizes the central tendencies for all responses for the pre- and post- tests. These responses indicate that most trainees already believed that suicide can be prevented, asking someone about suicide wouldn't plant the idea of suicide in their

head, people who threaten suicide are not just looking for attention, suicidal thoughts should not be kept to oneself. They also believed strongly that suicide can be prevented. Changes from pre- and post- surveys indicated that, after training, respondents believed that hopelessness is one of the strongest predictors of suicide, there are warning signs, that suicidal people don't really want to die, they know the warning signs of suicide, and that they know how to ask someone about suicide.

The sample for which the paired t-test was conducted only includes responses from trainees who completed both the pre- and the post- training survey. Tables 7, 8, and 9 below shows the central tendencies as well as the results from the paired samples t-test. Due to the means of the pre- and post- test and the direction of the t-value, we can conclude that there was a statistically significant improvement in attitudes, beliefs, and perceived self-efficacy following QPR Gatekeeper training in the following statements: Once a person decides to kill him or herself, there is nothing anyone can do to stop them. $t(123) = 3.816$, $p < .001$; Once of the strongest predictors of suicide is hopelessness. $t(121) = -4.351$, $p < .001$; If you ask someone if they are thinking about suicide, you may give them the idea to try it. $t(118) = 2.336$, $p = 0.021$; Suicide happens without warning signs. $t(118) = 3.544$, $p < .001$; People who threaten to kill themselves just want attention. $t(123) = 4.034$, $p < .001$; Suicidal people really want to die. $t(119) = 2.589$, $p = 0.011$; I know the warning signs of suicide. $t(120) = -8.015$, $p < .001$; I know how to ask someone if they are thinking about suicide. $t(120) = -7.819$, $p < .001$; I know of local resources to help with suicide. $t(114) = -6.952$, $p < .001$; If someone I knew was showing signs of suicide, I would directly raise the question of suicide with them. $t(120) = -4.205$, $p < .001$.

Following Derrick and White's (2017) comparison of parametric versus non-parametric methods on equally spaced, 5-point Likert item questions, we justify using the paired samples t-test in this setting. However, because the Likert scale for the pre- and post- survey was a 4-point scale, a generally accepted test to compare pre- and post-survey responses is the Wilcoxon Rank Sum test. The Wilcoxon test was performed to look at the scaled items to see if the differences from the paired t-test were also present in the Wilcoxon. The Wilcoxon indicated that the sum of the 3 items on the Knowledge of Suicide Prevention Scale pre- and post-suicide prevention training elicited a statistically significant change in knowledge of suicide prevention ($Z = -6.809$, $p = <.001$). These results are reported in Appendix I.

Table 7

Central Tendencies of Pre- and Post- QPR Training Surveys

N=129

	Central Tendencies							
	Pre-test				**Post-test**			
	Mean	**Median**	**Mode**	**SD**	**Mean**	**Median**	**Mode**	**SD**
Once a person decides to kill him or herself, there is nothing anyone can do to stop them.	1.46	1	1	0.8	1.15	1	1	0.465

One of the strongest predictors of suicide is hopelessness.	3.22	3	4	0.84	3.68	4	4	0.733
If you ask someone if they are thinking about suicide, you may give them the idea to try it.	1.37	1	1	0.63	1.18	1	1	0.555
Suicide happens without warning signs.	1.81	2	1	0.97	1.41	1	1	0.735
People who threaten to kill themselves just want attention.	1.49	1	1	0.74	1.17	1	1	0.432
Suicidal people really want to die.	1.9	2	2	0.82	1.61	1	1	0.775
If you are thinking about suicide, you should keep those thoughts to yourself.	1.03	1	1	0.28	1.05	1	1	0.247
Suicide can be prevented.	3.6	4	4	0.67	3.7	4	4	0.721

I know the warning signs of suicide.	2.71	3	3	0.87	3.47	4	4	0.681
I know how to ask someone if they are thinking about suicide.	2.89	3	3	0.94	3.68	4	4	0.59
I know of local resources for help with suicide.	2.82	3	3	0.97	3.71	4	4	0.648
If someone I knew was showing signs of suicide, I would directly raise the question of suicide with them.	3.27	3	4	0.87	3.71	4	4	0.579
The information presented in this training was easy to understand.	N/A – post-only				3.89	4	4	0.42

My learning was enhanced by the knowledge of the instructor.		3.8	4	4	0.51
I was given the opportunity to get answers to my questions.		3.78	4	4	0.52

Table 8

Paired Samples Statistics of Pre- and Post- QPR Training Surveys

N=129

	Paired Samples Statistics						**Paired Samples Correlations**	
	Pre-test			**Post-test**				
	Mean	**SD**	**Std. Error Mean**	**Mean**	**SD**	**Std. Error Mean**	**Corr.**	**Sig.**
Once a person decides to kill him or herself, there is nothing anyone can do to stop them.	1.450	0.790	0.071	1.150	0.454	0.041	0.042	0.640

One of the strongest predictors of suicide is hopelessness.	3.210	0.874	0.079	3.670	0.743	0.067	-0.031	0.731
If you ask someone if they are thinking about suicide, you may give them the idea to try it.	1.370	0.636	0.058	1.180	0.567	0.052	-0.027	0.773
Suicide happens without warning signs.	1.820	0.974	0.089	1.420	0.742	0.068	0.015	0.875
People who threaten to kill themselves just want attention.	1.480	0.738	0.066	1.170	0.437	0.039	-0.029	0.747
Suicidal people really want to die.	1.880	0.822	0.075	1.620	0.780	0.071	0.008	0.928
If you are thinking about suicide, you should keep those thoughts to yourself.	1.030	0.283	0.025	1.050	0.250	0.022	-0.022	0.807
Suicide can be prevented.	3.610	0.679	0.062	3.700	0.731	0.067	0.030	0.743
I know the warning signs of suicide.	2.700	0.882	0.080	3.470	0.684	0.062	0.110	0.230
I know how to ask someone if they are thinking about suicide.	2.900	0.907	0.082	3.690	0.592	0.054	-0.043	0.640

I know of local resources for help with suicide.	2.830	0.964	0.090	3.570	0.663	0.062	0.054	0.569
If someone I knew was showing signs of suicide, I would directly raise the question of suicide with them.	3.270	0.885	0.080	3.700	0.587	0.053	-0.131	0.151

Table 9

Paired Samples Differences of Pre- and Post- QPR Training Surveys

N=129

	Paired Differences							
	Mean	**SD**	**Std. Error Mean**	**95% Confidence interval of the Difference**		**t**	**df**	**Sig. (2-tailed)**
				Lower	**Upper**			
Once a person decides to kill him or herself, there is nothing anyone can do to stop them.	0.306	0.894	0.08	0.147	0.465	3.816	123	<.001
One of the strongest predictors of suicide is hopelessness.	-0.459	1.165	0.105	-0.668	-0.25	-4.351	121	<.001

If you ask someone if they are thinking about suicide, you may give them the idea to try it.	0.185	0.863	0.079	0.028	0.342	2.336	118	0.021
Suicide happens without warning signs.	0.395	1.216	0.111	0.174	0.616	3.544	118	<.001
People who threaten to kill themselves just want attention.	0.315	0.868	0.078	0.16	0.469	4.034	123	<.001
Suicidal people really want to die.	0.267	1.128	0.103	0.063	0.471	2.589	119	0.011
If you are thinking about suicide, you should keep those thoughts to yourself.	-0.016	0.382	0.034	-0.084	0.052	-0.47	123	0.639
Suicide can be prevented.	-0.092	0.983	0.09	-0.271	0.086	-1.026	118	0.307
I know the warning signs of suicide.	-0.769	1.055	0.096	-0.958	-0.579	-8.015	120	<.001
I know how to ask someone if they are thinking about suicide.	-0.785	1.105	0.1	-0.984	-0.586	-7.819	120	<.001
I know of local resources for help with suicide.	-0.739	1.14	0.106	-0.95	-0.529	-6.952	114	<.001

If someone I knew was showing signs of suicide, I would directly raise the question of suicide with them.	-0.43	1.124	0.102	-0.632	-0.227	-4.205	120	<.001

The previous iteration of the pre-QPR Training survey included a 12-page document with demographic, multiple choice, and a short Likert scale item of suicide prevention beliefs and suicide facts. Based on this review, four of the current-use survey items could be used to determine post-training knowledge of suicide prevention. These items include: “I know the warning signs of suicide,” “I know how to ask someone if they are thinking about suicide,” and “I know of local resources for help with suicide.” The fourth item “Suicide can be prevented” was not included because of factor loading that was substantially less than that of the first three items. Cronbach’s Alpha = .774.

Table 10

Factor Loadings for Suicide Prevention Knowledge Scale

Post: I know the warning signs of suicide.	.773
Post: I know how to ask someone if they are thinking about suicide.	.757
Post: I know of local resources for help with suicide.	.639

Notes: Extraction Method: Maximum Likelihood. 1 factor extracted. 4 iterations required.

Phase II: Qualitative Data

A total of 8 individual interviews took place. There were 13 interviews scheduled in total; however, 5 of the interviews had to be stopped because it became evident during the interview that either the interviewee or one of their immediate family members was experiencing a suicidal crisis. Those interviews were left incomplete, and no partially completed sections were included in this discussion. To protect the anonymity of the participants, no information outside of the Interview Guide was collected, including: name, age, sex, race/ethnicity, sexual orientation, or other identifying information. Participants are referred to as Participant A, Participant B, and so on through Participant H.

Respondents for the interview worked in public health, mental health, education, domestic violence services, clinical administrative work, or as an independent contractor. These respondents participated in the same QPR Gatekeeper Trainings as the quantitative data. Interview respondents may or may not also have responded to the pre- and/or post-training survey; however, they are a part of the 508 total participants. Most worked in a field with some exposure to suicide while two of the respondents never encounter suicidal clients and responded due to a recent suicidal intervention after participating in QPR Training. Table 11 below is limited only to the themes expanded upon in the below section of the results and in the discussion. Other themes emerged; however, these themes were limited to those that are directly responsive to the research questions. The entire table is included in Appendix H.

The respondents for the qualitative interviews included individuals who worked in public health, mental health, education, domestic violence services, the Alabama public prison system, an independent contractor, and an administrative assistant. The length of

time these individuals have worked in these sectors/positions ranged from 3 to over 20 years. When asked how often they encountered someone with a suicidal crisis related to their job position, the responses ranged from never to at least once a week.

Table 11

Themes of Qualitative Interviews

Discussion Topics	Themes
QPR Gatekeeper Training Experience	
What factors drew you to enroll in QPR Gatekeeper training?	Job requirement or interested in suicide prevention
Helpful elements of training	Role playing, means assessment, identifying warning signs, how to find resources/help, how to ask the suicide question
Areas of improvement	Additional role playing, fewer facts (came off as dry), more polished presenters
Suicidal Crisis Intervention	
Warning signs	Verbal (both direct and indirect), situational, and mood
Asking the suicide question	Most asked and were comfortable due to practice in training role play
Persuading to seek help and Referring to help	Most were on the job and had resources/key people to bring in to persuade to get help and were the referred help
Follow-up after crisis	

	Most followed up related to job duties, 1 person did not follow up
Elements of QPR Gatekeeper Training that helped during crisis	How to ask the suicide question, knowing signs that a person might be considering suicide, and to always ask
References used	Wallet card by one participant
Self-Efficacy Do you think you would have intervened at all or intervened in the same way prior to participating in QPR training?	Some felt that they would intervene but not in the same way, others would not have intervened if it weren't for training
Did you feel more empowered to intervene due to what you learned through QPR training?	All but one felt empowered to intervene and that person would have because of job duty
The Impact of COVID-19 and Response to Suicide	Issues with resources and time due to no-contact

Employment and Suicide Exposure

On why respondents participated in QPR Gatekeeper Training, two were encouraged to take it through their workplace. The others participated because they are either interested in suicide prevention or have frequent interactions with individuals in crisis and wanted to gain a better understanding of how to help.

> *I knew that with the type of clientele that we have, that there is a high risk of them experiencing hopelessness in their situations. And they may believe that committing suicide is the only way out for them. And so I know that I needed to be prepared and have the tools necessary. (Participant A)*

> *Well, just some of the statistics that we have in the state of suicide and then also working in prevention. Some of the consumers of prevention services have had suicidal thoughts and have had attempts, and there have been some successes, unfortunately. (Participant B)*

QPR Gatekeeper Training Experience

On using their experience during a QPR role-playing exercise to have other hard conversations, one participant expressed that they got much more out of QPR Gatekeeper Training than just suicide prevention knowledge and skills.

> *Exactly. Asking that question of, "Why are you angry? Why are you upset? Why are you mad? Why do you want to kill someone? Why do you want to kill yourself? What is happening so bad in your life that you feel like the only solution is for you not to be here?" And for perhaps, in some cases, "Why your children should no longer have their parent?" It's a hard conversation. However, it definitely needs to be had. (Participant A)*

When asked about the most helpful aspect of the training, respondents felt that knowing how to ask the suicide question, how to identify warning signs, and determine whether or not someone might be experiencing a suicidal crisis were the facets that stuck out during a crisis. These reflections of participants answers question 4 of the research questions: How was QPR Training effective/ineffective while aiding during a suicidal crisis.

> *The main thing was the talking to her and getting her to at least open up to us during those first two attempts about seeing the... noticing the signs of, she was disheveled, she was not being herself, she was changing in her appearance, things like that. So that, I remembered from the training. (Participant F)*

> *Yes. One of the things that stuck out was how if someone is saying, "Oh, I'm going to kill myself," or they're having suicidal thoughts, or they're just saying it out loud, and how a lot of people will just think, oh, they're looking for attention, just ignore them, and we shouldn't do*

that. We should check up on a friend that's exhibiting those behaviors. (Participant G)

Mainly the don't be afraid to talk about it, you know. Don't be afraid to talk about it. I mean, that's helped me. To just, you know, that's the main thing. Because like I said, you kind of get hesitant. (Participant H)

On improving QPR Training, respondents generally felt that additional training that involved more role-playing would be the greatest improvement. Other suggestions included automatically reaching out after two years to re-train and providing laminated wallet cards of resources based on location in Alabama. One respondent thought the training was too dry and needed more interaction among trainees. Although these responses answer question 5 “How can QPR training be improved,” perhaps additional participants could have further saturated this theme/question.

Suicidal Crisis Intervention

Half of the respondents reported that they physically sent aid to the person in crisis or went with the person to get help. Several reported that the particular situation involved a client at work, so there was protocol in place on what to do should there be a suicidal crisis, they still thought back to some of the training from QPR.

We actually drove her to the counselor immediately during those first two times. We took her to the hospital on the second attempt because we didn't know what she had taken and everything else. They kept her there for a couple of days and said that they were going to get her medications regulated. Once she went in, we didn't have any more say over anything. Then, she came back out and it was like a couple of

> *months later that she went down that same road again, and this time she did it. (Participant F)*

When asked about the warning signs that prompted intervention, each respondent identified a range of verbal, situational, mood, or other warning signs. These responses also aid in answering question 4 “How was QPR training effective/ineffective while aiding during a suicidal crisis” as several participants discussed remembering the warning signs segment of their training.

> *Well, some of the warning signs, there was substance abuse in this situation. And she had had a diagnosis of being bipolar, and she went off her medication on her own because she just decided to. It was not a financial reason or anything like that. She just was getting into dabbling into other drugs. It was a client. She went from keeping herself well-kept, well-dressed, very professional, to forgetting deadlines, forgetting things, having problems at work. And we just kept reaching out to her saying, "Something's wrong. You need to talk to us. What's going on?" She just kept talking about how worthless she felt, and just a lot of things were coming down on her at one time. Actually, she had attempted twice before, and we had gotten her help before. And then this time, she did succeed. (Participant F)*

When asked about resources such as the wallet card with the National Suicide Prevention Lifeline or other resources received during training, only one of the participants reported that they used one of these resources. Several reported that they grabbed numerous copies of resources and reference them after a crisis, but not during the crisis. This could mean that an improvement to training includes more helpful resources, or that the resources we offer are either not helpful or not in a helpful format.

Six participants followed up with the person after the crisis, one did not follow up, and one respondent was unable to follow up because the person completed suicide before they could do so. This discovery also begs the question that QPR training might need to be improved by way of educating trainees not only that they should follow up, but how to

do so as most of the participants who followed up were more uncomfortable with the follow-up conversation than the conversation where they asked if the person was considering suicide.

On barriers of finding immediate help, one participant discussed issues with a friend being able to find a hospital to take him in for the night when he self-identified as being at risk for suicide.

And mainly they just post crap on Facebook. And that's their way of reaching out. I've got one guy right now, he's in the LGBTQ community, that's been suicidal. And the worst thing about it is, I told him, you know ... Or I talked to him. I didn't tell him, I talked to him. And I was like, you know, sounds like you need to go to the hospital. He went to the hospital and then they sent him away. Because they didn't have beds. (Participant H)

On barriers with stigma for people in crisis who have co-morbidities such as current or former drug dependency or those who are currently incarcerated, participants recalled being met with resistance when bringing in potential team members.

You know, that's, he's got a mental illness, which is bipolar, PTSD. Like, a long list. But he's also been a drug addict. And it's been about a month since he's done any drugs. But if the hospitals have records of them being a drug addict per se, or you know, taking drugs, they treat them differently. (Participant H)

I was really concerned about him because he was like listless and actually I believe he was high, but he said that he was suicidal. And one of the [corrections officers] did not want to take him out of the cell so that we could stay with him until he got to mental health. And he told me if I take him out of the cell and go kick the shit out of him. I was like "That's not a good idea." (Participant E)

Self-Efficacy

When discussing a recent suicidal crisis, most respondents felt that they would have intervened even if they had not been trained in QPR.

I would, because that's my personality. I'm a helper, so I would on that. I have known that I have gotten frustrated in the past, sometimes, with some of the same clients over and over and over, threatening it. This was kind of like that. This particular client was one that was one of those, over and over and over, constantly, "I'm going to kill myself. I'm going to kill myself." You do get to that point where you're thinking, "No, you're not. You just keep saying that." It was almost a too... I know this sounds... And I don't mean it to sound crass, but it was almost a, "Oh, my gosh. I can't believe she did it," and, "Oh, my gosh. She finally did it." (Participant F)

Yeah. And so I know the first time... The first time he did it, he was very upset and he made a comment to me that he was going to... He just wished he was dead. He couldn't handle all the thoughts in his hand. And so I started... This was before I even knew anything about QPR. I started talking to him and, from all indications of what I can pick up, when he... The first words came out of his mouth that said, "I just wish I was dead. I wasn't here." I could tell in his voice that he truly meant it. So, I literally got him in the car and drove straight to Children's because he'd been through so much trauma that I knew then that we were going to be in some trouble if we didn't get some help. So, he was in a program for about a month and we worked with him and he's done pretty good. Really good. And then his mother... She overdosed on heroin and died. And so he... He just had a hard time and a breakdown. So, we had another situation with that, but even young children go through... You know, people don't think that these young kids go through this but they do. And we have to pay attention to the signs or they're not going to be there. You're going to be wondering what happened. You've got to not be afraid to talk about it. (Participant D)

Others felt that the stigma or misunderstanding of suicidality might have prevented their intervention if it were not for QPR.

Probably not. Probably not because I think, after taking the QPR training, and I'm just telling the truth, and I'm African American, and I think in the African American community, like I just said, people may tend to say, "Oh, she's just acting out. She just wants attention. Just let her be. She'll be all right." Black people tend to look at therapy as a negative thing. So I may would have said, "Well, that's none of my business." (Participant G)

On feeling empowered to ask the suicide question, seven of the respondents felt empowered to ask after training and one did not feel empowered to ask, stating that

following work protocol requires them to ask either way. These responses and those above about not asking the suicide question if it were not for QPR training indicate that QPR is an effective tool for suicide prevention in Alabama.

> *Actually, it was almost like someone had turned on a reel in my head. It was almost like someone turned on a reel in my head. And I remember the, not the issue, but how some people were afraid or are afraid of asking the suicide question. And so for me, that was really big for me to make sure I was very direct with asking that question and asking her what did she have that was accessible, but just to me, I think really the directness. That was a big piece for me because I remember in the training how some people have said they were afraid to, because they felt like it almost encouraged it, or even if the person had never thought of it before that then now they're thinking about it and knowing that what the studies have shown was that's not true. Right. So that's stuff that really, really stuck out to me. (Participant A)*

> *I know that the most important thing in QPR is to point blank ask them if they are contemplating committing suicide. You can't beat around the bush. That's very important that you're bold enough to ask that. I knew that... I remembered that right off the bat, you know? That is the most important thing, if I've learned anything in QPR, is that you've got to be bold enough to ask someone in order to save their life. Because if you don't.... You know, some of them could be calling for help and if you're beating around the bush and not talking to them and actually saying to them, "Hey, look, are you contemplating this? I can sense this. Do you need to talk? Is there something I can help you with? Do you need to go somewhere? We're going to get some help and I'm going to stay here with you. Or get someone with you until, you know, you can-"... You don't want to leave them by themselves when they're messed up like that, you know? (Participant D)*

> *No, I asked them straight out, are you suicidal? Yeah. I mean, I will tell them that. Like, I'll ask them that in a heartbeat. Before the training, I was kind of leery of doing that. (Participant H)*

On the importance of QPR and why this training should be offered more frequently, one participant felt that more trainings might help people feel comfortable talking about mental health.

I've had a couple of family members that have committed suicide and I've also had family members that have... That suffer from depression. And it's just something that people don't talk about and I feel like we need to talk about it more to keep these things from happening. (Participant D)

The Impact of COVID-19 and Response to Suicide

On COVID-19's effect on their clients and suicide, one participant who works in the prison system spoke of the issues with needing to prevent the spread of COVID in the prison vs. addressing inmate suicidality.

However, what I encountered where I work at is that suicide overtakes or overrides COVID. So somebody says they're suicidal and they need to be in the crisis unit, they may end up on the crisis unit and that may not, I don't think that that's always a good idea. I think that there are other places where the person could be and could still be monitored. Only because people generally panicked. COVID is fairly widespread in the prison system. And that particular guy, the guy that cut himself with the needle, when I got his counselor, his counselor hazmatted up. And that's uncomfortable, I think, for everybody. (Participant E)

Another respondent stated that the at-risk families they work with have been severely impacted by COVID-19 with regard to work and anxiety.

Well, just the fact... I mean, I know everybody knows all the resources are hard to find and everything, but the fact is, we already had an issue with not having enough behavioral units, not having enough mental health places for people to go in our area in particular. And now, we are seeing substance abuse. We're seeing suicide attempts. We're seeing all of this increase since COVID due to quarantine and vice versa, just for the people that they're already on that edge of saying, "I don't know if I want to live. Well, now we've got a pandemic, so what is there to live for?", kind of mentality. (Participant F)

A respondent who works in domestic violence reported that their crisis line traffic has doubled since COVID-19.

> *So we had clients who were at home with their batterers and it was difficult to try to continue communication with them when they were taking every opportunity to speak with us, perhaps, maybe when the batterer was asleep, when if that person had to go to work, then maybe that was their opportunity. But in a lot of cases, they were home because they were unable to work and the abuser was home because they were not able to work as well. And it just created a very hostile, very toxic situation for the family. So communicating with them and also trying to get them the services that they need, whether they were petitions for protection orders, whether it was just emergency shelter or transportation to shelter. And you could hear the desperation in the victims voices when you talk to them. You heard the frustration, you hear the helplessness, and you are still trying to provide them some hope, some encouragement, some support, so that they are not believing and thinking that suicide is a way out, is their way out of this situation or that they won't go to those thoughts. But we have, like I said, we have had some, I know I literally, probably two of mine happened literally within the last few months. And it, what I believe has to do more so with the pandemic and having to be with their abusers for longer periods of time in close quarters during those times.*
> *(Participant A)*

On COVID-19's isolating effects on clients, one respondent reported that they spend most of the day cycling through clients to make sure they are ok on a daily basis.

> *I'm not able to go out into the homes and visit right now, but I do keep in contact with my families on the phone a lot. So I am reaching out to them. I think it's causing a lot of stress. People have lost their jobs. So I'm keeping a check on them, making sure they're all right, if they need help with resources like food and other things for the children. So I am reaching out to them and keeping in contact with them every week.*
> *(Participant G)*

CHAPTER V

DISCUSSION

Implications of Findings

The impact of the quantitative and qualitative results together indicate that the training is impactful in changing the attitudes, beliefs, and perceived self-efficacy regarding suicide and suicide prevention. Based on the findings in this project, three of the current-use survey items could be used to construct a multi-item scale assessing perceived knowledge of suicide prevention post-training. Multi-item scales are better for measuring complex concepts (DeVellis, 2003) such as the attitudes, beliefs, and perceived self-efficacy regarding suicide prevention. These items include: "I know the warning signs of suicide," "I know how to ask someone if they are thinking about suicide," and "I know of local resources for help with suicide." The fourth item "Suicide can be prevented" was not included because of factor loading that was substantially less than that of the first three items. Cronbach's Alpha = .774.

Based on these findings, this scale could be included in assessing the overall knowledge of suicide pre- and post- training to determine the effectiveness of training. In addition, each trainee's individual score could be used to determine whether they have a knowledge of suicide prevention substantial enough to warrant a QPR Certification. Currently, all participants who undergo QPR Gatekeeper Training are offered/awarded a QPR Training certificate. Obtaining this certificate requires no demonstration of

knowledge of actual suicide prevention or confirmation that they would actually intervene during a suicidal crisis.

As seen in the results in Chapter IV, Tables 7, 8, and 9, the following statements saw a significant difference in the positive direction (strongly disagree through strongly agree) after the QPR Gatekeeper Training intervention, indicating that there was a difference in overall attitudes, beliefs, and perceived self-efficacy after training.

- Once of the strongest predictors of suicide is hopelessness.
- I know the warning signs of suicide.
- I know how to ask someone if they are thinking about suicide.
- I know of local resources to help with suicide
- If someone I knew was showing signs of suicide, I would directly raise the question of suicide with them.

In the pretest, responses indicated that participants did not believe that hopelessness was one of the strongest predictors of suicide. Post-training, participants indicated that they knew that hopelessness was one of the strongest predictors of suicide. In the pretest, participants disagreed that they knew the warning signs of suicide, how to ask someone if they were thinking about suicide, or that they knew of local resources to help. They also indicated that they disagreed when asked if they would raise the question of suicide if they thought someone was in crisis. After training, posttest results indicated that they agreed on knowing the signs of suicide, how to ask the question, about resources, and that they would ask the question if they thought someone was in crisis.

The following statements saw a significant difference in the negative direction (strongly disagree through strongly agree):

- Once a person decides to kill him or herself, there is nothing anyone can do to stop them.
- Suicide happens without warning signs.
- People who threaten to kill themselves just want attention.
- Suicidal people really want to die.

Each of the above statements are common suicide myths discussed during the facts/myths section of QPR Training. Pretest results indicated that trainees believed these myths, for example, that suicide happens with no warning signs. In addition to warning signs being discussed during the myths/facts section, they are also discussed in the suicide clues and behaviors section of training.

The following statements did not see a change after training:

- Suicide can be prevented
- If you are thinking about suicide, you should keep those thoughts to yourself.

Pre-Training survey responses indicated that trainees agreed or strongly agreed that suicide can be prevented. Pre-Training survey responses indicated that trainees did not think (disagreed or strongly disagreed) that suicidal thoughts should be kept to oneself.

In addition, these results indicate that these changes lead to a QPR-trained individual to be able to identify a potential suicidal crisis and act on these indications. While many individuals interviewed had work-related suicide and other crisis intervention training, most reflected on the QPR Training facts & myths as well as how to ask the suicide question during a time of crisis.

Overall, these results indicate that the intervention is effective. Not only do trainees understand suicide (myths versus facts, for example), they also understand that suicide is preventable and feel that they can and would intervene during a crisis. Each of the specific research questions were addressed with these findings:

Do mean scores of knowledge of suicide and understanding of suicide differ pre and post Question, Persuade, Refer (QPR) Gatekeeper Training? Yes, survey results indicated that their knowledge of suicide and understanding differ pre- and post-training. Seven of the survey questions related to suicide knowledge and understanding of suicidality had a statistically significant change. These changes in survey results, whether net negative or net positive, changed in the direction needed for change to have occurred. In addition, in the qualitative interviews all indicated that they learned more about suicidality and suicide through the training, even if they had already participated in other suicide prevention programming.

Is there a difference in participants' knowledge to identify the warning signs of suicide after participation in Question, Persuade, Refer (QPR) Gatekeeper Training? Yes, survey results to the questions regarding warning signs both saw a statistically significant change. These changes indicate that respondents both understand that there are warning signs and that they can identify what those signs might look like. During the qualitative interviews, each participant identified the warning signs of the individual they suspected was having a suicidal crisis and indicated that these signs are what alerted them to the crisis.

Is there a difference in reported self-efficacy to intervene on a potentially suicidal person after QPR Training? Yes, survey results to the action-oriented questions saw a

statistically significant change. During the qualitative interviews, all but one participant indicated that they felt empowered to intervene due to QPR training.

How was QPR training effective/ineffective while aiding during a suicidal crisis? The qualitative interviews, only, addressed this question. Participants indicated that QPR was effective while aiding during a suicidal crisis. The responses on how it was effective included understanding the urgency in intervening, the proper way to ask the suicide question, and real-life examples from training on case studies of suicidal individuals, and examples from training of the different types of warning signs (mood, situational, verbal).

How can QPR training be improved? The qualitative interviews, only, addressed this question. Areas of improvement included reducing the data from the beginning of training, providing presenters with additional public speaking training, and including more role play during training.

Assumptions

The following assumptions were made for this study:

1. All survey respondents could read and understand the survey instrument(s).
2. All survey respondents truthfully and accurately reported their attitudes, beliefs, and perceived self-efficacy about suicide and the prevention of suicide.
3. Survey data were entered correctly by the Alabama Department of Public Health.
4. The stories captured by the qualitative interviews were recalled by the interviewees as accurately as possible and appropriately reflected use or non-use of QPR training techniques and resources.

Limitations

The following limitations are reported for this study:

1. Issues with data collection meant that only 25% of trainees completed both the pre- and post-training survey, which is a reality for data collection in public health practice and could have had a reduction in the power in this population.
2. Self-reported survey data and related biases.
3. Threats to external validity since those trained were a part of a school or work requirement or suggestion to attain certification in QPR Gatekeeper Training.
4. Threats to internal validity posed by using pretest/posttest study designs.
5. The survey questions used in the pre- and post- training survey were not validated for the constructs of the Social Cognitive Theory.
6. Author was the only coder for qualitative interview analysis; however, worked with an expert in qualitative coding for guidance.

In addition to these limitations, only a portion of the total data collected during this ongoing, multi-entity, statewide initiative were analyzed and reported in this dissertation. The data used for this project include only those responses collected during QPR Gatekeeper trainings conducted by the Alabama Suicide Prevention and Resources Coalition (ASPARC) using the year 3 survey. Twelve-page surveys collected from previous years of the study were too cumbersome and lengthy for respondents to complete in a limited amount of time and did not yield a sufficient number of completed surveys. Additionally, during the timeframe that the twelve-page pre-training surveys were used, there was no post-training data collected. Finally, a limitation of a pretest/posttest design where there is one post-training survey administered immediately

following training and not at any point thereafter will not determine whether the effects of training last or how long they might last after training.

Strengths

The population included in this study included mostly those who were trained through a class or workshop facilitated by a supervisor, teacher, or faith-based leader. In essence, although one could surmise that the population in this study was required or highly recommended to be in attendance rather than those who sought out QPR training, the results still indicate that the trainees still increased suicide knowledge as well as an indication that they would intervene during a crisis. These results could indicate that this intervention is more amenable to a larger audience.

To the authors knowledge, this has been the only study conducted of this type in Alabama. Although it only contains a snippet of data available, the results indicate that a large-scale suicide prevention training effort such as the training requirements of the Jason Flatt Act, could impact suicide rates in Alabama. Especially in populations such as youth and those in rural areas.

Another strength of this study is that it adds to the existing body of literature on the effectiveness of QPR Gatekeeper Training using a novel, multi-item scale. Although additional studies are needed, this scale could be used in long-term follow-up with QPR-trained individuals to determine effectiveness or decay in suicidal knowledge, beliefs, and perceived self-efficacy.

Recommendations for Practice

Although we were able to determine a set of items for Suicide Prevention Knowledge, it would be important to also know whether or not a trainee would actually act during a suicidal crisis. Like the suicide ideation-to-action framework discussed in Chapter II, we could explore a suicide prevention knowledge-to-action framework for those trained. In addition, the areas for improvement should be considered and implemented. These areas include: additional training in public speaking for trainers, reducing the amount of data slides/discussion during the ASPARC section of the training, and including additional opportunities for role playing asking the suicide question.

Future studies could include a development of a measure of intention and action (self-outcome measure). If ASPARC and the QPR Institute develop a new way of presenting QPR Training material, we would need to know if the new way is more or less effective than the current model of training. To do that, we could conduct a randomized cluster trial with the new and old version of training so see if there is an effect. To do this, we would need to know intraclass correlation coefficient for clustered sites. This study found a typical intraclass correlation coefficient of .027. Another reason was to inform the development of future randomized cluster trials interested in determining effectiveness of a self-outcome measure.

Additionally, future studies might consider a third and/or fourth post- survey at the 3- and 6- month mark. A longer follow-up could determine sustainment of or decay of the effects of training. Depending on the results, this can inform whether booster sessions might be warranted. An important consideration for future studies should include a QPR training requirement for all study personnel who conduct qualitative

interviews. Since five of the thirteen interviews had to be stopped for QPR to be applied for either the participant or a close friend or family member, it is imperative that the study personnel understand how to apply QPR. There should also be plans for improvements in data collection to ensure adequate power for analysis.

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APPENDIX A

QUESTION, PERSUADE, REFER GATEKEEPER TRAINING SLIDE DECK

QPR Training

PRESENTED BY THE ALABAMA SUICIDE PREVENTION AND RESOURCES COALITION (ASPARC)

FUNDED BY THE GARRETT LEE SMITH GRANT

Survey

Please fill out the Pre-training survey prior to the training.

After the training, please complete the Post-training survey. Please make sure to turn in both of these pages before you leave today!

Other feedback? Email: info@asparc.org

Content Warning

This training may be uncomfortable due to the subject matter.

This training may be especially uncomfortable if you have lost someone to suicide, have attempted suicide, or are currently considering suicide. We are here to help.

The National Suicide Prevention Lifeline

1-800-273-8255 and is available 24/7.

The Incidence of Suicide

The Prevalence of Suicide

The World Health Organization estimates 1 million people die by suicide each year

- 44,965 people in the US died from suicide in 2016 (1.8% increase from 2015)
- 1 person every 15 minutes in the United States
- 786 were residents of Alabama in 2016

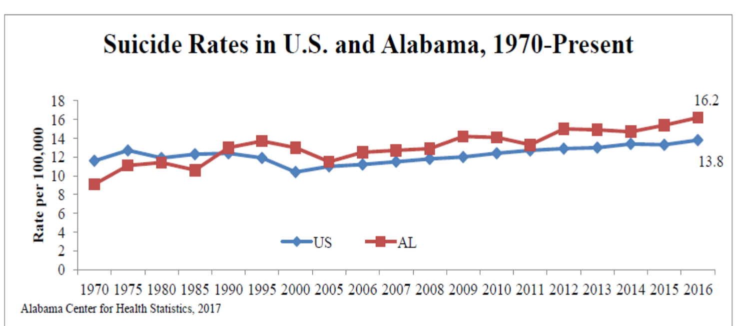
Alabama: From 1985 – 2015, suicide rates increased over 45%.

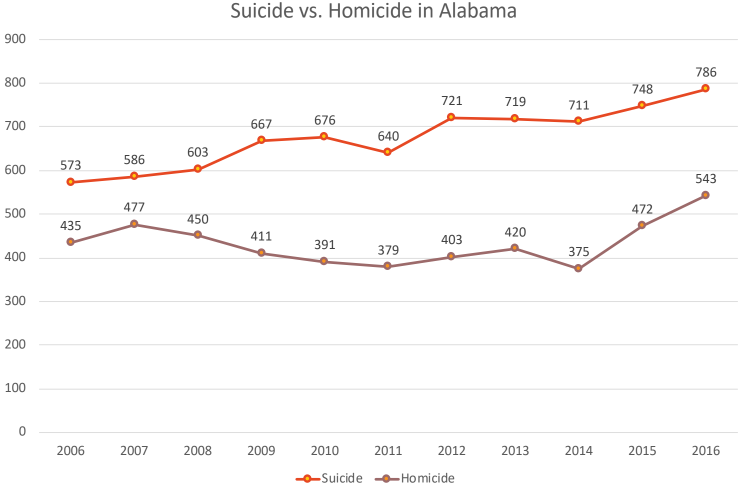
Since 1970, 5 million Americans have lost a family member to suicide

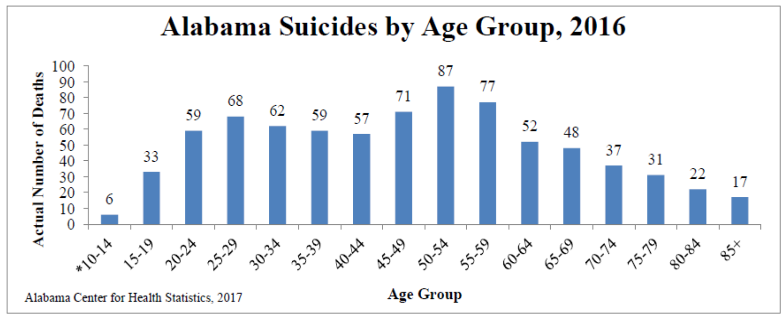
- Average of at least 6 family members are directly and seriously affected by suicide
- 147 people indirectly affected by a suicide

25% of American youth reported seriously considering suicide

90% of those who die by suicide were suffering from depression or some other psychiatric illness or substance abuse disorder (National Institute of Mental Health)

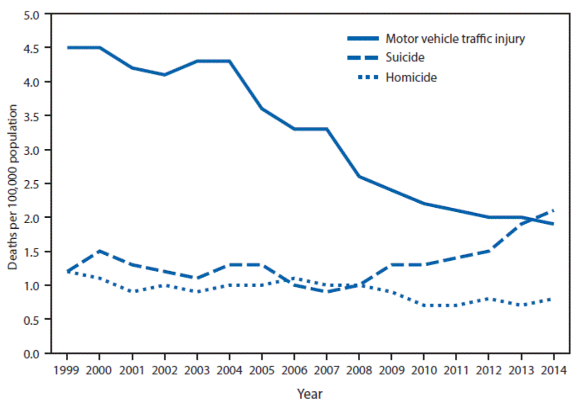






*The state of Alabama abides by the mandate of the World Health Organization which states that any death of a child under the age of 10 cannot be declared a suicide.

Death Rates in Children, Ages 10-14 MMWR/Nov. 4, 2016/Vol.65/No.43



Higher-Risk Groups*

*ANYONE could be at risk for suicide, no matter their age, gender, socio-economic status, ethnicity, etc. However, statistically there are some who are at higher risk:

Male
- Women attempt suicide more frequently, men have higher rates of death (4 to 1).

Middle Age (45-60)

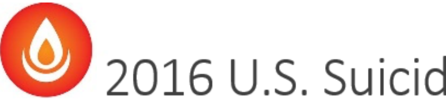
American Indian and Alaska Native

LGBTQ+

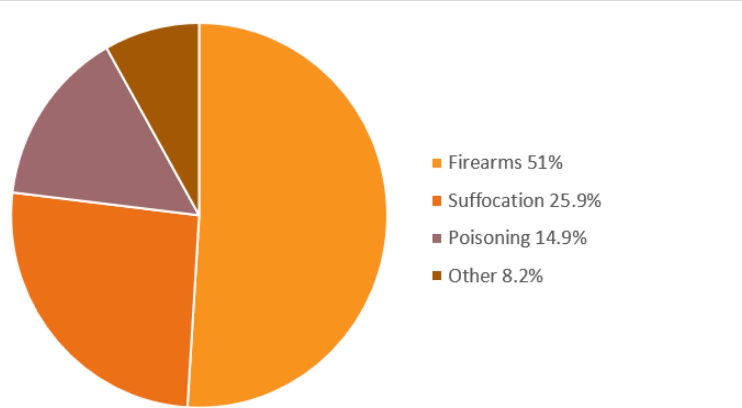
Veterans (Military, Veterans, and National Guard)

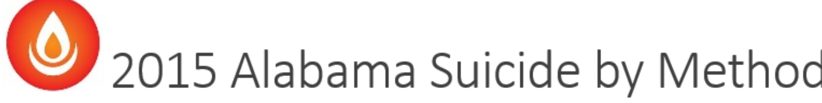
Anyone with a serious physical health or mental health diagnosis

-Taken from SAMHSA, 2017

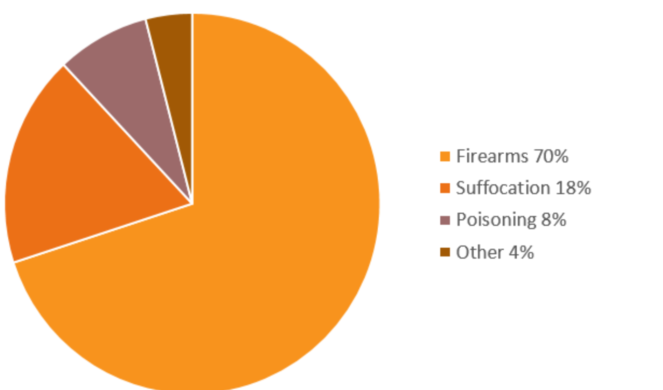


2016 U.S. Suicide by Method





2015 Alabama Suicide by Method



Gun Safety Resources

https://www.hsph.harvard.edu/means-matter/
- Search “Means Matter”

https://www.kingcounty.gov/depts/health/violence-injury-prevention/violence-prevention/gun-violence/LOK-IT-UP.aspx
- Search “Lok-it-up”

https://stopgunsuicide.com/
- From Fred Vars, Law Professor at University of Alabama and ASPARC Board Member

Alabama Resources

1. Call the National Suicide Prevention Lifeline to be routed to your nearest crisis center
   - 800-273-TALK (8255) (24 hrs)
2. The Crisis Center – Birmingham
   - 205-323-7777 (24 hrs)
3. Family Sunshine Center – Montgomery
   - 800-650-6522 (24 hrs) for domestic violence calls only. Offers suicide prevention training.
4. Crisis Services of North Alabama – Huntsville
   - 256-716-1000
5. Lifelines Counseling Services– Mobile
   - 251-602-0909

*Most local mental health centers will also have a crisis line. Contact your nearest community mental health center for more information.

** Go to www.ASPARC.org for a comprehensive list of resources.

Other Resources

Crisis Text Line

- Text 741741 anywhere in the USA.
- After texting the type of crisis, (a 3 letter code for suicide is IMS), within 5 minutes a trained counselor is texting the person back.
- If danger seems imminent counselor asks: “Are you alone? Is there someone you trust we can contact? Is your door locked”? Then a supervisor contacts local police.

SAMHSA Treatment Referral Line

- 800-662-HELP (4537) (M-F 8am-8pm)
- Look online at https://www.samhsa.gov/ or https://www.mentalhealth.gov/

Causes of Suicide

Stigma

Stigma is divided into 2 kinds:

- Felt stigma whereby the person in crisis blames themselves and feels he or she is crazy, weak, defective, unlike “normal” people, worthless etc.
- Enacted stigma whereby the society and culture stigmatize mental illness as something easily cured, easily faked, a slackers excuse, a stain, sign of character weakness, “abnormal”.

Stigma leads to rejection of the ill person on the one hand AND/OR fear of rejection and humiliation by the ill person. These keep ill persons and families from getting help.

Many people would rather tell employers they are guilty of a petty crime and in jail rather than say they are being treated for mental illness.

“…stigma and lack of awareness about helping resources and how they can help are the most common reasons employees do not seek help”.

Addressing Stigma

What to do?

- Outlaw discrimination against people with mental illness like we outlawed discrimination against people with physical handicaps. Is this feasible given the difference between a visible problem like a physical handicap and mental illness?
- Multimedia education to convince people that mental illness and suicidal behavior are “normal” responses to a history of extremely stressful life circumstances?
- The best educational programs involve testimony by entertainers, other prominent persons and “average” people about their struggles with life problems, mental illness and the effects of stigma in their lives.

Joiner’s Key Risk Factors

Isolation/Thwarted Belongingness: This was the first empirically verified factor predisposing to suicide. It is one of the strongest. Decreasing social connections and support is a very bad sign in a person’s life. She or he may feel completely alone, rejected and very depressed.

Burdensomeness: Feeling that one is a burden on others especially family members. Feeling others would be better off if one is dead.

Capability to kill oneself: A result of fearlessness about experiencing pain, injury, and death. This comes thru repeat experience with painful stimuli such as deliberate self-harm, previous suicide attempts, physical and sexual abuse, combat exposure, promiscuous sex, physical fights, and drug abuse.

Suicide Drivers

These 3 risk factors are called “drivers” of suicide and are more specific than clinical depression and hopelessness.

So drivers of suicide are specific thoughts, feelings, and behaviors that lead directly to suicidality. But these drivers are often “driven” in turn by deep-seated, specific, hidden fears and beliefs.

So suicidal people might say “This is really why I am so depressed and must end my life.”

Suicide Drivers: Case Study

Example: A woman is admitted to a hospital after a suicide attempt. She talks about being a huge burden on her family as the reason. But, the unspoken driver of suicide is pending bankruptcy and embezzlement that will lead to her being fired and maybe even to prison. This drives her feelings of burdensomeness and is made worse by shame and guilt.

Once aware of a person's "drivers" they can be confronted quickly and offer a path to halt the death wish.

So it's better to know exactly **why** a person believes she or he is a burden.

Example prompts include:

"First, I would like you to tell me in your own words how it came about that you harmed yourself."

"I would like you to tell me the whole story of what led to the suicidal crisis. Just let me listen to you."

Dos and Don'ts

Reject the Savior Role. Avoid judgement and coercion unless the person is literally on the verge of suicide. Be a collaborator, concerned friend.

Resist the urge to offer unsolicited advice, lecture or give a pep talk. Don't say "Suicide is a terrible mistake." "I'm going to try and persuade you not to kill yourself." "This is crazy. Put these thoughts out of your mind and get your act together".

DO Show empathy and **validate** their feelings. This makes you a friend who wants to help. You can say:

- "It must be awful to feel this way but I understand how that can happen. Please go on."
- "I can understand how you want the pain to end. Please tell me what happened to make you feel this way."
- "Everything you say makes sense. Thank you for telling me."

Resistance to Getting Help

Explore the reasons **why**, when someone refuses to get help.

Resistance to treatment or a referral may be:

- The person does not think they have a mental health problem
- Or they CANNOT be helped

Helping suicidal people believe that effective treatment is available and that you want to personally help them is a huge first step.

Resistance may also come from an individual's definitive decision to kill themselves; the person doesn't want to be stopped. Ambivalence about wanting to live is low.

Protective Factors Against Suicide

Reasons for living. After hearing why the person wants to die, ask: "What are your reasons for staying alive?" If none are stated (this may indicate total hopelessness and high risk) ask "What were your reasons for living?" Or "What would be your reasons for living if you felt better and hopeful?"

Don't say: "Think of the terrible impact on your family."

Other protective factors:

- Active social relationships and family
- Hobbies (ex. African Violet queen)
- Fear of pain and death

Safety Plan

Have the person keep this list on her/his person.

--Remove access to all lethal means.

--With help and support, know that hope is possible.

--Watch a favorite TV show or an uplifting movie.

--Look at pictures on the phone of a loved one (or a friend or a pet).

--Call a family member or friend who understands you.

--Call a therapist, pastor, or trustworthy friend (someone you trust to help you)

--Call the National Suicide Hotline at 800-273-8255, or a local crisis center.

--If a crisis is imminent, go to the Emergency Room.

Ask A Question, Save A Life

QPR

- QPR is not intended to be a form of counseling or treatment.
- QPR is intended to offer hope through positive action.

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Suicide Myths and Facts

- **Myth** No one can stop a suicide, it is inevitable.
- **Fact** If people in a crisis get the help they need, they will probably never be suicidal again.
- **Myth** Confronting a person about suicide will only make them angry and increase the risk of suicide.
- **Fact** Asking someone directly about suicidal intent lowers anxiety, opens up communication and lowers the risk of an impulsive act.
- **Myth** Only experts can prevent suicide.
- **Fact** Suicide prevention is everybody's business, and anyone can help prevent the tragedy of suicide

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Suicide Myths and Facts

- **Myth** Suicidal people keep their plans to themselves.
- **Fact** Most suicidal people communicate their intent sometime during the week preceding their attempt.
- **Myth** Those who talk about suicide don't do it.
- **Fact** People who talk about suicide may try, or even complete, an act of self-destruction..
- **Myth** Once a person decides to complete suicide, there is nothing anyone can do to stop them.
- **Fact** Suicide is the most preventable kind of death, and almost any positive action may save a life.

How can I help? Ask the Question…

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Suicide Clues And Warning Signs

The more clues and signs observed, the greater the risk.

Take all signs <u>seriously.</u>

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Direct Verbal Clues:

- "I've decided to kill myself."
- "I wish I were dead."
- "I'm going to commit suicide."
- "I'm going to end it all."
- "If (such and such) doesn't happen, I'll kill myself."

Indirect Verbal Clues

- "I'm tired of life, I just can't go on."
- "My family would be better off without me."
- "Who cares if I'm dead anyway."
- "I just want out."
- "I won't be around much longer."
- "Pretty soon you won't have to worry about me."

Behavioral Clues:

- Any previous suicide attempt
- Acquiring a gun or stockpiling pills
- Co-occurring depression, moodiness, hopelessness
- Putting personal affairs in order
- Giving away prized possessions
- Sudden interest or disinterest in religion
- Drug or alcohol abuse, or relapse after a period of recovery
- Unexplained anger, aggression and irritability

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Situational Clues:

- Being fired or being expelled from school
- A recent unwanted move
- Loss of any major relationship
- Death of a spouse, child, or best friend, especially if by suicide
- Diagnosis of a serious or terminal illness
- Sudden unexpected loss of freedom/fear of punishment
- Anticipated loss of financial security
- Loss of a cherished therapist, counselor or teacher
- Fear of becoming a burden to others

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Tips for Asking the Suicide Question

- If in doubt, don't wait, ask the question
- If the person is reluctant, be persistent
- Talk to the person alone in a private setting
- Allow the person to talk freely
- Give yourself plenty of time
- Have your resources handy; QPR Card, phone numbers, counselor's name and any other information that might help

Remember: How you ask the question is less important than that you ask it

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Q Question

Less Direct Approach:

- "Have you been unhappy lately?
  Have you been very unhappy lately?
  Have you been so very unhappy lately that you've been thinking about ending your life?"

- "Do you ever wish you could go to sleep and never wake up?"

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Q Question

Direct Approach:

- "You know, when people are as upset as you seem to be, they sometimes wish they were dead. I'm wondering if you're feeling that way, too?"
- "You look pretty miserable, I wonder if you're thinking about suicide?"
- "Are you thinking about killing yourself?"

NOTE: If you cannot ask the question, find someone who can.

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Q Question

How NOT to ask the suicide question:

- "You're not thinking of killing yourself, are you?"
- "You wouldn't do anything stupid would you?"
- "Suicide is a dumb idea. Surely you're not thinking about suicide?"

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P Persuade

How to Persuade someone to stay alive

- Listen to the problem and give them your full attention
- Remember, suicide is not the problem, only the solution to a perceived insoluble problem
- Do not rush to judgment
- Offer hope in any form

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P Persuade

Then Ask:

- "Will you go with me to get help?"
- "Will you let me help you get help?"
- "Will you promise me not to kill yourself until we've found some help?"

YOUR WILLINGNESS TO LISTEN AND TO HELP CAN REKINDLE HOPE, AND MAKE ALL THE DIFFERENCE.

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R Refer

- Suicidal people often believe they cannot be helped, so you may have to do more.
- The best referral involves taking the person directly to someone who can help.
- The next best referral is getting a commitment from them to accept help, then making the arrangements to get that help.
- The third best referral is to give referral information and try to get a good faith commitment not to complete or attempt suicide. Any willingness to accept help at some time, even if in the future, is a good outcome.

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Remember

Since almost all efforts to persuade someone to live instead of attempt suicide will be met with agreement and relief, don't hesitate to get involved or take the lead.

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For Effective QPR

- Say: "I want you to live," or "I'm on your side…we'll get through this."
- Get Others Involved. Ask the person who else might help. Family? Friends? Brothers? Sisters? Pastors? Priest? Rabbi? Bishop? Physician?

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For Effective QPR

- Join a Team. Offer to work with clergy, therapists, psychiatrists or whomever is going to provide the counseling or treatment.
- Follow up with a visit, a phone call or a card, and in whatever way feels comfortable to you, let the person know you care about what happens to them. Caring may save a life.

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REMEMBER

WHEN YOU APPLY QPR, YOU PLANT THE SEEDS OF HOPE. HOPE HELPS PREVENT SUICIDE.

© QPR Institute, Inc.

The Bridge Between Suicide and Life

KEVIN BRIGGS – TED TALK

QPR Practice

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QPR Section 1: Introduction. During this phase of training, participants are introduced to the QPR Institute and discuss the phases of question, persuade, refer pursuant to the next few sections of the training.

QPR Section 2: Suicide Myths and Facts. Suicide myths and facts represent common misconceptions, stigma, and misunderstandings about suicide and suicide prevention. Debunking these myths is an integral segment of suicide prevention training. The following myths that will be discussed and discredited are from the QPR Institute's official training guide and slidedeck on QPR Gatekeeper Training. The first suicide myth is that suicide cannot be stopped. The good news is that just asking someone who might be in a suicide crisis if they are contemplating suicide breeds hope and might reduce suicidal thoughts if they were present (Dazzi, Gribble, Wessley, & Fear, 2014).

The second suicide myth is that confronting a person about suicide might trigger them to act on their suicidal intentions out of anger, frustration, or embarrassment. The good news is that this is false. Even better news is that studies show that asking someone if they are thinking about suicide or have a plan to die by suicide has the opposite effect. Asking someone if they might be suicidal decreases their risk of suicide and prevalence of suicidal thoughts by allowing them to open up and talk about their problems and depression to someone who will listen without interference or criticism; in addition, a review of several studies found that there was no statistically significant increase in suicidal ideation reported for those who had been asked if they might be suicidal (Dazzi et al., 2014).

The third suicide myth is that only experts such as therapists or psychologists can prevent suicide. Since QPR Gatekeeper Training is intended for the layperson to be able

to prevent a suicide, we can guess that it does not take a professional to intervene. As stated with the facts about the first two myths, just asking someone about suicide reduces suicidal ideation. There is no literature suggesting that the person asking about suicidal intention must be a mental health professional.

The fourth suicide myth is that suicidal people keep their plans to themselves. This is not true. Keeping plans or an intention that someone might be suicidal to themselves are discussed throughout the second section of QPR Gatekeeper Training that identifies the verbal, behavioral, and situational warning signs that indicate a person might be contemplating suicide. There are a examples of warning signs; however, any indication that a person might be contemplating suicide is urged to be taken seriously, even if only a few warning signs are present or if none of the warning signs are those used in training.

The fifth suicide myth is that if someone is openly communicating that they are planning suicide or feeling suicidal, they will not actually act on those threats. Many people believe that a person who is openly talking about suicide, be it through a direct conversational means or indirectly to their social media followers, is only looking for attention and has no intent of self-harming or attempting suicide (Joiner, 2011). The reality is that a person who discusses suicide is looking for attention! Talking about suicidal thoughts, plans, or actions is a psychological distress signal and should be taken seriously every time (Mcauliffe, 2002).

The sixth and final suicide myth is that no one can stop a person from suicide once a person has decided that they no longer want to live. The previous myths and facts

discussed determines that this is false. As we learned from the first myth, even asking someone if they are considering suicide may be enough to lower suicidal ideation.

QPR Section 3: Clues and Warning Signs. After the myths and facts section, clues or warning signs are discussed so Gatekeepers know what to look for and have an idea of specific triggers that might indicate that an individual is experiencing a suicidal crisis. The QPR Institute lists several specific clues or warning signs that indicate that a person might be experiencing a suicidal crisis. The more signs observed, the greater indication that a person might be headed toward or is already in crisis. These are verbal, behavioral, and situational clues or warning signs that someone might exhibit during a time in crisis.

Direct verbal clues such as “I wish I were dead” or “I’m going to kill myself” are as direct an indication that someone is considering suicide as one can get. All comments directly indicating a want to end life should be taken seriously and confronted. Indirect verbal clues such as “I won’t be around much longer” or “my family would be better off without me” are indicative that a person might be considering suicide. Although not as serious a clue as a direct verbal threat to end their own life, indirectly verbalizing an intent to not be around or that they feel like a burden on their family should always be taken seriously. Although these clues alone might not warrant asking the person if they are contemplating suicide, a Gatekeeper should probe further to see if there are other clues or warning signs present.

There are also several behavioral clues that might indicate that a person is experiencing a suicidal crisis. These include any previous suicide attempt, putting personal affairs in order, substance abuse, co-occurring depression or other mental health

issue, or any other behavior that a close friend or family member might describe as characteristically unusual for that person. Gatekeepers are encouraged to keep in mind that there are warning signs that might not be discussed during the training but that might trigger them to an individual in crisis.

There are several situational clues that, when combined with any verbal or behavioral clues, might well indicate that a person is considering suicide. These clues include any major, unexpected loss such as loss of freedom (going to jail/prison), a relationship (including death and especially if the death was by suicide), loss of financial security (due to divorce, medical bills, or any other means), an unwanted move, or the fear of becoming a burden to others.

QPR Section 4: Question. Appropriate questioning includes asking directly. A person might have to work up to the direct suicide question, but they could lead up to it throughout the conversation. For example, asking a person if they have been really unhappy lately, then asking if certain events or issues like co-occurring depression have left them feeling really sad or unhappy lately, and finally, asking if they have been so sad or unhappy lately that they have considered ending their life. Another methodology of asking the suicide question appropriately is by not using euphemisms. For example, one might ask a person if they've ever wished that they could go to sleep and never wake up, but they should still follow up by directly asking if the person has considered suicide. Finally, appropriately asking someone if they are asking includes the actual phrasing of the question and not asking in a way that gives the person the answer they're looking for. For example, an inappropriate way to ask would be to say, "you aren't going to do something stupid, are you?" or, "you wouldn't kill yourself, would you?" Think of

walking into the breakroom at work at the same time as a coworker and there is one chocolate chip cookie sitting on the counter. Imagine in this scenario that you turn to that coworker and say, “you aren’t going to eat that cookie, are you?” We would interpret the phrasing of the question to hope for the answer no. This is the same when asking the suicide question. If asked indirectly, inappropriately, or unclear, then the distressed person feels like they either cannot be honest or that the person asking doesn’t actually want to hear about it or has passed judgement.

QPR Section 5: Persuade. If the answer to the suicide question is yes, then the Gatekeeper is trained to persuade the individual to seek help. Part of persuading an individual to get help is by listening to them explain their current situation(s) that lead them to feel like suicide is the only solution to life’s problems. During this phase of training, participants discuss active listening and how to encourage someone to continue talking. Doing so can build trust so that they are more likely to engage in additional help-seeking behavior such as calling the National Suicide Prevention Lifeline, a local crisis center, or going to counseling services.

QPR Section 6: Refer. Once the individual agrees to seek help, the Gatekeeper is trained to refer them to help by either going with them to help (best option), calling for help through the National Suicide Prevention Lifeline or local crisis center, or working with the individual to seek help later if there’s not an opportunity to go to a counselor immediately.

QPR Section 7: Tips for efficient and effective QPR. As CPR is intended for the layperson to be able to intervene in an emergency situation, QPR is intended for the

layperson to be able to intervene on a mental health crisis. QPR Gatekeeper Training is not intended to replace therapy or other mental health treatment.

APPENDIX B

PRE-TRAINING SURVEY

QPR Gatekeeper Pre-Training Survey

Thank you for participating in this survey. Your participation in this survey is completely voluntary. Your answers to the survey questions will be kept confidential and will only be used to evaluate the course. Please write only within the indicated boxes and be careful not to leave any stray marks. **PLEASE USE BLUE OR BLACK INK.**

Please indicate your level of agreement with the following statements.

Once a person decides to kill him or herself, there is nothing anyone can do to stop them.

Strongly Disagree 67.7% 23.2% 6.0% 3.1% **Strongly Agree**

One of the strongest predictors of suicide is hopelessness.

Strongly Disagree 6.1% 16.3% 42.6% 35.0% **Strongly Agree**

If you ask someone if they are thinking about suicide, you may give them the idea to try it.

Strongly Disagree 52.8% 28.9% 14.2% 4.0% **Strongly Agree**

Suicide happens without warning signs.

Strongly Disagree 40.9% 33.6% 17.5% 8.0% **Strongly Agree**

People who threaten to kill themselves just want attention.

Strongly Disagree 47.8% 36.0% 13.4% 2.9% **Strongly Agree**

Suicidal people really want to die.

Strongly Disagree 31.3% 37.6% 18.5% 12.6% **Strongly Agree**

If you are thinking about suicide, you should keep those thoughts to yourself.

Strongly Disagree 86.9% 9.2% 2.5% 1.5% **Strongly Agree**

Suicide can be prevented.

Strongly Disagree 2.1% 4.1% 19.5% 74.3% **Strongly Agree**

I know the warning signs of suicide.

Strongly Disagree 10.5% 31.7% 42.9% 14.9% **Strongly Agree**

I know how to ask someone if they are thinking about suicide.

Strongly Disagree 21.1% 37.3% 28.4% 13.2% **Strongly Agree**

I know of local resources for help with suicide.

Strongly Disagree 17.7% 31.6% 32.6% 18.1% **Strongly Agree**

If someone I knew was showing signs of suicide, I would directly raise the question of suicide with them.

Strongly Disagree 11.3% 26.7% 35.9% 26.2% **Strongly Agree**

National Suicide Prevention Hotline
1-800-273-8255

APPENDIX C

POST-TRAINING SURVEY

QPR Gatekeeper Post-Training Survey

Thank you for participating in this survey. Your participation in this survey is completely voluntary. Your answers to the survey questions will be kept confidential and will only be used to evaluate the course.

Please indicate your level of agreement with the following statements.

Once a person decides to kill him or herself, there is nothing anyone can do to stop them.

Strongly Disagree	87.8%	7.0%	1.7%	3.5%	**Strongly Agree**

One of the strongest predictors of suicide is hopelessness.

Strongly Disagree	5.8%	7.3%	20.6%	66.2%	**Strongly Agree**

If you ask someone if they are thinking about suicide, you may give them the idea to try it.

Strongly Disagree	73.8%	16.0%	7.2%	3.1%	**Strongly Agree**

Suicide happens without warning signs.

Strongly Disagree	71.8%	17.7%	5.9%	4.6%	**Strongly Agree**

People who threaten to kill themselves just want attention.

Strongly Disagree	67.4%	23.5%	6.6%	2.6%	**Strongly Agree**

Suicidal people really want to die.

Strongly Disagree	42.4%	28.6%	16.8%	12.2%	**Strongly Agree**

If you are thinking about suicide, you should keep those thoughts to yourself.

Strongly Disagree	92.6%	4.5%	1.3%	1.6%	**Strongly Agree**

Suicide can be prevented.

Strongly Disagree	2.2%	2.4%	8.5%	86.9%	**Strongly Agree**

I know the warning signs of suicide.

Strongly Disagree	2.0%	4.5%	31.8%	61.7%	**Strongly Agree**

I know how to ask someone if they are thinking about suicide.

Strongly Disagree	1.9%	5.0%	30.0%	63.1%	**Strongly Agree**

I know of local resources for help with suicide.

Strongly Disagree	1.8%	5.0%	24.9%	68.3%	**Strongly Agree**

If someone I knew was showing signs of suicide, I would directly raise the question of suicide with them.

Strongly Disagree	4.7%	7.2%	25.6%	62.5%	**Strongly Agree**

The information presented in this training was easy to understand.

Strongly Disagree	1.1%	2.0%	14.5%	82.5%	**Strongly Agree**

My learning was enhanced by the knowledge of the instructor.

Strongly Disagree	1.1%	2.5%	17.5%	78.9%	**Strongly Agree**

I was given the opportunity to get answers to my questions.

Strongly Disagree	1.1%	2.0%	14.3%	82.6%	**Strongly Agree**

National Suicide Prevention Hotline
1-800-273-8255

APPENDIX D

INSTITUTIONAL REVIEW BOARD APPROVAL

Office of the Institutional Review Board for Human Use

470 Administration Building
701 20th Street South
Birmingham, AL 35294-0104
205.934.3789 | Fax 205.934.1301 | irb@uab.edu

NHSR DETERMINATION

TO: Sullivan, Angela M.

FROM: University of Alabama at Birmingham Institutional Review Board
Federalwide Assurance Number FWA00005960
IORG Registration # IRB00000196 (IRB 01)
IORG Registration # IRB00000726 (IRB 02)

DATE: 29-Aug-2019

RE: IRB-300004024
Attitudes, Beliefs, and Perceived Self-Efficacy Pre and Post Suicide Prevention Training

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The Office of the IRB has reviewed your Application for Not Human Subjects Research Designation for the above referenced project.

The reviewer has determined this project is not subject to FDA regulations and is not Human Subjects Research. Note that any changes to the project should be resubmitted to the Office of the IRB for determination.

if you have questions or concerns, please contact the Office of the IRB at 205-934-3789.

APPENDIX E

INVITATION, CONFIRMATION, AND ASSENT

INVITATION EMAIL

Subject: Invitation to participate in a research project on suicide prevention training

Hi there,

My name is Angela M. Sullivan and I am a PhD student in the Health Education/Health Promotion program at The University of Alabama at Birmingham (UAB). I am working on my dissertation research project under the supervision of Dr. Ann Elizabeth Montgomery.

I am writing to you today to invite you and anyone else who participated in QPR Gatekeeper Training through the Alabama Suicide Prevention and Resources Coalition (ASPARC) to participate in a study entitled "**Attitudes, Beliefs, and Perceived Self-Efficacy Pre and Post Suicide Prevention Training**" (UAB IRB Protocol Number 300004024). This study aims to review pre and post QPR Training surveys in an effort to improve these trainings as well as interview people who have intervened on a suicidal crisis.

Eligibility to participate includes that you 1) completed QPR Gatekeeper Training with ASPARC and 2) intervened during a suicide crisis.

Your participation would involve one, 60-minute interview that will take over the phone. With your consent, interviews will be audio-recorded. Once the recording has been transcribed, the audio-recording will be destroyed.

While this project does involve some professional and emotional risks, care will be taken to protect your identity. This will be done by keeping all responses anonymous and allowing you to request that certain responses not be included in the final project.

You will have the right to end your participation in the study at any time, for any reason. If you choose to withdraw, all the information you have provided will be destroyed.

All research data, including audio-recordings and any notes will be encrypted. Any hard copies of data (including any handwritten notes or USB keys) will be kept in a locked cabinet. Research data will only be accessible by the researcher (me) and the research supervisor (Dr. Ann Elizabeth Montgomery).

The ethics protocol for this project was reviewed by the UAB Office of the IRB (OIRB), which provided clearance to carry out the research. (Clearance expires on: insert date here.)

If you would like to participate in this research project, or have any questions, please contact me at 334.470.8469 or amsulli@uab.edu.

If you have questions about your rights as a research participant, or concerns or complaints about the research, you may contact the UAB Office of the IRB (OIRB) at (205) 934-3789 or toll free at 1-855-860-3789. Regular hours for the OIRB are 8:00 a.m. to 5:00 p.m. CT, Monday through Friday.

Sincerely,

Angela M. Sullivan

FOLLOW-UP EMAIL

Hello,

I am writing to follow-up on my previous email regarding participating in a study about suicide prevention. If you completed QPR training with ASPARC, intervened on a potential suicidal crisis, and are willing to talk about your experience and how we can better train and offer resources, you might consider participating in this study.

Please let me know and we can set up a time to talk.

Thank you,

Angela M. Sullivan

CONFIRMATION EMAIL

Hello,

Thank you for agreeing to participate in a telephone interview. The interview will take place at [time] on [date]. Please call the following number to participate: 334-470-8469.

The objective of this dissertation project, "**Attitudes, Beliefs, and Perceived Self-Efficacy Pre and Post Suicide Prevention Training**" (UAB IRB Protocol Number 300004024) is to examine the pre and post QPR Training surveys to examine outcomes of changes in attitudes, beliefs, and self-efficacy post QPR Gatekeeper Training for suicide prevention. In addition to analyzing these data, I want to conduct interviews with members of the community who have intervened during a suicidal crisis. Interviews will take place with volunteers who have completed QPR Gatekeeper Training through ASPARC (Alabama Suicide Prevention and Resources Coalition) for a total of no more than 10 interviews.

Your participation in this study is voluntary. The interview will take place over the phone and will last approximately 60 minutes. The information you share may be quoted in publications, but your name will not be associated with the quotations. There are no risks associated with your participation; the benefits of your participation are that the information you provide will help to increase the understanding of suicidality and suicide prevention. There is no compensation related to this activity.

If you have questions about your rights as a research participant, or concerns or complaints about the research, you may contact the UAB Office of the IRB (OIRB) at (205) 934-3789 or toll free at 1-855-860-3789. Regular hours for the OIRB are 8:00 a.m. to 5:00 p.m. CT, Monday through Friday. You may also call this number in the event the research staff cannot be reached or you wish to talk to someone else.

If you have questions or concerns, please let me know. Feel free to contact me (the Principal Investigator) at any time via amsulli@uab.edu or 334-470-8469. I look forward to speaking with you soon.

Thank you,

Angela M. Sullivan

CONSENT PROCESS

The following information regarding the consent process will be emailed to study participants when interviews are confirmed and will be reviewed at the time of the interview:

The objective of this research study, "**Attitudes, Beliefs, and Perceived Self-Efficacy Pre and Post Suicide Prevention Training**," is to explore how QPR (Question, Persuade, Refer) Gatekeeper Training affects attitudes, beliefs, and self-efficacy on suicide facts and suicide prevention. In addition to analyzing data on pre and post QPR Gatekeeper Training surveys, I am conducting interviews with QPR-trained individuals who have since intervened during a suicidal crisis. Interviews will take approximately 60 minutes and there will be no more than 10 participants interviewed.

Your participation in this study is voluntary. The interview will take place over the phone and will last approximately 60 minutes. The information you share may be quoted in publications, but your name will not be associated with the quotations.

If you have questions or concerns, please let me know. Feel free to contact me (the Principal Investigator) at any time at amsulli@uab.edu or 334-470-8469.

If you have questions about your rights as a research participant, or concerns or complaints about the research, you may contact the UAB Office of the IRB (OIRB) at (205) 934-3789 or toll free at 1-855-860-3789. Regular hours for the OIRB are 8:00 a.m. to 5:00 p.m. CT, Monday through Friday. You may also call this number in the event I cannot be reached or you wish to talk to someone else.

APPENDIX F

INTERVIEW GUIDE

The objective of this research study, "**Attitudes, Beliefs, and Perceived Self-Efficacy Pre and Post Suicide Prevention Training**," is to explore how QPR (Question, Persuade, Refer) Gatekeeper Training affects attitudes, beliefs, and self-efficacy on suicide facts and suicide prevention. In addition to analyzing data on pre and post QPR Gatekeeper Training surveys, I am conducting interviews with QPR-trained individuals who have since intervened during a suicidal crisis. Interviews will take approximately 60 minutes and there will be no more than 10 participants interviewed.

Your participation in this study is voluntary. The interview will last approximately 60 minutes. The information you share may be quoted in publications, but your name will not be associated with the quotations.

If you have questions or concerns, please let me know. Feel free to contact me (the Principal Investigator) at any time at amsulli@uab.edu or 334-470-8469.

If you have questions about your rights as a research participant, or concerns or complaints about the research, you may contact the UAB Office of the IRB (OIRB) at (205) 934-3789 or toll free at 1-855-860-3789. Regular hours for the OIRB are 8:00 a.m. to 5:00 p.m. CT, Monday through Friday. You may also call this number in the event I cannot be reached or you wish to talk to someone else.

- What is your current position and title? Length of time in this position? Previous positions?
- In your current position, how often have you worked with a client experiencing a suicidal crisis?
- What factors drew you to enroll in QPR Gatekeeper training?
- When did you complete the training?
- Please tell me about your experience receiving QPR Gatekeeper training.
    - Had you had other gatekeeper or other suicide prevention trainings prior to receiving our training?
    - Did you find any particular part of the training impactful or helpful? Elaborate.
    - Did you find that any part of the training needs improvement? Elaborate.
- Now I would like to talk with you about a recent situation during which you worked with a client experiencing a suicidal crisis. To begin, what were the warning signs?
    - Did you ask the suicide question or did the person directly say that they were suicidal? If neither how did you determine the person was suicidal?
    - Did you have to persuade this person to seek help?
        - If so, how?
    - Did you refer this person to additional assistance? If so:
        - How?
        - Where? What type of assistance (examples: called the National Lifeline or a local crisis center? Walked to counseling services? Called therapist employed with you?)
        - Did you go with them, call, or make some other arrangements for them to seek help?
        - Did you follow-up to find out what happened to them?

- When you were in this situation, did you remember anything from your QPR training that helped you through it?" If so:
    - Did you refer to your QPR booklet, wallet card, or other reference material at any time during this encounter?
        - What reference materials did you use?
            - Were they helpful?
            - Are there resources you wanted but didn't have? Is there something that could be added to make the QPR materials more helpful in that moment?
        - If not, what from your QPR training did you use?
    - Do you think you would have intervened at all or intervened in the same way prior to participating in QPR training?
        - Why?
        - Why not?
        - Did you feel more empowered to intervene due to what you learned through QPR training? If so, please tell me how.
    - If not, is it because you have had other training in suicide prevention? If so, will you tell me about this/these trainings? If you did not have other training, please tell me why you did not feel more empowered.

Closing Question: What else should we talk about regarding suicide prevention training? Is there anything else you would like to share with me today?

APPENDIX G

COMPREHENSIVE PRE- AND POST- SURVEY MEAN, MEDIAN, MODE

	Pre-test					Post-test				
	Valid	**Missing**	**Mean**	**Median**	**Mode**	**Valid**	**Missing**	**Mean**	**Median**	**Mode**
Once a person decides to kill him or herself, there is nothing anyone can do to stop them.	161	222	1.55	1	1	338	45	1.15	1	1
One of the strongest predictors of suicide is hopelessness.	156	227	3.28	3	4	332	51	3.7	4	4
If you ask someone if they are thinking about suicide, you may give them the idea to try it.	159	224	1.32	1	1	335	48	1.17	1	1
Suicide happens without warning signs.	161	222	1.88	2	1	328	55	1.3	1	1
People who threaten to kill themselves just want attention.	162	221	1.44	1	1	331	52	1.34	1	1
Suicidal people really want to die.	160	223	1.85	2	2	331	52	1.57	1	1
If you are thinking about suicide, you should keep those thoughts to yourself.	160	223	1.05	1	1	341	42	1.05	1	1
Suicide can be prevented.	159	224	3.58	4	4	331	52	3.82	4	4
I know the warning signs of suicide.	163	220	2.69	3	3	329	54	3.57	4	4
I know how to ask someone if they are thinking about suicide.	161	222	2.84	3	3	331	52	3.72	4	4
I know of local resources for	152	231	2.76	3	3	333	50	3.65	4	4

help with suicide.										
If someone I knew was showing signs of suicide, I would directly raise the question of suicide with them.	161	222	3.25	3	4	334	49	3.73	4	4
The information presented in this training was easy to understand.	N/A – post-only					338	45	3.86	4	4
My learning was enhanced by the knowledge of the instructor.						337	46	3.75	4	4
I was given the opportunity to get answers to my questions.						332	51	3.83	4	4

APPENDIX H

INTERVIEW CODEBOOK

Discussion Topics	Themes
Employment and Suicide Exposure • Current position and title • Length of time in this position • How often have you worked with a client experiencing a suicidal crisis?	• Industries included Public Health, Mental Health, Education, Domestic Violence Services, Administrative Assistant, Public Prison System, and Independent Contractor • Ranged from 3 to 20+ years • Ranged from never to weekly
QPR Gatekeeper Training Experience • What factors drew you to enroll in QPR Gatekeeper training? • Helpful elements of training • Areas of improvement	• Job requirement or interested in suicide prevention • Role playing, means assessment, identifying warning signs, how to find resources/help, how to ask the suicide question • Additional role playing, fewer facts (came off as dry), more polished presenters
Suicidal Crisis Intervention • Warning signs • Asking the suicide question • Persuading to seek help • Referring to help • Follow-up after crisis	• Verbal (both direct and indirect), situational, and mood • Most asked and were comfortable due to practice in training role play • Most were on the job and had resources/key people to bring in to persuade to get help and were the referred help • Most followed up related to job duties, 1 person did not follow up

- Elements of QPR Gatekeeper Training that helped during crisis - References used	- How to ask the suicide question, knowing signs that a person might be considering suicide, and to always ask - Wallet card by one participant
Self-Efficacy - Do you think you would have intervened at all or intervened in the same way prior to participating in QPR training? - Did you feel more empowered to intervene due to what you learned through QPR training?	- Some felt that they would intervene but not in the same way, others would not have intervened if it weren't for training - All but one felt empowered to intervene and that person would have because of job duty
The Impact of COVID-19 and Response to Suicide	Issues with resources and time due to no-contact

APPENDIX I

WILCOXON RANK SUM RESULTS

Descriptive Statistics							
n=129	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
					25th	50th (Median)	75th
Knowledge Scale Pre	8.1890	2.29469	3.00	12.00	6.0000	8.0000	10.0000
Knowledge Scale Post	10.3643	1.94027	3.00	12.00	9.0000	11.0000	12.0000

Ranks				
		N	Mean Rank	Sum of Ranks
Knowledge Scale Post - Knowledge Scale Pre	Negative Ranks	23[a]	39.35	905.00
	Positive Ranks	92[b]	62.66	5765.00
	Ties	12[c]		
	Total	127		

a. Knowledge Scale Post < Knowledge Scale Pre

b. Knowledge Scale Post > Knowledge Scale Pre

c. Knowledge Scale Post = Knowledge Scale Pre

Test Statistics[a]	
	Knowledge Scale Post - Knowledge Scale Pre
Z	-6.809[b]
Asymp. Sig. (2-tailed)	0.000

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.