A PROPOSED SUICIDE PREVENTION INTERVENTION FOR LGBTQ YOUTH: ADDRESSING AN UNMET NEED

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ABSTRACT

Lesbian, Gay, Bisexual, and Transgender (LGBT) youth face health disparities linked to societal stigma and discrimination based on their sexual orientation and/or gender identity. Depressive symptoms, feelings of prolonged hopelessness or sadness, suicidal ideation, and suicide attempts are considerably more likely for sexual minority and transgender youth than for heterosexual and non-transgender youth. The purpose of this paper is to understand the current state of LGBTQ youth suicide research and to propose a program plan for an LGBTQ youth-focused suicide prevention intervention. The author utilized two main research strategies for developing the plan: first, a PubMed literature search was executed to identify peer-reviewed literature on LGBT youth suicide prevention interventions. Second, a grey literature search was conducted to locate existing evidence-based suicide prevention interventions for the general youth population that may be useful for LGBTQ youth. Results from the PubMed literature search indicate that no LGBT-specific evidence-based interventions to reduce suicide risk are currently available. However, the grey literature search found that a number of evidence-based interventions for suicide prevention among the general youth population exist and contain elements that may be adapted for an LGBTQ-specific program. The author selected four evidence-based programs that have been reviewed and included in the Suicide Prevention Resource Center's Best Practices Registry (BPR) based on their potential for adaptation for LGBTQ youth. The grey lit review

also yielded a list of recommendations for agencies serving youth for developing more LGBT-inclusive programming published by the Suicide Prevention Resource Center. The author identified core elements of the four existing programs and designed new elements based on the SPRC's recommendations to directly target LGBT-specific risk factors for suicide, and combined these to create "Protecting Our Youth: A Suicide Prevention Program for LGBTQ Youth and Allies (POY)." The public health significance of this work is that it advances our understanding of the unique mental health needs of LGBTQ youth. Using a strong base of public health theory along with an extensive review of LGBTQ health research, the proposed program provides the basis of a potentially efficacious program for reducing suicide-related outcomes among members of a vulnerable population.

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1.0 INTRODUCTION

Research has shown that LGBTQ youth face health disparities linked to societal stigma and discrimination based on their sexual orientation and/or gender identity. The unique experience of growing up as a sexual minority, often marked by instances of discrimination, homophobia, and heterosexism account for many of the health inequalities that exist for lesbian, gay, bisexual, and transgender youth: these issues serve as underlying factors for poor health outcomes among members of this population, particularly in areas of mental health.[1]

LGBTQ adolescents are more likely than their heterosexual peers to engage in a number of risky behaviors including, but not limited to, alcohol use, tobacco use, and risky sex behaviors.[2] A longitudinal cohort study of LGBT adolescents found that elevated rates of reported suicide attempts in youth who identified as LGB were associated with significantly higher rates of depression, and elevated suicidal behavior among LGB members were associated with depression, anxiety disorders and substance use disorders later in life.[3] The established associations between these risky behaviors and suicidal ideation and attempt indicate a need for intervention strategies that incorporate risk reduction across multiple types of behaviors.

Research on the mental health of this population highlights a critical need for public health intervention, with depressive symptoms, suicide ideation, and suicide attempts being considerably more likely for sexual minority and transgender youth.[4] Although robust evidence for higher rates or depression and suicidality among sexual minority youth exists, the size of

these disparities varies across studies, making it difficult to compare LGBTQ and non-LGBTQ youth outcomes. For example, evidence suggests that the disparities may vary across a number of population characteristics including gender, bisexuality status, and different measures of sexual orientation (e.g. behavior v. labels), making our understanding of LGBTQ youth mental health more complex.[5]

Despite drastic variations in rates and prevalence of suicidal ideation and attempt among LGBTQ youth from study to study, a growing body of research demonstrates that negative experiences resulting from stigmatization of sexual and gender minorities can lead to chronic stress that contributes to emotional distress among LGBT persons. Two community-based studies examining the impact of victimization on mental health outcomes for LGB youth found a strong link between lifetime victimization directly attributable to one's minority sexual orientation (e.g., verbal abuse, threats of violence, physical assault, and sexual assault) and mental health problems.[6,7] Data from the 2015 Youth Risk Behavior Survey (YRBS), a biennial survey conducted by the Centers for Disease Control and Prevention to understand health behaviors and risk and protective factors for adolescent health, supports this association: 60% of youth who reported a minority sexual orientation indicated feeling sad or hopeless in the past two weeks compared to 26% of heterosexual youth, suggesting poorer mental health outcomes among sexual minority youth.[8] A meta-analysis of existing research on suicidality and depression disparities between LGB and non-LGB youth found that LGB youth are 2.92 times more likely to report suicidality and were more likely to exhibit depressive symptoms than non-LGB youth. Despite growing evidence of the mental health disparities affecting LGBTQ youth, research on LGBT suicide remains limited.

1.1 LGBT YOUTH SUICIDE

Suicide is the third leading cause of death for youth age 15 through 24 in the United States, making it a major public health concern.[9] Many studies have been conducted to determine risk factors for suicide among adolescents in the general population. YRBS data has identified a number of population-level risks for suicide attempts including gender, race/ethnicity, history of depression, hopelessness, alcohol and other drug use, sexual activity, and violence/victimization.[10] In the survey, 17% of adolescents in the United States reported experiencing suicidal ideation over the past 12 months. Similar research has found that suicidal ideation, or suicidal thoughts, is one particularly important precursor of suicide attempts, with nearly one third of all suicide ideators transition to a suicide attempt.[11] This research also suggests that risk of first onset of suicidal behavior increases significantly at the start of adolescence (12 years), peaks at age 16 years, and remains elevated into the early 20s.[11]

Although the general adolescent population is understood as a high-risk group for suicide-related behaviors, there is increasing theoretical and empirical evidence indicating that LGBTQ youth are disproportionately affected by suicide-related thoughts and behaviors relative to their heterosexual and/or non-transgender peers.[1] A variety of studies indicate that LGB youth are nearly one and a half to three times more likely to have reported suicidal ideation than non-LGB youth. Research from several sources also revealed that LGB youth are nearly one and a half to seven times more likely than non-LGB youth to have reported attempting suicide.[9] In a study exploring the contribution of perceived sexual orientation-based discrimination to elevated emotional distress among LGBT youth, LGBT youth exhibited higher rates of depressive symptomatology, and were more likely to report suicidal ideation (30% vs. 6%, $p<0.0001$) and self-harm than heterosexual youth.[4] One longitudinal study of over 200 LGBT youth found that

risk factors such as history of attempted suicide, prospective LGBT victimization, and low social support are associated with increased risk for suicidal ideation among LGBTQ youth ($p=0.05$, $p=0.03$, and $p=0.02$, respectively).[12] Further, childhood gender nonconformity, victimization, and prospective hopelessness were associated with greater rates of self-harm within this population ($p<0.01$for all three measures).[12] YRBS data indicates a similar trend: LGB youth were more than twice as likely as heterosexual youth to have considered attempting suicide in the past year (31% vs. 14%)[8]. Despite increased suicide prevention efforts over the past few decades, rates of suicidal ideation during this period have not declined, indicating the need for greater understanding of suicidal etiology.[12] As the field of youth suicide prevention research continues to grow, research that examines suicide among members of high-risk communities becomes increasingly important.

1.2 RISK FACTORS OF SUICIDE

Many factors influence a person's chance of experiencing suicidal ideation and suicide-related behaviors. Risk factors are characteristics at the biological, psychological, family, community, or cultural level that precede and are associated with a higher likelihood of negative outcomes. Accumulating research examining the influence of various risk factors and protective factors on suicide provides suggestions for intervention strategies. LGBTQ youth are impacted by both LGBT-specific risk factors and general risk factors for suicidal ideation and attempt; this poses a challenge for public health researchers as they must consider both the general experience of entering adulthood as well as the specific experience of growing up as a sexual minority. LGB

youth generally have more risk factors, more severe risk factors, and fewer protective factors than heterosexual youth. Factors that may contribute to suicide risk in the general population include: mood and anxiety disorders, negative personality traits (e.g. low self-esteem, hopelessness, aggression), stigma with seeking help, sense of isolation, adverse life events/stressors, substance use, and lack of social support. In the LGBT population as a whole, mental disorders constitute the single largest risk factor for suicidal behavior, and studies have also reported a generally strong association between mental disorders and suicide attempts in LGB adolescents and adults.[13] Research indicates that LGBT persons are disproportionately affected by a number of these generic risk factors. For example, LGB youth often lack important protective factors such as family support and safe schools, and more LGB young people appear to experience depression and substance abuse.[9] While these risk factors are not LGBT-specific in and of themselves, these risks are often exacerbated for sexual minority individuals.

In addition to generalized risk factors, there is risk unique to LGB youth related to the development of sexual orientation.[9] The literature has identified LGBT-specific risk factors for suicide including: psychosocial stressors of being LGBT (e.g. victimization, lack of social support, dropping out of school, family problems, suicide attempts by acquaintances, substance use, coming out), gender nonconformity, self-identification as LGBT at a young age, first same-sex sexual experience at a young age, history of sexual or physical abuse, and rejection from important social support systems.[9-15] Additionally, LGBT persons often experience lower feelings of belongingness and lack of social support as a result of their experience as a sexual minority in a heteronormative society.[1] Stigma and discrimination are directly tied to risk factors for suicide. For example, discrimination has a strong association with mental illness, and

heterosexism may lead to isolation, family rejection, and lack of access to culturally competent care.[9]

1.3 PROTECTIVE FACTORS OF SUICIDE

Protective factors are characteristics that exist in individuals, families, or communities that help individuals effectively cope with stressful life conditions. Protective factors serve to eliminate risk of negative health outcomes or counter the effect of an existing risk factor. Many public health intervention strategies aim to enhance protective factors among at-risk populations as a means for improving health outcomes; these programs that aim to enhance protective factors or resilience are as important as programs for risk reduction.[9] Existing suicide prevention interventions that serve the general youth population have effectively reduced suicidal behavior by integrating protective factors into the program's framework. Some factors that protect against suicidal-related risk behaviors include access to effective treatment, restricted access to lethal means, perceived feelings of belongingness, strong family connections, and perceived social/community support.[9] Factors such as social connectedness, social support, number of friends, higher frequency of social contact, and lower levels of social isolation have been identified as protective against suicidal thoughts and behaviors and other high-risk behaviors and have been associated with positive youth outcomes.[9] LGBT-specific suicide intervention programs should include social support building among its health promotion strategies as this factor has been identified as particularly important for resiliency among LGBT persons.[9] Such interventions must also address both proximal determinants of suicide risk, such as depression and hopelessness, and distal determinants, such as social/familial support and bullying.

Prevention efforts focused on reducing risk factors and promoting protective factors at multiple levels are key for addressing a variety of health outcomes among the general population, and may be especially important for special populations who have historically experienced marginalization and discrimination within the social environment. Suicide prevention programs can be effective in diminishing risk factors and especially in building protective factors, yet no evidence-based suicide prevention intervention specifically targeting LGBTQ youth risk and protective factors is currently available.[16]

1.4 SPECIFIC AIMS

The purpose of this project is to review existing suicide prevention interventions for LGBTQ youth. The review process identifies and analyzes core elements of existing evidence-based programs as well as identifies gaps in existing programming that may contribute to the health disparities facing this population. Information collected in this review, along with a strong base of public health theory, was used to inform the design of a program plan for enhancing suicide-related mental health outcomes among LGBTQ youth. This program plan serves as a model for tailoring existing programs to meet the unique needs of a specific population which has been underrepresented in public health research. The program plan adapts and combine elements from several existing interventions that may be potentially efficacious within this population, as well as creates new elements in areas that need improvement or are lacking altogether.

2.0 THEORETICAL FRAMEWORKS

2.1 PUBLIC HEALTH THEORY

2.1.1 Minority Stress Model

The minority stress model is perhaps the most widely used theoretical model in LGBT health research. The model identifies and describes the various mechanisms through which membership within a minority population (minority status) affects health outcomes. The model posits that the adversity experienced growing up as a sexual minority in heteronormative environments is stressful and may lead to adverse mental health outcomes.[17] Social factors associated with minority status include stigma, prejudice, and discrimination, all of which lead to the development of stress processes that can negatively affect mental health and well-being.[1] In the context of sexual minorities, stress processes include experiencing prejudice events, expecting rejection (socially and/or romantically), and internalizing homophobic attitudes. The experience of minority stress is often identified as a cause for mental health disparities among LGBT individuals, including higher levels of depression and suicidal ideation.[1] It has been hypothesized that the adversity experienced growing up as a sexual minority in heteronormative environments accounts for the manifestation of stress processes amongst LGBTQ youth.[18] The minority stress model has been especially useful in LGBT health research as it has enabled researchers to

identify a myriad of stressors that are salient for LGBTQ persons, allowing them to tailor interventions to target the specific needs of this population.[19]

2.1.2 Resiliency Theory

Resiliency theory has been developed to provide a strengths-based approach for understanding child and adolescent development. The theory posits that protective factors operate in opposition to risk factors and help individuals overcome negative effects of risk exposure; this theory is used to conceptualize the processes through which some youth grow up to be healthy adults in spite of exposure to various risk factors during development.[20] Resiliency theory focuses attention on positive variables-both intrapersonal and interpersonal- that disrupt the development of negative behaviors and adverse health outcomes. Resiliency theory includes several models that describe how promotive factors may counteract, or protect against risk factors. These models can inform intervention designs by identifying and defining strategies that are useful for enhancing protective factors. The compensatory model of resilience is the most commonly studied in the research literature. In this model, protective factors neutralize risk exposure in a counteractive manner so that compensatory factors have an opposite effect on a developmental outcome than risk factors.

The effect of resiliency on mental and physical health outcomes has been examined among sexual minority individuals. Research on resiliency theory as it relates to LGBT youth has pointed to strong social support as a form of resiliency that buffers the negative impacts of syndemic production among members of this vulnerablepopulation: despite the pervasive marginalization that sexual minority youths face, there is also evidence of great resilience within this population. This research suggests that if a culture of marginalization produces health

inequities in LGBT youth, a culture of acceptance and integration can work to produce resiliencies.[21] This research also suggests that resiliency factors that buffer the impact of LGBT-specific and generic risk factors for suicide among youth do exist and are associated with more positive outcomes for members of this population. Resiliency theory provides a useful framework for considering how protective factors may operate for encouraging positive youth development.[20] Although many researchers study resiliency by examining single risks and promotive factors, a burgeoning area of research focuses on the cumulative effects of multiple promotive factors across ecological domains (e.g., individual, family, community) to more accurately reflect the complex nature of influences on adolescent development.[20] As we gain a deeper understanding of the role of resiliency in buffering the impact of discrimination for LGBT youth as they enter adulthood, it is important that interventions (referred to in the model as resources) aimed at enhancing protective factors among LGBT youth as a means for reducing negative health outcomes are developed. Research that is informed by the resiliency framework will contribute more broadly to our understanding of the processes by which youth overcome adversity and develop into healthy adults despite risk exposure. Further, creating safe spaces for LGBTQ adolescents as they navigate the transition into adulthood is likely a key factor in promoting resilience and ultimately improving health outcomes.[21]

2.1.3 Social Ecological Model

The Social Ecological Model (SEM) suggests that individual behavior and health outcomes are shaped by factors that operate on multiple levels: intrapersonal factors, interpersonal processes,

organizational factors, community factors, and public policy. Intrapersonal factors that affect health behavior include individual characteristics such as knowledge of the behavior, attitudes towards the behavior, beliefs about the behavior, and skills related to doing the behavior. Interpersonal processes that affect health behavior include all aspects of the individual's interaction with those around them. Social relationships that exist at this level provide health-promotion or prevention resources such as emotional support, tangible aid and assistance, and exchange of health information. A commonly targeted protective factor that exists at this level is social support—the perception and actuality that one is cared for, has assistance available from other people, and that one is part of a supportive social network. The final levels of the SEM focus on larger-scale influences on individual health behaviors. Organizational and community factors are those which exist in the individual's immediate environment and include structures and processes that can affect health such as work-place environment, professional affiliations, and membership to structured groups. Public policy factors are external factors such as laws and regulatory policies that exist on a large scale and impact individual health behaviors across multiple levels. Designing a targeted suicide prevention intervention for LGBTQ youth based on the model requires an understanding of the conditions of the social environments they inhabit. Research indicates that LGBTQ youth experience increased risks within all levels of the model (i.e. internalized homophobia at the intrapersonal level, victimization and social isolation at the interpersonal level, and discrimination at the community level).[22] SEM-informed interventions that aim to reduce risk factors and enhance protective factors within the social environment of LGBTQ youth may be especially useful for preventing suicide in this population and sustaining prevention efforts over time.

2.2 THEORETICAL MODELS OF SUICIDE

A number of theoretical models of suicide have been developed for understanding suicidal ideation and attempts. These models describe the mechanisms through which risk factors and protective factors influence suicide-related behaviors. The relationships theorized by these models provide a basis for suicide prevention programming as they allow program developers to identify potentially modifiable factors to target with tailored interventions. Unfortunately, current models do not fully capture the complex nature of suicide as risk factors and protective factors are constantly in flux at the individual level. A majority of these models place individual factors at the center, with social and environmental factors reduced to peripheral influences. Further, special populations, particularly LGBTQ youth, often have unique experiences within their social environments that are difficult to conceptualize within the framework of existing models. The following section will describe two theoretical models that are used to understand suicide in the general population, each of which has implications for suicide prevention among LGBTQ youth specifically.

2.2.1 Stress-Diathesis Model

The diathesis–stress model is a theoretical framework that attempts to explain an interaction between an individual's pre-dispositional vulnerabilities and an environmental stressor. An amended version of the model was proposed by Mann and his colleagues in 1992 based on the integration of neurobiology and psychopathology. This re-imagined version of the model cites two major classes of stressors that contribute to suicide risk: psychiatric disorder and psychosocial crises. The model suggests that psychiatric disorders and psychosocial crises each contribute directly to suicidal behavior. The psychosocial crisis as described by Mann is derived from Erikson's Stages of Psychosocial Development, a comprehensive psychoanalytic theory developed in the 1990s that identifies a series of stages through which a healthy developing individual should pass as they progress through the life-course. Of particular interest for the purpose of this project is the "Adolescence" stage.[23] According to Erikson, the adolescence stage (13-19 years old) is marked by the psychosocial crisis of identity: youth is a time of both physical and mental change, and youth are suddenly aware of the roles society has offered them for later in life.[23] For LGBTQ youth, navigating through this period is made more complicated by the difficult experience of adopting a sexual minority identity.[1] This stage coincides with several established risk factors for LGBTQ youth suicide such as sense of social isolation, lack of social support, gender nonconformity, and other minority stress-related factors. Alternatively, protective factors can mitigate the effects of major stressors by providing an individual with developmentally adaptive outlets to deal with stress.[20] Examples of protective factors for LBGTQ youth suicide include strong family connections, extensive social support networks, and healthy coping skills.[21] Each of these factors has the potential to interrupt the pathway of the diathesis-stress model, resulting in decreased risk of suicidal behavior. It is important that suicide

prevention programs use the diathesis-stress model as a tool for developing theoretically sound interventions.

2.2.2 Developmental Model of Late Life Suicide

The Developmental Model of Late Life Suicide provides a framework for understanding the complex and multi-determined nature of suicidal behavior in older adults. The model argues that despite the evidence for risk factors and protective factors for older adults at risk for suicide, these factors are limited in their ability to predict suicidal outcomes. The limitations of risk and protective factors as tools to predict and prevent suicide are related in part to the fact that risk states are dynamic—they wax and wane over short periods of time. Suicide therefore, is better understood as a developmental process that evolves across the life-course, with different risk and protective factors contributing to the trajectory at different points in time. A framework for the development of dynamic interventions for suicide prevention among men ages 25-54 years is outlined in the model.[24] The model posits that individuals start out with a baseline combination of personal attributes (personality factors, personal values) and social context (cultural norms, social ecology). Decreases in health status that occur naturally with age (chronic illness, functional decline) may then be exacerbated by stressful life events. This combination of multi-level risk factors often leads to social isolation, and relative risk increases among those who are less resilient and develop early symptoms of psychiatric illness. Some experience increased feelings of depression and hopelessness, the most vulnerable of whom enter the peri-suicidal state. As more and more proximal and distal risk factors and/or the loss of protective factors enter the trajectory, risk of suicide increases.

The notion that suicidal processes unfold over time has important implications for prevention: it indicates opportunities to intervene at multiple points and in many different ways. Public health programs that identify and target opportunities for intervention across the entire continuum would contain elements that target more distal and intermediate factors and stages of the process, and may prove more effective at preventing suicide than those programs restricting focus to higher risk individuals. While the model provides a useful framework for mapping out risk among adults, it has yet to be adapted for younger populations. Due to the high rates of suicide among subgroups of the young population, particularly sexual minority youth, it may be useful to consider the implications that a developmental approach to suicidal behavior may have for youth. Incorporating the unique risk and protective factors experienced by LGBTQ youth identified in the literature may allow for the creation of a theoretical model that better describes the trajectory towards suicide among members of this population. A developmental, layered model for suicide prevention among LGBTQ youth would enable researchers to identify various points of engagement where interventions may offer adaptive coping skills as well as opportunities for enhancing protective factors and reducing risk factors linked to suicidal behavior. An LGBTQ youth model should pay particular attention to intrapersonal and interpersonal factors characterized by the model as "distal," as research on LGBTQ youth suicide has pointed to risk factors and protective factors that fall within the intrapersonal and interpersonal levels as having significant influence on suicide- related behaviors among members of this population.

3.0 METHODS

3.1 PUBMED LITERATURE REVIEW

A critical literature synthesis was conducted to understand the current state of LGBTQ suicide prevention research using the search engine PubMed.gov. With the help of University of Pittsburgh librarian Rebecca Abromitis, the author first created a roadmap for the research process consisting of four major variables. The first concept, the health outcome of interest, was suicide prevention. The second concept was public health interventions. The third concept, the age demographic of the population of interest, was youth and/or adolescents. The fourth concept, a final specific characteristic of the population of interest, was sexual minority and gender minority status. Using this map, the author came up with keywords to use in the search for peer reviewed articles on suicide interventions specifically targeting LGBTQ youth. Because this population remains relatively understudied, as does the health outcome of interest, our search results were scant.

The first step was a Mesh term search to identify all articles related to suicide prevention interventions. A second Mesh term search was used to identify all articles related to adolescent health. This search included titles and abstracts of published papers using alternative terms for adolescents identified using the PubMed Index tool such as “youth” and “teens.” To identify all PubMed literature on LGBT persons, the author borrowed advanced search parameters

developed by librarian Barbara Folb for a systematic review on LGBT health. A final search combined all three major concepts; this search resulted in 55 articles. The PubMed keywords that were used to refine the search are detailed below in Figure 1. Figure 2 displays the number of search results as concepts were added to the search.

Suicide Prevention Interventions

("Suicide"[Mesh] OR "suicide prevention"[tiab] OR "suicidal ideation"[tiab] OR "suicide attempt"[tiab] OR "suicidal behavior"[tiab]) AND ("Adolescent Health Services"[Mesh] OR "public health intervention"[tiab]) OR "Health Promotion"[Mesh] OR "Health Promotion/methods"[Mesh])

Youth

"Adolescent"[Mesh] OR adolescent[tiab] OR youth[tiab] OR youths[tiab] OR teen[tiab] OR teens[tiab] OR teenagers[tiab]

LGBTQ

(Bisexuality[MeSH Terms] OR Homosexuality[MeSH Terms] OR Transsexualism[MeSH Terms] OR Transgender Persons[Mesh] OR bicurious[tiab] OR bisexual[tiab] OR bisexuality[tiab] OR bisexuals[tiab] OR cross sex[tiab] OR crossgender[tiab] OR F2M[tiab] OR gay[tiab] OR gays[tiab] OR gender change[tiab] OR gender dysphoria[tiab] OR gender identity[tiab] OR Gender minorit*[tiab] OR gender queer[tiab] OR gender transition[tiab] OR genderqueer[tiab] OR GLB[tiab] OR GLBQ[tiab] OR GLBs[tiab] OR GLBT[tiab] OR GLBTQ[tiab] OR heteroflexible[tiab] OR homo sex*[tiab] OR homosexual[tiab] OR homosexualities[tiab] OR homosexuality[tiab] OR homosexuals[tiab] OR intersex[tiab] OR lesbian[tiab] OR lesbianism[tiab] OR lesbians[tiab] OR lesbigay[tiab] OR LGB[tiab] OR LGBQ[tiab] OR LGBS[tiab] OR LGBT[tiab] OR M2F[tiab] OR men who have sex with men[tiab] OR msm[tiab] OR queer[tiab] OR same gender loving[tiab] OR same sex attracted[tiab] OR same sex couple*[tiab] OR same sex relations[tiab] OR sex change[tiab] OR sex reversal[tiab] OR sex transition[tiab] OR sexual identity[tiab] OR sexual minorities[tiab] OR sexual minority[tiab] OR sexual orientation[tiab] OR sexual preference[tiab] OR trans female[tiab] OR trans male[tiab] OR trans men[tiab] OR trans people[tiab] OR trans woman[tiab] OR transmasculine[tiab] OR trans-sexuality[tiab] OR transexual[tiab] OR transgender[tiab] OR transgendered[tiab] OR transgenders[tiab] OR transsexual[tiab] OR transsexualism[tiab] OR transsexuality[tiab] OR transsexuals[tiab] OR transvestite[tiab] OR women loving women[tiab] OR women who have sex with women[tiab] OR WSW[tiab]) OR lgbtq[tiab] OR Sexual Minorities[Mesh] OR M2F[tiab]).

LGBTQIA+ AND Youth AND Suicide Prevention AND Interventions

(((((("Adolescent"[Mesh]) OR adolescent[Title/Abstract]) OR youth[Title/Abstract])) OR teen[Title/Abstract]) OR teens[Title/Abstract]))

AND (((((((("Suicide/prevention and control"[Mesh])))) OR ((("suicide prevention intervention"[Title/Abstract] OR "suicide prevention interventions"[Title/Abstract]))))) OR (("suicide prevention"[Title/Abstract])

AND ((((program[Title/Abstract]) OR programs[Title/Abstract]) OR project[Title/Abstract]) OR projects[Title/Abstract])))))

AND ((Bisexuality[MeSH Terms] OR Homosexuality[MeSH Terms] OR Transsexualism[MeSH Terms] OR Transgender Persons[Mesh] OR bicurious[tiab] OR bisexual[tiab] OR bisexuality[tiab] OR bisexuals[tiab] OR

cross sex[tiab] OR crossgender[tiab] OR F2M[tiab] OR gay[tiab] OR gays[tiab] OR gender change[tiab] OR gender dysphoria[tiab] OR gender identity[tiab] OR Gender minorit*[tiab] OR gender queer[tiab] OR gender transition[tiab] OR genderqueer[tiab] OR GLB[tiab] OR GLBQ[tiab] OR GLBs[tiab] OR GLBT[tiab] OR GLBTQ[tiab] OR heteroflexible[tiab] OR homo sex*[tiab] OR homosexual[tiab] OR homosexualities[tiab] OR homosexuality[tiab] OR homosexuals[tiab] OR intersex[tiab] OR lesbian[tiab] OR lesbianism[tiab] OR lesbians[tiab] OR lesbigay[tiab] OR LGB[tiab] OR LGBQ[tiab] OR LGBS[tiab] OR LGBT[tiab] OR M2F[tiab] OR men who have sex with men[tiab] OR msm[tiab] OR queer[tiab] OR same gender loving[tiab] OR same sex attracted[tiab] OR same sex couple*[tiab] OR same sex relations[tiab] OR sex change[tiab] OR sex reversal[tiab] OR sex transition[tiab] OR sexual identity[tiab] OR sexual minorities[tiab] OR sexual minority[tiab] OR sexual orientation[tiab] OR sexual preference[tiab] OR trans female[tiab] OR trans male[tiab] OR trans men[tiab] OR trans people[tiab] OR trans woman[tiab] OR transmasculine[tiab] OR trans-sexuality[tiab] OR transexual[tiab] OR transgender[tiab] OR transgendered[tiab] OR transgenders[tiab] OR transsexual[tiab] OR transsexualism[tiab] OR transsexuality[tiab] OR transsexuals[tiab] OR transvestite[tiab] OR women loving women[tiab] OR women who have sex with women[tiab] OR WSW[tiab]) OR lgbtq[tiab] OR Sexual Minorities[Mesh] OR M2F[tiab])).

Figure 1. PubMed search terms.

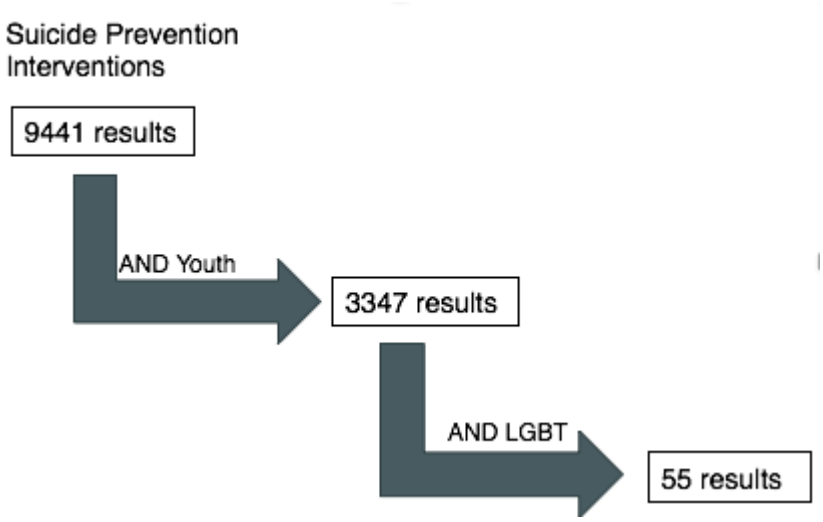

Figure 2. PubMed search results

In order for an article to be included in this synthesis, it needed to meet at least one of the following inclusion criteria:

1. Must describe suicide or suicide-related behaviors among LGBTQ youth; and/or
2. Must describe a suicide prevention intervention strategy for LGBTQ youth; and/or
3. Must include contributing factors to suicide risk among LGBTQ youth

The search was restricted to publications written in English. It was not restricted by publication date or the type of publication, though the oldest search result dates

back only 16 years. The final 55 results were scanned for relevance to this project. Articles that did not meet the inclusion criteria were discarded. The author utilized the ancestry method to scan the references of included studies for additional studies not identified in the original search, as research on this topic and population is fairly limited.

3.2 GREY LITERATURE SEARCH

Due to the relative paucity of peer-reviewed LGBT health research, a second method was used to identify suicide prevention interventions for the general youth population. This process identified grey literature, or research that is either unpublished or has been published outside of the traditional commercial or academic publishing and distribution channels. Examples of grey literature include government reports, policy statements, and issues papers. The main source of grey literature used by the author is the Substance Abuse and Mental Health Services Administration's (SAMHSA) National Registry of Evidence-based Programs and Practices (NREPP). NREPP, a rating and classification system for evidence-based interventions, provides detailed information about substance use and mental health interventions along with resources for adoption, implementation, and evaluation of such programs. All interventions included in this registry are evidence-based, meaning they have been proven effective to some degree through one or more outcome evaluations.

4.0 RESULTS

The author has reviewed four Evidence-Based Interventions for addressing suicide risk among the general youth population. Each of these programs contain themes or elements that may be useful for a targeted intervention strategy for LGBTQ youth. The process for selection of these interventions is described below.

4.1 SUICIDE PREVENTION RESOURCE CENTER REGISTRY

The author accessed the NREPP searchable online database to identify suicide prevention programs for youth. The registry includes a total of 438 evidence-based interventions. The site allows the user to search the registry by keyword. Searching the term “suicide” yielded 5 newly reviewed programs and 17 legacy programs. Legacy programs refer to the 356 programs that were on the NREPP website as of September 2015. Newly reviewed programs refer to those that were reviewed under criteria that took effect after September 2015. The 5 newly review programs are:

1. Applied Suicide Intervention Skills Training (ASIST)
2. Cognitive Therapy for Suicide Prevention
3. Collaborative Assessment and Management of Suicidality (CAMS)
4. SOS Signs of Suicide Middle School and High School Prevention Programs
5. STEP UP (Strategies and Tools Embrace Prevention with Upstream Programs)

The user may also search the registry along multiple criteria such as program type, age, outcome category, special populations, and geographic locations. Selecting the special population "Lesbian, Gay, Bisexual, Transgender, Questions (LGBTQ)/ITS (Intersexual)" yielded one search result. This program, Parenting with Love and Limits, is not related to suicide prevention and was discarded. The first (ASIST), fourth (SOS), and fifth (STEP UP) interventions from the keyword search were determined to meet the inclusion criteria developed during the PubMed search and are included in this project. One legacy program (Sources of Strength) was chosen based on its adherence to the criteria. These programs were analyzed and adapted to inform an LGBTQ-specific suicide prevention intervention as described later in this paper.

The author utilized a systematic selection process for choosing existing evidence-based interventions to be adapted for the proposed program from the 22 suicide prevention programs listed in NREPP. First, programs were analyzed for their main program objectives; any programs that did not cite suicide prevention as a major desired outcome were excluded. Programs eliminated by this step were programs that listed suicide prevention as a secondary outcome or a distal factor. Examples of programs that were eliminated by this step include a mental health promotion program aimed at increasing school retention among disconnected youth which briefly touched upon suicidal ideation as a risk factor for dropping out. Second, programs were analyzed for goodness of fit of target population; any programs that were not age appropriate, or that were targeted at a specific youth subpopulation not targeted by this project, were excluded. Examples of programs eliminated by this step include a suicide prevention program for college students and a mental health intervention for youth involved in the justice system, and a relationship building program for at-risk youth and their parents. Finally, programs were

analyzed for relevance to LGBTQ youth as determined by the author. As LGBT youth do experience generic risk and protective factors for suicide, it was important to select programs that address a wide array of generic factors in order to have the greatest impact. Core elements of the remaining 6 programs were assessed by the author, and 2 programs were ultimately eliminated based on failure to address risk factors which the author considered essential to an effective LGBTQ-specific suicide prevention strategy.

The final four interventions selected by the author have been reviewed by the Substance Abuse and Mental Health Administration (SAMHSA) and have been listed in the Suicide Prevention Resource Center's Best Practice Registry. The Best Practices Registry (BPR) was a section of the SPRC website that was maintained from 2007 to 2016. It served as a source of information on evidence-based programs and other programs, practices, and policies addressing suicide prevention. The BPR consisted of three sections: Section I: Evidence-Based Programs; Section II: Expert and Consensus Statements; and Section III: Adherence to Standards. Each section of the BPR included different types of suicide prevention practices that were reviewed in accordance with criteria specific to each section. Prevention programs were listed in either Section I or Section III.

Section I: Evidence-Based Programs. This section included programs that had been reviewed for evidence of effectiveness. These programs had been evaluated and found to produce at least one positive outcome related to suicide prevention. All programs listed in this section came from one source: SAMHSA'S National Registry of Evidence-Based Programs and Practices (NREPP). The four Evidence-Based suicide prevention interventions reviewed in this thesis were selected based on their inclusion in SAMHSA's NREPP and consequent inclusion in SPRC's BPR's Section I.

Section III: Adherence to Standards. This section included programs and practices whose content had been reviewed for adherence to four core standards: accuracy, safety, likelihood of meeting objectives, and program design. The review process for inclusion in this section did not examine evidence of effectiveness. As of April 2016, SPRC no longer lists programs based on their adherence to standards. Instead, they have shifted their focus to expanding and enhancing programs with greater empirical support for evidence of effectiveness (Section I programs), reflecting a broader shift towards prioritizing Evidence-Based Interventions in public health research.

It is important to note that the BPR was not, nor was it intended to be, a comprehensive inventory of all suicide prevention programs but rather a useful tool for users seeking programs, articles, and other resources. In 2016, SPRC consolidated the BPR into their broader Resources and Programs listing to improve usability by providing "one-stop shopping" and an integrated search capability for all of SPRC's resources. All programs, guidelines, and other resources previously listed in the BPR are now included on this Resources and Programs list. SPRC plans to continue adding programs reviewed and listed in the NREPP to this list as well as programs from other sources such as other registries, literature reviews, and meta-analyses provided these programs demonstrate some level of evidence of effectiveness.

4.2 SOURCES OF STRENGTH

Creator/Affiliated Organizations: SAMHSA, National Institute of Mental Health, University of Rochester, North Dakota Adolescent Suicide Prevention Task Force, Mental Health America of North Dakota, the North Dakota Department of Health, SPRC

Date of Development: 1998, 2006, 2010

Target Audience: Students ages 13-17 (Adolescent) and 18-25 (Young adult)

Program Description: Sources of Strength[25] is a universal suicide prevention program designed to build socioecological protective factors against suicidal thoughts and behaviors across a general student population. The program trains youth as peer leaders and connects then with adult advisors at school or in the community. The peer leaders work with advisors to carry out messaging and activities intended to change peer group social norms that influence coping strategies and problem behaviors (e.g., self-harm, substance use, sexual risk behaviors). These activities are specifically designed to reduce the incidence of suicidal ideation, attempts, and suicide-related behavior by reducing the acceptability of suicide as a response to stressors, increasing the acceptability of help-seeking behaviors, improving communication between youth and adults, and developing healthy coping mechanisms among youth.

Intervention Design: The program is designed for implementation within a school, where 10 to 50 youth are recruited through staff and student nominations to form the peer leader team. The youth leaders and their advisors are trained by Sources of Strength program staff during a 4-hour interactive training. Over the course of 3-4 months, adult advisors facilitate peer leader meetings to plan, design, and practice the messaging activities including individual messaging, classroom presentations, and media messaging that reflect local social norms surrounding stress and suicide. The peer leaders hold one-on-one conversations with members of their social networks; develop public service announcements and advertising targeting negative coping behaviors; give presentations to groups of peers; and develop messages to be delivered via video, social media,

or the Internet. The program is often initiated as a 3-to-6-month project but is designed as a multiyear program with ongoing peer messaging and networks growing over time. Adult advisors receive monthly teleconference support meetings with Sources of Strength staff.

Outcomes Measured: The Sources of Strength program seeks to influence five major outcomes: (1) attitudes about seeking adult help for stress, (2) knowledge of adult help for suicidal youth, (3) rejection of codes of silence, (4) referrals for distressed peers, and (5) maladaptive coping attitudes.

Evaluation Findings: An outcome evaluation of the Sources of Strength program indicated that training was highly effective in increasing peer leaders' adaptive norms about suicide as well as positive coping, connectedness to adults, and supportive behaviors with their friends, with most changes being highly significant.[26] This evaluation found that participation in the intervention was positively correlated with positive expectations that adults at school help suicidal students ($r = 0.75$; $p < .001$), more rejection of codes of silence ($r = 0.34$; $p < .002$), and decreased maladaptive coping attitudes ($r = 0.26$; $p < .01$). Participation in peer training also substantially increased norms for help-seeking from adults at school ($r = 0.62$; $p < .001$), use of healthy coping mechanisms included in the curriculum ($r = 0.44$; $p < .002$), and the number of identified trusted adults ($r = 0.49$; $p < .001$). Concerning peer leaders' behaviors, training was positively correlated with providing support to peers ($r = 0.34$; $p < .015$), and connecting distressed peers to adults ($r = 0.21$; $p = .08$). Peer leaders with the least adaptive norms, lowest school engagement, and fewest connections to adults at baseline benefited the most from participation in the program. It is interesting to note that training increased peer leader referrals of peers to adults in the large metropolitan schools, but not in smaller schools. An analysis of variance showed that the effect

of participation in the program on referring peers to adults was significant, $F(1,4) = 10.42$, $p=0.03$. When examining motivation for referring peers, the study found that youth in participating schools were 4.12 times more likely to refer peers who indicate suicidality to adults than youth in untrained schools, but there was no intervention effect on referring friends to adults because of other emotional or behavioral problems. This difference will be considered in the proposed program.

4.3 STRATEGIES AND TOOLS EMBRACE PREVENTON WITH UPSTREAM PROGRAMS (STEP UP)

Creator/Affiliated Organizations: SAMHSA, Camp Make Believe Kids, Pamela Goldberg, SPRC, Nevada Institute for Children's Research and Policy

Date of Development: 2013

Target Audience: Middle School Students ages 11-14

Program Description: STEP UP[27] is a social and emotional-learning-based curriculum designed to promote positive mental health, build emotional competence, and create a safe school climate for middle school students. STEP UP uses evidence-based strategies to bolster protective factors for the specific purpose of preventing negative and self-destructive behaviors, including suicide. The program emphasizes the importance of factors such as a strong sense of community, resilience, and positive coping strategies through social and emotional learning. The program addresses the impact of such factors on long-term outcomes, such as the prevention of behaviors and ideation associated with suicide. The program was developed in response to the National

Strategy for Suicide Prevention, a report of the U.S. Surgeon General and of the National Action Alliance for Suicide Prevention. The curriculum was adapted from the elementary school version, Camp MakeBelieve Kids, which was developed in a clinical setting to enhance resiliency factors and decrease risk factors among children ages 6-11. STEP UP seeks to expand the benefits of social and emotional learning (SEL) to older students in a more appealing way that is congruent with their level of developmental progression with the ultimate goal of improving resiliency.

Intervention Design: The program is designed for implementation within a school or classroom. Every lesson in the STEP UP curriculum is geared towards increasing a multitude of generic protective factors that are associated with positive mental health. Members of the school faculty serving as program implementers are trained in-person during four separate 50-minute sessions over a four-week period before the intervention. The four sessions provided instructions for administering assessments, explained the importance of social learning and its role in suicide prevention, gave details of the twelve STEP UP lessons, and provided recommendations for teaching STEP UP and encouraging youth participation and discussion. Eight key concepts identified by the program creator are taught by trained school staff over 16, 25-minute lessons, delivered once or twice per week. Each lesson includes interactive activities, group discussions, role playing, and additional assignments. Nine lessons also provide parents or caregivers with resources, follow-up strategies, and suggestions to reinforce program skills at home. STEP UP requires that instructors be monitored during program implementation a minimum of three times to ensure adherence to program the design. Ongoing support is available to STEP UP instructors and school administration in the event that any questions or concerns arise during program

implementation. Materials including train the trainer modules, webinars, and PowerPoints have been developed to further ensure fidelity of STEP UP delivery.

Outcomes Measured: STEP UP incorporates eight key concepts and skillsets into the social learning model: 1) social connections, 2) identifying and expressing feelings safely, 3) respecting boundaries, 4) building empathy, 5) mood control, 6) stopping manipulation, 7) self-regulation, and 8) self-motivation and emotional intelligence.

Evaluation Findings: A comprehensive evaluation report found the STEP UP program to be an effective way to enhance social emotional skills in middle school youth and provide tools for youth to learn prosocial attitudes and lifelong positive coping skills.[28] Teacher ratings of students who participated in STEP UP showed a statistically significant improvement from the beginning to the end of the program, while scores of students in the control group remained relatively the same or declined over time. From pretest to posttest, the treatment group demonstrated a statistically significant improvement in teacher-rated self-regulation, teacher-rated social competence, empathy, and responsibility, compared with the control group. Repeated measures t-test of differences demonstrated that in the treatment group, all areas of social emotional learning significantly improved while in the control group, only one area, Empathy, significantly decreased. Multivariate analysis of covariance was conducted comparing difference scores in outcome measures between the treatment and control groups while controlling for pre-treatment difference in SEARS-T Social Competence subscale scores. There was a statistically significant difference in social and emotional learning, $F(1, 49) = 3.96$, $p < .0005$. It is important to note that while the evaluation found that the STEP UP program was effective for improving teacher-

rated social competence, self-regulation, empathy, and responsibility among participants as compared to controls, between-group differences on the adolescent-rated self-report measure of these attributes were nonsignificant. An in-depth discussion regarding this finding can be found in the original publication.

4.4 SIGNS OF SUICIDE (SOS)

Creator/Affiliated Organizations: SAMHSA, Screening for Mental Health, Inc., University of Connecticut, SPRC

Date of Development: 2001

Target Audience: Students ages 11-13 (Middle School) and 13-17 (High School)

Program Description: The Signs of Suicide Prevention Program (SOS)[29] is a universal, school-based depression awareness and suicide prevention program. The intervention aims to decrease suicide and suicide attempts by increasing knowledge about depression, encouraging personal help-seeking and help-seeking on behalf of a friend, reducing the stigma surrounding mental health, engaging parents and educators as gatekeepers, and encouraging schools to build community-based partnerships to support students. Through these specific aims, the program engages both students and educators, making it possible for youth to learn amongst themselves while still having reliable adult resources within the school community. The curriculum also expands beyond the standard "increasing knowledge and awareness of depression" model: the SOS curriculum raises awareness of depression and suicide and empowers students to identify warning signs of depression in themselves and others, risk factors associated with depression and

suicidal ideation, and techniques for conducting a brief depression/suicidality screening. Students are taught to seek help using the ACT (Acknowledge, Care, Tell) technique, which teaches students to acknowledge when there are signs of a problem in themselves or a peer, show that you care and are concerned about getting help, and tell a trusted adult.

Intervention Design: SOS is designed for implementation within a school, where students are shown age-appropriate, educational DVDs played by school staff. The middle school video (Time to ACT) and the high school video (Friends for Life) inform students how to ACT® (Acknowledge, Care and Tell), a technique that teaches students to acknowledge when there are signs of a problem in themselves or a peer. The program includes an optional student screening that assesses for depression and suicide risk and identifies students who may benefit from referral to professional help. The program also includes a video, Training Trusted Adults, to engage staff, parents, or community members in the program's objectives and prevention efforts. Program kits are required for implementation and available for purchase online for $395 through Screening for Mental Health, Inc, and include videos, informational material resources, and tips for dissemination and discussion for school staff. The program supplier also holds online participatory Webinars that are available to staff. Archived Webinars are available for free online.

Outcomes Measured: Signs of Suicide seeks to impact four major outcomes: (1) suicidal thoughts and behaviors, (2) knowledge, attitudes, and beliefs about mental health, (3) receipt of mental health and/or substance use treatment, and (4) social competence related to seeking help from adults.

Evaluation Findings: The effectiveness of the program in influencing the four outcomes was examined across two separate randomized controlled trials and an outcome evaluation.[30,31] Both studies indicate that SOS is promising for reducing suicidal thoughts and behaviors, with odds ratios indicating that the youth in the treatment group were between 40% and 64% less likely to report a suicide attempt in the past three months compared with youth in the control group.[30, 32] Regarding increased knowledge and attitudes about depression and suicide, both studies found positive impact of the program. One study found the effect of the SOS program on knowledge to be one quarter to one third a standard deviation (e.g., attitudes: ES = .16/.65 = .25).[30] The second found the effect of the SOS program on knowledge to be statistically significant with an effect size of approximately one third of a standard deviation (e.g., knowledge: 0.47 / 1.30 = 0.36).[32] In this study, the effect of SOS on attitudes was smaller, but still significant. While these studies suggest that SOS is effective for improving the first two outcome measures, both found insignificant between-group differences for the remaining two outcomes (increasing the receipt of mental health and/or substance abuse treatment and increasing social competence related to help-seeking behaviors).[30] At a 3-month posttest, one study found that intervention students were slightly more likely than control students to report seeking help from an adult when feeling depressed or suicidal, but these were not significant, indicating that SOS alone is not sufficient for increasing help-seeking behavior among youth.

4.5 THE APPLIED SUICIDE INTERVENTION SKILLS TRAINING PROGRAM (ASIST)

Creator/Affiliated Organizations: SAMHSA, LivingWorks, Columbia University, New York State Psychiatric Institute

Date of Development: 1983, 2007

Target Audience: Anyone seeking to increase the immediate safety of persons at risk of suicide. 13-17 (Adolescent), 18-25 (Young adult), 26-55 (Adult), 55+ (Older adult)

Program Description: The Applied Suicide Intervention Skills Training (ASIST)[33] is an educational training program designed to train members of the community in "suicide first aid" skills. Individuals at risk for suicide-related behaviors are most often inclined to turn to friends and family for help, but these persons may have little or no training. ASIST works to outfit these members of the community with practical skills and competencies to increase the immediate safety of persons at risk of suicide. ASIST also provides those in formal helping roles with professional development to ensure that they are ready and able to incorporate suicide first aid skills into the care they provide. The ASIST model includes assessment of suicide risk and the development of a "safeplan," which is tailored to the needs of the person at risk using available resources and assessment of present and future risk. Safeplans most often include referrals to formal mental health services and building and fostering connections to family, friends, and other sources of support. The ASIST philosophy posits that the suicide intervention may be sufficient to reduce risk without the need for further referral, so focusing on social support building is an important aspect of the program.

Intervention Design: ASIST is designed for members of all caregiving groups, including the general population and may be implemented across a variety of settings. Participants are trained by two members of the ASIST team over a two-day period. The emphasis is on teaching suicide first-aid to help a person at risk stay safe and seek further help through use of mini-lectures, facilitated discussions, group simulations, and role plays. Trainees gradually build comfort and understanding of suicide risk and suicide intervention around five major competencies: (1) understand attitudes about suicide; (2) provide guidance and suicide first aid to a person at risk; (3) identify key elements of an effective suicide safety plan and the actions required to implement it; (4) appreciate the value of improving community suicide prevention resources; and (5) recognize important aspects of suicide prevention, including life-promotion and self-care. Participants learn to use a suicide intervention model to identify persons with thoughts of suicide, seek a shared understanding of reasons for dying and living, develop a "safeplan" based upon a review of risk, be prepared to do follow-up, and become involved in suicide-safer community networks. Workshop instructors take a five-day training for the trainer course and agree to be part of a quality control program that supports them in their trainer roles and encourages them to provide feedback to the developers of *ASIST*.

Outcomes Measured: The ASIST program seeks to impact one major outcome, personal resilience/self-concept, as measured by changes over time in at-risk persons' affect.

Evaluation Findings: The effectiveness of the program in enhancing resilience among at-risk persons was examined in a Randomized Controlled Trial (RCT) with a dynamic wait-listed or "roll- out" design.[34] The study evaluated the impact of the implementation of the ASIST program

among suicide crisis line counselors working for the National Suicide Prevention Lifeline's national network of crisis hotlines on distressed individuals. The intervention was found to significantly improve callers' suicide-related behaviors including reports of feeling less depressed, less suicidal, and less overwhelmed by the end of calls handled by ASIST trained counselors, compared with controls. Suicidal callers served by ASIST-trained counselors were significantly more likely than callers whose counselors had not been ASIST-trained to be rated by silent monitors as becoming less depressed, less overwhelmed, less suicidal, and more hopeful during the course of the call. Odds Ratios for these outcomes ranged from 1.31 (less depressed) to 1.74 (less suicidal). Thus, if callers spoke with ASIST-trained counselors rather than non-ASIST-trained counselors, the odds that callers would be less depressed was increased by 31% and the odds that callers would be less suicidal was increased by 74%.[34] The strongest associations with the caller behavioral changes were found for the counselor interventions involving exploring the callers' reasons for living (e.g., OR less suicidal=2.05), ambivalence about dying (e.g., OR less suicidal=1.89)and informal support contacts (e.g., ORless suicidal=2.31). These three measures will be examined in the proposed program as they have been significantly associated with decreasing participant's suicidality.

5.0 DISCUSSION

5.1 ADAPTABLE ELEMENTS FROM EXISTING EBIS

While the body of research surrounding risk factors and protective factors for suicidal ideation and suicide-related behaviors among youth continues to grow and gain recognition, there appear to be no evidence-based public health interventions specifically targeting the unique nature of this health outcome within the LGBTQ youth population. The proposed program will respond to the disproportionate rates of suicidal ideation and suicide attempts among LGBTQ youth by incorporating mechanisms for developing new protective factors and strengthening existing ones, as well as mechanisms for lessening and eliminating risk factors. The nature of the proposed program allows for the implementation of elements pulled from these existing interventions to address a wide array of contributing factors to suicide risk among members of this population, making its potential for effectiveness quite great. Program goals and core elements of the programs are listed in TABLE 1 on the following page. Bolded items are those which the author felt were especially useful for LGBTQ youth due to their relevance to the Social Ecological Model.

Table 1. Core elements of selected EBIs

NAME	TARGET AUDIENCE	PROGRAM GOAL	PROGRAM CORE ELEMENTS	OUTCOMES MEASURED
SOURCES OF STRENGTH[25] (1998)	Students age 13-17 (adolescent); age 18-25 (young adult)	Build socioecological protective factors against suicidal thoughts and behaviors Change peer group social norms that influence suicide-related behaviors, coping skills Build relationships between peer leaders and trusted adults	Peer leaders plan, design, and practice messaging activities that reflect local **social norms** surrounding stress and suicide using **various platforms for health communication** (PSAs, advertising, peer presentations) **Peer-driven model** for suicide prevention	1. attitudes about seeking adult help for stress 2. knowledge of adult help for suicidal youth 3. rejection of codes of silence 4. referrals for distressed peers 5. maladaptive coping attitudes
STEP UP[27] (2013)	Students age 11-14	Promote positive mental health and emotional competence through social and emotional learning (SEL) Create safe school climate Prevent self-destructive behaviors	Students build skills during structured **lesson plans** across 12 key STEP UP concepts including **emotional intelligence**, **emotional regulation, suicide prevention, and coping with bullying** Lessons incorporate **various learning styles**	1. social connections 2. identifying and expressing feelings 3. respecting boundaries 4. building empathy 5. mood control 6. stopping manipulation 7. self-regulation 8. self-motivation and emotional intelligence
SIGNS OF SUICIDE[29] (2001)	Students age 11-13	Increase knowledge about the signs of suicide and depression among students, staff, and parents Increase help-seeking behavior and self-efficacy among youth	Trained school staff play SOS educational **videos** and facilitate **discussion** after each Utilizes the ACT method: **Acknowledge problem, Care (respond with care), Tell a trusted adult**	1. suicidal thoughts and behaviors 2. knowledge, attitudes, beliefs about mental health 3. receipt of mental health treatment 4. social competence related to seeking help from adults
ASIST[33] (1983)	Anyone seeking to increase the immediate safety of persons at risk of suicide	Outfit community members with practical skills and competencies to increase the immediate safety of persons at risk of suicide	ASIST staff lead trainings using **various learning styles** **Understand attitudes about suicide**, provide **guidance** to persons at risk, identify key elements of an **effective suicide safety plan** and actions required to implement, recognize important aspects of prevention such as **life-promotion and self-care**	1. personal resilience/self-concept

5.1.1 Sources of Strength

Peer group norms. The main objective of the Sources of Strength program is to build socioecological protective factors like social support and self-efficacy among youth by influencing peer group norms surrounding suicidal behavior. Norms that may influence suicide-related behaviors and coping skills, such as attitudes about seeking help from adults and rejecting codes of silence surrounding mental health and suicide, have been evaluated, with results indicating promise of positive impact of the program across these measures. Encouraging youth to use social norms to inform their prevention efforts is a core element of the Sources of Strength design which will be incorporated into the proposed program. The impact of societal norms on suicide-related behaviors for LGBTQ youth will be a key feature of the proposed program.

Youth-driven model for suicide prevention. The program encourages youth leaders to plan, design, and implement messaging activities as they see fit. In this way the program positions youth as experts of their own experiences, giving them a sizeable amount of control in the creative process. A peer-driven approach may be especially useful for LGBTQ youth. LGBTQ individuals experience the world in a unique way as a result of sexual minority status; this experience is often marked by discrimination and victimization, both of which are linked to poorer health outcomes.[1] It is important that an intervention program for LGBTQ youth addresses population-specific barriers and facilitators to good mental health, and placing LGBTQ youth at the center of the prevention process will likely allow this to happen. As with all good community health interventions, the proposed program will use the personal experiences of the target population to inform the components of the program in order to create a health promotion tool that is relevant and appropriate.

Youth-adult relationships. The program also emphasizes the importance of creating peer-adult bonds built on trust. It is important that youth are able to identify adults in the community that are better equipped for handling individual-level issues (i.e. referring distressed youth to care) and community-level issues (i.e. advocating for school policies that promote mental health initiatives). In the context of LGBTQ youth, the facilitation of the formation of such relationships is of extreme importance. LGBTQ youth are less likely to be connected to LGBTQ aduts than their heterosexual peers are to be to heterosexual adults. Further, risk factors such as stigmatization and lack of family connectedness may make it more difficult for LGBTQ youth to confide in adults around them. For these reasons, the proposed program will incorporate skills training for creating bonds with trusted adults as well as connect youth to existing local resources within which these relationships may be formed.

Various methods for intervention delivery. Using a combination of teaching styles for health education delivery is thought to improve a program's effectiveness.[35] Utilizing various teaching tools such as role-plays, simulations, formal presentations, and group discussions will likely improve the overall quality of the intervention. Sources of Strength enlists a number of techniques for health communication, many of which may be used in the proposed program. It is important to note that approximately 25% of peer leaders did not remain consistently engaged in the Sources of Strength program, and those students reported overall lower school engagement at entry.[26] Identifying strategies for retaining peer leaders, particularly those from high-risk peer groups that are more likely to contain suicidal students, is an important consideration for future peer-lead interventions. The proposed program will address this limitation by identifying strategies for retaining participants as the intended audience (LGBTQ youth) is very much a high-risk group.

5.1.2 STEP UP

Non-specific lesson plans. Each lesson in the STEP UP curriculum is made up of activities designed to target specific mental health-related behaviors and includes the following: activities with a specific objective and indicators for success, an evaluation method, a list of desired outcomes, and a description of limitations that can potentially impact the behavior.[28] STEP UP teaches broad social learning constructs, allowing the program to enhance a wide array of generic protective factors that may be built upon in subsequent lessons. This non-specific nature of the factors incorporated into the program plan coupled with the structured outline detailing dissemination makes this program highly organized and potentially efficacious for decreasing important risk factors associated with negative behaviors. Because LGBTQ youth are impacted by both LGBT-specific risk factors and general risk factors for suicidal ideation and attempt, this non-specific model of health education is particularly useful. For this reason, the instructional block included in the evaluation of the STEP UP program will be used as a basic framework for the proposed program plan.

Social connections. The STEP UP program utilizes various techniques for developing strong social skills among youth as a means for building social support networks, an important facilitator for positive mental health outcomes. Participants build conversational skills to improve healthy peer connections as well as gain an understanding of the impact of non-verbal communication on peer connects. Youth also engage in role play activities and group discussions to identify and express feelings, develop healthy expressions of empathy, understand boundaries, and conceptualize the role of bullying in personal experiences, all of which use ideas about positive mental health to improve interpersonal relationships among youth. As described throughout this paper, social support is a key facilitator to positive mental health. The integration

of social support building into the broader STEP UP curriculum provides a useful model for the proposed program.

Various methods for intervention delivery. All lessons in the STEP UP curriculum incorporate student journaling as a mechanism for enhancing constructs of self-regulation, including mood control, expressing feelings, and building empathy. Supplemental materials are also provided for each lesson to help focus the activities on student mastery of the content of each section. Lesson activities employ a number of different teaching styles including reflection, group discussions, role playing, and self-assessments. Additionally, lessons include a take-home memo for parents that outlines the SEL instruction that was provided and how those skills can be fostered at home. This aspect of the program increases likelihood of sustained change as it allows for the continuation of STEP UP lessons in the home environment.

5.1.3 Signs of Suicide

Videos and discussion. Both the middle and high school programs provide age-appropriate, educational DVDs for school staff to play for students. The middle school video (Time to ACT) and the high school video (Friends for Life) inform students how to ACT® (Acknowledge, Care and Tell), demonstrate the right and wrong ways to help, and show a student talking with a school counselor. These educational videos are an effective tool for reaching a large audience. The program also includes a video, Training Trusted Adults, to engage staff, parents, or community members in the program's objectives and prevention efforts, creating a competent network of helping adults. The proposed program may use SOS videos or videos like it as a teaching tool in order to demonstrate positive and negative behaviors.

Screening Kit. The SOS program includes an optional student screening that assesses for depression and suicide risk and identifies students to refer for professional help as indicated. The proposed program will include a method for screening, to be conducted by the program facilitators on an individual basis, in order to identify youth who may benefit from professional help. LGBTQ youth often exhibit high levels of mistrust of medical professionals, so enabling facilitators with whom participants already have a positive rapport may be a useful tool for accessing youth who have so far remained without professional treatment regimens.

The ACT method. The ACT method for suicide prevention is a model for suicide prevention Copyrighted by Screening for Mental Health, Inc. The model empowers youth to identify potential warning signs of suicide among peers before it is too late to intervene. ACT is outlined as follows: Acknowledge warning signs in others and take them seriously by listening attentively, Care about the individual by calmly voicing your concerns and taking initiative to talk about the issues such as asking if they have a specific plan, and Tell a trusted adult that you are worried about a friend, as an adult is more likely to be able to connect the individual to helpful services. Because suicide is a highly stigmatized health outcome, and LGBTQ youth are a marginalized population, it is important for LGBTQ youth and allies to be able to recognize signs among their peers and to enlist the help of an adult.

5.1.4 ASIST

Suicide first aid. The emphasis of the ASIST program is on teaching “suicide first-aid” to help a person at risk stay safe and seek further help as needed. Participants learn to use a suicide intervention model to identify persons at risk, gain an understanding of the individual’s attitudes towards suicide, develop a safety plan, and provide ongoing support for the individual. The

learning process is based on adult learning principles and highly participatory. Graduated skills development occurs through mini-lectures, facilitated discussions, group simulations, and role plays. The primary goal of the proposed program is to deliver suicide prevention techniques to LGBTQ youth, a population with heightened suicide risk. Because LGBTQ youth are marginalized in many social situations, it is important that members of this population be equipped to provide support to themselves and their peers. The general model employed by the ASIST program will enable LGBTQ youth to deliver suicide first aid to those in their immediate peer groups and empowering youth to connect at-risk peers to greater community resources.

Personal resilience. ASIST utilizes a community-level approach to suicide prevention while incorporating intrapersonal-level resiliencies. This model addresses factors at multiple levels of the socioecological framework, increasing its potential for effectiveness. This multi-level approach will be employed in the proposed program as LGBTQ youth are vulnerable to risk factors at various levels of the SEM. Developing and enhancing characteristics of personal resilience such as self-care, life-promotion, and healthy attitudes about mental health is of special importance to LGBTQ youth who are, in the context of suicide, a vulnerable population.

5.2 LGBTQ INCLUSION

As stated previously, there are no known evidence-based suicide prevention interventions tailored to LGBTQ youth, and no LGBT-specific programming is included in SAMHSA's NREPP, nor SPRC's BPR. Although a number of EBIs address suicide risk among the general youth population as outlined above, no population- or culture-specific adaptations of the interventions were identified by their developers, and these programs do not target LGBTQ-

specific risk factors and protective factors as-is. Since this population is at higher risk for suicidal behaviors, it is important that programs addressing the unique needs of this population are developed, implemented, and evaluated. Existing programming, such as the four EBIs examined above, may reduce suicidal behavior by strengthening protective factors that exist for youth in general, such as connecting youth with supportive adults, and reducing risk factors, such as preventing violence and harassment.[9]

While the SPRC has yet to identify an LGBT-specific intervention programs, it has not underestimated the impact of suicide on this population. In 2008, the SPRC published a paper highlighting the higher risk of suicide among LGB youth which provided recommendations to strengthen or increase protective factors and to reduce risk factors among LGBT youth. This paper, identified by the grey literature search, makes suggestions for agencies that serve youth (e.g. schools, health practices, suicide prevention programs) to develop a more LGBT-inclusive approach to help reduce suicidal behavior.[9] These 16 research-based strategies for creating effective suicide prevention programming for LGBT youth are:

- Implement training for all staff members to effectively serve LGBT youth by including recognition and response to warning signs for suicide and the risk and protective factors for suicidal behavior in LGBT youth
- Include information about higher rates of suicidal behavior in LGBT youth in health promotion materials
- Asses and insure that youth services and providers are Inclusive, responsive to, and affirming of the needs of LGBT youth, and refer youth to these services and providers
- Develop peer-based support programs
- Include the topic of coping with stress and discrimination and integrate specific activities for LGBT youth in life skills training and programs to prevent risk behaviors
- Support staff advocacy for LGBT youth
- Incorporate program activities to support youth and their family members throughout the development of sexual orientation and gender identity,

including awareness, identity, and disclosure. These programs must address young children and adolescents.

- Promote organizations that support LGBT youth, such as Gay-Straight Alliances and Parents, Families, and Friends of Lesbians and Gays (PFLAG).
- Institute protocols and policies for appropriate response if a client or student is identified as at risk of self-harm, has made a suicide attempt, or has died by suicide
- Make accurate information about LGBT issues and resources easily available
- Use an LGBT cultural competence model that enables individuals and agencies to work effectively with LGBT youth cultures
- Include LGBT youth in program development and evaluation
- Institute, enforce, and keep up to date non-discrimination and non-harassment policies for all youth
- Implement confidentiality policies that are clear, comprehensive, and explicit
- Assume that clients or students could be any sexual orientation or gender and respond accordingly
- Address explicitly the needs of LGBT youth in school-based programs and policies to prevent violence and bullying

Incorporating these strategies into suicide prevention programming will build the capacity of agencies that serve LGBT youth and youth in general to reduce the disparity in suicidal behavior between LGBT youth and their peers. Research has found that LGBTQ youth living in jurisdictions with more (versus less) affirmative LGBTQ school climates was significantly associated with decreased risk behaviors related to substance use, indicating that school climate has a clear and direct impact on health outcomes for LGBTQ youth.[36] Programming targeting LGBTQ youth risk behaviors should foster a strong sense of LGBTQ inclusion to model the effects of positive school climates demonstrated in this research. Research on LGBT mental health outcomes has indicated that feeling connected to the LGBT community is an important factor to consider in the study of mental health among sexual minority individuals.[37] In line with this research, the SPRC inclusion recommendations that will be adopted by the proposed program include strategies for fostering community connectedness

for LGBTQ youth. The SPRC's inclusion recommendations provide a tremendous opportunity for youth-serving agencies to take steps at the intrapersonal, interpersonal, and community levels to develop affirming climates as a means for enhancing mental health outcomes among LGBTQ youth. The proposed program will use these strategies as a guide for creating an LGBT- inclusive framework. The ways which these factors will be addressed in the proposed program are outlined in the "Program Plan" section.

5.3 PROTECTING OUR YOUTH: A SUICIDE PREVENTION PROGRAM FOR LGBTQ YOUTH AND ALLIES (POY)

5.3.1 Proposed Program

The proposed program combines core elements of four existing evidence-based suicide prevention programs and new elements based on the SPRC's recommendations to create LGBT-inclusive programming to create an LGBTQ youth-focused suicide prevention strategy. An overview of the program is described below.

Name: Protecting Our Youth: A Suicide Prevention Program for LGBTQ Youth and Allies (POY)

Creator/Affiliated Organizations: Alexandra Topper, MPH, The University of Pittsburgh Graduate School of Public Health, The Center for LGBT Health Research

Date of Development: 2017

Target Audience: LGBTQ Youth and allies; Younger Youth (middle-school-aged youth, ages 11-14) and Older Youth (high-school-aged youth, ages 14-18).

Program Description: Protecting Our Youth (POY) is a suicide prevention program designed to build socioecological protective factors against suicidal thoughts and behaviors among Lesbian, Gay, Bisexual, Transgender, and Queer youth. The purpose of the program is to enhance suicide-related mental health outcomes among LGBTQ youth. This program serves as a model for tailoring existing programs to meet the unique needs of a specific population which has been underrepresented in public health research. The program plan adapts and combine elements from several existing interventions that may be potentially efficacious within this population, as well as creates new elements in areas that need improvement or are lacking altogether. The program pulls elements from a number of existing evidence-based interventions for suicide prevention for the general youth population to target risk factors for suicide through various creative activities and programming. The program trains youth to understand the unique LGBTQ-specific risk factors for suicide that may put them at increased risk of this negative health outcome, as well as general factors that may influence their health outcomes. Facilitators work with youth to disseminate important health information that may be relevant to members of this population through individual and group activities. Facilitators also conduct activities for building resiliency among LGBTQ youth, a population which experiences much marginalization and discrimination in their daily lives. These activities are specifically designed to target known risk factors for suicide—both LGBT-specific and generic—that function at various levels of the social ecological model in order to reduce suicidal ideation and other suicide-related behaviors among LGBTQ youth. The program's multi-level approach aims to fill in gaps in suicide prevention

intervention research which have left LGBTQ youth without a specific, tailored intervention option. The curriculum provides educational training at the intrapersonal, interpersonal, community, and public policy levels in order to provide LGBTQ youth with tools for mitigating the impact of various risk factors so that they may lead healthier lives. The program emphasizes protective factors such as social support, resilience, self-esteem, and community connectedness through various learning techniques. The program addresses the impact of such factors on long-term outcomes, such as the prevention of behaviors and ideation associated with suicide. The program was developed in response to a sheer lack of LGBTQ-specific evidence-based interventions for suicide prevention. The intervention aims to decrease suicide and suicide attempts among LGBTQ youth by increasing knowledge about LGBT health disparities, encouraging personal help-seeking and help-seeking on behalf of friends, reducing the stigma surrounding mental health in the LGBTQ community, engaging youth as gatekeepers, and encouraging the community to build community-based partnerships to support students. The POY philosophy posits that LGBTQ youth are at increased risk of suicide and therefore need a targeted, theory-backed strategy for addressing the many risk and protective factors for suicide that exist for this population.

Curriculum: Protecting Our Youth: A Suicide Prevention Program for LGBTQ Youth and Allies was designed by the author and is based on formal theories of change as well as best practices identified through a review of the literature. Core elements from four suicide prevention EBIs of proven effectiveness that the author felt were relevant and easily adaptable for LGBTQ youth were identified and included in the curriculum. Additionally, new elements that address LGBT-specific contributing factors to suicide found in the literature that have not

yet been addressed in an evidence-based intervention have been integrated into the program. These existing elements and core elements were then combined to create the program topics. These topics will be arranged to fit a 6-month program, with youth meeting once a week, every week for 6 months at a community space (i.e. public library, recreational center) identified by the author.

Facilitators: Facilitators require a minimum of a Bachelor's degree in public health, education, social work, or relevant fields. Facilitators must demonstrate LGBT competency and must have experience working with youth, particularly special populations. Recent college graduates or graduate students looking for internship opportunities are perhaps particularly well-suited for this position.

Participants: Youth of any sexual identity and gender identity will be welcome. While the program is designed for LGBTQ youth, a population which has been underserved in public health research and programming, self-identified LGBTQ allies who do not identify as a sexual and/or gender minority will be welcome to participate as oftentimes youth are still questioning and understanding their own identities. In-line with the selected EBIs, two separate programs will be run for two age groups: Younger Youth (middle-school-aged youth, ages 11-14) and Older Youth (high-school-aged youth, ages 14-18). Once youth turn 18 they will be graduated from the program. Select youth may be trained to serve as program facilitators for future iterations of the program, but the author has not yet outlined the specific details of this process. While the two groups will be conducted separately, much programming and topic exploration

will overlap; the main differences will be activity choice/mode of delivery, as the different age groups may benefit most from different teaching styles.

Practical Considerations: The following considerations will be taken into account by the program author. The first iteration of the program (pilot test) which will take place over the course of six months.

- 24 sessions (24 sessions for Younger Youth, 24 sessions for Older Youth)
- Meet every week
- 1.5-2 hours per session
- 10-20 youth per session
- 2 facilitators per session
- Attendance is not mandatory, but youth who miss more than 2 sessions will be excluded from any evaluation processes
- Youth may not all know each other, so bonding activities should be implemented early on in the program
- Youth may refer friends after the start date, but these individuals will be excluded from any evaluation processes
- Activities must not be academically challenging
- Rights to existing EBIs may be purchased for partial or full-implementation if the budget allows

Outcomes Examined: POY seeks to impact a number of outcomes for LGBTQ youth participants, as measures by changes over time in participants. The following outcomes will be incorporated into the POY curriculum:

1. Knowledge, attitudes, and beliefs about mental health and suicide
2. Understanding of LGBTQ mental health disparities
3. Knowledge/social competence related to seeking LGBTQ-trusting adult help for suicidal youth
4. Healthy coping strategies, identifying and expressing feelings, building empathy, self-regulation, emotional intelligence, suicidal ideation and suicide-related behaviors
5. Recognizing at-risk peers, providing immediate guidance, and referral to care
6. Knowledge of LGBTQ-friendly resources in the community
7. Personal resilience/self-concept

5.3.2 A Socioecological Approach

The proposed program will utilize a multi-level approach to suicide prevention by targeting socioecological factors that influence suicide using a multitude of health promotion strategies. The author first identified core elements of each evidence-based intervention to be adapted for the proposed program. These elements were then organized according to the levels of the SEM which they address as shown in Table 2 on below.

Table 2. Socioecological factors from selected EBIs

Socioecological Level	Contributing Factors	Corresponding EBI Element
Intrapersonal Level	**Individual Characteristics** knowledge of health outcome, attitude towards health behavior, skills for performing behavior, self-efficacy regarding behavior	• **Youth-driven model** (Sources) • **Self-regulation** (STEP UP: identify feelings safely, mood control, build empathy, emotional intelligence) • **Mental health knowledge, attitudes, beliefs** (SOS) • **Depression and suicide assessment tool for adults** (SOS) • **Personal resilience** (ASIST: personal attitudes about suicide, self-care, life-promotion, reasons for living)
Interpersonal Level	**Interactions with other individuals or groups of individuals** social/emotional support, tangible aid, exchange of health information	• **Formation of youth-adult relationships** (Sources) • **Rejection of codes of silence** (Sources) • **Social competence** (STEP UP: social connections, respecting boundaries) • **ACT method** (SOS) • **Suicide Safety Plans** (ASIST)
Community Level	**Factors within the individual's immediate environment** social norms, cultural values, membership to groups	• **Influencing peer group norms** (Sources) • **Outfit community members with practical skills to provide guidance to at-risk persons** (ASIST) • **Influencing school climate surrounding suicide and prevention** (Sources, STEP UP, SOS)
Public Policy Level	**External Factors** laws, policies, protections	N/A

This understanding of the selected interventions as they fit into the public health framework informed the design of the proposed program. The specific components of the program and the socioecological level at which they function are described as follows:

Intrapersonal level:

- Program facilitators implement mini-lectures, individual activities (i.e. journaling, art projects), and group activities (i.e. group discussions, roleplay) addressing topics such as self-care, stress relief techniques, healthy coping, LGBT mental health disparities, personal experiences with mental health, self-harm, reasons for living, ambivalence about dying, and emotional intelligence
- Program facilitators administer mental health screening tools to be administered by program facilitators to assess individual youth's risk and identify youth to refer to professional help as indicated
- Program facilitators involve youth participants in implementation of all activities and invite feedback from participants
- Activities build intrapersonal level protective factors directly related to risk factors (i.e. gender affirmation and positive gender expression to mitigate the effects of internalized homophobia and lack of hope for the future)[40]

Interpersonal level:

- Program facilitators teach skill-building for identifying trusting, LGBTQ-competent adults
- Program facilitators facilitate group activities for enhancing social skills, building support networks, creating friendships, respecting boundaries, affirming identities etc.
- Program staff provide youth with skills for talking to families about sexual orientation and gender identity
- Program facilitators outfit participants with knowledge and skills for creating suicide safety plans with those at risk, and provide examples of safety plans
- Program facilitators establish rapport with participants and serve as positive adult role models
- Activities build interpersonal level protective factors directly related to risk factors (i.e. social bonding and support building to mitigate the effects of rejection from social and family support; understanding and identifying safe spaces and safe people to be out to to mitigate the effects of victimization; homophobia management to provide practical skills and words for mitigating the risk of victimization)[40]

Community level:

- Program facilitators and participants work together to create and distribute a resource guide of LGBTQ-friendly resources in the community (and nationally) for participants' personal use and for distribution within their networks
- Program facilitators engage youth in community-level health promotion activities (i.e. creating PSAs and advertising about suicide prevention for LGBT youth and general LGBT youth health, create art for the community, arrange presentations at various community organizations)
- Program provides a safe space for LGBTQ youth to receive health messaging and other important communication
- Program facilitators teach youth skills for creating inclusive, safe spaces within the community (i.e. school, public recreation centers, religious institutions) for LGBT and non-LGBT youth
- Program author may invite relevant community organizations to contribute to the program curriculum by presenting a workshop, hosting an event, etc.
- Activities build community level protective factors directly related to risk factors (i.e. connection to sexual minority community and non-sexual minority community to mitigate the risk of lack of feelings of belongingness and sense of isolation; understanding and influencing social norms to mitigate the effects of negative social norms, discrimination, and physical danger)[40]

Public Policy level:

- Program facilitators present educational lessons on LGBTQ health, history, policies, etc.
- Program facilitators facilitate group discussions about advocacy and activism for mental health issues, LGBTQ issues, etc.
- Program facilitators assist youth in planning and carrying out advocacy activities
- Activities build public policy level protective factors directly related to risk factors (i.e. understanding the current state of protective policies to mitigate the effects of discriminatory practices)[40]

5.3.3 SPRC Recommendations Met

As mentioned previously, LGBT youth are at increased risk of suicide and suicide-related behaviors as compared to their non-LGBT peers, making it imperative that public health researchers develop programming tailored to meet their unique needs and experiences. Further, both LGBT-specific and non-specific risk and protective factors have been found to influence suicide outcomes among this population, indicating that programming should incorporate

activities that address both. The major limitation of current suicide prevention EBIs is their failure to directly address LGBT-specific factors to suicide. The proposed program aims to meet this unmet need by adapting and combining elements from these evidence-based interventions that have been created for the general youth population, as well as create specific program objectives based on the SPRC's recommendations for LGBT-inclusive programming.

SPRC Recommendation: Implement training for all staff members to effectively serve LGBT youth by including recognition and response to warning signs for suicide and the risk and protective factors for suicidal behavior in LGBT youth.

Incorporation into proposed program: The program author has a high level of LGBT competence and a deep understanding of LGBT mental health issues. All program facilitators will receive training before program implementation. By nature of the proposed program, this training will include recognition and response to warning signs as well as LGBT-specific risk and protective factors.

SPRC Recommendation: Include information about higher rates of suicidal behavior in LGBT youth in health promotion materials.

Incorporation into proposed program: Participants will receive education on LGBT health disparities through lectures and other activities described under intrapersonal level elements above.

SPRC Recommendation: Asses and insure that youth services and providers are inclusive, responsive to, and affirming of the needs of LGBT youth, and refer youth to these services and providers.

Incorporation into proposed program: Participants will receive resource guides of LGBT-friendly resources both locally and nationally to use and disseminate to peers. Facilitators will also be informed of local resources so that they may refer youth. The program will also provide some opportunities for community members (including providers and others in helping positions) to receive training.

SPRC Recommendation: Develop peer-based support programs.

Incorporation into proposed program: A major aim of the proposed program is to provide a space in which LGBT youth can foster healthy relationships and enhance their social support networks as a means for improving their overall health. Intrapersonal and interpersonal skill-building, as well as social learning elements, will allow for the enhancement of social support as a protective factor for suicide.

SPRC Recommendation: Include the topic of coping with stress and discrimination and integrate specific activities for LGBT youth in life skills training and programs to prevent risk behaviors.

Incorporation into proposed program: Each of these objectives is addressed at various SEM levels as described above.

SPRC Recommendation: Support staff advocacy for LGBT youth.

Incorporation into proposed program: The program author and all program facilitators are individuals who are formally educated in LGBT health issues and who have a deep understanding of the societal issues affecting this community. In this way, all staff are prepared to advocate for LGBT youth and mental health in general. Activities to instill the importance of advocacy in youth participants are mentioned in the public policy level activities above.

SPRC Recommendation: Incorporate program activities to support youth and their family members throughout the development of sexual orientation and gender identity, including awareness, identity, and disclosure. These programs must address young children and adolescents.

Incorporation into proposed program: The proposed program will provide participants with practical skills for having productive conversations about sexual orientation, gender identity, mental health, and other topics with those in their networks (i.e. family, friends, peers). Research indicates that for many mental health outcomes, family support appears to be an especially relevant and important source of support to target for LGBT youth.[38] Parents and friends will also be encouraged to attend activities designed for community members to enhance social and emotional support at the community level as described above. Additionally, participants will be empowered to employ the intrapersonal and interpersonal skills developed through programming to have such conversations and educate those in their networks. This real-world application of skills developed in the program sustains the program's effectiveness beyond the meetings themselves.

SPRC Recommendation: Promote organizations that support LGBT youth, such as Gay-Straight Alliances and Parents, Families, and Friends of Lesbians and Gays (PFLAG).

Incorporation into proposed program: LGBT-friendly resources will be shared with participants through a number of activities and programming, including the resource guide. Further, such organizations may be invited to program meetings to conduct workshops and facilitate broader discussions, as well as make youth aware of the organization's services.

SPRC Recommendation: Institute protocols and policies for appropriate response if a client or student is identified as at risk of self-harm, has made a suicide attempt, or has died by suicide

Incorporation into proposed program: The proposed program will have extensive protocols for connecting youth at immediate-risk to care in line with existing suicide prevention EBIs. Program facilitators will also be trained in administering screenings for depression and suicide risk to interested participants, enabling them to identify and refer at-risk youth.

SPRC Recommendation: Make accurate information about LGBT issues and resources easily available.

Incorporation into proposed program: The very nature of the proposed program accomplishes this task.

SPRC Recommendation: Use an LGBT cultural competence model that enables individuals and agencies to work effectively with LGBT youth cultures.
Incorporation into the proposed program: The very nature of the proposed program accomplishes this task.

SPRC Recommendation: Include LGBT youth in program development and evaluation.
Incorporation into proposed program: Peer-driven program development is at the core of the proposed program. Because youth culture changes so rapidly, it is important that the proposed program positions youth as experts of their own lives so that program activities and content remain relevant to participants over the course of the program. While the facilitators will guide activities and programming, youth are very much included in the planning and implementing process. Youth are invited to tweak any elements of the program as they see fit (within reason), and are positioned as experts of their own experience in all activities, particularly those as the interpersonal and community levels as described above. Evaluation activities designed by the author will be implemented at appropriate time points to gather youth's comments and suggestions for future implementation.

SPRC Recommendations: (1) Institute, enforce, and keep up to date non-discrimination and non-harassment policies for all youth; (2) Implement confidentiality policies that are clear, comprehensive, and explicit; (3) Assume that clients or students could be any sexual orientation or gender and respond accordingly; (4) Address explicitly the needs of LGBT youth in school-based programs and policies to prevent violence and bullying

Incorporation into the proposed program: The final four recommendations will be addressed by the author in program design and organization of programming. Program facilitators will be well informed on protective policies for youth, and will teach these policies to youth so that they know their rights. Confidentiality policies will be discussed on the first day of the program and all participants will be required to sign confidentiality agreements to maintain the safe-space atmosphere of the program. While the program is not designed for implementation within a school setting, it will enable youth and community members to advocate for better conditions for LGBT youth in these settings. Information on participant demographics and identities will be collected via an anonymous survey on the first day of program implementation, but youth will only share these characteristics with the larger group at their own will. No assumptions will be made about identities by the program author or facilitators.

6.0 CONCLUSION

6.1 LIMITATIONS

Although the proposed program is based on the literature available on LGBT mental health and suicide, little research exists on successful interventions with long-term follow-up outside of the studies mentioned in this paper. Further, because no evidence-based LGBT-specific suicide prevention strategy has been established yet, it is impossible to use past findings to inform the design and implementation of this program. For this reason, the proposed program must rely on interventions designed for the general youth population, which may place too much emphasis on risk and protective factors that are less relevant to LGBT persons, and fail to emphasize factors which influence LGBT persons more severely or more frequently. To account for this lack of empirical evidence, the author has heavily relied on public health theory to inform the proposed program. Using theoretical frameworks to guide the creation of the proposed intervention should result in an efficacious program, but until this theory is put into practice it will be difficult to understand the extent of these effects.

Regarding the literature collected in the literature review processes described in the methods section, the author only used one search engine, PubMed, to identify peer- reviewed articles relevant to this project. Perhaps using additional academic databases would have yielded

more results. For the grey literature search process, the author again only used one database, SAMHSA's NREPP, to identify suicide prevention programs for youth. Neither NREPP nor the SPRC's BPR are exhaustive, so programs that may not have been evaluated as rigorously, but that may have provided some insight into targeting suicide risks for youth, may exist. However, the selected interventions are among the highest-regarded public health suicide prevention strategies in existence.

6.2 ENHANCING PROTECTIVE FACTORS

The current body of research surrounding LGBTQ youth health has continuously and consistently pointed to social support as a facilitator for improved mental health outcomes and healthy habits (i.e. decreased prevalence of various risk behaviors).[37] The adversity that comes with membership within a sexual minority, coupled with the generally challenging experience of transitioning from childhood to young adulthood, may contribute to the worsened mental health outcomes experienced by this population. Creating safe spaces in which youth can receive health messaging, explore their interests, form friendships, and speak openly about their shared experiences has the potential to improve mental health and risk behaviors among members of this community, but these spaces are too few and far-between. Funding programming that fosters safe spaces for the LGBTQ youth community provides opportunities for youth to expand their social support networks and to learn to overcome barriers to good health. Further, it has been established that communities with LGBT-affirming policies produce better outcomes for sexual minority youth, so it is important to empower youth to advocate for their own health beyond the confines of these safe spaces, as well as target policy change and structural change at the

community and public policy levels. The proposed program provides a venue for the facilitation of important conversations about health which is especially important for highly stigmatized health outcomes like suicide, and is potentially an extremely effective tool for improving health outcomes among this vulnerable population.

6.3 PUBLIC HEALTH SIGNIFICANCE

The public health significance of this work is that it advances our understanding of the unique mental health needs of LGBTQ youth, as well as our understanding of the role of social support in health promotion efforts. Using a strong base of public health theory along with an extensive review of LGBTQ health research, the proposed program provides the basis of a potentially efficacious program for translating important public health findings from research to practice in a casual social setting in order to educate LGBTQ youth and provide them with agency in their own health-related decision-making and behaviors. The proposed program covers a broad range of protective factors and risk factors related to suicidal ideation and suicide-related behaviors. Through various discussions and creative activities at the group-level and the individual-level, the program will enhance youth's understanding of factors that affect their mental health outcomes in order to empower them to live healthier lives. Using the unique experience of at-home social gatherings as a means for communicating messages about suicide will likely improve the mental health and well-being of a population which is known to be at risk for myriad negative health outcomes, particularly in areas of mental health, sexual health, and substance use. Further, sharing information in such an intimate setting will help youth to enhance their social support networks as well as create new ones, promoting resiliency and ultimately

improving health. The desired long-term outcome for the proposed project is to reduce the incidence rate of suicidal ideation and suicide attempts among members of this vulnerable population with the ultimate goal of improving quality of life for LGBTQ youth as they mature into adulthood.

Finally, our country is experiencing a time of great change. In the aftermath of the recent presidential election, the political climate of the United States has become somewhat unstable, with many existing policies that protect and bolster LGBTQ rights being challenged and discriminatory policies being put forth. As politics are changing at a rapid pace so, too, are cultural ideals and norms. While the current president and his supporters pose a great threat to the safety and well-being of the LGBT community, many groups have stepped up to increase LGBTQ representation as well as advocate on a large-scale for LGBTQ rights and protections. It is this author's belief that programs like the proposed program are of greater importance than ever before. As this nation's political situation continues to unfold, the future state of LGBT health research is somewhat unclear. LGBTQ youth and other marginalized populations, now more than ever, need access to programming that provide health-promotion, harm-reduction, coping strategies, and social support building. It is crucial that individuals and communities continue to voice their support for LGBTQ persons, persons struggling with mental illness, and other minority persons as those in power continue to marginalize these communities using hate and fear.

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