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Loneliness as a Treatment Focus for Suicide Prevention in Airmen Who Seek Mental Health Care

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Walden University

College of Social and Behavioral Sciences

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Jovanna O. Wilson Gaines

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Walden University
2022

Abstract

Loneliness as a Treatment Focus for Suicide Prevention in Airmen

Who Seek Mental Health Care

by

Jovanna Gaines

MSW, Fordham University, 1991

BSW, State University of New York, Stony Brook, 1989

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Social Work

Walden University

May 2022

Abstract

The Department of Defense is challenged to decrease rising suicide rates in all branches of military service. Studies have consistently shown interpersonal risk factors versus intrapsychic factors as strong indicators of suicide risk, yet the practice has not focused on loneliness as a treatment focus for increased risk. This study explored clinical social workers' view of loneliness as experienced in patients who are active-duty airmen to identify prevention, coping, and treatment strategies for managing suicides. The methodology involved a semistructured interview of 10 active duty licensed clinical social workers with greater than two years of experience working within a mental health element of Air Force base mental health clinics. The findings of this study showed that the participants viewed loneliness as a risk factor for suicide. Multiple terminologies were used to describe characteristics that equate to perceived loneliness as experiences of suicidal patients, such as experiencing isolation, not being connected, lacking support, being geographically separated from family/friends/peers, feeling distant, and lacking belongingness. The study's findings indicated that loneliness, coupled with intrapsychic or interpersonal issues, was related to elevated suicide risk and should therefore be a significant part or focus of assessment and treatment. Results indicated that for positive social change assessment and treatment for loneliness should be a focus for suicide prevention.

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Dedication

I dedicate this document to the underprivileged and underserved population in the United States of America, who need research and advocacy to be a voice for social change, empowerment, and justice. Also, I dedicate this document to the men, women, and family members of all branches of military service, who make sacrifices throughout their lives to serve this country. I served 20 years of active-duty service to support the mental health of military men and women. God bless the USA.

Acknowledgments

Thank you, Dr. Yvonne Chase and Dr. Carlton Huff, my chair and second chair, for your guidance and support throughout this educational process. Also, a special thanks to my husband John, my son and daughter-in-law, Tyrell and Ashley Wilson; my 4 beautiful and intelligent grandbabies, Tanaya, Tamarhi, Taylour, and Taidyn. An additional thanks to my mother, Marva who served 20 years in the Army and set the example for my role as a woman in leadership throughout my 20-year Air Force career. Lastly, thanks to my sisters, Wendy and Delfina who have supported and encouraged me throughout this journey. All have helped me to balance my military career with the demands of family and school. To my family, I love and cherish you.

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Section 1: Foundation of the Study and Literature Review

The armed forces within the Department of Defense (DoD)—the Army, Navy, Air Force, Space Force, and Marines—are challenged to decrease rising rates of suicide and mental health problems. The ability to identify factors that contribute to mental health symptoms in personnel within the services has been an ongoing issue for the past two decades, particularly after 2004, when a significant rise in suicidal rates and mental health needs in the military was noticed (Bryan et al., 2012; Cacioppo et al., 2016). Mental health problems can impede the military community's occupational and social aspects, leading to a significant impact on the ability to accomplish a mission. The psychological well-being of service members is essential to the military's optimum functionality and operational readiness (Sharkey & Rennix, 2011). Because serious mental health concerns impact the readiness of the military to deploy and protect the nation, studies are conducted throughout the DoD to reduce mental health challenges, address the increased need for psychiatric care, and decrease the number of suicides. Although researchers continue to identify correlations or causes of suicidal ideation and attempt through quantitative research to get closer to recommendations for mental health reform, some have argued that this is not leading the mental health community closer to any solutions.

Current literature on military research indicates that loneliness is a contributing factor to psychiatric issues such as anxiety, depression, suicide, and other mental health disorders; however, it is rarely a focus of clinical practice. Instead, it is viewed as a subtype of intrapsychic issues that impact an individual's overall mental well-being (Hawkley & Cacioppo, 2003; Tanielian, 2019, Trossman, 2019). Air Force data on

suicidal attempts and suicidal completions obtained from the DoD Suicide Event Report (DoDSER) identify needs, resources, and process changes as a result of findings from studies on airmen, and although studies indicate the significant impact of loneliness as a risk factor for decompensation of physical and mental health (Wilson et al., 2018), surveys and assessment tools that identify the extent of loneliness have not been included among standard measurement tools for suicide prevention or mental health treatment. As a practice standard in mental health settings, clinical focus is placed on measures given to patients to assess symptoms such as anxiety, depression, substance use, suicidality, and posttraumatic stress disorder (PTSD); however, loneliness is an underlying common risk factor that is not measured as part of the standard, stand-alone, clinical assessment of risk. A closer evaluation of loneliness in an individual service member may lead to meaningful cues for mental health risk or severe emotional status leading to suicidal behaviors. Ongoing studies of risk factors for military members' mental health problems continue to involve the implementation of evidence-based programs to reduce the occurrence of suicides (DoD, 2018; Tanielian, 2019) and identify specific areas that can reduce the need for psychiatric treatment. In this study, I used qualitative methods to explore social workers' perspectives on loneliness as a treatment focus for suicide prevention. Findings from this study have implications for modifying practice methods for assessment of airmen in the mental health clinic, ultimately enhancing intrapersonal factors such as loneliness as a focus for treatment and suicide prevention.

In Section 1 of this research study, I introduce the study's background, problem statement, and purpose. I discuss the study's research questions, hypotheses, theoretical foundations, nature, operational definitions, ethical values for social work practice,

assumptions, and limitations. Additionally, I address the study's significance and implications for social change. I sought to explore loneliness as it relates to mental health risk factors and loneliness as a recommended focus for suicide prevention and mental health treatment. The results suggest changes in how therapy is practiced within the military setting, thus contributing to increased readiness for the military mission.

Problem Statement

Loneliness is a risk factor experienced by airmen who seek mental health treatment and those who die by suicide; however, it is not a focus for assessment or treatment for those who seek mental health care in the military. Professionals continue to use anxiety and depression scales to assess suicide risk and to determine the level of treatment needed for care. A substantial body of literature documents associations between loneliness and psychological distress, depression, increased morbidity, and mortality (Penning et al., 2014). Studies have shown both intrapsychic factors such as anxiety and depression and interpersonal factors such as connectedness, belonging, and loneliness as factors for individuals who are at risk for suicide or die by suicide in both the military and civilian settings (Cacioppo et al., 2016; Wright et al., 2014; Zamorski 2011). In one narrative review conducted by Calati et al. (2019), 40 articles that included systematic perspectives, meta-analyses, narrative perspectives, original observational studies, and qualitative studies concluded that suicidal outcomes were closely associated with marital status (single, separated, divorced, or widowed), living alone, and social isolation. Studies have included the conclusion that loneliness is a significant risk factor for decades, yet intrapsychic factors such as depression have been the primary focus for identifying risk and assessing suicidal individuals. One study by Ulmer et al. (1992)

evaluated 288 military enlistees after boot camp who endorsed greater reasons for living and little depression; however, the military's experience of loss of social support, effects of recent life transition such as relational problems, and an uncertain future made them vulnerable to increased feelings of loneliness over time. As a result, the findings indicated that an increased risk for suicide was associated with loneliness, with the implication that a loneliness scale might be better than a depression scale as a suicide screening instrument. Although military and civilian studies have indicated the importance of connectedness, there is a gap in the practice of utilizing loneliness surveys such as the UCLA Loneliness Scale, which is an evidence-based questionnaire to determine the extent of one's loneliness (Penning et al., 2014). Further study of the gap in practice of assessing loneliness is necessary, as loneliness is related to depression yet is widespread and can be experienced independent of depression in at-risk individuals (Penning et al., 2014). The problem exists that research has identified multiple risk factors that include loneliness as underlying intrapsychic and interpersonal issues, yet indicating loneliness as a focus for assessing risk has not been standardized as a treatment focus throughout the Air Force for airmen who seek mental health treatment.

Purpose of the Study

The purpose of the research study was to use qualitative data to understand clinical social workers' view of loneliness experienced in patients who are active-duty airmen to identify prevention, coping, and treatment strategies for managing suicides. In line with the DoD's continuous efforts to decrease suicides and mental health issues that impact the mission, I sought to understand whether social workers see loneliness as a focus for suicide prevention, assessment, and treatment of airmen who seek mental health

treatment. This effort was geared to better identify loneliness as a risk factor for clinical assessments and a target for clinical intervention and prevention strategies. Better identification and interventions for loneliness in airmen could serve as a treatment objective, thereby reducing the number of at-risk airmen.

Research Questions

The research questions and hypotheses were developed as a result of a literature review of research on suicide within the DoD, with a focus on Air Force personnel. For the past two decades, the military branches have studied risk factors for suicide prevention and mental health issues to improve the readiness of the force. Rates have continued to rise, yet the strategies for community prevention, education, and training have remained the same. The standard practice involves the use of assessment screeners for anxiety, depression, PTSD, and suicide, yet the rise in rates indicates that more needs to be studied regarding suicide risk.

The research study questions were as follows:

1. What are the social workers' perspectives of the current assessment tools in identifying loneliness as a risk factor?
2. What are the perspectives of clinical social workers regarding the role that loneliness plays in the triggering/onset of mental health issues that lead to suicide amongst airmen?
3. What are the perspectives of social workers regarding loneliness being viewed as a treatment focus for suicide prevention and treatment?
4. What are the perspectives of clinical social workers regarding the impact of loneliness on the suicide rates of airmen?

Definitions of Key Terms

The following definitions are provided for the purpose of this study.

Culture: Culture refers to common ways of seeing the environment; it relates to values and priorities in life, as well as to subconscious convictions, ideas, interpretations, and norms that are taken for granted. Culture is shared by collectivities of people: nations, regions, organizations, schools, churches, and families (Soeters et al., 2006).

Loneliness: A subjective experience that occurs as a disconnect from expectations of social connections and a person's perceptions of their lived experience (Qualter et al., 2013). Loneliness is a distressing state that people experience when they notice a discrepancy between the desired and perceived quality or quantity of their social relations (Matthews et al., 2016). *Social support* has been defined as the presence of dependable people in one's life. A lack of social support can lead to loneliness, which may occur when individuals feel empty because they lack essential persons in their lives or when individuals are not accepted or do not belong to a group (Bevinn, 2011).

Social isolation: An objective state that reflects the social environment's integration, such as the frequency of social contact. Qualter et al. (2013) further explained that isolation is defined as the circumstance or state in which one is not achieving the desired level of social interaction.

Loneliness versus *social isolation*: Being alone or in solitude is not a prerequisite for the experience of loneliness because not everyone feels lonely when they are alone. Loneliness can also be experienced in the presence of other people. This is an important factor due to suicides occurring when individuals have interacted within a crowd or group. More information on this phenomenon will be addressed in this study; however,

this experience is noted for this section. This phenomenon emphasizes the need for more in-depth explorations of loneliness experienced by individuals despite their observed interactions within a group.

Loneliness is an emotion felt at the brink of the effort or behavior; the individual has no sense of meaningful connection when it is determined to move forward with the suicidal act. Whether a person is depressed about issues within a relationship, legal problems, and/or financial problems, the ultimate feeling of loneliness or not feeling connected as a reason to stay alive exists. Other common risk factors such as alcoholism, mental health diagnoses, and trauma can exist, but it is the ultimate feeling of being alone with these issues that precedes the final act of suicide in individuals. Although the concepts vary, this study connected loneliness and social isolation as underlying risks because they are linked to poor health, cognitive decline, depression, and mortality in studies, as reported in Wilson et al. (2018). Loneliness and social isolation are often used interchangeably as risk factors for mental health issues and suicidality.

Nature of the Doctoral Project

This study was designed as a qualitative measure to assess the perspectives of clinical social workers regarding loneliness as a suicide prevention focus for Air Force personnel. Loneliness is an inherent human condition, operating on a cognitive and affective level; most individuals experience loneliness at some time across their lifespan (Bevinn, 2011). The concept of loneliness is not currently a focus for treatment, but a factor or subtype included in assessing depression and anxiety levels. Most studies on this topic have been conducted with U.S. Army and veteran populations; there have been limited studies of Air Force personnel. While there are similarities within the branches of

service, and they are increasingly working together on-station and deployed, studies are necessary to cover each branch of service independently. Research within each branch of service is essential to ascertain different recommendations based on cultural differences or types of jobs associated with the mission. Cultural differences and structural/systemic issues of the various branches of the military have the potential to impact different study results and recommendations, or it may be determined after an empirical review that there are similarities worth standardizing within clinical practice. In other words, suggestions and directions for suicide prevention may not fit all branches, or they may fit specific career fields or jobs. This will not be clear until more studies focus on the individual branches and types of jobs and provide comparative perspectives. For the purpose of this study, the focus was on Air Force personnel, with future potential for broader inquiry.

The research design was established as an action research project based on the grounded theory for suicide, in which I interviewed 10 clinical social workers who currently provided assessment and intervention for active-duty Air Force personnel. A Facebook group titled "U.S. Air Force Social Workers" is a private group of approximately 750 members. This site was used to recruit clinical social worker participants to provide their views of loneliness in relation to assessment and treatment for airmen. The focus was on active-duty airmen to limit additional external variables that could be present with reservists and National Guard members, who work on duty partially as active duty and partially in a civilian job setting.

Interviews were conducted through Zoom video chat or telephonic discussions. This allowed for recording sessions in which I utilized open-ended questions and follow-up probes while documenting responses. The participants were asked about their

perspectives, led by the research questions. The participants were required to have at least 2 years in service to ensure experience past introductory military social work. Military social workers are allowed to move to a new base overseas after 2 years at their first or assigned duty station. Two years was determined as sufficient time to obtain clinical competency.

Significance of the Study

Qualitative data findings can help military leaders, mental health professionals, and research experts understand clinical social workers' perspectives on loneliness leading to mental health concerns relating to suicide prevention for Air Force personnel. Loneliness is a subtype of significant factors found in the study of decedents who died by suicide, but it has not been highlighted as a primary factor leading to suicide within the Air Force. The primary factors have been relational problems, legal problems, and occupational problems (DoD, 2018; Zamorski, 2011). In this study, I considered these common factors and the primary focus of anxiety, depression, substance abuse, and trauma to assert that underlying these issues are feelings of loneliness. Feeling alone is a common factor before someone dies by suicide. The act of suicide itself is an act where an individual is alone within their space. Loneliness has been shown to predict mental health problems and suicide in active-duty soldiers (Cacioppo et al., 2016). Studies have shown that the association between loneliness and both perceived stress and relationship satisfaction with Army platoon members reached a moderate effect size in the multivariate models (Cacioppo et al., 2016). Empirical studies have helped in understanding various aspects of loneliness, including those associated with health, cognition, and social behavior; however, researchers have suggested going beyond

analyses of quantitative and observable data to gain a more comprehensive understanding of the experience (Brown, 2018).

Researchers have indicated that loneliness is of epidemic proportions in America. In one poll, 72% of American adults reported having a "sense of loneliness," with almost a third saying it occurred at least once a week (Trossman, 2019). Study after study indicates loneliness as a significant factor, yet clinical practice has not been consistent with these findings. Instead, the clinical focus remains on issues related to depression. This qualitative study fills a gap in research and practice for practitioners who work with airmen who experience mental health issues. This study further explores whether they see loneliness as a significant factor of suicide completion and should be the focus for prevention assessment, and treatment. The results of this study may lead to practice changes for the Air Force as well as indicate the potential for change in the other branches of military service and civilian practice.

Theoretical/Conceptual Framework

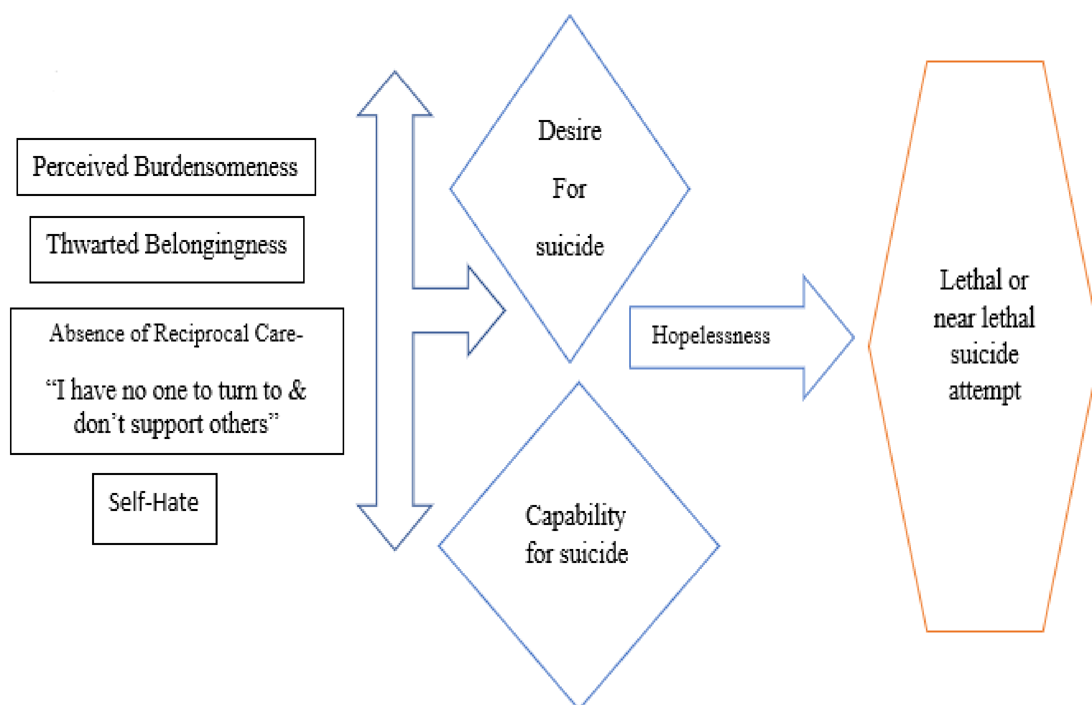
Bowlby's attachment theory and the interpersonal theory on suicide served as foundational frameworks to address airmen's experience in the U.S. Air Force as a focus to prevent suicides. Bowlby's attachment theory provided the framework to understand the value that airmen place on attachment and connectedness to others occupationally and socially. Bowlby claimed that humans are born with an innate psychobiological system that motivates them to seek proximity to others in a time of need (Mikulincer & Shaver, 2005). Attachment theory proposes that humans possess a biologically based attachment system that evolved to keep them in proximity to a caregiver who provides protection and regulation in times of threat. Social support researchers have known for decades that the

support, validation, and assistance that individuals receive from our social network can have a considerable influence on their mental and physical health (Wright et al., 2014). Bowlby's adult attachment theory states that adults replicate their childhood experience of attachment to their caregivers, and this determines perceptions and responses to connections and unmet needs (Stern et al., 2018) in adulthood.

This study used the interpersonal theory of suicide to support the concept of loneliness and its overall influence on deleterious effects on mental health. Persistent loneliness may lead to severe mental health conditions, morbidity, and mortality. The interpersonal theory of suicide indicates that the most dangerous form of suicide intent involves two interpersonal constructs—thwarted belongingness and perceived burdensomeness—and an additional construct of hopelessness about these states (Van Orden et al., 2010). In addition to these constructs is the capability to engage in suicidal behavior, which is accompanied by lowered fear of death and increased pain tolerance. See Figure 1. Several researchers have supported the concept that interpersonal conflicts have a significant impact on suicides compared to intrapsychic conflicts, which tend to be a focus for treatment (Cox et al., 2011).

Figure 1

Interpersonal Theory of Suicide



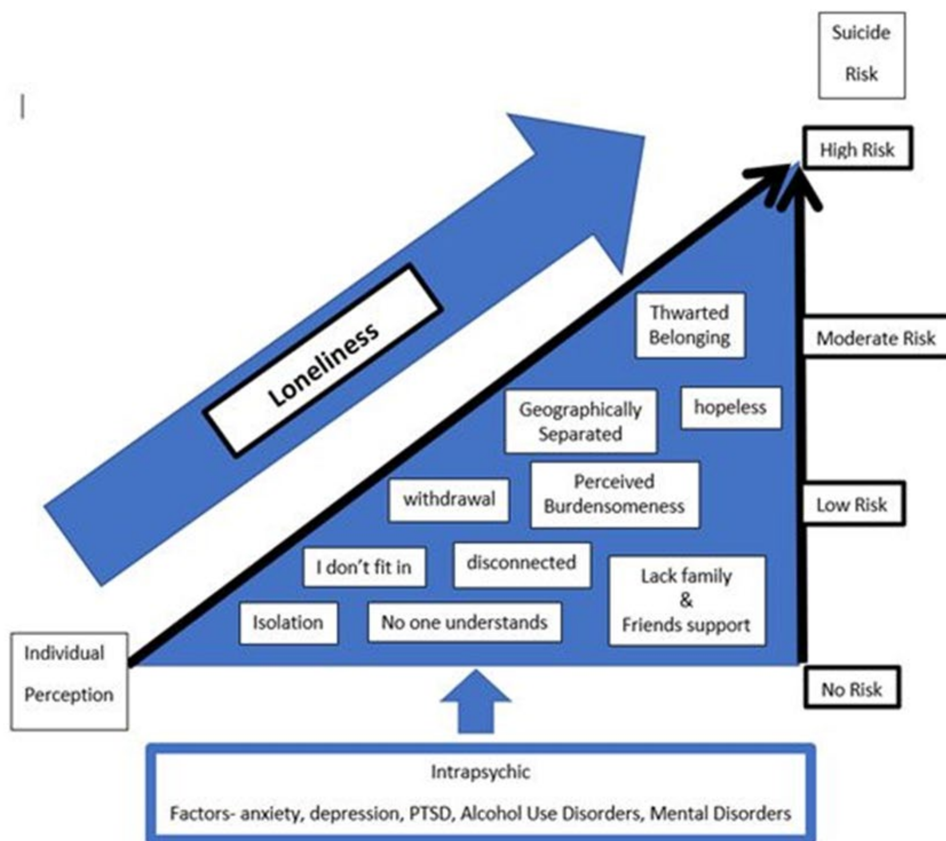
Note. Adapted from "The Interpersonal Theory of Suicide," by K. A. Van Orden, T. K. Witte, K. C. Cuckrowicz, S. R. Braithwaite, E. A. Selby, and T. E. Joiner, Jr., 2010, *Psychology Review*, *117*(2), p. 588 (https://doi.org/10.1037/a0018697). Copyright 2010 by American Psychological Association.

The military culture strongly emphasizes close, in-group bonds fostered from shared experiences such as living, working, socializing, and facing challenges together, often in austere conditions. Humans have an innate need to belong, which is a strong desire to establish and maintain stable social relations with others (Spithoven et al., 2017; Stern et al., 2018). The collectivist value system is a cornerstone of the military culture and differs markedly from the individualistic orientation of U.S. society (Bryan et al., 2012). Members of the military are trained to identify themselves from a group perspective; this supports the premise that identification of mental health challenges and the need for treatment/strategies could be influenced through an individual's identification and connections within a group and the influence of the group. As members of a collectivist culture, military members desire interpersonal connectedness. Powers et al. (2017) wrote that collectivist cultures have higher rates of loneliness, and loneliness is often stigmatized by these cultures. Military training and the cultural foundation of accomplishing the mission are founded on support, teamwork, and team goals. Limited occupational and social interactions result in feelings of loneliness and isolation. The mismatch of expectations for military life and the reality of a member's lived experience can lead to feelings of loneliness or not feeling a part of the whole picture of "real" military life (i.e., feeling disconnected). If this situation is left unchecked, other depression symptoms may surface (Kerr, 2016) for a military member. Such loneliness can lead to depression, and depression can lead to feelings of loneliness. In either case, the individual may move closer to isolation and suicide.

Upon completion of this study, I developed a theoretical model titled loneliness theory of suicide as shown in Figure 2.

Figure 2

Loneliness Theory of Suicide



Note. Findings: Loneliness alone or when coupled with intrapsychic factors escalates suicide risk. As loneliness increases, the risk for suicide increases. Additionally, alternate word descriptions that identify loneliness may be used by the individual at risk for suicide.

Values and Ethics

This study reflected the ethical principle of service from the National Association of Social Workers (NASW) Code of Ethics. A social worker's primary goal is to help people in need and address social problems (NASW, 2020). According to NASW (2020), social workers draw on their knowledge, values, and skills to help people in need and to address social problems. Suicide is a longstanding social problem nationally, throughout the DoD, the Veterans Administration (VA), and the research community (Bryan et al., 2012). Practitioners are challenged with circumstances where an individual appears to be interacting well in a group yet becomes resigned to completing a suicidal attempt or act.

The NASW Code of Ethics (NASW, 2020) indicates that a social worker's primary responsibility is to promote the well-being of clients. Through this project, I explored loneliness as a practice consideration and treatment focus for airmen. Air Force mental health leadership is challenged with providing the answer to commanders and other leaders on ways to reduce suicides and ways to create and sustain a healthy, mission-ready force.

Review of the Professional and Academic Literature

This section contains a literature review on the state of loneliness and its negative impact on mental health outcomes (Cacioppo et al., 2016). Despite being a part of the intrapsychic view of persons who die by suicide, loneliness is not a clinical practice focus. For this research, I looked closely at the definition of loneliness and its connection to the underlying deterioration of mental health and suicide. Sources for the study included peer-reviewed journal articles regarding depression, anxiety, PTSD, and substance abuse as crucial factors that influence significant mental health issues and

suicides in the military (Cacioppo et al., 2016). Clinical practice use evidence-based measures/screeners that detect the intrapsychic factors such as depression and anxiety; however, loneliness and similar descriptors such as thwarted belongingness and rejection underly study after study regarding decedents who die by suicide in the military (Cox et al., 2011). The act of suicide is a lonely act—the individual is alone and believes that there is no better option than self-harm, and no one worth living for. Therefore, this study addressed loneliness as an innate quality for humans, emphasizing the value of looking at loneliness factors when someone is reaching out for help. Studies show that chronic loneliness has significant deleterious effects on individuals (Tanielian, 2019). Additional searches for peer-reviewed articles regarding loneliness in the military garnered few results; however, topics of military mental health described risk factors for suicide that include loneliness and other similar descriptors as subfactors for risk.

This study explored the perspectives of clinicians who provided treatment to Air Force personnel who sought mental health care. Peer-reviewed journal articles were reviewed regarding the connection between loneliness and mental health issues as well as suicide attempts and completions. A review within Walden's library of military and government databases was conducted, along with reviews within Rand's research library for studies conducted of military personnel. Searches also included Thoreau, social work databases, PsycInfo, PsycArticles, and Google Scholar for peer-reviewed articles as well as researched articles on loneliness, military personnel and suicide, depression, and mental health treatment as keywords. The topic search first dated back 5 years, and with limited data, went back to the late 1990s and early 2000s at the height of the military studies and tracking on suicides.

Loneliness was explained as an inability to satisfy the innate human nature to be connected and social with others (Spithoven et al., 2017). Additional searches targeted articles related to loneliness and deteriorating mental health. Studies showed that loneliness is a factor of decreasing mental wellness at all ages, and the perception of chronic loneliness leads to significant decompensation (Tanielian, 2019) over time. Further, the literature review included searches for military and government articles on studies regarding military suicides, suicide rates, mental health issues, and contributing factors for mental health/suicides, as well as DoD Annual Reports on Suicides. The research appeared to be scattered within the last 10 years, and there were limited Air Force studies.

The Air Force Mental Health Service does not have a requirement or standard to focus on loneliness as a standard clinical practice, despite loneliness existing as a consistent factor in mental health issues and suicides. Loneliness has been considered as a factor for clinical consideration. An increasing number of studies identify the importance of connectedness, and more studies in this area are being conducted due to the impact on social isolation amid the coronavirus pandemic that began in late 2019 in the United States (Banerjee & Rai, 2020). The following background information section for this study synthesizes literature of the last two decades, showing consistent data on loneliness as a contributing factor for suicide risk, yet there are no indications of loneliness as a focus in clinical practice (assessment and treatment).

Background

Loneliness and Suicide

The continual rise in the U. S. military's suicide rate since 2004 is one of the most vexing issues currently facing the DoD, the VA, military leaders, researchers, and clinicians (Bryan et al., 2012; Tanielian, 2019). Suicide, as the second leading cause of death among 18- to 40-year-olds, is a serious public health problem within the United States and the DoD (Martin et al., 2013). The current literature on military mental health predominantly focuses on studies of U.S. Army service members and veterans of the armed services in the United States and the United Kingdom (Conners et al., 2012; Nock et al., 2018). Studies indicate a connection between loneliness, depression, anxiety, and suicides through case-by-case reviews of decedents who died by suicide. A study of primary care visits indicated that decedents, just before suicide, more often visited physicians and more often endorsed mental health reasons than nonsuicidal matched controls (Mesec & Rodi, 2010).

Additionally, in Cox et al. (2011), a study on decedents concluded that healthcare providers frequently miss suicide prevention opportunities. Loneliness has been an identified factor throughout studies of decedents who died by suicide; however, the focus has been primarily on mental health disorders such as anxiety, depression, alcoholism, and PTSD. Recommendations for community prevention and resilience education practices have been suggested for all armed services branches due to the studies; however, there is a need to explore service-specific issues and recommendations. For example, the lifestyle, occupational interactions/stressors, and impact of the job demands are different for an airman who works with computers or in an office environment in

comparison to a position that deploys on the frontline with Army personnel. An Air Force medic may have different combat or deployment experiences from an Army medic based on the structural or systemic differences between the two branches, the places they deploy, or the influence of the military cultural environment. A drone or cyber intelligence Air Force officer making decisions from a secret location may have a different traumatic experience from an Army officer conducting direct fire on the ground. In this study, I looked specifically at Air Force personnel, whose job, oath of office, documented core values, military-specific language, varying deployment tasks, lengths of deployment, and operational environment are different from other services branches. While there are common challenges and experiences within all the components of services, there may be service-specific details that need to be explored in future studies; however, for the purpose of this study, the focus was on treatment for airmen.

Case reviews of decedents and a database that collects information regarding the intrapsychic factors that influence suicides are conducted annually, with similar findings regarding precipitating life circumstances such as relationship problems, occupational challenges, and legal challenges as the top three indicators for suicide attempts and completions (DoD, 2019). One Air Force study of decedents who died by suicide indicated that thwarted belongingness was the most often occurring risk factor (29.6% of cases) communicated verbally and in the suicide note, followed by rejection (22.4% of cases; Cox et al., 2011). Both factors are indications consistent with feelings of loneliness and isolation. The research for this study was geared to identify whether a factor such as loneliness can be addressed as a focus for treatment and in turn provide a specific focus for clinical practice for airmen in support of the military mission.

The DoD has oversight of military personnel matters and conducts studies and tracks its military members’ overall health. One method used to get a pulse of these issues is to explore the perspectives of clinicians who interface with military members’ expressed concerns and complaints and their assessment of the factors contributing to poor mental health outcomes or deteriorating mental health. Active-duty suicides increased from a rate lower than among civilians to one exceeding that in civilians in 2008. Suicides among veterans climbed to 22 per day in 2010, with male veterans having twice the risk of dying from suicide as their civilian counterparts (Lazar, 2014). The DoD has conducted studies that include the Air Force's Annual Report on suicides to explore the ultimate cost or negative outcome of significant mental health problems and search for recommendations to improve the overall health of the force. The intended outcome of DoD studies, research, and reports is to make recommendations on a macro, mezzo, and micro level to improve the overall state of military personnel and the mental health system. Additionally, an exploration of preventable and treatable factors that influence symptoms of anxiety, depression, and other mental health challenges of military members who seek mental health treatment provides areas to focus on for care.

Loneliness and Health

Several studies have indicated factors that contribute to poor mental health for military members. Loneliness has been associated with poor physical and emotional health, according to Luo et al. (2012). There is growing literature indicating that loneliness is a risk factor for morbidity and mortality. In a study of 98 active-duty Air Force members, Cox et al. (2011) described that 35.7% of cases communicated feelings of hopelessness; 31.6% expressed perceived burdensomeness, and 29.6% communicated

perception of thwarted belongingness verbally and in the suicide note. The study indicated that interpersonal risk factors in the minds of decedents were more salient than intrapsychic factors (Cox et al., 2011) such as anxiety and depression. Loneliness is a prevalent problem among adults, with statistics showing 1 in 20 adults feeling completely lonely, according to Bangee et al. (2014). In a study of military members described by Cox et al. (2011), descriptive words such as *hopelessness*, *perceived burdensomeness*, and *thwarted belongingness* all have connotations of an underlying perception of feeling alone or having experiences like no one else. Author McGraw (2000) stated that lonely people are inclined to have higher morbidity rates and slower recovery rates from illness. Wilson (2018) stated that loneliness and social isolation are linked to poor health and well-being, such as the increased risk of high blood pressure, cognitive decline, depression, and mortality. Most recently, early studies have been conducted on the impact of social isolation during the Covid-19 pandemic restrictions. The goal to decrease contact by isolating individuals to their homes created chronic loneliness and boredom, resulting in detrimental effects on physical and mental well-being (Banerjee & Rai, 2020).

Some studies conducted on military personnel have involved Army members and veterans. The results and recommendations have often been standardized to apply to all military personnel, such as community efforts and resilience strategies for prevention and education. Due to gaps in studies of Air Force personnel, this study targeted findings that would be applicable to airmen, whose experiences might differ from those of other military personnel or veterans.

Cultural Influence

This study focused on Air Force personnel with the understanding that not only does the military environment have differences in comparison to the civilian population, but each branch of the services has varying cultural characteristics. Attention given to the Air Force population is necessary due to limited studies being explicitly conducted on Air Force personnel. Further studies may identify similarities and differences in risk factors between the military branches. For example, the service branches vary on the requirements for entry into specific jobs, goals, and activities involved in entry-level training and may thus attract different personalities. Variations are indicated in the language, terminology, and acronyms communicated within different career fields, as well as different specialties geared to support the mission, and other systemic/cultural differences exist. Based on the different cultures of the military service and within the specialties of each branch, a closer look at contributing factors and recommendations for Air Force personnel was necessary.

Military personnel have unique experiences of social isolation and loneliness, such as being away from family and friends at new duty stations or deployed/training locations. The rules regarding camaraderie, fraternization, and unprofessional relationships separate the rank grouping of enlisted and officer personnel at varying levels, making it a Uniformed Code of Military Justice (UCMJ) violation to interact socially. For example, an enlisted member at the rank/grade of E-2 cannot socially interact with an E-7, and neither can interact socially with an officer at any rank. This is considered fraternization. Airmen often deploy individually and join other services to

support the mission, whereas Army, Navy, and Marine personnel typically travel together in entire units.

Experiences unique to military personnel make them vulnerable to interpersonal risk factors such as lack of sense of belongingness or sense of purpose. Issues that an airman faces such as lack of identity with the unit or team in which they work or lack of belonging to the social scene or cliques that may exist in a group may occur with military moves. Lack of connectedness within a relationship may occur due to military temporary duty assignments (TDY), or lack of face-to-face bonds as a result of increasing social media and technology may influence the perception of loneliness.

To focus on prevention and treatment, a one-size-fits-all approach may not effectively address each issue characteristic of the different branches of service. The DoD 2018 Annual Suicide Report showed active-duty suicide rates as 29.5 for Army, 31.4 for Marines, 20.7 for the Navy, and 18.5 for Air Force personnel. The different rates annually may indicate the need for a closer look at each branch's risk factors, and recommendations should be tailored to specific service components. An example of experiential differences was found in the work of Edelstein (2010), who explained that quantitative studies showed that negative effects of deployments increased the overall likelihood of divorce for service members throughout the military. Still, studies showed a greater negative impact on Air Force marriages, resulting in higher occurrences than in the sister services. Because the military is not a monolithic society, studies show that each service branch has differing divorce rates based on distinct mission, culture, and degree of occupational specialty (Edelstein, 2010). Deployed Army infantry troops were less likely to divorce than deployed intelligence troops (Edelstein, 2010). The culture

within each Air Force specialty brings varying levels of stressors; therefore, a broad-brush stroke within military research is insufficient to address each branch's needs.

As members of a collectivist culture, military personnel train and rely on team and group work to accomplish the mission, which is different from an individualist culture that focuses on personal striving. People in collectivist cultures desire interpersonal connectedness. Power et al. (2017) stated that other researchers report that collectivist cultures have higher rates of loneliness, and these cultures often stigmatize loneliness. Within the group is a greater reliance on family, friends, peers, and teams to meet an emotional need than in individualistic cultures. This was explained by Wilson et al. (2018), who described the intensity of friendship bonds formed while serving in the military as providing one of the cornerstones of military identity. Any threat to this collectivist identity can be a threat to a person's safety and security as part of the group, thus resulting in increased risk.

McGraw (2000) stated that loneliness is increasingly recognized as a cross-cultural affliction that can be hazardous to health and hostile to happiness. He went further to state that lonely people are inclined to have higher morbidity rates and slower recovery rates from illness. In Bangee et al. (2014), empirical evidence suggested that lonely people perceive or anticipate rejection, but they are not necessarily rejected by others. This is an interesting point that despite the perspectives of loved ones, decedents may not perceive feelings of connectedness when they make the ultimate decision to die by suicide.

According to Gerst-Emerson et al. (2015), camaraderie with other military members may heighten feelings of belongingness, serving as a protective factor against

suicide. One study by Ulmer et al. (1992) showed that suicide rates for basic military training were lower than for people of the same age in the general population. The enlistees had stronger survival and coping beliefs and moral objections to suicide than a group of never suicidal adults. The enlistees completed questionnaires just after they had finished boot camp, endorsing the sense of belongingness or connectedness in basic training. Another study of military enlistees in Ulmer et al. (1992) showed that correlations between total reasons for living and loneliness were statistically significant. Those who were relatively lonelier reported relatively fewer reasons for living. Correlations between total reasons for living and depression were also statistically significant in Ulmer et al. (1992). Those who were relatively more depressed also reported relatively fewer reasons for living. Based on the growing rate of suicide in the military and continued studies over the years, there may be further studies regarding the perspectives of loneliness that change in military personnel over time, with continued years in the service that result in the growing perception of loneliness in military personnel (Gerst-Emerson et al., 2015). This study was intended to achieve a more in-depth exploration of loneliness as a factor for treatment that may uncover improved mental health practice methods and clinical interventions if deemed clinically consistent with clinical social workers' perspectives.

Chemistry and Biology Connection

It has been suggested in Spithoven et al., 2017 that lonely individuals suffer from a cognitive bias toward socially threatening stimuli. However, current models of loneliness remain vague about how this cognitive bias is expressed in lonely individuals. A wide range of studies indicates that lonely individuals have a negative bias in all social

information processing stages. The study further asserted that lonely individuals have increased attention for socially threatening stimuli, hold negative and hostile attributions, expect rejection, evaluate themselves and others negatively, endorse less promotion, and have low self-efficacy. A study in Psychology Today, Dec 2017, by Blanco-Suarez stated that research has been published to shed some light on the physiological mechanisms of loneliness. Researchers found that social isolation affects dopaminergic and serotonergic neurons activation, vital to our emotional well-being. A study in mice as social mammals, like humans, showed that the brain was activated when deprived of socialization and triggered the desire for increased interactions with other mice. Optogenetics showed dopaminergic neurons in a brain region called the dorsal raphe nucleus were activated in response to acute social isolation and triggered the motivation to search for and re-engage in social interactions (Blanco-Suarez, 2017).

In Psychology Today, 2017, Dr. Blanco-Suarez explained that the brain interacts in different ways when loneliness is a choice vs. when it is imposed, such as solitary confinement in prison. Blanco-Suarez further stated that one of the most remarkable effects of chronic social isolation, as in the extreme case of solitary confinement, is the decrease in the size of the hippocampus, the brain region related to learning, memory, and spatial awareness. The sustained stress of extreme isolation leads to a loss of hippocampal plasticity, a decrease in new neuron formation, and the eventual failure in hippocampal function. Additionally, the amygdala, which mediates fear and anxiety, increases its activity in response to isolation. A study of a prisoner that was confined in a 6x9 cell for almost 30 years was able to identify decreased mental capabilities. These chemical changes and decreases in brain functioning may be studied further; however,

the indication that chronic loneliness has the potential for significant alterations was made.

The Childhood Loneliness Connection

The research documented by Bevinn, 2011 described potential explanations of loneliness during childhood, focusing on how children's interpretations of social situations may influence their loneliness in school. The results indicated that adopting a more negative attribution style in both positive and negative circumstances was predictive of higher loneliness levels. Loneliness experienced in childhood was identified as an antecedent of loneliness in adulthood (Cacioppo, Hawkley, & Berntson, 2003). According to Blanco-Suarez in Psychology Today, 2017, loneliness cannot kill us per se, but if it is not mitigated, it might trigger anxiety, stress, and depression, which are known to drive people to unfortunate outcomes.

Problems With Current Social Work Practice

This study looked at loneliness and isolation as a significant factor of mental health problems that have not been identified as a focus for prevention, assessment, or treatment for airmen in practice. The mental health clinic provides surveys to patients who seek treatment with the primary emphasis on rating anxiety, depression, substance use, suicidality, and trauma symptoms. A standard scale in the Air Force Mental Health Clinic includes the PHQ-9 for depression, GAD-7 for anxiety, PCL-5 for Trauma, AUDIT for substance abuse, and the C-SSRS for suicidality. According to Bryan, Jennings, Jobes, & Bradley, 2012, members who identify with clinically significant symptoms report feelings of loneliness. Although loneliness may be a common thread, it is not standard to assess the extent of loneliness in these individuals within the military

mental health clinic. This practice may be a missing piece regarding the assessment since, according to Loades et al., 2020, loneliness is a subscale in the questionnaires. Still, a thorough examination of the duration of the perception of loneliness could reveal an association with adverse mental health. Despite the supportive buddy system or "Wingman" concept that is regularly reinforced in the United States Air Force (USAF) doctrine, data suggest that some personnel are relatively isolated at the time of their suicide, according to Martin et al., 2013.

Research connects loneliness with depression-related symptoms and loneliness as a sub-factor for suicide; however, the connection that loneliness can be a primary focus for suicide prevention treatment has not been stated clearly. Within this study, I searched for keywords such as loneliness and suicide; I did not find research material or dissertations that placed loneliness as a focus for treatment. I could find articles on loneliness related to deteriorating mental health, and I noted that research author Cacioppo completed several writings about the impact of loneliness on mental health. One article supported that loneliness has been shown to predict mental health problems and suicide in active-duty Army soldiers (Cacioppo et al., 2016). Both longitudinal research and animal studies have shown that even when controlling for other risk factors such as objective social isolation and social support, chronic loneliness has deleterious effects on mental and behavioral problems, physical health, and mortality (Cacioppo et al., 2016; Darling, 2019; Gerst-Emerson, & Jayawardhana, 2015). Additionally, articles by Dr. Blanco-Suarez discuss loneliness on the brain, which pointed to the connection of brain chemistry. Also, the environmental influence in childhood described in Bevinn,

2011 loneliness crossing over into adulthood and remaining a significant factor in an adult's response to situational stressors.

Currently, the rise in mental health costs and the increase in suicides indicate that current methods are not enough. According to an article in USA Today, Gregg Zoroya (n.d.) reported that the military's mental health care expenses are eating the DoD alive. Issues such as depression, anxiety, substance abuse, and adjustment disorders cost the Pentagon lost duty in 2009. One night in the military hospital costs $3000 and $1300-$2000 in private or off-base behavioral health facilities (Zoroya, n.d.). The costs have steadily risen over the years to the present.

Additionally, in USA Today, Zoroya, n.d., implied that the financial burden of mental health costs is also a motivation for the DoD to increase prevention and treatment strategies for airmen who seek mental health services. It is also worth noting that studies have not supported increased risk factors for suicide, such as deployment. For example, findings from a study of 83 decedents who were either current or former military who died by suicide through the end of 2008. In models adjusted for age and sex, factors significantly associated with increased risk of suicide included male sex, depression, manic-depressive disorder, heavy or binge-drinking, and alcohol-related problems. None of the deployment-related factors (combat experience, cumulative days deployed, or the number of deployments) were associated with increased suicide risk in any of the models (Cox et al., 2011). Of note, the Air Force personnel have varying deployment experiences than other branches. The Army personnel may deploy for 1-1 ½ years, whereas the Air Force personnel typically deploy for six months, although there are certain joint taskings with other branches that require longer deployments as part of the team. Although some

deployments may be shorter, they may repeat throughout the years in certain Air Force specialties, resulting in several deployments throughout the lifespan of an airman's career. The types of activity in the job responsibility may differ, which may vary in stress levels.

As in studies of civilians, research on military personnel suggests that loneliness may be an early warning sign if not a contributing factor to mental health disturbances (Luo et al., 2012). Although loneliness is a known factor for mental health risk, treatment typically focuses on *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (DSM-5) diagnostic criteria such as anxiety, depression, and PTSD. An example of this is a study by Loades et al., 2020 that reviewed 63 studies of 51,576 participants. The studies indicated a clear and consistent association between loneliness and mental health problems in children and adolescents during the Covid-19 pandemic. The studies revealed that symptoms of diagnosed mental health disorders such as acute stress disorder, adjustment disorder, grief, and Post Traumatic Stress Disorder were exacerbated with children exposed to disease containment measures. The mean scores were four times higher for isolated/quarantined children than non-isolated/quarantined. The study further noted that loneliness duration was more strongly correlated with mental health symptoms than the intensity of loneliness. The results show that the feeling of loneliness is associated with adverse mental health in children and adolescents. This is a common result for adults and senior citizens as shown in one poll described by Susan Trossman in Colorado Nurse, 2019 that 72% of American adults report having a sense of loneliness, while an American Association of Retired Persons (AARP). Loneliness study estimated that 42.6 million adults aged 45 and older are chronically lonely. Studies in this article by

Trossman, 2019, further showed loneliness as a factor for decreasing mental wellness at all ages and significant decompensation with the perception of chronic loneliness over time.

Research shows that lonely people have a different social response pattern than non-lonely people: they feel more threatened in social encounters, are more vigilant to social threats, and are typically shy, passive, and less sociable than non-lonely people (Qualter et al., 2013).

Summary

Suicide rates for the U.S. Air Force were relatively low since its implementation of the population-based suicide prevention program in 1996 until an upswing was noticed in 2004, along with the rising statistics that were evident in the other branches of service, particularly the Army (Conner et al., 2012). An integrated public health approach to suicide was adopted by the United States Air Force in 2004 (Conner et al., 2012) to reduce suicides. This shift focused on community strategies to decrease suicides through education, training, leadership involvement, and peer support, i.e., the Wingman concept. Between 2008-2010, the DoD Suicide Event Report indicated 1,964 suicide attempts across all services and 1,514 were from the Army, while 450 were from the Marines, Navy, and Air Force (Bush et al., 2013). During that same period, 816 members died by suicide (Bush et al., 2013). Additionally, during that same time frame, 44% of suicides and 51% of attempted cases had received healthcare consultation within 30 days before the event (Bush et al., 2013). This data led military leaders to ask if there were better healthcare team efforts to identify and prevent suicides when members seek help. (Bush et al., 2013). During that period, 69% did not communicate their intent to harm

themselves (Bush et al., 2013), leaving additional questions about ways the healthcare system could identify needs and increase prevention efforts. The increasing rate of suicide in the military resulted in a call for military-suicide research and prevention efforts with the hope that a better understanding of the precipitants of suicide among decedents would inform methods for early intervention and suicide prevention (DoD Annual Report, 2018). In 2009 rates for all four branches of the service were approximately 18 per 100,000 (24 for Marines, 21.7 for Army, 13.3 for Navy, and 12.5 for Air Force). Over the past decade, there was a steady rise with the 2018 DoD Annual Suicide Report indicating that the 2018 rate is 24.9 per 100,000. The military suicide rates have continued to increase over the past two years, showing rates in 2019 climbing to 26.3 per 100,000 and 28.7 per 100,000 in 2020. Also, in 2020 the rates for each branch were 36.4 for Army, 19.3 for the Navy, 33.9 for Marines, and 24.3 for Air Force). Recognizing that even the rates vary amongst the branches of service supports the premise that an individualized look at each branch's issues could be beneficial. Of note, recent researchers reviewing Air Force data indicated a rise in suicides in 2020. It is unclear if this rise can be attributed to the implementation of social distancing restrictions and other stressors related to the Covid-19 pandemic, however, researchers forecasted the impact of social distancing on increased suicide risk (Banerjee & Rai, M. 2020; Reger, Stanley & Joiner, 2020).

The Air Force, as part of the collective branches of service within the DoD, is challenged with gaining a greater understanding of the dynamics that lead to suicide (Martin et al., 2013). These entities seek answers to decrease or eradicate mental health problems based on the premise that these problems distract members from the military

mission to deter war and protect the security of the nation (Tanielian, 2019). To support the readiness of the troops and their families, DoD operates a large military health system (MHS) and maintains programs focused on preventing injuries, promoting health, increasing readiness, and improving the culture of the force (Tanielian, 2019; Hepner et al., 2017). The ability to pinpoint factors associated with mental health issues of military members has been a longstanding challenge (Tanielian, 2019). Loneliness is a factor for symptoms of anxiety, depression, PTSD, and alcoholism, which are consistently studied as key disorders within military mental health care (Barkin et al., 2005; Conner et al., 2012; Cacioppo et al., 2016). Despite loneliness being a known factor, it is not a focus for assessment, intervention, and treatment in Air Force mental health care. This study looked at clinical social workers' perspectives regarding loneliness as a focus for suicide prevention and treatment for airmen.

Section 2: Research Design and Data Collection

The overall social work practice problem is the ongoing effort to pinpoint strategies, assessment, and treatment for suicide prevention for airmen. Research supports the experience of loneliness and isolation as a factor for mental health disorders. Additionally, chronic loneliness has deleterious effects on individuals' overall functioning. It has been associated with the progression of depressive symptomatology, suicidal ideation and behavior, and mortality in adults and active-duty military personnel (Cacioppo et al., 2016; Cacioppo et al., 2009; Luo et al., 2012). Loneliness and isolation are risk factors for poor health, poor immune status, and increased morbidity and mortality (Barkin et al., 2005; Wilson et al., 2018). Despite loneliness being a consistent factor of concern, it is not standard as a focus for clinical assessment and practice for airmen who seek mental health care.

In this section, I discuss the research design, methodology, prospective data, participants, instrumentation, data analysis, and ethical procedures.

Research Design

This research study was conducted to establish the need for social change within the Air Force mental health community based on the perspectives of clinical social workers regarding loneliness as a focus for suicide prevention, assessment, and treatment, as appropriate based on the outcome. The research questions designed for this action research project concerned social workers' perspectives: Is loneliness a treatment focus for suicide prevention and treatment for airmen who seek mental health care? What is the view of clinical social workers regarding the impact of loneliness on airmen's suicide rates? What are the perspectives of clinical social workers regarding the role that

loneliness plays in the triggering/onset of mental health issues that lead to suicide among airmen? What are social workers' perspectives on the necessity to provide loneliness measures to airmen as a focus for assessment and treatment for suicide prevention?

This action research was based on the foundation of Bowlby's attachment theory/adult attachment theory and the interpersonal theory of suicide. Bowlby's attachment theory indicates that humans have an innate desire within their psychobiological system that motivates them to seek proximity to others in a time of need (Mikulincer & Shaver, 2005). People have a natural desire for connection to others as a means of emotional and physical survival. attachment theory further developed into adult attachment theory, which asserts that just as infants turn to their caregivers for connection and security, their experience influences their response within adult romantic or significant relationships. The interpersonal theory of suicide indicates that the most dangerous form of suicide intent involves two interpersonal constructs—thwarted belongingness and perceived burdensomeness—and hopelessness about these states (Van Orden et al., 2010). Social isolation is arguably the strongest and most reliable predictor of suicidal ideation, attempts, and lethal suicide behavior among samples varying in age, nationality, and clinical severity, according to Van Orden et al. (2010). The interpersonal risk factors suggest a serious risk for lethal suicide attempts. Loneliness, social withdrawal, living alone, having few social supports, living in nonintact families, losing a spouse through death or divorce, and residing in a single prison cell have been associated with lethal behaviors (Van Orden et al., 2010). Lethal suicide behavior is a lonely act of self-harm in terms of the perception that there is no one worth living for and in the

environment that allows an individual to go forward with the lethal act, which occurs in isolation from others.

There are several suicidal theories described in Van Orden et al. (2010), such as biological and emotional dysregulation, along with an activating psychosocial stressor, desire to escape psychological pain, existential drives for meaning, disturbed attachment, hopelessness, disturbed social forces, and family systems; however, it is essential to understand that individuals have multiple reasoning or risk factors. Therefore, more than one of these factors may exist in the life of an individual that has or has not engaged in suicidal behavior. An individual experiencing these states may ultimately turn to suicide due to experiencing chronic, persistent loneliness and having no hope for this perception to change in the future. This concept is further explained within the military environment and culture that has a collectivist structure, which emphasizes identity through teamwork and groups. When the collectivist needs are not met, a perception of loneliness and isolation permeates and increases suicide risk. It is the "perception" that must be clinically assessed because suicide in and of itself is a lonely act or act in isolation.

The study used grounded theory to explain process questions related to the practitioner's management of airmen who seek mental health care. I explored the current research surrounding assessment for suicidal outcomes and the recommended strategies that indicate the state of loneliness as a significant factor for suicide prevention. Currently, there are multiple screeners placed in a Behavioral Health Data Portal (BHDP), which is given to airmen who engage in mental health treatment. These screeners focus on the intrapsychic factors of anxiety, depression, alcoholism, and trauma as significant risk factors for suicide, and overall safety when scores are elevated. I

explored whether loneliness is a recommended focus for assessment and treatment of Air Force personnel for suicide prevention in mental health clinics by clinical social workers. Grounded theory explains the effects of x, which is loneliness as a significant risk factor. Despite research that supports loneliness as a focus, strategies do not include the full picture, where a practitioner would focus on interpersonal factors versus intrapsychic factors. A constructivist approach focuses on individuals' perspectives and ideologies, which informed this study.

Methodology

Information was obtained by way of social media to recruit participants. The Air Force Social Worker site on Facebook was the identified location to obtain 10 participants for interviews and survey responses. There were approximately 250 clinical social workers within the U.S. Air Force. I sought to obtain professional perspectives from their experience working with Air Force personnel for at least 2–3 years. The participants were voluntary and had at least their initial licensure for their state to practice following the receipt of their master's degree. The 2+year time frame reflected the required number of years for an initial-entry social worker to have enough experience to move to their next duty station. This time frame suggested that basic knowledge, sufficient experience, and professional skill level competency were obtained in working with Air Force personnel.

Participants

The participants, licensed clinical social workers (LCSWs), shared their perspectives about Air Force personnel who seek mental health treatment. I submitted a post within the Air Force Social Workers Group on Facebook requesting volunteers to

participate in the study. Once I selected the 10 applicants, I informed them of the process, which included Zoom (video conferencing) interviews. The interviews were recorded with the applicants' permission, and they were given an informed consent form about the process, which had to be signed for consent for recording purposes and agreement to engage in the process. All participants consented to participate before going forward with the interview.

Prospective Data

Ten LCSWs with at least 2 years of clinical experience working with airmen were interviewed through semistructured interviews. The participants were informed in writing and reminded verbally that the sessions were recorded. Each session was expected to last 20–60 minutes. The data were transcribed and analyzed for content. The content was coded for themes and categorized for further analysis. The data collected pertained to clinical social workers' perspectives regarding loneliness as a treatment focus for suicide prevention in airmen who seek mental health care.

Instruments

The instruments used to collect the data included semistructured qualitative interviews and surveys. The surveys described factors from the UCLA Loneliness Scale, which identifies qualities consistent with loneliness in individuals. The UCLA Loneliness Scale has come to be viewed as the standard research scale in the measure of loneliness (Russell, 1996). The use of the scale with participants provided the foundation for practitioners' consideration of airmen within their caseload that fit the criteria for loneliness, as part of a further interview discussion. The participants were asked approximately 15 questions, with the opportunity to expand on their answers through

other probing questions regarding airmen that are identified as at risk for suicide while in the care of mental health. Semistructured interviews supported this data collection method because they included specific questions and allowed the participants to go further in depth with their responses as needed. New themes arose with a more in-depth discussion. This will be explained later within the findings portion of the study.

Existing Data

The Air Force collects current data through a BHDP system for patients receiving care within the mental health clinic. This portal contains multiple surveys and assessments, which are used by clinicians to assess the level of suicidal risk at each patient visit. The questionnaires include the Columbia Suicide Severity Risk Scale (C-SSRS), which is a standard rating tool to assess risk level based on a 6 question screener for patients and an assessment tool for clinicians. The questions rate the patient's suicidal ideation, suicidal behavior, history of suicide attempts, evaluate risk levels, and recommend interventions. Additional questionnaires include the Patient Health Questionnaire (PHQ)-9, which addresses the frequency of thoughts that indicate depression-related symptoms. The 9 questions ask about "thoughts to be better off dead or hurting yourself in some way" as criteria to rate levels of depression and suicide risk. Another screener is the Generalized Anxiety Disorder (GAD)-7 questionnaire, which rates anxiety-related symptoms. The screeners described focus on intrapsychic factors and include some interpersonal questions; however, a survey with a primary focus on loneliness was not provided among the questionnaires in the data portal. Institutional Review Board (IRB) approval was been established, an additional review of findings from the data portal was provided to address any significant interpersonal findings

identified by the research branch of the Air Force. Exploration of data from the BHDP required prior IRB approval to proceed with the discovery of researched data.

During the process of writing this project, the Air Force Headquarters Research Branch released data in support of the interpersonal theory on suicide and recommended interventions in support of two risk factors for suicide: (a) perceived burdensomeness and (b) thwarted belongingness, which were evidence-based recommendations from Van Orden's interpersonal theory on suicide. Additionally, the Air Force adheres to recommendations made by the DoD and the Department of Veterans Affairs Clinical Practice Guidelines. One such recommendation is for an assessment of risk factors as part of a comprehensive evaluation of suicide risk, including but not limited to current suicidal ideation, prior suicide attempt(s), current psychiatric conditions (e.g., mood disorders, substance use disorders) or symptoms (e.g., hopelessness, insomnia, and agitation), prior psychiatric hospitalization, recent biopsychosocial stressors, and the availability of firearms (Department of Veterans Affairs & DoD, 2019). Again, this recommendation is consistent with the interpersonal theory of suicide, which indicates that perceived burdensomeness, thwarted belonging, capability, desire for suicide, and access to lethal harm are risk factors for suicide attempts and completions. Recent presentations within the Air Force Mental Health Headquarters section revealed a rise in suicides since the coronavirus pandemic began in March 2020 in the United States; however, a definitive correlation has not been made at this time. Most recently, a separate study looked at social, economic, and public health interventions aimed at slowing the spread of the Covid-19 virus. The consequences of stay-at-home orders and job loss lead to increased suicide risk factors such as thwarted belonginess, perceived burdensomeness,

and loneliness. The results highlighted the potential benefits of interventions targeting these risk factors to offset suicide risk during the Covid-19 pandemic (Gratz et al., 2020, p. 1144).

Data Analysis

Data analysis for the interview sessions with 10 social workers included exploration for common themes in their responses. I sought emerging themes regarding these professionals' perspectives on loneliness as a treatment focus for suicide prevention. When applying grounded theory, the goal is to find data that can be integrated with other data and formed into categories (Crawford, 2012). The responses were coded to represent the findings from the social workers' responses regarding the research questions. Grounded theory coding involved a process of applying specific codes to data and running the data through a series of coding cycles. Categories began to emerge based on the social workers' responses, and central themes began to surface. I evaluated the themes within each coding cycle. First-cycle methods are those processes that happen during the initial coding of data and are divided into seven subcategories: grammatical, elemental, affective, literary and language, exploratory, procedural, and a final profile entitled themeing the data. Second-cycle methods involve analytic skills such as classifying, prioritizing, integrating, synthesizing, abstracting, conceptualizing, and theory building (Saldana, 2013).

Ethical Procedures

The IRB approval form ensured compliance with ethical procedures. The IRB approval number is 04-14-21-0720431. The materials that I submitted to the IRB included verbal and written consent forms and information regarding the purpose of the

study and its contribution to the field of social work. Additionally, the applicants were aware of the importance of ethical compliance and their ability to withdraw from the study at any time without penalty or consequence. The information in the study will be protected and maintained in a locked safe.

Summary

This research study used grounded theory within a qualitative approach. Bowlby's attachment theory and grounded theory applied to the research data and questions regarding social workers' perspectives on loneliness as a focus for suicide prevention for airmen who receive mental health care. LCSWs who provided counseling to airmen and had 2 or more years of experience were interviewed individually once they were recruited from a social media group. Responses were coded for common themes.

The next section of this study incorporates the findings from the research study.

Section 3: Presentation of Findings

Introduction

The purpose of the research study was to use qualitative data to understand clinical social workers' view of loneliness experienced in patients who are active-duty airmen in order to identify prevention, coping, and treatment strategies for managing suicides. In line with the DoD's continuous efforts to decrease suicides and mental health issues that impact the mission, I sought to understand whether social workers see loneliness as a focus for suicide prevention, assessment, and treatment of airmen who seek mental health treatment. This effort was geared toward better identifying loneliness as a risk factor for clinical assessments and a target for clinical intervention and prevention strategies.

The research questions for this study were as follows:

1. What are the social workers' perspectives of the current assessment tools in identifying loneliness as a risk factor?
2. What are the perspectives of clinical social workers regarding the role that loneliness plays in the triggering/onset of mental health issues that lead to suicide risk amongst airmen?
3. What are the perspectives of social workers working with airmen who seek mental health care, in relation to loneliness being viewed as a treatment focus for suicide prevention and treatment?
4. What are the perspectives of clinical social workers regarding the impact of loneliness on the suicide rates of airmen?

The method of this study was qualitative research. According to Lewis (2015), qualitative research is defined as a research process that uses inductive data analysis to learn about the meaning that participants hold about a problem or issue by identifying patterns or themes. I applied the grounded theory approach, which Lewis further explained can be used to identify causal and intervening factors, as well as the context, of a particular health issue. A grounded theory study is intended to generate or discover a theory that explains a concept, process, or interaction among individuals (Miller et al., 2003). In grounded theory, researchers primarily collect interview data, make multiple visits to the field, develop and interrelate categories of information, and write theoretical propositions or hypotheses or present a visual picture of the theory (Miller et al., 2003). This study utilized 15 semistructured interview questions for each applicant.

In this section, I present a brief review of the purpose of the study and research questions to address the identified problem. Additionally, I describe the data collection, including the recruitment process. I also include the techniques used to analyze the data, validation procedures, and limitations of the study. After presentation of the findings, this section concludes with a summary of the findings.

Data Analysis Techniques

Once I received IRB approval # 04-14-21-0720431 in April 2021, I began the recruitment process. I developed a flyer with the recruitment requirement of active-duty LCSWs with 2+ years of experience working within an Air Force Mental Health Clinic. The clinicians provided information on their work with airmen who are/were Mental Health Element patients (noting that there are other elements/programs within the mental health clinic such as Substance Abuse and Domestic Violence Programs). The study

contained a semistructured interview, up to 30 minutes, that was recorded through a telephone app called Voice Recorder. The participants received a $25 gift card for their time. The recruitment included outreach to the director of Air Force Research to provide data regarding my study as a courtesy, and I received approval to reach out to the social workers via email. The director for clinical social workers for the Air Force permitted outreach to social workers via email; however, the email listing was outdated and contained other members outside of the career field. I decided to focus on recruitment through the U.S. Air Force Social Worker group on Facebook. This is a closed group; however, it also contains retirees as well as prospective social workers. I posted the flyer to recruit LCSWs. My goal was to recruit 10 social workers. For several weeks, the recruitment was significantly slow regarding responses. I recognized that the demanding workload for mental health professionals working within the on-base clinic likely impacted the response due to ongoing challenges with the novel coronavirus disease (Covid-19) pandemic and its effect on clinic operations. This was true for me as a LCSW on base responding to many demands and working long hours to manage clinical service during a period of physical and social distancing, as well as managing the demands of being preemptive to manage the community mental health impact of this life-threatening disease. Additionally, based on a conversation within the research department, there was discussion that the timeframe to obtain volunteers was challenging; however, support was given to proceed with recruiting for the study, with the caveat and request that findings from this study be shared with the Air Force Research Department. It took approximately 3 months to obtain 10 participants for the study. Of the 10 social work participants, seven were located stateside, two were located overseas, and one was deployed. Each applicant

was sent a consent form and a copy of the UCLA Loneliness Scale via email with an explanation that the scale was provided to identify the definition of loneliness based on a valid and reliable screening tool (to be used as a reference). Each active-duty LCSW was interviewed telephonically stateside, overseas, or at a deployed location. I used both the telephone recording app and a backup voice recording app to ensure a secondary plan for technological mishaps/issues. I additionally took notes. All social workers met the recruitment criteria of having 2+ years of experience working within a mental health element within an Air Force Mental Health Clinic. The requirement of 2+ years of experience was consistent with the Air Force requirement that clinicians have 2 years of experience before their permanent change of station (PCS) to a follow-on base, as an indicator of knowledge, experience, and competency. They also maintained the highest level of social work licensure for their state.

Validation

Once all semistructured interviews were conducted, I transcribed the recordings verbatim. The transcription took approximately a month to complete. The data were reviewed. I developed an Excel spreadsheet with key questions and the answers from the interview for each participant. I used thematic coding by listing keywords for each question and response for each participant. Validity and reliability were assessed by using the triangulation method. This involves using multiple forms of data collection and analysis such as reviewing a variety of records or employing a second evaluator to complete the analysis (Golafshani, 2003). For this research study, a research director of a university was available for use as a second reviewer and interpreter of the data.

Limitations of Study

Limitations of this study included the small sample size of 10 research participants. A larger sampling pool would be more representative of the 250+ Air Force LCSWs. Additionally, this study relied on the participants to reflect on their assessments of patient interaction and did not involve the direct responses of patients regarding what they were going through while suicidal. This may be an area for further study; however, the military population is considered a vulnerable population, which requires additional IRB and Air Force approvals to research. Additionally, the Air Force closely monitors research conducted and establishes specific contracts with organizations such as the Rand Organization. There is a separate Air Force IRB approval process for research on airmen. A study that directly targeted airmen would allow questions on the significance of loneliness at the time that they had suicidal ideation, intent, or plan. With no direct access to airmen, member checking was not possible as part of this study. Additional limitations may include the varying ways that the social workers use the behavioral health screening tools in their setting. Though there is some standardization across the Air Force to utilize the BHDP (which contains multiple screeners, surveys, and assessment tools), clinicians have some leeway on how the tools are implemented and how often they are used. In most cases, a clinician would be expected to provide a clinical rationale for not using the tools within the BHDP.

Another limitation may include assumptions made by the social workers regarding the stance that I had about their perspectives. Impression management is a factor that I considered. It is unclear whether there was a need to make a positive impression based on the position or opinions that they assumed I held. Additionally, there

may have been an assumption based on providing the UCLA Loneliness Screener prior to the interview, although it was clearly stated with each participant that the screener was only provided as an evidence-based reference to clarify the definition of loneliness. As the interviewer, I asked probing questions and focused on steering away from a particular position to decrease assumed biases.

Findings

This qualitative study included 10 LCSWs with greater than 2 years of experience working within the Mental Health Element of the Air Force Base Mental Health Clinic. The telephonic interviews began with clarification and confirmation that the members consented to the interview and had reviewed the handout UCLA Loneliness Screening tool for clarity on the definition of loneliness. There were 15 interview questions geared toward extrapolating responses to the research questions and documenting them on a spreadsheet. The participant responses were as follows.

Research Question 1

Research Question 1 was the following: What are the social workers' perspectives on the current assessment tools in identifying loneliness as a risk factor? All 10 participants were aware of the recommended Air Force screeners maintained within the BHDP. One hundred percent identified the PHQ-9 and the C-SSRS as the tools that the Air Force has identified to assess suicide risk. The PHQ-9 is a screener for depression, and the C-SSRS screens for suicide risk.

The responses were split regarding the effectiveness of the screeners. Of the 10 participants, half had mixed reviews that it was somewhat effective or not effective, but there were deficiencies in assessing suicide risk.

One hundred percent of the participants agreed that the screeners in the BHDP were tools to trigger more questions and information from respondents. No participants had a preferred screener for suicide risk assessment. Most felt that it did not help predict risk but was helpful in some aspects of providing information as part of the risk assessment. Some screeners required more clarity that could only be obtained by the clinical interview. Participant 1 stated that it is not effective with repeat clients who see the screener as a "check the block" form rather than a tool to get to know them personally. Participant 4 felt that it was effective in identifying risk but had some deficiencies. Participant 4 stated, "it becomes almost routine depending on how often they're coming in to see you." The PHQ-9 and the C-SSRS are typically given to the patient at every visit. Participant 2 explained that patients endorse "yes" on the C-SSRS screener, indicating suicidal thoughts of "wanting to die or kill themselves," when their thoughts may be passive or morbid ideations. The positive side was that it opened a dialogue for further questions and evaluation. All participants stated that they needed more information than the screeners provided to determine the suicidal risk of the patient. More information was achieved by the clinical interview and not additional screeners.

Of the 10 participants, 50% recommended more screeners to assess risk, whereas 50% stated that they did not need more screeners in the BHDP because they felt that there were enough already in the system. Several participants indicated that the responses from ongoing patients are less effective because they become routine, and they do not place as much exploration of their mood into the screeners. "It depends on their mood sometimes and is not a direct reflection of whether the member is suicidal with thought, intent, or plan," stated one participant. None stated that there should be fewer screeners in the

portal. The overall view was that there was not a reliance on the information obtained from the screeners; however, the screeners opened a dialogue for the clinical assessment on suicide risk.

Research Question 2

Research Question 2 was as follows: What are the perspectives of clinical social workers regarding the role that loneliness plays in the triggering/onset of mental health issues that lead to suicide risk amongst airmen?

Nine of 10 participants included loneliness and interpersonal issues/isolation as risk factors for suicide, and 100% stated that there is a correlation between suicide risk and loneliness. When looking at loneliness as a factor for intrapsychic factors such as (a) anxiety, (b) depression, (c) PTSD, and (d) alcohol disorders, 70% described loneliness as a factor in anxiety, 90% described loneliness as a factor for depression, 100% described loneliness as a factor for PTSD, and 80% described loneliness as a factor for alcohol use disorders (AUD) in their overall patient assessments. More than half described ways that they used strategies to increase social connections with family, friends, peers, or other resources as a form of intervention with their “at-risk” airmen; however, none of the LCSWs provided a screening tool to assess the level of social connection or that they monitored the level of loneliness from visit to visit as an indicator of risk. None of the participants were previously familiar with the UCLA Loneliness Scale, and most were unfamiliar with another screener to assess for loneliness. Additionally, 100% indicated that loneliness impacts suicide rates, noting that the rates for risk increase as loneliness increases. Participant 8 stated that the sense of loneliness can lead individuals to question what their options are; the sense of a lack of options, coupled with depressive symptoms,

can then lead to thoughts that suicide is an option. Participant 9 stated that loneliness is often overlooked because it can look different on a person. "Someone may be very social. They're able to get friends but when speaking to them, they may be lonely even though they are surrounded by someone." Several participants made similar statements that those at risk for suicide may not present like the typical "sad" individual. Instead, a member may have lots of people who care about them, but their perception of loneliness or isolation may lead to suicidal thoughts. Participant 10 stated,

> "It goes back to connectedness … either hopelessness or helplessness. You could be in a bad money situation; you could be in trouble at work, but if you have a person that you know is present for you that could even support you through …"

Additionally, Participant 9 stated that her patients with alcohol use disorders may drink in group settings for the superficial sense of connection, but "they are not connecting in those environments." Similar sentiments came from Participant 1, who stated that members may feel like part of a group in the military, but if they do not feel that the group is "like-minded" and they "can't change it," they "feel more lonely … you're lost and by yourself … which leads to more depression or even increased alcohol use." Participant 1 explained, "If you feel like you have somebody that you can turn to and talk to, you're more likely to recognize that there is an out and that this is a short-term experience." Participant 2 highlighted frequent contact with trauma patients diagnosed with PTSD where loneliness was a common factor.

> They feel detached from the people in their lives. They feel lonely even if they live with people, but they isolate themselves … There is a great shame and

> negative core beliefs that lead to them separating themselves from others and not getting close or trusting others.

Participant 3 emphasized that loneliness is seen in PTSD, anxiety, depression, and alcohol disorders:

> Loneliness is in all of them. It's very easy to push people away when you have PTSD, alcohol use disorders … people don't want to hear that they're drinking too much, so they isolate … in anxiety disorders, people are so anxious they avoid … and depression, people get so depressed they don't want to be around other people and people don't know how to help them.

All (100%) participants indicated that loneliness was a factor in DSM-5 disorders, anxiety, depression, PTSD, and alcohol use disorders. Consistent with a study conducted on military personnel who were followed for 7 years, mental health concerns were found to be independently associated with suicide risk in comparison to military-specific variables (JAMA, Aug 7, 2013. Volume 310, number 5) such as deployment or combat. Looking closely at disorders within the military mental health clinic allowed these 10 LCSWs to identify loneliness as a factor for risk in their patients diagnosed with DSM-5 mental health disorders.

Research Question 3

Research Question 3 was as follows: What are the perspectives of social workers working with airmen who seek mental health care, in relation to loneliness being viewed as a treatment focus for suicide prevention and treatment? Of the total participants who reflected on their patient load to respond to this question, 70% said that loneliness should be a treatment focus, and 30% were not sure but felt that it should be part of the treatment

plan. Interestingly, when asked the question directly regarding loneliness being viewed as a treatment focus, the 30% who were unsure identified loneliness as a risk factor for suicide at a rate of 100%. Additionally, although the UCLA Loneliness screener was provided as a tool to define loneliness, none of the participants were familiar with this screener prior to this study and were therefore not sure if it should be a recommended tool for further assessment of loneliness as a contributory risk factor. The question regarding the usefulness of the UCLA screener was not a preplanned question for this structured interview; therefore, it was not asked of all the participants. Further inquiry regarding an appropriate screener for loneliness may be necessary for future research, and this screener may be included for consideration.

Research Question 4

Research Question 4 was as follows: What are the perspectives of clinical social workers regarding the impact of loneliness on the suicide rates of airmen? Though there was not 100% consensus on loneliness being a treatment focus (see question 3 above), 100% felt that loneliness impacted suicide rates. As loneliness increased, the risk for suicide also increased. All LCSW participants felt that there was a correlation between loneliness and suicide risk. Additionally, these participants identified interpersonal issues as primary risk factors for suicide, in contrast to intrapsychic issues. Similarly, in a study of U.S. Air Force members, the frequency that interpersonal compared to intrapsychic risk factors being communicated prior to the member's death was evaluated. The results showed hopelessness (35.7% of cases) and perceived burdensomeness (31.6% of cases) were the risk factors most often communicated in suicide notes but not verbally.

Thwarted belongingness (29.6% of cases) was the risk factor most often communicated verbally and in the suicide note (Cox et al., 2011).

According to the participants, some situations are unique to airmen that impact their perceptions of loneliness, which impact thoughts of suicide. One hundred percent (100%) of the participants indicated that being geographically separated from family and friends is a factor unique to the military yet increases the suicide risk. This was a theme was extracted from secondary coding. Military members consistently experienced feelings of loneliness and isolation due to the nature of their jobs. In some cases, this is the first time being away from family, friends, and support. Participant 3 stated some members get stationed in "geographically isolated locations and the timing is off to reach family or friends." Other participants describe deployments, temporary duty training (TDY), airmen arriving at the base while other airmen are leaving an assignment to join another base which makes it difficult to feel connected. Also, joining a unit that they do not feel connected to other peers or not fitting in with the unit. Many are experiencing their first time away from family or working long hours that keep them away from family. An example is when an airman is deployed, it is the members that remain on a home station that experience stressors of longer work hours, less family, and personal time. Participant 6 provided an example of escape and avoidance being a common response to patients with PTSD, leading to loneliness and isolation. Participant 10 stated that a "change in the sense of loneliness and isolation" is significant. "There are true introverts. Some airmen are super comfortable not having friends…after work, they go to their dorm rooms and that's part of the routine." These airmen are comfortable with isolation and therefore not at risk, however, another example from Participant 10

described an airman whose wife passed away after many years of marriage. The airman was extremely lonely. "The personal sense of loneliness was problematic." The change from the normal routine of children, great friends, people in church and neighbors was problematic" and increased the suicide risk for the airman.

As Participant 7 stated, an airman "May be in a crowd, but I'm all alone." Annually, the Air Force survey identifies high-risk groups for suicide. The maintenance units and Security Forces (Police) are consistently identified as high risk, yet these groups have a larger population than other units Zamorski, 2011; DoD Annual Report, 2018). This supports the point that there may be many people, yet the airman does not feel that they have a connection. Participant 8 highlighted that a common factor is that many airmen describe their close friendships are at a distance, "they talk about their friends that are on the (video) games with them, and they may live in other states. So, who do they have real access to?"

Unexpected Findings

It was unexpected that although 100% of the participants agreed that loneliness was a factor that increased suicide risk, there was not a 100% consensus adding a screener to assess loneliness. Some participants felt that there were already enough screeners given to patients within the BHDP and that some responses became less effective with routine patients. There was 100% agreement that more information needed to be obtained than was provided by the two primary screeners, the PHQ-9 and the C-SSRS. Seventy percent stated that loneliness should be a focus for treatment and thirty percent stated they were unsure if it should be a focus. However, of the 30% that were unsure, all agreed that loneliness should be a part of treatment and was an important

factor. I expected that 100% would agree that loneliness should be a treatment focus since 100% stated that there was a correlation between loneliness and risk. Additionally, they indicated that increased loneliness also increased suicide risk and used descriptions that were synonymous with loneliness to describe key risk factors. 100% of the participants used words to include loneliness, isolation, feeling alone, no connection, no support, socially isolated, nobody there, distant, lack companionship, burden, not belonging, withdrawal, geographic separation, lack family/friends, and not engaged as descriptors for patients. The participants were evenly split 50% on whether there should be "more or less screeners" to assess suicide, however, some of the comments reflected that chronically seen patients often do not respond accurately to being given multiple screeners at every visit, partially due to thoughts that it is a method to "check the box" or due to the questions on the screeners being interpreted inaccurately in response to risk factors. Those participants that described inaccurate interpretation of the questions described the importance of the clinical interview for further clarification of risk. An example might be occasions when patients misinterpreted the meaning of the questions on the screeners and endorse suicidal ideation when they were feeling stressed or have thoughts of wishing they were not dealing with the challenges that they are facing (also known as escape ideation, passive or morbid ideation). They did not have a desire to die or kill themselves yet endorsed suicide risk on the screener. The clarification occurred during the clinical interview according to all the LCSW participants. Further inquiry on the recommendations for alternative screeners or clarification of how the screeners are presented to the patient by the clinical staff may be explored.

It was unexpected that 30% of the participants did not find loneliness as a risk factor in airmen with anxiety disorders. The participants found loneliness as a factor in depression, PTSD, and Alcohol Use Disorders patients. This was an unexpected finding for me, as loneliness also exist in chronic, unresolved anxiety disorder patients who became suicidal.

Summary

Suicide rates have increased by 25% in the US population between 1999 and 2016, but the same period has seen suicide rates among US veterans more than double, from 10.7 per 100,000 to 21.5 per 100,000. According to the American Foundation for Suicide Prevention, suicide and self-injury cost the USA $69 billion in 2015 (The Lancet, 2019). The Air Force, as part of the collective branches of service within the DoD, is challenged with gaining a greater understanding of the dynamics that lead to suicide (Martin et al., 2013). These entities seek answers to decrease or eradicate mental health problems based on the premise that these problems distract members from the military mission to deter war and protect the security of the nation (Tanielian, 2019). The health, safety, and well-being of our military community are paramount to the readiness of the Total Force. The DoD is committed to addressing suicide prevention through a holistic public health approach that recognizes suicide as a complex interaction between environmental, psychological, biological, and social factors. Department efforts must address the many aspects of life that impact suicide (DoD Annual Suicide Report, 2020).

This study looked at loneliness as a focus for treatment for suicide prevention in airmen who seek mental health care. The interview of 10 Active-duty, LCSWs with greater than 2 years of experience working in the Mental Health Element on-base

revealed that loneliness was a factor that contributed to suicidality in airmen. Previous studies support this premise that loneliness and isolation is a risk factor, however, the extent of it being a focus in prevention and treatment has not been emphasized. The concerns for suicide risk within the DoD are of utmost concern. In the 2020 annual suicide report, 580 deaths mark the most the DoD has recorded in at least five years, with the active-duty component accounting for 384, the Reserve for 77, and the National Guard for 119. In the Air Force, 81 Active-duty members, 12 Reservists, and 16 Air National Guard members died by suicide in the calendar year 2020, according to the report. There is an increasing need for greater prevention efforts. "The findings are troubling. Suicide rates among our service members and military families are still too high, and the trends are not going in the right direction," Defense Secretary Lloyd J. Austin III (DoD Annual Suicide Report, 2020). The risk factors that impact the Airman's desire to die by suicide were consistently identified as interpersonal factors such as relationship issues, legal problems, and financial problems. The factors such as lack of connections, geographic separation from support systems (family, friends, other support) can lead to increased suicide rates. Additionally, intrapsychic factors such as anxiety, depression, PTSD, and Alcohol Use Disorders included loneliness as a risk factor. Data suggest that some personnel are relatively isolated at the time of their death by suicide (Martin et al., 2013).

The findings in this study indicate that loneliness is a factor that impact the level of suicide risk for airmen who seek mental health care. One hundred percent of the LCSW participants described loneliness and isolation as correlating with suicide risk. Greater than the majority of participants described loneliness as a recommended focus for

treatment in the Air Force member's care. The participants were not familiar, nor did they use a tool necessary to screen airmen on loneliness, however they indicated at a rate of 100% that assessment of loneliness should be part of the ongoing assessment and care. Also, the participants were not familiar with the UCLA Loneliness Scale which resulted in uncertainty in their responses regarding using it as a tool to assess escalated risk. The participants agreed that as loneliness increased, so did the risk for suicide.

The findings in this study were consistent with the 2011 study of deceased airmen. The result showed that interpersonal risk factors were more often communicated than intrapsychic risk factors (Cox et al. 2011). Similarly, 100% of the LCSW participants in this current study indicated interpersonal suicide risk factors when managing their patient load. The results of the 2011 study concluded that hopelessness (35.7% of cases) and perceived burdensomeness (31.6% of cases) were two of the strongest predictors of suicide in a study of the topics that deceased airmen communicated before suicide. In addition, thwarted belongingness (29.6% of cases) was the risk factor most often communicated verbally and in the suicide note (Cox et al., 2011). The Interpersonal Theory by Van Orden asserted that the most dangerous form of suicide intent is two interpersonal constructs- Thwarted Belongingness and Perceived Burdensomeness and an additional construct of hopelessness about these states (Van Orden et al., 2010). A recent study in 2020 of National Guard members provided results that indicated that higher levels of perceived social support were associated with lower levels of depression and suicide ideation at both the individual and unit levels. Additionally, higher levels of perceived unit cohesion significantly predicted lower levels of depression and suicide ideation at the individual level (Rugo et al., 2020). Also, the

military is a collectivist culture, identifying as a group. Studies show that collectivist cultures experience higher levels of loneliness (Powers et al., 2017). Loneliness is linked to cognitive, mental, and physical decline, slower recovery rates from illness, and slow improvement in MH conditions if not addressed (Wilson et al., 2018). The LCSW participants used terminology that was synonymous with loneliness at a rate of 100% when describing airmen who were at escalating risk. This was an additional theme that was recognized in this study. For example, words used by the participants included "lonely, lack of support, lack of family/friends, not belonging, not engaged in the unit, lack of connection, away from home, socially isolated, perceived loneliness, withdrawal from social support, cut off from friends, living away from support, austere location, no one will understand, not going out with peers, not participating socially, can't relate, nothing in common with the unit, nobody there, geographic separation, and burden (not an all-inclusive list). These words or phrases described a state of loneliness. Therefore, these words used in a clinical setting may be indicators of loneliness that may not immediately equate to loneliness in a patient, yet these descriptors may indicate increasing risk factors during suicide assessments. Careful attention is encouraged regarding words and phrases synonymous with loneliness.

An additional emerging theme developed with the progression of the interviews of the participants included geographic separation as a common risk factor. Participants noted that airmen can have many friends yet feel lonely or have a perception of loneliness. They might not feel connected to the people in their unit. They may have difficulty making friends as airmen are moving consistently, whether deployed, moving to a new base, going on temporary duty (TDY) training to another location, or other

military demands. In contrast to many Army and Marine units, airmen often deploy individually and attach to other individually deployed Air Force units or other military branch units, instead of deploying as a group. They separate from their home station to deploy, join another group where they must make new connections, and return to their unit that was working for months without the airman's presence (while they were deployed). The airman may be challenged to reintegrate back into the unit. New members may have arrived at the unit and prior peers may have left the unit. This is just an example of an area that may be difficult to adjust. Studies show that the current age groups 18-25 have difficulty socializing due to the impact of social media, video game interactions, and other technology that diminish face-to-face contact. Participants described airmen who view their contact with friends through video gaming systems as their sole contact after work vs. face-to-face interaction with peers. It's important to highlight that the examples may be solely the airman's perception of loneliness and not the perception of others (family or friends).

Though limited studies specific to the Air Force exist on this topic, there are annual reviews of the suicides that occur within each branch of service, and the Air Force data is reported collectively to the DoD Annual Suicide Report. The DoD, working in conjunction with the Department of Veterans Affairs publishes reports with the recommendation of Clinical Practice Guidelines (CPG). The DoD including the Air Force has recognized that there was a need for increased connectedness in their recent suicide prevention efforts. When evaluating suicide risk, we suggest against the use of a single instrument or method (e.g., structured clinical interview, self-report measures, or predictive analytic models). A review of the evidence did not identify a specific risk

evaluation instrument or method that is sufficient to determine future risk of suicide (VA/DoD CPG for the Assessment and Management of Patients at Risk for Suicide − Provider Summary, 2019). Most current study results within the annual suicide report, 2020 are geared at being preemptive to combat risk related to Covid-19 pandemic social restrictions. The Suicide Prevention theme in 2020 was Connect to Protect." Each branch of service contributed prevention training and education resources to address suicide risk (DoD Annual Suicide Report CY 2020).

Figure 3

Themes Identified from Participant Responses in This Study

Themes	Perspectives
1	Behavioral Health Data Portal (BHDP) screeners trigger more questions for the assessment of suicide risk
2	There were no preferred screeners amongst the participants to assess suicide risk.
3	Participants perceived a correlation between loneliness and suicide risk
4	Participants viewed loneliness as having an impact on suicide rates. Escalating loneliness increased suicide risk.
5	The participants' perspectives indicated that loneliness associated with depression, anxiety, PTSD, Alcohol Use Disorders elevated risk.
6	Loneliness should be a treatment focus or a subset in treatment. Other word descriptions and phrases that equate to loneliness (ex. socially isolated, not belonging, feeling disconnected, burden, withdrawal, lack of support, lonely, lack of friends/family, others can't relate) as a risk factor in their suicidal patients.
7	Perceived loneliness experienced by frequent or lengthy geographic separation, relational separation, feeling like no one would understand the military issues and processes experienced by military life affected patients who were suicidal.

Practice Implications

Based on the themes obtained from this study, suggestions for improved practice would include ongoing assessments of the extent of loneliness experienced by airmen who receive care within the Mental Health Clinic. According to the LCSW participants, loneliness was found in anxiety, depression, PTSD, and alcohol disorders in airmen at risk for suicide. Increased loneliness should be considered a factor for increased suicide risk. Additionally, interpersonal risk factors vs. intrapsychic factors were strong indicators of suicide risk. The interpersonal risk factors such as relationship discord, legal, occupational or financial problems elevated suicide risk when loneliness or isolation increased. It is an airman's perception of loneliness that placed them at risk regardless of the support shown by others. Members in large units still felt a sense of loneliness when they did not feel connected to the group or their peers. A greater use of coping skills that connected with social supports formed protective factors. The use of a screening tool such as the UCLA Loneliness Scale may provide sufficient information to assess the level of loneliness and isolation per the perception of the airman who seeks mental health care. Further study may include an evaluation of the UCLA Loneliness Scale or the creation of another assessment tool for loneliness.

This study sought to identify the question of loneliness as a treatment focus for suicide prevention and treatment in airmen who sought mental health services. Previous studies have consistently identified loneliness, isolation, lack of connectedness as a suicide risk factor, however, LCSW participants who worked in an Air Force Mental Health Clinic indicate that there is not a screener that identifies loneliness in airmen. The two primary screeners given by the Air Force to assess suicide risk in airmen are the

PHQ-9 and the C-SSRS. Neither of these screeners or others provided in the BHDP assess for loneliness or monitor the extent of loneliness in individuals. All study participants stated that loneliness should either be a focus for treatment or a part of the treatment plan. The inclusion of a loneliness assessment could provide information on this factor that is missing in initial and ongoing assessments. This recommendation informs change in Social Work practice within the Air Force Mental Health Clinics. Section 4 will provide information on how the study informs Social Work practices and implications for social change, values, principles, and applications for professional ethics in Social Work Practice.

Section 4: Application to Professional Practice and Implications for Social Change

Introduction

The purpose of this study was to assess the perspectives of active-duty LCSWs regarding loneliness as a suicide prevention and treatment focus for Air Force personnel. The study noted the gap in practice focus regarding the assessment and treatment for loneliness in members despite previous research results showing loneliness and lack of connection as risk factors for suicide. Despite universal access to health care services, mandatory suicide prevention training, and other preventive efforts, suicide has become one of the leading causes of death in the U.S. military in recent years (LeardMann, 2013, p. 496). Suicide prevention initiatives in the Air Force began in 1996; however, after a significant upswing in suicides was noticed in 2004, the inception of the DoD's suicide prevention program oversight and tracking began (Conner et al., 2012), and concerns for the uptick rose throughout all branches of service. The increasing rate of suicide in the military resulted in a call for military suicide research and prevention efforts with the hope that a better understanding of the precipitants of suicide among decedents would inform methods for early intervention and suicide prevention (DoD Task Force on the Prevention of Suicide by Members of the Armed Forces, 2010).

The Air Force rate of suicide has increased over the years, and prevention is more important than ever (Bryan et al., 2012). An example of this steady rise is that in 2009, the Air Force suicide rate per 100,000 was 12.5, whereas in 2020, the rate was 24.3 per 100,000. Collectively, departmental policies, programs, and initiatives have been designed to address various suicide risk and protective factors (DoD, 2020). Although many suicide risk factors are known, opportunities for intervention are often missed (Cox

et al., 2011). Previous Air Force research has shown that interpersonal risk factors appeared to be more salient than intrapsychic risk factors in the minds of decedents (Cox et al., 2011). Military-focused research and DoD suicide surveillance reports highlight several risk/contextual factors, including relationship, financial and legal/administrative problems, ineffective life/coping skills, reluctance to seek help, perceived stigma of engaging in suicide care/treatment, and access to lethal means (DoD, 2021; Hadley, 2021). Relationship stressors such as failed or failing relationships are frequently cited risk factors for suicide in the 90 days before death for active-duty (42.6%) and reserve personnel (42.9%; DoD, 2021). Surveillance reports also indicated rates of 28.5% for active-duty and 25.0% for reserve components members who experienced administrative or legal difficulties. Additionally, financial factors such as excessive debt and bankruptcy were assessed to be risk factors at rates of 5% and 7.1%, respectively, for deceased active-duty and reserve component members 90 days before their death by suicide. Despite these consistent research findings, many still hold the misconception that suicide is mainly due to mental illness and not due to difficulty with life challenges (DoD, 2021; Hadley, 2021). Suicide is an act completed in isolation. There is no perception of physical or emotional support by the distressed member at the time of the act. It is a lonely act. Loneliness has been identified in several studies as a risk factor for suicide; however, practice efforts continue to focus on intrapsychic factors such as depression versus interpersonal factors such as relationship issues, financial difficulties, and legal problems. Loneliness attached to these interpersonal problems can result in increased suicide risk.

The key findings in the study of 10 active-duty LCSWs involved perspectives on loneliness as a risk factor for suicide. The results of the study indicated that when viewing all the risk factors, the extent of loneliness should be considered to assess the member's risk level. The participants indicated that loneliness was found to be correlated with risk. The participants indicated that poor coping with negative life circumstances, interpersonal issues, and geographic separation (e.g., frequent moves from support) or emotional separation (e.g., the death of a spouse, relationship breakup, or not feeling connected to the unit) were found to be contributing risk factors for airmen. Additionally, increased loneliness and isolation accompanied the negative life circumstances resulting in increased risk for suicide. The participants indicated that loneliness impacted suicide rates and that loneliness should be a treatment focus or a significant part of risk assessment and treatment for airmen who seek mental health care.

The findings may inform social work practice and extend knowledge in the discipline by adding loneliness as an important consideration when identifying suicide risk for airmen. While airmen may present to the mental health clinic identifying interpersonal stressors and intrapsychic factors, social workers should also consider the level of loneliness perceived by the member. The participants described diagnoses such as anxiety, depression, PTSD, and alcohol use disorder as also including perceived loneliness and isolation as a factor in their suicide risk cases. A member who is in distress with significant loneliness and isolation should be considered at a greater risk. An additional screener to assess the extent of loneliness, such as the UCLA Loneliness Scale, may provide this type of information during an ongoing assessment of risk. Of note, both military and civilian studies have indicated the importance of connectedness amongst

several other risk factors; however, there is a gap in practice of utilizing measures that assess the level of connectedness experienced by members seeking mental health care, as well as their perception of loneliness (LeardMann et al., 2013). The study participants indicated that a member may be in the physical presence of many people yet may have a perception of isolation and loneliness. The UCLA Loneliness Scale is an evidence-based, valid, and reliable measure to determine the extent of one's loneliness (Penning et al., 2014). The questionnaire was not familiar to the participants prior to this study; however, a valid and reliable tool that already exists could serve as an additional assessment tool throughout treatment, and the UCLA screener may be a consideration in future studies.

Application for Professional Ethics in Social Work Practice

This study is consistent with two identified principles from the National Association for Social Workers (NASW, 2020) Code of Ethics related to social work practice. The first is the principle of ethical responsibility to the profession, which pertains to the social worker's obligation to maintain and promote high standards of practice by engaging in appropriate study and research, teaching, publication, and service to the community and professional organizations. In this study, I researched an ongoing issue that involves loneliness and lack of connectedness as risk factors for military members while practice regarding assessment and treatment consistently addresses intrapsychic risk factors. Additionally, the Air Force measures provided to airmen during intake or follow-up treatment in the mental health clinic do not focus on loneliness as a concern for assessment and treatment, yet loneliness is correlated with increased risk, even when attached to other interpersonal or intrapsychic factors. The second principle is the ethical responsibility to the practice setting. This principle includes several ethical

standards related to agency administration. The social worker has an obligation to advocate for resources to meet clients' needs and arrange for appropriate continuing education and staff development (NASW, 2020). As part of ongoing studies on practice within the mental health clinic for airmen who are suicidal, measures and practice could be improved with a focus on loneliness as a risk factor for suicide. Despite anxiety, depression, PTSD, alcoholism, and interpersonal challenges, increased loneliness indicated an increased risk of dying by suicide.

Recommendations for Social Work Practice

Based on the findings of this study, there are two recommended action steps. The first is for Air Force mental health staff to consider assessing the extent of loneliness of airmen regularly. This can be done through the use of a valid and reliable measure such as the UCLA Loneliness Scale or another measure, as well as assessment through the clinical interview. The clinician should keep in mind that increased loneliness may increase the level of suicide risk. The second recommendation is to continue research on this subject through a review of airmen who have made a suicide attempt or completed a suicidal act. Follow-up research that includes direct work with airmen could address one of the limitations in this review as this study focused on the perspectives of LCSWs who provide treatment to airmen.

The findings of this study will advance social work practice with the recommendation for ongoing clinical assessment of loneliness within airmen and identifying risk and treatment intervention to reduce suicide risk. These findings may also encourage unit leaders to understand the importance of exploring isolation, loneliness, and connectedness in every airman and taking steps to improve these factors. By

including ongoing assessments of the extent of loneliness along with the additional risk factors from the interpersonal theory for suicide that described perceived burdensomeness and thwarted belongingness, the social work clinician has a better overview of risk and can intervene early when these signs are present in airmen.

The findings in this study may be transferred to the field of clinical social work practice through the recommended steps for consistent assessments and treatment planning. Clinicians are encouraged to add an assessment of a patient's level of loneliness to initial and ongoing assessments, which will provide an overview of increased risk. Clinicians may determine a continuum of suicide risk based on the member's perception of loneliness, isolation, and view of perceived burdensomeness and thwarted belongingness. It is possible that through cognitive reframing, members may be able to view connectedness or through behavioral strategies, improve efforts to connect with others. Initiatives to improve the perception of loneliness have great potential to reduce risk despite other challenges that may exist in an airman's life.

The usefulness of findings from this study can be addressed in a broader social work practice scope as clinicians within the on and off-base community provide care to military members. Airmen can seek prevention and treatment services in off-base mental health resources such as MilitaryOne Source, Tricare, military family life counselors, primary care behavioral health counselors, chaplains, and other service-supported mental health resources. This study can also be extended to other military branches of service (Army, Navy, Space Force, Marines, Coast Guard) and civilian populations. Further research can be considered to address the transferability to these populations.

A limitation that impacts the generalizability and trustworthiness of this study was the scope of the interview, which did not include the perspectives of off-base or on-base LCSWs or clinicians of other mental health disciplines such as those who work with airmen (such as licensed marriage and family therapists, psychologists, licensed professional counselors, psychiatrists, etc.).

Recommendations for further research include a study on the impact of the novel coronavirus disease (Covid-19) pandemic on the loneliness of airmen and other military members. This would include a further review of loneliness as a risk for elevated suicidal ideation, intent, plan, or completion. During the period of research for this study, additional studies were conducted to assess suicide risk factors due to the impact of Covid-19. Researchers and the community predicted concerns regarding the impact of the pandemic such as physical and social distancing as well as other restrictions which had generally led to more isolation for many people including military members, leading to elevated suicide risk. According to Defense Secretary Lloyd J. Austin III in a statement accompanying the release of the Annual 2020 Suicide Report (Hadley, 2021),

> The findings are troubling. Suicide rates among our service members and military families are still too high, and the trends are not going in the right direction. This is a paramount challenge for our department. We must redouble our efforts to provide all of our people with the care and the resources they need, to reduce stigmas and barriers to care, and to ensure that our community uses simple safety measures and precautions to reduce the risk of future tragedies.

The findings of this study concluded with a recommendation for an additional focus on the perception of loneliness in airmen during assessment and ongoing treatment

when receiving care within the mental health clinic. Addressing issues of loneliness as a risk factor may be extended to command support prior to a member presenting to the mental health clinic for care. Future research that includes the direct assessment of loneliness in airmen who seek mental health care would address the limitation of this study, which focused on the perspectives of LCSWs. This study may be disseminated to the Air Force Headquarters and Research Division for updates and practice revisions within the Air Force mental health clinic. The study findings can also be disseminated through a continuing education in-person or online webinar for clinicians who provide care to Air Force members, as well as to other branches of service and the civilian community.

Implications for Social Change

This study's findings provide positive implications for social change in its ability to connect consistent findings of loneliness as a risk factor for suicide. Changes in practice are encouraged for LCSWs who work with airmen and may be considered for other mental health disciplines and other military and civilian populations. On a micro level, airmen can take steps cognitively to address the accuracy of their perceptions of loneliness and behaviorally to improve and increase coping strategies. Additionally, goals may be set to improve loneliness and increase support. On a mezzo level, programs may add measures and clinical strategies for ongoing assessment and treatment of loneliness as a suicide risk. Clinics and other support services may include interventions geared at decreasing or managing the perceptions of loneliness. Initiatives are encouraged to manage loneliness and increase connectedness throughout the career of an airman. On a macro level, policies should be implemented during residency training of social workers

and clinic operations to include ongoing evaluation of loneliness as a focus for suicide assessment and treatment of airmen who seek mental health care. The focus should be applied to the interpersonal theory of suicide by Van Orden (Joiner et al., 2009, Van Orden et al., 2010), which recommends focusing on perceived burdensomeness and thwarted belongingness as well as the addition of the findings of this study, which includes the recommendation of ongoing assessment of loneliness to determine the level of suicide risk on a continuum of escalating risk. The findings from this research may encourage clinicians to consider other terminology that equates to loneliness such as *burden*, *disconnected*, *lack of support*, *isolated*, *socially withdrawn*, *can't relate*, *no one understands, don't belong*, *no friends*, *geographically separated*, and other terminology as key indicators for further suicide risk assessment.

Summary

The purpose of this study was to assess the perspectives of active-duty LCSWs on loneliness as an assessment and treatment focus for suicide prevention in airmen who seek mental health care. Current and previous studies exist that indicate that loneliness is a factor of suicide risk. Previous research conducted by Wilks et al. (2019) noted the relationship between social withdrawal and suicidal ideation and found that social withdrawal among supportive figures may lead to elevated frustration, thus exacerbating thinking about suicide. Findings also suggest that amount and quality of perceived social support is an important variable to consider when assessing veterans' suicide risk, particularly among veterans with high anger and other risk factors. Interventions that aim to enhance social support (e.g., peer support groups, family/couples therapy) may reduce the risk of suicide (Wilks et al., 2019). Interpersonal factors that affect the lives of airmen

and were indicative of the most significant risk. Despite this finding in several studies, practice within mental health settings focused on intrapsychic factors such as depression. Additionally, the results in studies indicated that higher levels of perceived social support were associated with lower levels of depression and suicidal ideation at both the individual and unit levels, and higher levels of perceived unit cohesion significantly predicted lower levels of depression and suicidal ideation at the individual, but not unit level (Rugo et al., 2020). Additionally, the military is shaped as a collectivist culture (identifies as a group), which may impact the state of devastation when a member does not identify in this manner. As members of a collectivist culture, military members desire interpersonal connectedness. Powers et al. (2017) wrote that collectivist cultures have higher rates of loneliness, and loneliness is often stigmatized by these cultures. Loneliness has been found to have a cognitive connection, as well as a chemistry/biological connection. Studies have shown that social isolation affects dopaminergic and serotonergic neuron activation (Blanco Suarez, 2017) that manages mood and supports emotion regulation. Clinical social work participants provided the findings of this study, in which I concluded that social work practice should align with the theory that escalating loneliness when added with other interpersonal or intrapsychic factors increases suicide risk. Therefore, adding ongoing assessment tools and clinical interventions focused on the extent of loneliness in airmen will address the continuum of escalating suicide risk. The strategy of staying attuned to loneliness in airmen is a greater predictor of suicidal risk and clinicians should intervene appropriately to address this issue.

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Appendix A: Recruitment Flyer

Active Duty, Air Force, Licensed Clinical Social Workers Needed!

This new study is titled *"**Loneliness as a focus for prevention and treatment for suicide prevention in Airmen who seek mental health care.**" This study* could help improve the mental health care provided for Airmen. For this study, you are invited to describe your experiences conducting assessments and providing treatment for Airmen who are receiving/or have received mental health treatment.

This survey is part of the doctoral study for Jovanna Gaines, a Doctorate of Social Work (DSW) student at Walden University

About the study:

- 20-30 minute recorded telephone, Zoom or Microsoft Teams interview session
- Scheduled at your convenience
- To protect your privacy, names or base locations will be confidential
- Any identifying information will be redacted

Volunteers must meet these requirements:

- Active-Duty, Licensed Clinical Air Force Social Worker
- 2+ years of experience working within an Air Force Mental Health Clinic, working with Airmen who are Mental Health Element patients

IRB Approval # 04-14-21-0720431

ALL PARTICIPANTS WILL RECEIVE A $25 GIFT CARD

Appendix B: Interview Questions

1. What is your understanding of the Air Force recommendation regarding the type of assessments needed to identify suicide risks?

2. What are your thoughts about the effectiveness of the Air Force recommended screeners to assess suicide risks?

3. What screeners do you provide regularly to airmen when assessing suicide risk?

4. Do you have a preferred screener or tool that you use to assess for suicide risk?

5. If applicable, are these the same screeners or tools recommended by the Air Force?

6. What are your thoughts regarding the Air Force's screeners in BHDP (Behavioral Health Data Portal) regarding predictors of suicide risk in airmen?

7. Do you think there should be more or less screeners to assess risk?

8. In your experiences, what are the identified risk factors for suicide?

9. What are your thoughts about loneliness as a risk factor for suicide?

10. What are your experiences regarding patients who are lonely or isolated from their peers regarding the level of risk for suicides?

11. Have you experienced any correlation regarding risk and loneliness?

12. Describe your thoughts about loneliness as a factor for your patients diagnosed with anxiety disorders, depression disorders, PTSD and or alcohol disorders.

13. What are your thoughts regarding loneliness on the impact of suicide rates in airmen?

14. What are your thoughts regarding loneliness as a treatment focus for suicide prevention in airmen?

15. Is there a closing statement or point that you would like to make regarding loneliness as it relates to prevention and/or treatment focus?